

NASA SP-7039 (01)

Section 2
Indexes



(NASA-SP-7039 (01)) NASA PATENT ABSTRACTS
BIBLIOGRAPHY: A CONTINUING BIBLIOGRAPHY.
SECTION 2: INDEXES (NASA) P HC

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PATENT ABSTRACTS BIBLIOGRAPHY

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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16. Abstract This bibliography is issued in two sections: Section 1 - Abstracts, and Section 2 - Indexes. This issue of the Abstract Section cites 402 patents and applications for patent introduced into the NASA scientific and technical information system during the period January 1972 through June 1972. Each entry in the Abstract Section consists of a citation, an abstract, and, in most cases, a key illustration selected from the patent or application for patent. This issue of the Index Section contains entries for 2202 patent and application for patent citations covering the period May 1969 through June 1972. The Index Section contains five indexes -- subject, inventor, source, number, and accession number.			
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PATENT
ABSTRACTS
BIBLIOGRAPHY

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

Indexes for the annotated references to NASA-owned inventions covered by U.S. patents and applications for patent that were announced in *Scientific and Technical Aerospace Reports (STAR)* between May 1969 and June 1972. This issue supersedes all previous Index Sections.

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INTRODUCTION

Several thousand inventions result each year from the aeronautical and space research supported by the National Aeronautics and Space Administration. The inventions having important use in government programs or significant commercial potential are usually patented by NASA. These inventions cover practically all fields of technology and include many that have useful and valuable commercial application.

NASA inventions best serve the interests of the United States when their benefits are available to the public. In many instances, the granting of nonexclusive or exclusive licenses for the practice of these inventions may assist in the accomplishment of this objective. This bibliography is published as a service to companies, firms, and individuals seeking new, licensable products for the commercial market.

The *NASA Patent Abstracts Bibliography (NASA PAB)* is a semiannual NASA publication containing comprehensive abstracts and indexes of NASA-owned inventions covered by U.S. patents and applications for patent. The citations included in *NASA PAB* were originally published in NASA's *Scientific and Technical Aerospace Reports (STAR)* and cover STAR announcements made since May 1969.

For the convenience of the user, each issue of *NASA PAB* has a separately bound Abstract Section (Section 1) and Index Section (Section 2). Although each Abstract Section covers only the indicated six-month period, the Index Section is cumulative covering all NASA-owned inventions announced in STAR since May 1969. Thus a complete set of *NASA PAB* would consist of all published issues of the Abstract Section and the most recent issue of the Index Section.

The 402 citations published in this issue of the Abstract Section cover the period January 1972 through June 1972. The Index Section contains references to 2202 citations covering the period May 1969 through June 1972.

ABSTRACT SECTION

The Abstract Section is divided into 34 subject categories (See Table of Contents for scope note of each category) under which are grouped appropriate NASA inventions. Each entry in the Abstract Section consists of STAR citation accompanied by an abstract and a key illustration taken from the patent or application for patent drawing. Entries are arranged in subject category in order of the ascending NASA Accession Number originally assigned in STAR to the invention. The range of NASA Accession Numbers within each issue is printed on the inside front cover.

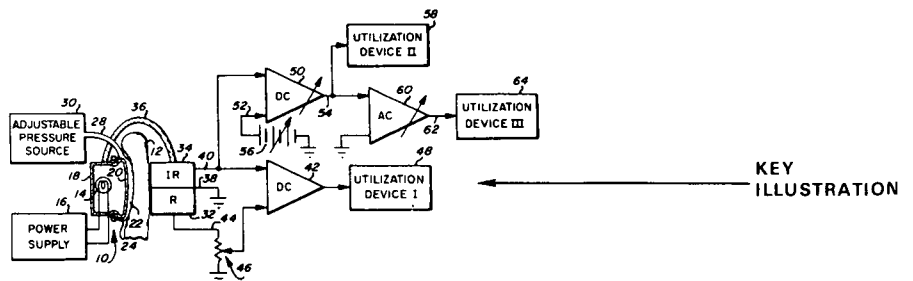
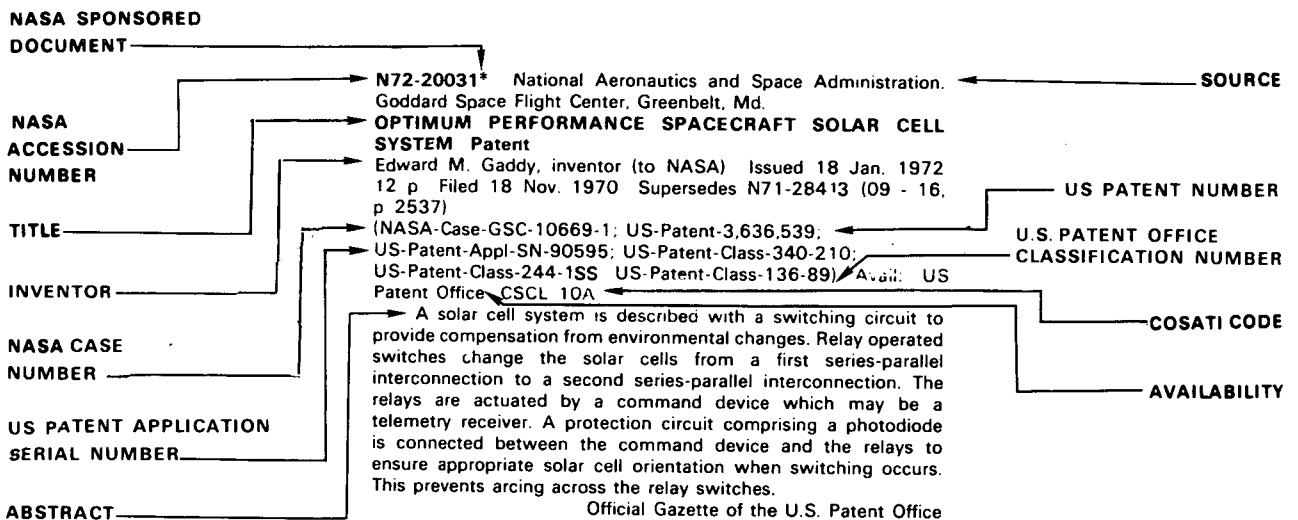
Abstract Citation Data Elements: Each of the abstract citations has several data elements useful for identification and indexing purposes, as follows:

- NASA Accession Number
- Subject Category Number
- NASA Case Number
- Inventor's Name

Title of Invention
 U.S. Patent Application Serial Number
 U.S. Patent Number (for issued patents only)
 U.S. Patent Office Classification Number(s)
 (for issued patents only)

These data elements appear in the citation of the abstract as depicted in the Typical Citation and Abstract reproduced below and are also used in the several indexes.

TYPICAL CITATION AND ABSTRACT FROM PATENT ABSTRACTS BIBLIOGRAPHY



INDEX SECTION

The Index Section is divided into five indexes which are cross-indexed and are useful in locating a single invention or groups of inventions.

Each of the five indexes utilizes basic data elements: (1) Subject Category Number, (2) NASA Accession Number, and (3) NASA Case Number, in addition to other specific index terms.

Subject Index: Lists all inventions according to appropriate alphabetized technical term and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Inventor Index: Lists all inventions according to alphabetized names of inventors and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Source Index: Lists all inventions according to alphabetized source of invention (i.e., name of contractor or government installation where invention was made) and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Number Index: Lists all inventions in order of ascending (1) NASA Case Number, (2) U.S. Patent Application Serial Number, (3) U.S. Patent Classification Number, and (4) U.S. Patent Number and indicates the related Subject Category Number and the NASA Accession Number.

Accession Number Index: Lists all inventions in order of ascending NASA Accession Number and indicates the related Subject Category Number, the NASA Case Number, the U.S. Patent Application Serial Number, the U.S. Patent Classification Number, and the U.S. Patent Number.

HOW TO USE THIS PUBLICATION TO IDENTIFY NASA INVENTIONS

To identify one or more NASA inventions within a specific technical field or subject, several techniques are possible when using the flexibility incorporated into the NASA PAB.

(1) *Using Subject Category:* To identify all NASA inventions in any one of the 34 subject categories in each issue of NASA PAB, select the desired Subject Category in the Abstract Section of each issue of NASA PAB and find the inventions abstracted thereunder. The abstracts are arranged in each Subject Category in order of the ascending Accession Number originally assigned in STAR to each invention.

(2) *Using Subject Index:* To identify all NASA inventions listed under a desired technical subject index term, (A) turn to the cumulative Subject Index in the latest issue of the Index Section and find the invention(s) listed under the desired technical subject

term. (B) Note the indicated Accession Number and the Subject Category Number. (C) Using the indicated Accession Number, turn to the inside front cover of the Index Section to determine which issue of the Abstract Section includes the Accession Number desired. (D) To find the abstract of the particular invention in the issue of the Abstract Section selected, (i) use the Subject Category Number to locate the Subject Category, and (ii) use the Accession Number to locate the desired invention within the Subject Category listing.

(3) *Using Patent Classification Index:* To identify all inventions covered by issued NASA patents (does not include applications for patent) within a desired Patent Office Classification, (A) turn to the Patent Classification Number in the Number Index of Section 2 and find the associated invention(s), and (B) follow the instructions outlined in (2) (B), (C), and (D) above.

PUBLIC AVAILABILITY OF COPIES OF PATENTS AND PATENT APPLICATIONS

Copies of U.S. patents may be purchased directly from the U.S. Patent Office, Washington, D.C. 20231, for fifty cents a copy.

Copies of pending NASA applications for patent abstracted in NASA PAB are sold by the National Technical Information Service, Springfield, Virginia 22151, at the established unit price of \$3.00 each for hard copy and 95 cents each for microfiche. When ordering copies of an application for patent from NTIS, the NASA Accession Number, listed in index or shown in the citation for each abstract, should be used to identify the desired application for patent.

LICENSES FOR COMMERCIAL USE: INQUIRIES AND APPLICATIONS FOR LICENSE

NASA inventions, abstracted in NASA PAB, are available for nonexclusive or exclusive licensing in accordance with the NASA Patent Licensing Regulations. It is significant that all licenses for NASA inventions shall be by express written instruments and that no license will be granted or implied in a NASA invention except as provided in the NASA Patent Licensing Regulations.

Inquiries concerning the NASA Patent Licensing Program or the availability of licenses for the commercial use of NASA-owned inventions covered by U.S. patents or pending applications for patent should be forwarded to the NASA Patent Counsel of the NASA installation having cognizance of the specific invention, or the Assistant General Counsel for Patent Matters, Code GP, National Aeronautics and Space Administration, Washington, D.C. 20546. Inquiries should refer to the NASA Case Number, the Title of the Invention, and the U.S. Patent Number or the U.S. Application Serial Number assigned to the invention as shown in NASA PAB.

The NASA Patent Counsel having cognizance of the invention is determined by the first three letters or prefix of the NASA Case Number assigned to the invention. The addresses of NASA Patent Counsels are listed alongside the NASA Case Number prefix letters in the following table. Formal application of license must be submitted on the NASA Form, Application for NASA Patent License, which is available upon request from any NASA Patent Counsel.

**NASA Case
Number Pre-
fix Letters**

ARC-xxxxx
XAR-xxxxx

ERC-xxxxx
XER-xxxxx
HQN-xxxxx
XHQ-xxxxx

GSC-xxxxx
XGS-xxxxx

KSC-xxxxx
XKS-xxxxx

LAR-xxxxx
XLA-xxxxx

LEW-xxxxx
XLE-xxxxx

MSC-xxxxx
XMS-xxxxx

MFS-xxxxx
XMF-xxxxx

NPO-xxxxx
XNP-xxxxx
FRC-xxxxx
XFR-xxxxx
WOO-xxxxx

**Address of Cognizant
NASA Patent Counsel**

Ames Research Center
Mail Code: 200-11A
Moffett Field, California 94035

NASA Headquarters
Mail Code: GP
Washington, D.C. 20546

Goddard Space Flight Center
Mail Code: 204
Greenbelt, Maryland 20771

John F. Kennedy Space Center
Mail Code: AD-PAT
Kennedy Space Center, Florida 32899

Langley Research Center
Mail Code: 456
Langley Station
Hampton, Virginia 23365

Lewis Research Center
Mail Code: 500-311
21000 Brookpark Road
Cleveland, Ohio 44135

Manned Spacecraft Center
Mail Code: AM
Houston, Texas 77058

George C. Marshall Space Flight Center
Mail Code: A&TS-PAT
Huntsville, Alabama 35812

NASA Pasadena Office
Mail Code: !
4800 Oak Grove Drive
Pasadena, California 91103

NASA PATENT LICENSING REGULATIONS

The NASA Domestic Patent Licensing Regulations (14 C.F.R. 1245.2) are reproduced on the following pages. Selected NASA inventions are also available for licensing in countries other than the United States in accordance with the NASA Foreign Patent Licensing Regulation (14 C.F.R. 1245.4), a copy of which is available from any NASA Patent Counsel.

PATENT LICENSING REGULATIONS

Title 14—AERONAUTICS AND SPACE

Chapter V—National Aeronautics and Space Administration

PART 1245—PATENTS

Subpart 2—Patent Licensing Regulations

1. Subpart 2 is revised in its entirety as follows:

Sec.	
1245.200	Scope of subpart.
1245.201	Definitions.
1245.202	Basic considerations.
1245.203	Licenses for practical application of inventions.
1245.204	Other licenses.
1245.205	Publication of NASA inventions available for license.
1245.206	Application for nonexclusive license.
1245.207	Application for exclusive license.
1245.208	Processing applications for license.
1245.209	Royalties and fees.
1245.210	Reports.
1245.211	Revocation of licenses.
1245.212	Appeals.
1245.213	Litigation.
1245.214	Address of communications.

AUTHORITY: The provisions of this Subpart 2 issued under 42 U.S.C. 2457, 2473(b)(3).

§ 1245.200 Scope of subpart.

This Subpart 2 prescribes the terms, conditions, and procedures for licensing inventions covered by U.S. patents and patent applications for which the Administrator of the National Aeronautics and Space Administration holds title on behalf of the United States.

§ 1245.201 Definitions.

For the purpose of this subpart, the following definitions apply:

(a) "Invention" means an invention covered by a U.S. patent or patent application for which the Administrator of NASA holds title on behalf of the United States and which is designated by the Administration as appropriate for the grant of license(s) in accordance with this subpart.

(b) "To practice an invention" means to make or have made, use or have used, sell or have sold, or otherwise dispose of according to law any machine, article of manufacture or composition of matter physically embodying the invention, or to use or have used the process or method comprising the invention.

(c) "Practical application" means the manufacture in the case of a composition of matter or product, the use in the case of a process, or the operation in the case of a machine, under such conditions as to establish that the invention is being utilized and that its benefits are reasonably accessible to the public.

(d) "Special invention" means any invention designated by the NASA Assistant General Counsel for Patent Matters to be subject to short-form licensing procedures. An invention may be designated as a special invention when a determination is made that:

(1) Practical application has occurred and is likely to continue for the life of

the patent and for which an exclusive license is not in force, or

(2) The public interest would be served by the expeditious granting of a nonexclusive license for practice of the invention by the public.

(e) The "Administrator" means the Administrator of the National Aeronautics and Space Administration, or his designee.

(f) "Government" means the Government of the United States of America.

(g) The "Inventions and Contributions Board" means the NASA Inventions and Contributions Board established by the Administrator of NASA within the Administration in accordance with section 305 of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457).

§ 1245.202 Basic considerations.

(a) Much of the new technology resulting from NASA sponsored research and development in aeronautical and space activities has application in other fields. NASA has special authority and responsibility under the National Aeronautics and Space Act of 1958, as amended (42 U.S.C. 2451), to provide for the widest practical dissemination and utilization of this new technology. In addition, NASA has been given unique requirements to protect the inventions resulting from NASA activities and to promulgate licensing regulations to encourage commercial use of these inventions.

(b) NASA-owned inventions will best serve the interests of the United States when they are brought to practical application in the shortest time possible. Although NASA encourages the non-exclusive licensing of its inventions to promote competition and achieve their widest possible utilization, the commercial development of certain inventions calls for a substantial capital investment which private manufacturers may be unwilling to risk under a nonexclusive license. It is the policy of NASA to seek exclusive licenses when such licenses will provide the necessary incentive to the licensee to achieve early practical application of the invention.

(c) The Administrator, in determining whether to grant an exclusive license, will evaluate all relevant information submitted by applicants and all other persons and will consider the necessity for further technical and market development of the invention, the capabilities of prospective licensees, their proposed plans to undertake the required investment and development, the impact on competitors, and the benefits of the license to the Government and to the public. Preference for exclusive license shall be given to U.S. citizens or companies who intend to manufacture or use, in the case of a process, the invention in the United States of America, its territories and possessions. Consideration may also be given to assisting small businesses and minority business enterprises, as well as economically depressed, low income and labor surplus areas.

(d) All licenses for inventions shall

be by express written instruments. No license shall be granted either expressly or by implication, for a NASA invention except as provided for in §§ 1245.203 and 1245.204 and in any existing or future treaty or agreement between the United States and any foreign government.

(e) Licenses for inventions covered by NASA-owned foreign patents and patent applications shall be granted in accordance with the NASA Foreign Patent Licensing Regulations (§ 1245.4).

§ 1245.203 Licenses for practical application of inventions.

(a) *General.* As an incentive to encourage practical application of inventions, licenses will be granted to responsible applicants according to the circumstances and conditions set forth in this section.

(b) *Nonexclusive licenses.* (1) Each invention will be made available to responsible applicants for nonexclusive, revocable licensing in accordance with § 1245.206, consistent with the provisions of any existing exclusive license.

(2) The duration of the license shall be for a period as specified in the license.

(3) The license shall require the licensee to achieve the practical application of the invention and to then practice the invention for the duration of the license.

(4) The license may be granted for all or less than all fields of use of the invention and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(5) The license shall extend to the subsidiaries and affiliates of the licensee and shall be nonassignable without approval of the Administrator, NASA, except to the successor of that part of the licensee's business to which the invention pertains.

(c) *Short-form nonexclusive licenses.* A nonexclusive, revocable license for a special invention, as defined in § 1245.201 (d), shall be granted upon written request, to any applicant by the Patent Counsel of the NASA installation having cognizance of the invention.

(d) *Exclusive licenses.* (1) A limited exclusive license may be granted on an invention available for such licensing provided that:

(i) The Administrator has determined that: (a) The invention has not been brought to practical application by a nonexclusive licensee in the fields of use or in the geographical locations covered by the application for the exclusive license, (b) practical application of the invention in the fields of use or geographical locations covered by the application for the exclusive license is not likely to be achieved expeditiously by the further funding of the invention by the Government or under a nonexclusive license requested by any applicant pursuant to these regulations, and (c) the exclusive license will provide the necessary incentive to the licensee to achieve the practical application of the invention; and

(ii) Either a notice pursuant to

PATENT LICENSING REGULATIONS

§ 1245.205 listing the invention as available for licensing has been published in the FEDERAL REGISTER for at least 9 months; or a patent covering the invention has been issued for at least 6 months. However, a limited exclusive license may be granted prior to the periods specified above if the Administrator determines that the public interest will best be served by the earlier grant of an exclusive license.

(2) The license may be granted for all or less than all fields of use of the invention, and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(3) The exclusive period of the license shall be negotiated, but shall be for less than the terminal portion of the patent, and shall be related to the period necessary to provide a reasonable incentive to invest the necessary risk capital.

(4) The license shall require the licensee to practice the invention within a period specified in the license and then to achieve practical application of the invention.

(5) The license shall require the licensee to expend a specified minimum sum of money and/or to take other specified actions, within indicated period(s) after the effective date of the license, in an effort to achieve practical application of the invention.

(6) The license shall be subject to at least an irrevocable royalty-free right of the Government of the United States to practice and have practiced the invention throughout the world by or on behalf of the Government of the United States and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States.

(7) The license may reserve to the Administrator, NASA, under the following circumstances, the right to require the granting of a sublicense to responsible applicant(s) on terms that are considered reasonable by the Administrator, taking into consideration the current royalty rates under similar patents and other pertinent facts: (i) To the extent that the invention is required for public use by Government regulation, or (ii) as may be necessary to fulfill health or safety needs, or (iii) for other purposes stipulated in the license.

(8) The license shall be nontransferable except to the successor of that part of the licensee's business to which the invention pertains.

(9) Subject to the approval of the Administrator, the licensee may grant sublicenses under the license. Each sublicense granted by an exclusive licensee shall make reference to and shall provide that the sublicense is subject to the terms of the exclusive license including the rights retained by the Government under the exclusive license. A copy of each sublicense shall be furnished to the Administrator.

(10) The license may be subject to such other reservations as may be in the public interest.

§ 1245.204 Other licenses.

(a) *License to contractor.* There is

hereby granted to the contractor reporting an invention made in the performance of work under a contract of NASA in the manner specified in section 305(a) (1) or (2) of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457(a) (1) or (2)), a revocable, nonexclusive, royalty-free license for the practice of such invention, together with the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. Such license and right is nontransferable except to the successor of that part of the contractor's business to which the invention pertains.

(b) *Miscellaneous licenses.* Subject to any outstanding licenses, nothing in this subpart 2 shall preclude the Administrator from granting other licenses for inventions, when he determines that do so would provide for an equitable distribution of rights. The following exemplify circumstances wherein such licenses may be granted:

(1) In consideration of the settlement of an interference;

(2) In consideration of a release of a claim of infringement; or

(3) In exchange for or as part of the consideration for a license under adversely held patent(s).

§ 1245.205 Publication of NASA inventions available for license.

(a) A notice will be periodically published in the FEDERAL REGISTER listing inventions available for licensing. Abstracts of the inventions will also be published in the NASA Scientific and Technical Aerospace Reports (STAR) and other NASA publications.

(b) Copies of pending patent applications for inventions abstracted in STAR may be purchased from the National Technical Information Service, Springfield, Va. 22151.

§ 1245.206 Application for nonexclusive license.

(a) *Submission of application.* An application for nonexclusive license under § 1245.203(b) or a short-form nonexclusive license for special inventions under § 1245.203(c) shall be addressed to the NASA Patent Counsel of the NASA installation having cognizance over the NASA invention for which a license is desired or to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for nonexclusive license.* An application for nonexclusive license under § 1245.203(b) shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number of patent number, title and date, if known;

(2) Name and address of the person, company or organization applying for license and whether the applicant is a U.S. citizen or a U.S. corporation;

(3) Name and address of representative of applicant to whom correspondence should be sent;

(4) Nature and type of applicant's business;

(5) Number of employees;

(6) Purpose for which license is desired;

(7) A statement that contains the applicant's best knowledge of the extent to which the invention is being practiced by private industry and the Government;

(8) A description of applicant's capability and plan to undertake the development and marketing required to achieve the practical application of the invention, including the geographical location where the applicant plans to manufacture or use, in the case of a process, the invention; and

(9) A statement indicating the minimum term of years the applicant desires to be licensed.

(c) *Contents of an application for a short-form nonexclusive license.* An application for a short-form nonexclusive license under § 1245.203(c) for a special invention shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number or patent number, title and date, if known;

(2) Name and address of company or organization applying for license; and

(3) Name and address of representative of applicant to whom correspondence should be sent.

§ 1245.207 Application for exclusive license.

(a) *Submission of application.* An application for exclusive license under § 1245.203(d) may be submitted to NASA at any time. An application for exclusive license shall be addressed to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for exclusive license.* In addition to the requirements set forth in § 1245.206(b), the application for an exclusive license shall include:

(1) Applicant's status, if any, in any one or more of the following categories:

(i) Small business firm;

(ii) Minority business enterprise;

(iii) Location in a surplus labor area;

(iv) Location in a low-income urban area; and

(v) Location in an area designed by the Government as economically depressed.

(2) A statement indicating the time, expenditure, and other acts which the applicant considers necessary to achieve practical application of the invention, and the applicant's offer to invest that sum and to perform such acts if the license is granted;

(3) A statement whether the applicant would be willing to accept a license for all or less than all fields of use of the invention throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(4) A statement indicating the amount of royalty fees or other consideration, if any, the applicant would be willing to pay the Government for the exclusive license; and

(5) Any other facts which the applicant believes to show it to be in the interests of the United States of America for the Administrator to grant an exclusive license rather than a nonexclusive li-

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cence and that such an exclusive license should be granted to the applicant.

§ 1245.208 Processing applications for license.

(a) *Initial review.* Applications for nonexclusive and exclusive licenses under §§ 1245.206 and 1245.207 will be reviewed by the Patent Counsel of the NASA installation having cognizance for the invention and the NASA Assistant General Counsel for Patent Matters, to determine the conformity and appropriateness of the application for license and the availability of the specific invention for the license requested. The Assistant General Counsel for Patent Matters will forward all applications for license conforming to §§ 1245.206(b) and 1245.207(b) to the NASA Inventions and Contributions Board when the invention is available for consideration of the requested license. Prior to forwarding applications for exclusive licenses to the Inventions and Contributions Board, notice in writing will be given to each nonexclusive licensee for the specific invention advising of the receipt of the application for the exclusive license and providing each nonexclusive licensee with a 30-day period for submitting either evidence that practical application of the invention has occurred or is about to occur or, an application for an exclusive license for the invention.

(b) *Recommendations of Inventions and Contributions Board.* The Inventions and Contributions Board shall, in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, evaluate all applications for license forwarded by the Assistant General Counsel for Patent Matters. Based upon the facts presented to the Inventions and Contributions Board in the application and any other facts in its possession, the Inventions and Contributions Board shall recommend to the Administrator: (1) Whether a nonexclusive or exclusive license should be granted, (2) the identity of the licensee, and (3) any special terms or conditions of the license.

(c) *Determination of Administrator and grant of nonexclusive licenses.* The Administrator shall review the recommendations of the Inventions and Contributions Board and shall determine whether to grant the nonexclusive license as recommended by the Board. If the Administrator determines to grant the license, the license will be granted upon the negotiation of the appropriate terms and conditions of the Office of General Counsel.

(d) *Determination of Administrator and grant of exclusive licenses—(1) Notice.* If the Administrator determines that the best interest of the United States will be served by the granting of an exclusive license in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, a notice shall be published in the FEDERAL REGISTER announcing the intent to grant the exclusive license, the identification of the invention, special terms or conditions of the proposed license, and a statement that NASA will grant the exclusive license unless within 30 days of the publication of such notice the Inventions and Contributions Board receives in writing

any of the following together with supporting documentation:

(i) A statement from any person setting forth reasons why it would not be in the best interest of the United States to grant the proposed exclusive license; or

(ii) An application for a nonexclusive license under such invention, in accordance with § 1245.206(b), in which applicant states that he has already brought or is likely to bring the invention to practical application within a reasonable period.

The Inventions and Contributions Board shall, upon receipt of a written request within the 30 days' notice period, grant an extension of 30 days for the submission of the documents designated above.

(2) *Recommendation of Inventions and Contributions Board.* Upon the expiration of the period required by subparagraph (1) of this paragraph, the Board shall review all written responses to the notice and shall then recommend to the Administrator whether to grant the exclusive license as the Board initially recommended or whether a different form of license, if any, should instead be granted.

(3) *Grant of exclusive licenses.* The Administrator shall review the Board's recommendation and shall determine if the interest of the United States would best be served by the grant of an exclusive license as recommended by the Board. If the Administrator determines to grant the exclusive license, the license will be granted upon the negotiation of the appropriate terms and conditions by the Office of General Counsel.

§ 1245.209 Royalties and fees.

(a) Normally, a nonexclusive license for the practical application of an invention granted to a U.S. citizen or company will not require the payment of royalties; however, NASA may require other consideration.

(b) An exclusive license for an invention may require the payment of royalties, fees or other consideration when the licensing circumstances and the basic considerations in § 1245.202, considered together, indicate that it is in the public interest to do so.

§ 1245.210 Reports.

A license shall require the licensee to submit periodic reports of his efforts to work the invention. The reports shall contain information within his knowledge, or which he may acquire under normal business practice, pertaining to the commercial use that is being made of the invention and such other information which the Administrator may determine pertinent to the licensing program and which is specified in the license.

§ 1245.211 Revocation of licenses.

(a) Any license granted pursuant to § 1245.203 may be revoked, either in part or in its entirety, by the Administrator if in his opinion the licensee at any time shall fail to use adequate efforts to bring to or achieve practical application of the invention in accordance with the terms of the license, or if the licensee at any

time shall default in making any report required by the license, or shall make any false report, or shall commit any breach of any covenant or agreement therein contained, and shall fail to remedy any such default, false report, or breach within 30 days after written notice, or if the patent is deemed unenforceable either by the Attorney General or a final decision of a U.S. court.

(b) Any license granted pursuant to § 1245.204(a) may be revoked, either in part or in its entirety, by the Administrator if in his opinion such revocation is necessary to achieve the earliest practical application of the invention pursuant to an application for exclusive license submitted in accordance with § 1245.207, or the licensee at any time shall breach any covenant or agreement contained in the license, and shall fail to remedy any such breach within 30 days after written notice thereof.

(c) Before revoking any license granted pursuant to this Subpart 2 for any cause, there will be furnished to the licensee a written notice of intention to revoke the license, and the licensee will be allowed 30 days after such notice in which to appeal and request a hearing before the Inventions and Contributions Board on the question of revocation. After a hearing, the Inventions and Contributions Board shall transmit to the Administrator the record of proceedings, its findings of fact, and its recommendation whether the license should be revoked either in part or in its entirety. The Administrator shall review the recommendation of the Board and determine whether to revoke the license in part or in its entirety. Revocation of a license shall include revocation of all sublicenses which have been granted.

§ 1245.212 Appeals.

Any person desiring to file an appeal pursuant to § 1245.211(c) shall address the appeal to Chairman, Inventions and Contributions Board. Any person filing an appeal shall be afforded an opportunity to be heard before the Inventions and Contributions Board, and to offer evidence in support of his appeal. The procedures to be followed in any such matter shall be determined by the Administrator. The Board shall make findings of fact and recommendations with respect to disposition of the appeal. The decision on the appeal shall be made by the Administrator, and such decision shall be final and conclusive, except on questions of law, unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

§ 1245.213 Litigation.

An exclusive licensee shall be granted the right to sue at his own expense any party who infringes the rights set forth in his license and covered by the licensed patent. The licensee may join the Government, upon consent of the Attorney General, as a party complainant in such suit, but without expense to the Government and the licensee shall pay costs and any final judgment or decree that may be rendered against the Govern-

PATENT LICENSING REGULATIONS

ment in such suit. The Government shall also have an absolute right to intervene in any such suit at its own expense. The licensee shall be obligated to promptly furnish to the Government, upon request, copies of all pleadings and other papers filed in any such suit and of evidence adduced in proceedings relating to the licensed patent including, but not limited to, negotiations for settlement and agreements settling claims by a licensee based on the licensed patent, and all other books, documents, papers, and

records pertaining to such suit. If, as a result of any such litigation, the patent shall be declared invalid, the licensee shall have the right to surrender his license and be relieved from any further obligation thereunder.

§ 1245.214 Address of communications.

(a) Communications to the Assistant General Counsel for Patent Matters in accordance with §§ 1245.206 and 1245.207 and requests for information concerning licenses for NASA inventions should be

addressed to the Assistant General Counsel for Patent Matters, Code GP, National Aeronautics and Space Administration, Washington, D.C. 20546.

(b) Communications to the Inventions and Contributions Board in accordance with §§ 1245.208, 1245.211, and 1245.212 should be addressed to Chairman, Inventions and Contributions Board, National Aeronautics and Space Administration, Washington, D.C. 20546.

Effective date. The regulations set forth in this subpart 2 are effective April 1, 1972.

JAMES C. FLETCHER,
Administrator.

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Includes fixed-wing airplanes, helicopters, gliders, balloons, ornithopters, etc.; and specific types of complete aircraft (e.g., ground effect machines, STOL, and VTOL); flight tests; operating problems (e.g., sonic boom); safety and safety devices; economics; and stability and control. For basic research see: 01 Aerodynamics. For related information see also: 31 Space Vehicles; and 32 Structural Mechanics.	
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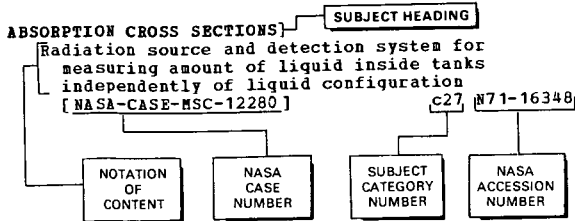
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[NASA-CASE-MSC-13281] c31 N72-18859

AERONAUTICAL ENGINEERING

Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816

AEROSOLS

Liquid aerosol dispenser with explosively driven piston to compress light gas to extremely high pressure
[NASA-CASE-MFS-20829] c12 N72-21310

AEROSPACE ENGINEERING

Modifying existing solar cells for temperature control
[NASA-CASE-NPO-10109] c03 N71-11049

Metallic film diffusion for boundary lubrication in aerospace engineering
[NASA-CASE-XLE-10337] c15 N71-24046

Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214

AEROSPACE ENVIRONMENTS

High voltage insulators for direct current in acceleration system of electrostatic thruster
[NASA-CASE-XLE-01902] c28 N71-10574

Metallic film diffusion into metal or ceramic surfaces for boundary lubrication in aerospace environments
[NASA-CASE-XLE-01765] c18 N71-10772

Preparation of inorganic solid film lubricants with long wear life and stability in aerospace environments
[NASA-CASE-XMP-03988] c15 N71-21403

- Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
- Metal alloy bearing materials for space applications
[NASA-CASE-XLE-05033] c15 N71-23810
- Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-XNP-05524] c33 N71-24876
- Space environment simulator for testing spacecraft components under aerospace conditions
[NASA-CASE-NPO-10141] c11 N71-24964
- High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
[NASA-CASE-LEW-10155-1] c09 N71-29035
- Lightweight actuator for use in celestial space environment
[NASA-CASE-NPO-11222] c15 N72-15468
- Safe pressurized lighting system for operating in hazardous environments
[NASA-CASE-KSC-10644-1] c09 N72-21250
- AEROSPACE MEDICINE**
- Piston device for producing known constant positive pressure within lungs by using thoracic muscles
[NASA-CASE-XMS-01615] c05 N70-41329
- AEROSPACE SCIENCES**
- Chemical spot test for identification of titanium and titanium alloys for aerospace use
[NASA-CASE-LAR-10539-1] c17 N71-34457
- AEROSPACE VEHICLES**
- Aerospace configuration with low and high aspect ratio variability for high and low speed flight
[NASA-CASE-XLA-00142] c02 N70-33286
- Landing pad assembly for aerospace vehicles
[NASA-CASE-XMF-02853] c31 N70-36654
- Aerospace vehicle with variable planform for hypersonic and subsonic flight
[NASA-CASE-XLA-00805] c31 N70-38010
- Development of resilient fastener for attaching skin of aerospace vehicles to permit movement of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035
- AFTERBODIES**
- Afterburner-equipped jet engine nacelle with slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493
- AFTERBURNING**
- Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374
- AILERONS**
- Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-XAC-10019] c15 N71-23809
- AIB**
- Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
- AIR CONDITIONING**
- Air conditioned undergarment for use in environmentally controlled suit in sterile chamber
[NASA-CASE-LAR-10076-1] c05 N72-20106
- AIR CONDITIONING EQUIPMENT**
- Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721
- AIR COOLING**
- Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264
- AIR FLOW**
- Wind tunnel air flow modulating device and apparatus for selectively generating wave motion in wind tunnel airstream
[NASA-CASE-XLA-00112] c11 N70-33287
- Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
- Method for maintaining good performance in gas turbine during air flow distortion
[NASA-CASE-LEW-10286-1] c28 N71-28915
- AIR INTAKES**
- Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
- AIR LOCKS**
- Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space
[NASA-CASE-XLA-02050] c31 N71-22968
- System for removing and repairing spacecraft control thrusters by use of portable air locks
[NASA-CASE-MFS-20325] c28 N71-27095
- Airlock for waste transferal from pressurized enclosure aboard space vehicle to waste receiver at negative pressure
[NASA-CASE-MFS-20922] c31 N72-20840
- AIR POLLUTION**
- Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
- Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-XGS-01971] c15 N71-15922
- AIR PURIFICATION**
- Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-MFS-12806] c14 N71-17588
- Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721
- AIR SAMPLING**
- Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
- AIR TRAFFIC CONTROL**
- System of positioning aircraft by Doppler effect for air traffic control
[NASA-CASE-GSC-10087-4] c07 N70-41978
- Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
- Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
- System and method for position locating for air traffic control involving supersonic transports
[NASA-CASE-GSC-10087-3] c07 N72-12080
- AIR TRANSPORTATION**
- Auxiliary lift system providing transportation means for HL-10 reentry vehicle
[NASA-CASE-LAR-10574-1] c11 N70-41958
- AIRBORNE EQUIPMENT**
- Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
- Electronic strain-level counter for in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N72-11803
- AIRBORNE/SPACEBORNE COMPUTERS**
- Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-XGS-04766] c08 N71-18602
- Digital data processor for use with large scale integrated circuit technology and spaceborne computer application
[NASA-CASE-GSC-10975-1] c08 N71-28420
- AIRCRAFT**
- Variable-orifice gas turbine system for fuel rate control in aircraft
[NASA-CASE-LEW-11187-1] c28 N72-10824
- AIRCRAFT ACCIDENTS**
- Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
- Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431
- AIRCRAFT APPROACH SPACING**
- Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

AIRCRAFT CONFIGURATIONS

Variable sweep wing configuration for supersonic aircraft
[NASA-CASE-XLA-00230] c02 N70-33255
Television simulation for aircraft and space flight
[NASA-CASE-XPR-03107] c09 N71-19449
Dual fuselage aircraft design with yawable wing and horizontal stabilizer
[NASA-CASE-ARC-10470-1] c02 N72-21010

AIRCRAFT CONTROL

Aircraft control system with four command channels suited to rotary wing aircraft
[NASA-CASE-ERC-10439] c02 N70-36052
Situational display suitable for aircraft control
[NASA-CASE-ERC-10350] c14 N70-40019
Development and characteristics of control system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
[NASA-CASE-YAC-08972] c02 N71-20570
Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-YAC-10019] c15 N71-23809
Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
Development of aircraft control system with high performance electrically controlled and mechanically operated hydraulic valves for precise flight operation
[NASA-CASE-YAC-00048] c02 N71-29128
Aerodynamic control system for controlling flutter
[NASA-CASE-LAR-10682-1] c02 N72-21009
Terminal guidance system for guiding aircraft into preselected altitude and/or heading at terminal point
[NASA-CASE-FRC-10049-1] c21 N72-21632

AIRCRAFT DESIGN

Design of supersonic aircraft with novel fixed, swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
Dual fuselage aircraft design with yawable wing and horizontal stabilizer
[NASA-CASE-ARC-10470-1] c02 N72-21010

AIRCRAFT EQUIPMENT

Electronic strain-level counter for in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N72-11803
Pilot warning indicator system
[NASA-CASE-ERC-10226-2] c02 N72-21008
Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431

AIRCRAFT GUIDANCE

Location identification system for identifying particular ground location
[NASA-CASE-ERC-10324] c07 N70-36078

AIRCRAFT HAZARDS

Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788

AIRCRAFT INSTRUMENTS

Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
Aircraft indicator for pilot control of takeoff roll, climbout path and vertical flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157
Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268

AIRCRAFT LANDING

Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

AIRCRAFT MODELS

Variable geometry wind tunnel for testing aircraft models at subsonic speeds
[NASA-CASE-XLA-07430] c11 N70-35678
Free flight suspension system for use with aircraft models in wind tunnel tests
[NASA-CASE-XLA-00939] c11 N71-15926

AIRCRAFT SAFETY

Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
Development and operating principles of collision warning system for aircraft accident prevention
[NASA-CASE-HQN-10703] c21 N72-11527

AIRCRAFT STABILITY

Mechanical stabilization system for VTOL aircraft
[NASA-CASE-XLA-06339] c02 N71-13422

AIRCRAFT STRUCTURES

Fatigue testing device applying random discrete load levels to test specimen and applicable to aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003
Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085

AIRFOILS

Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410
Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411

AIRGLOW

Dual, low noise, directional microwave antenna system for observing solar activity, atmospheric attenuation, and atmospheric emission
[NASA-CASE-ERC-10276] c14 N70-26820

AIRSPEED

Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

ALCOHOLS

New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244
Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440

ALDEHYDES

Direct synthesis of polymeric Schiff bases from two amines and two aldehydes
[NASA-CASE-YMF-08655] c06 N71-11239
Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-YMF-08656] c06 N71-11242
Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
[NASA-CASE-YMF-03074] c06 N71-24740

ALIGNMENT

Centering device with ultrafine adjustment for use with roundness measuring apparatus
[NASA-CASE-YMF-00480] c14 N70-39898
Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction
[NASA-CASE-YMF-01452] c15 N70-41371
Electro-optical/computer system for aligning large structural members and maintaining correct position
[NASA-CASE-XNP-02029] c14 N70-41955
Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-YMF-00684] c21 N71-21688
Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798
Laser beam projector for continuous, precise alignment between target, laser generator, and

ALKALI METALS

SUBJECT INDEX

- astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
- Measuring roll alignment of test body with respect to reference body
[NASA-CASE-GSC-10514-1] c14 N72-20379
- Alignment equipment using laser with gravitationally sensitive cavity reflector
[NASA-CASE-ARC-10444-1] c16 N72-20476
- Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893
- ALKALI METALS**
- Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
- Analytical test apparatus and method for determining oxygen content in alkali liquid metal
[NASA-CASE-XLE-01997] c06 N71-23527
- Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-XGS-04799] c18 N71-24183
- Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084
- ALKALINE BATTERIES**
- Method for determining state of charge of alkali batteries by using tritium as tracer
[NASA-CASE-XNP-01464] c03 N71-10728
- Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
[NASA-CASE-XGS-05434] c03 N71-20491
- Electrocatalyst for oxygen reduction in low temperature alkaline fuel cell
[NASA-CASE-HQN-10537-1] c06 N72-10138
- ALLOYS**
- Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
- Metal alloy bearing materials for space applications
[NASA-CASE-XLE-05033] c15 N71-23810
- High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875
- Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
[NASA-CASE-XNP-08907] c23 N71-29123
- Ion plating and radio frequency sputtering method for plating adherent alloy films on objects with complex geometries
[NASA-CASE-LEW-10920-1] c17 N71-31130
- ALPHANUMERIC CHARACTERS**
- Alphanumeric character recognition system with unknown character classification based on comparison with prestored data from scanning raster
[NASA-CASE-NPO-11337] c08 N72-15178
- ALTERNATING CURRENT**
- Characteristics of high power, low distortion, alternating current power amplifier
[NASA-CASE-LAR-10218-1] c09 N70-34559
- Controllable load insensitive power converter of ac or dc currents
[NASA-CASE-ERC-10268] c09 N70-35582
- Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
- Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-XMS-C6061] c05 N71-23317
- Solid state circuit for switching alternating current input signal as function of direct current gating transistor
[NASA-CASE-XNP-06505] c10 N71-24799
- Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
[NASA-CASE-MFS-10068] c10 N71-25139
- Inverters for changing direct current to alternating current
[NASA-CASE-XGS-06226] c10 N71-25950
- Transistor amplifier and square wave oscillator for obtaining ac voltage from dc source
[NASA-CASE-NPO-11365] c09 N72-15204
- ALTITUDE**
- Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
- ALTITUDE CONTROL**
- Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
- ALUMINUM**
- Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
- Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047
- Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dichromate for adhesive bonding
[NASA-CASE-XMF-02303] c17 N71-23828
- Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142
- Nickel plating onto etched aluminum castings
[NASA-CASE-XNP-04148] c17 N71-24830
- Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
- Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
- Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034
- ALUMINUM ALLOYS**
- High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XMP-02786] c17 N71-20743
- Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dichromate for adhesive bonding
[NASA-CASE-XMP-02303] c17 N71-23828
- ALUMINUM COATINGS**
- Intermetallic chromium containing nickel aluminide coating for high temperature corrosion protection of stainless steel
[NASA-CASE-LEW-11267-1] c17 N72-15519
- ALUMINUM SILICATES**
- White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184
- AMBULANCES**
- Communication system for transmitting biomedical information obtained from patient in moving ambulance to hospital for diagnosis
[NASA-CASE-FRC-10031] c05 N70-20717
- AMINES**
- Direct synthesis of polymeric schiff bases from two amines and two aldehydes
[NASA-CASE-XMP-08655] c06 N71-11239
- Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-XMP-08652] c06 N71-11243
- Polyimide foams produced in presence of alkanolamine or siloxane-glycol polymer
[NASA-CASE-ARC-10464-1] c06 N72-21102
- ANMMETERS**
- Voltage and current measuring devices using liquid crystals exhibiting visible changes to high input signals
[NASA-CASE-ERC-10275] c26 N70-40622
- AMMONIA**
- Solid state chemical source for ammonia beam masers
[NASA-CASE-XGS-01504] c16 N70-41578
- AMMONIUM PERCHLORATES**
- Ammonium perchlorate composite propellant with

- organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14C90
- AMPLIFICATION**
Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
Clamped amplifier circuit for horizon scanner enabling amplification and accurate measurement of specified parameters
[NASA-CASE-XGS-01784] c10 N71-20782
Diversity receiving system with diversity phase lock
[NASA-CASE-XGS-01222] c10 N71-20841
Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
[NASA-CASE-ARC-10042-2] c10 N72-11256
Amplifying circuit with constant current source for accumulator load and high gain voltage amplification
[NASA-CASE-NPO-11023] c09 N72-17155
- AMPLIFIER DESIGN**
Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330
- AMPLIFIERS**
Development of stable electronic amplifier adaptable for monolithic and thin film construction
[NASA-CASE-XGS-02812] c09 N71-19466
Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185
Comb type traveling wave maser amplifier for improved high gain broadband output
[NASA-CASE-NPO-10548] c16 N71-24831
Vibrophonocardiograph comprising low weight and small volume piezoelectric microphone with amplifier having high input impedance for high sensitivity and low frequency response
[NASA-CASE-XFR-07172] c05 N71-27234
Digital data handling circuits for pulse amplifiers
[NASA-CASE-XNP-01068] c10 N71-28739
Solid state fullwave modulator-demodulator amplifier for generating rectified output signal
[NASA-CASE-FRC-10072-1] c09 N72-15206
Active RC filter networks and amplifiers for deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
Active filter circuit comprising passive RC network and dc voltage or operational amplifier
[NASA-CASE-XAC-05462] c09 N72-20209
- AMPLITUDE DISTRIBUTION ANALYSIS**
Monitoring system for signal amplitude ranges over predetermined time interval
[NASA-CASE-XMS-04061-1] c09 N69-39885
Cathode ray oscilloscope for analyzing electrical waveforms representing amplitude distribution of time function
[NASA-CASE-XNP-01383] c09 N71-10659
- AMPLITUDE MODULATION**
Alternating current signal generator providing plurality of amplitude modulated output signals
[NASA-CASE-XNP-05612] c09 N69-21468
Laser modulation by Stark effect in gases
[NASA-CASE-ERC-10335] c16 N70-36054
Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-IAC-04030] c10 N71-19472
Development of apparatus for amplitude modulation of diode laser by periodic discharge of direct current power supply
[NASA-CASE-XMS-04269] c16 N71-22895
Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement amplitude
[NASA-CASE-IAC-02807] c09 N71-23021
Scanning signal phase and amplitude electronic control device with hybrid T waveguide junction
[NASA-CASE-NPO-10302] c10 N71-26142
High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
- AMPLITUDES**
Circuits for amplitude limiting of random noise
- inputs
[NASA-CASE-NPO-10169] c10 N71-24844
- ANALOG CIRCUITS**
Electric network for monitoring temperatures, detecting critical temperatures, and indicating critical time duration
[NASA-CASE-XMF-01097] c10 N71-16C58
Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-MPS-13046] c07 N71-19433
Electronic divider and multiplier for analog electric signals
[NASA-CASE-XFR-05637] c09 N71-19480
- ANALOG COMPUTERS**
Analog spatial maneuver computer with three output angles for obtaining desired spatial attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172
- ANALOG DATA**
Analog signal to discrete time interval converter for pulse modulation
[NASA-CASE-ERC-10048] c09 N70-25866
Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435
- ANALOG TO DIGITAL CONVERTERS**
Analog to digital converter analyzing system with variable voltage
[NASA-CASE-NPO-10560] c08 N70-36C74
Analog to digital converter using offset voltage to eliminate offset errors
[NASA-CASE-MSC-13110-1] c08 N70-36C77
Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-XAC-00404] c08 N70-40125
Analog to digital converter for converting pulses to frequencies
[NASA-CASE-XLA-00670] c08 N71-12501
Describing continuous analog to digital converter with parallel digital output and nonlinear feedback
[NASA-CASE-XAC-04031] c08 N71-18594
Voltage drift compensation circuit for analog-to-digital converter
[NASA-CASE-XNP-04780] c08 N71-19687
Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LEW-10345-1] c10 N71-25899
Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544
Apparatus for automatically testing analog to digital converters for open and short circuits
[NASA-CASE-XLA-06713] c14 N71-28991
Wide range analog to digital converter with variable gain amplifier
[NASA-CASE-NPO-11018] c08 N72-21200
- ANALYZERS**
Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199
Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754
Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N71-34382
- ANEMOMETERS**
Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-XMF-05224] c14 N71-23726
Apparatus to register and maintain fixed reading of peak wind speeds
[NASA-CASE-MPS-20916] c14 N72-20392
- ANGLES (GEOMETRY)**
Gage for measuring internal angle of flare on end of tube
[NASA-CASE-XMF-04415] c14 N71-24693
Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674
- ANGULAR ACCELERATION**
Angular velocimeter and accelerometer formed by

ANGULAR CORRELATION

liquid crystals between rotary and stationary discs
 [NASA-CASE-ERC-10292] c14 N70-36079
 Strain gage accelerometer for angular acceleration measurement
 [NASA-CASE-XMS-05936] c14 N70-41682

ANGULAR CORRELATION
 Determination of relative angular position of spacecraft and radiating celestial body
 [NASA-CASE-GSC-11444-1] c14 N72-21418

ANGULAR MOMENTUM
 Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
 [NASA-CASE-XGS-00619] c30 N70-40016

ANGULAR RESOLUTION
 Characteristics and performance of electrical system to determine angular rotation
 [NASA-CASE-XMP-00447] c14 N70-33179

ANGULAR VELOCITY
 Angular velocimeter and accelerometer formed by liquid crystals between rotary and stationary discs
 [NASA-CASE-ERC-10292] c14 N70-36079
 Describing angular position and velocity sensing apparatus
 [NASA-CASE-XGS-05680] c14 N71-17585

ANILINE
 Synthesis of high purity dianilinosilanes
 [NASA-CASE-XMP-06409] c06 N71-23230

ANIMALS
 Automatic pair feeding device for controlled feeding of test animals
 [NASA-CASE-ARC-10302-1] c04 N72-21052

ANNEALING
 Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
 [NASA-CASE-XGS-04047-2] c03 N72-11062

ANNULAR NOZZLES
 Large area-ratio nozzles for rocket motor thrust chambers
 [NASA-CASE-XLE-00145] c28 N70-36806
 Electrostatic microthrust propulsion system with annular slit colloid thruster
 [NASA-CASE-GSC-10709-1] c28 N71-25213

ANNULAR PLATES
 Bluff-shaped annular configuration for supersonic decelerator for reentry vehicles
 [NASA-CASE-XLE-00222] c02 N70-37939

ANNULET
 Annular unit with blind cavities for vibration test support
 [NASA-CASE-MFS-20523] c14 N72-15425

ANODES
 Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
 [NASA-CASE-LEW-11358] c03 N71-26084

ANODIC COATINGS
 Anodizing method for providing metal surfaces with temperature reducing coatings against flames
 [NASA-CASE-XLE-00035] c33 N71-29151

ANTENNA ARRAYS
 Phased antenna array for generation of circularly polarized beam over wide angles
 [NASA-CASE-ERC-10214] c09 N70-20738
 Phase control circuits using frequency multiplication for phased array antennas
 [NASA-CASE-ERC-10285] c09 N70-36076
 Monopole antenna system for maximum omnidirectional efficiency for use on satellites
 [NASA-CASE-XLA-00414] c07 N70-38200
 Radio receiver with array of independently steerable antennas for deep space communication
 [NASA-CASE-XLA-00901] c07 N71-10775
 Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
 [NASA-CASE-GSC-10452] c07 N71-12396
 Tracking antenna system with array for synchronous satellite or ground based radar
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Interferometric tuning acquisition and tracking radar antenna system
 [NASA-CASE-XMS-09610] c07 N71-24625
 Development of electronic circuit for combining input signals on two separate antennas to form two processed signals

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[NASA-CASE-MSC-12205-1] c07 N71-27056
 Antenna array at focal plane of reflector with coupling network for beam switching
 [NASA-CASE-GSC-10220-1] c07 N71-27233
 Pattern and impedance matching improvements in transversely polarized triaxial antenna
 [NASA-CASE-XGS-02290] c07 N71-28809
 Planar array circularly polarized antenna with wall slot excitation
 [NASA-CASE-NPO-10301] c07 N72-11148
 Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
 [NASA-CASE-LAR-10545-1] c09 N72-21244

ANTENNA DESIGN
 Development and characteristics of low-noise multimode monopulse antenna feed system for use with microwave communication equipment
 [NASA-CASE-XNP-01735] c07 N71-22750
 Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
 [NASA-CASE-XMS-04312] c07 N71-22984
 Development of electronic circuit for combining input signals on two separate antennas to form two processed signals
 [NASA-CASE-MSC-12205-1] c07 N71-27056
 Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
 [NASA-CASE-HQN-00937] c07 N71-28979
 Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna
 [NASA-CASE-XLA-10772] c07 N71-28980
 Collapsible high gain antenna which can be automatically expanded to operating state
 [NASA-CASE-KSC-10392] c07 N72-20168

ANTENNA FEEDS
 Design and operation of multi-feed cone Cassegrain antenna
 [NASA-CASE-NPO-10539] c07 N71-11285
 Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
 [NASA-CASE-GSC-10452] c07 N71-12396
 Furlable reflector design with frusto-conical, singly-curved, reflective surface and point source feed for use with high-gain spacecraft antennas
 [NASA-CASE-NPO-11361] c07 N72-10152
 Composite antenna feed subsystem concentrated in small area at prime focus of parabola of satellite parabolic reflector
 [NASA-CASE-GSC-11046-1] c07 N72-20155

ANTENNA RADIATION PATTERNS
 Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
 [NASA-CASE-XMS-05303] c07 N69-27462
 Multiple mode horn antenna with radiation pattern of equal beamwidths and suppressed sidelobes
 [NASA-CASE-XNP-01057] c07 N71-15907
 Monopulse scanning network for scanning volumetric antenna pattern
 [NASA-CASE-GSC-10299-1] c09 N71-24804
 High impact antennas with high radiating efficiency
 [NASA-CASE-NPO-10231] c07 N71-26101
 Pattern and impedance matching improvements in transversely polarized triaxial antenna
 [NASA-CASE-IGS-02290] c07 N71-28809

ANTENNAS
 Conical reflector antenna with phase sensing monopulse operation
 [NASA-CASE-NPO-10303] c07 N70-36055
 Antenna design with self erecting mesh reflector
 [NASA-CASE-XGS-09190] c31 N71-16102
 High impact antennas with high radiating efficiency
 [NASA-CASE-NPO-10231] c07 N71-26101
 Collapsible antenna boom and coaxial transmission line having inflatable inner tube
 [NASA-CASE-MFS-20068] c07 N71-27191
 Collapsible support for antenna reflector for use on space vehicles
 [NASA-CASE-NPO-11751] c07 N72-20153

ANTI-FRICTION BEARINGS

Development of hybrid bearing lubrication system with combination of standard type lubrication and magnetic flux field for earth atmosphere and space environment operation
[NASA-CASE-XNP-01641] c15 N71-22997

Development of rolling element bearing for operation in ultrahigh vacuum environment
[NASA-CASE-XLE-09527-2] c15 N71-26189

Design and development of hollow high strength rolling elements for antifriction bearings fabricated from preformed components
[NASA-CASE-LEW-11026-1] c15 N72-15472

Design, development, and characteristics of hybrid antifriction bearing with increased fatigue life at ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N72-15473

ANVILS

Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446

APERTURES

Apertured electrode focusing system for ion sources with nonuniform plasma density
[NASA-CASE-XNP-03332] c09 N71-10618

Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-YPR-05302] c15 N71-23254

Apparatus for recording camera aperture and focus setting on film
[NASA-CASE-MS-C-12363-1] c14 N72-11373

Electron microscope and method of making annular objective aperture
[NASA-CASE-ARC-10448-1] c14 N72-21421

APOLLO SPACECRAFT

Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module
[NASA-CASE-MS-C-12279-1] c15 N70-35679

Energy absorbing crew couch strut for Apollo command module
[NASA-CASE-MS-C-12279] c15 N72-17450

APPLICATIONS OF MATHEMATICS

Apparatus for computing square roots
[NASA-CASE-XGS-04768] c08 N71-19437

APPLICATIONS TECHNOLOGY SATELLITES

Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978

AQUEOUS SOLUTIONS

Separating dissolved hydrogen from water by using palladium with palladium black
[NASA-CASE-MS-C-13335-1] c06 N70-36121

ARC DISCHARGES

Development of device to prevent high voltage arcing in electron beam welding
[NASA-CASE-XMP-08522] c15 N71-19486

Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693

ARC HEATING

Magnetically diffused radial electric arc heater
[NASA-CASE-XLA-00330] c33 N70-34540

Electric arc device for minimizing electrode ablation and heating gases to supersonic or hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628

ARC LAMPS

Starting circuit design for initiating and maintaining arcs in vapor lamps
[NASA-CASE-XNP-01058] c09 N71-12540

Magnetic arc stabilization in xenon compact arc lamps by means of longitudinal magnetic fields
[NASA-CASE-NPO-10887] c09 N71-34209

ARC WELDING

Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
[NASA-CASE-XMP-02039] c15 N71-15871

Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-MFS-13046] c07 N71-19433

Development of device to prevent high voltage arcing in electron beam welding
[NASA-CASE-XMP-08522] c15 N71-19486

Development of apparatus for automatically changing carriage speed of welding machine to

obtain constant speed of torch along work surface
[NASA-CASE-XMP-07069] c15 N71-23815

ARMATURES

Design and development of electric motor with stationary field and armature windings which operates on direct current
[NASA-CASE-XGS-05290] c09 N71-25999

Solenoid valve including guide for armature and valve member
[NASA-CASE-GSC-10607-1] c15 N72-20442

ARRAYS

Phototransistor with base collector junction diode for integration into photosensor arrays
[NASA-CASE-MFS-20407] c09 N72-11229

ARTIFICIAL CLOUDS

Chemical system for releasing barium in vapor phase to create artificial clouds in upper atmosphere and interplanetary space for geophysical studies
[NASA-CASE-LAR-10670-1] c06 N70-36004

ARTIFICIAL GRAVITY

Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776

Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881

Spacecraft with artificial gravity and earthlike atmospheric environment
[NASA-CASE-LEW-11101-1] c31 N72-11793

ARTIFICIAL SATELLITES

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324

ASPECT RATIO

Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
[NASA-CASE-XLA-00221] c02 N70-33266

Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178

Supersonic aircraft variable sweep wing planform for varying aspect ratio
[NASA-CASE-XLA-00350] c02 N70-38011

ASSEMBLIES

Multiple Belleville spring assembly with even load distribution
[NASA-CASE-XNP-00840] c15 N70-38225

ASTRONAUT LOCOMOTION

Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776

Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194

Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195

Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161

Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730

Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619

ASTRONAUT MANEUVERING EQUIPMENT

Hand-held maneuvering unit for propulsion and attitude control of astronauts in zero or reduced gravity environment
[NASA-CASE-XMS-05304] c05 N71-12336

Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
[NASA-CASE-XMP-07488] c11 N71-18773

Lightweight propulsion unit for movement of personnel and equipment across lunar surface
[NASA-CASE-MFS-20130] c28 N71-27585

ASTRONAUT PERFORMANCE

Gravity environment simulation by locomotion and

ASTRONAUT TRAINING

restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619

ASTRONAUT TRAINING
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Low and zero gravity simulator for astronaut training
[NASA-CASE-MFS-10555] c11 N71-19494
Apparatus for training astronaut crews to perform on simulated lunar surface under conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474

ASTRONAVIGATION
Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621

ASTRONOMICAL PHOTOGRAPHY
Cameras for photographing meteors in selected sky area
[NASA-CASE-LAR-10226-1] c14 N72-15415

ASTRONOMICAL TELESCOPES
Star image motion compensator using rotating mirror for reflectance into telescope
[NASA-CASE-LAR-10523-1] c14 N70-35412
Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-HSC-10966] c14 N71-19568
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125

ATMOSPHERIC ATTENUATION
Dual, low noise, directional microwave antenna system for observing solar activity, atmospheric attenuation, and atmospheric emission
[NASA-CASE-ERC-10276] c14 N70-26820

ATMOSPHERIC COMPOSITION
Two variations of atmospheric sampling chamber
[NASA-CASE-NPO-11373] c13 N72-13306

ATMOSPHERIC ENTRY
Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087
Development of method for measuring electron density gradients of plasma sheath around space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563
Orbital and entry tracking accessory mounted on global map to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c14 N72-21416

ATMOSPHERIC ENTRY SIMULATION
Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
Wind tunnel method for simulating flow fields around blunt vehicles entering planetary atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436

ATMOSPHERIC TURBULENCE
Passive optical wind and turbulence remote detection system
[NASA-CASE-XMF-14032] c20 N71-16340

ATOMIC COLLISIONS
Atomic hydrogen maser with automatic bulb temperature control to eliminate frequency shift due to collision of hydrogen atoms with storage bulb walls
[NASA-CASE-HQN-10654-1] c16 N72-21502

ATOMIZERS
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654

ATTENUATORS
Improved compact precision rotary vane attenuator
[NASA-CASE-NPO-11418] c14 N72-20393

ATTITUDE (INCLINATION)
Spacecraft attitude sensing system design with narrow-field of view sensor rotating about spacecraft x-y plane
[NASA-CASE-GSC-10890-1] c21 N71-34589
Analog spatial maneuver computer with three output angles for obtaining desired spatial attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172

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ATTITUDE CONTROL

Visual target luminaires for retrofire attitude control
[NASA-CASE-XMS-12158-1] c31 N69-27499
Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XPR-00181] c21 N70-33279
Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-XMF-00185] c21 N70-34539
Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395
Attitude control device for space vehicles
[NASA-CASE-XNP-00294] c21 N70-36938
Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943
Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-XNP-00676] c15 N70-38996
Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771
Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132
Development of attitude control system for spacecraft orientation
[NASA-CASE-XGS-04393] c21 N71-14159
System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582
Drive mechanism for operating reactance attitude control system for aerospace bodies
[NASA-CASE-XMF-01598] c21 N71-15583
Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
Remote control device operated by movement of finger tips for manual control of spacecraft attitude
[NASA-CASE-XAC-02405] c09 N71-16089
Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
Development of attitude control system for sounding rocket stabilization during ballistic phase of flight
[NASA-CASE-XGS-01654] c31 N71-24750
Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160

ATTITUDE GYROS
Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395
Artificial horizon instrument providing head-up attitude display
[NASA-CASE-ERC-10392] c21 N70-35429

ATTITUDE INDICATORS
Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
[NASA-CASE-XNP-00438] c21 N70-35089
Artificial horizon instrument providing head-up attitude display

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AXES OF ROTATION

- [NASA-CASE-ERC-10392] c21 N70-35429
Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255
Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
- ATTITUDE STABILITY**
Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
Attitude stabilizer for nonguided missile or vehicle with respect to trajectory
[NASA-CASE-ARC-10134] c30 N72-17873
- AUDIO FREQUENCIES**
High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
Audio frequency marker for determining instantaneous frequency of sweeping signal generator
[NASA-CASE-NPO-11147] c14 N72-15417
- AUDITORY SIGNALS**
Audio signal processing system for noise surge elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181
- AUSTENITIC STAINLESS STEELS**
Intermetallic chromium containing nickel aluminide coating for high temperature corrosion protection of stainless steel
[NASA-CASE-LEW-11267-1] c17 N72-15519
- AUTOCORRELATION**
Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503
Circuitry for developing autocorrelation function continuously within signal receiving period
[NASA-CASE-XNP-00746] c07 N71-21476
- AUTOMATIC CONTROL**
Automatic control of voltage supply to direct current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
Electro-optical/computer system for aligning large structural members and maintaining correct position
[NASA-CASE-XNP-02029] c14 N70-41955
Pulsed energy power system for application of combustible gases to turbine controlling ac voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
Computer controlled apparatus for maintaining welding torch angle and velocity during seam tracking
[NASA-CASE-XMP-03287] c15 N71-15607
Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MSC-10966] c14 N71-19568
Welding torch with automatic speed controller using speed sensing wheel and closed servo system
[NASA-CASE-XMP-01730] c15 N71-23050
Microwave waveguide switch with rotor position control
[NASA-CASE-XNP-06507] c09 N71-23548
Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276
Automatically charging battery of electric storage cells
[NASA-CASE-XNP-04758] c03 N71-24605
Electric motor control system with pulse width modulation for providing automatic null seeking servo
[NASA-CASE-XNF-05195] c10 N71-24861
Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182
- Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244
Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754
Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
[NASA-CASE-HSC-13917-1] c05 N72-15C98
Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244
Digitally controlled random noise vibration testing
[NASA-CASE-NPO-11612] c11 N72-20251
Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246
- AUTOMATIC CONTROL VALVES**
Control system for maintaining liquid nitrogen level in cryogenic reservoir
[NASA-CASE-XLA-09714] c03 N70-35700
Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648
Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-XNP-09704] c12 N71-18615
Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
- AUTOMATIC FREQUENCY CONTROL**
System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543
Audio signal processing system for noise surge elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181
Automatic frequency control device for providing frequency reference for voltage controlled oscillator
[NASA-CASE-KSC-10393] c09 N72-21247
- AUTOMATIC GAIN CONTROL**
Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330
Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
- AUTOMATIC TEST EQUIPMENT**
Automatic bioassay instrument for urinalysis based on adenosine triphosphate bioluminescent proportionality to urine sample bacterial content
[NASA-CASE-GSC-11169-1] c04 N71-27992
Automated apparatus for analyzing bacterial ATP in urine samples
[NASA-CASE-GSC-11169-2] c05 N71-34079
Automatic pair feeding device for controlled feeding of test animals
[NASA-CASE-ARC-10302-1] c04 N72-21052
Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ARC-10329-1] c05 N72-21079
- AUXILIARY EQUIPMENT (COMPUTERS)**
Flexible computer-accessed telemetry using sequence control, auxiliary memory, and system control registers for sensors and digital data source sampling
[NASA-CASE-NPO-11358] c07 N71-34160
- AXES (REFERENCE LINES)**
Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992
Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-XNP-02278] c15 N71-28951
- AXES OF ROTATION**
Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XPR-00181] c21 N70-33279

- Proportional controller for regulating aircraft or spacecraft motion about three axes
[NASA-CASE-XAC-03392] c03 N70-41954
- Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-XMP-00684] c21 N71-21688
- Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255
- AXIAL FLOW TURBINES**
- Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412
- Multistage, multiple reentry, single rotor, axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895
- AXIAL LOADS**
- Coupling arrangement for isolating torque loads from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N70-26810
- Ball locking device which releases in response to small forces when subjected to high axial loads
[NASA-CASE-XMP-01371] c15 N70-41829
- AZIMUTH**
- Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MPS-14017] c14 N71-26627
- Measurement of relative azimuth bearing using laser source for projecting collimated beam
[NASA-CASE-GSC-11262-1] c16 N72-21503
- AZINES**
- Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XMP-08656] c06 N71-11242
- B**
- BACKGROUND NOISE**
- Electronic background suppression field scanning sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980
- BACKSCATTERING**
- Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
- BACKUPS**
- Flexible backup bar for welding awkwardly shaped structures
[NASA-CASE-XMP-00722] c15 N70-40204
- BACTERIA**
- Bacterial contamination monitor using adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N70-22274
- Decontamination of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499
- Bioluminescent reaction of adenosine triphosphate with enzyme luciferase for quantitative analysis of bacteria in urine samples
[NASA-CASE-GSC-11092-1] c04 N71-27991
- Automatic bioassay instrument for urinalysis based on adenosine triphosphate bioluminescent proportionality to urine sample bacterial content
[NASA-CASE-GSC-11169-1] c04 N71-27992
- Automated apparatus for analyzing bacterial ATP in urine samples
[NASA-CASE-GSC-11169-2] c05 N71-34079
- Lyophilized spore dispenser for production of finely divided monoparticulate cloud of bacterial spores
[NASA-CASE-LAR-10544-1] c15 N72-21477
- BAPPLES**
- Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-XNP-03930] c14 N69-24331
- Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
- Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103
- Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
- Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N72-20467
- Ion rocket engine with combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N72-20766
- BAGS**
- Fecal waste disposal container
[NASA-CASE-XMS-06761] c05 N69-23192
- BALANCE**
- Thermoprotective device for balances
[NASA-CASE-XAC-00648] c14 N70-40400
- BALANCING**
- Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
- Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-10808] c15 N71-27432
- Balancing system for static lift forces for lifting body in free flight suspension in wind tunnel
[NASA-CASE-LAR-10348-1] c11 N72-15241
- BALL BEARINGS**
- Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136
- Low mass rolling element bearing assembly
[NASA-CASE-LEW-11087-1] c15 N72-20464
- BALLASTS (IMPEDANCES)**
- Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318
- BALLOONS**
- Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037
- Inflation system for balloon type satellites
[NASA-CASE-XGS-03351] c31 N71-16081
- System for controlling torque buildup in suspension of gondola connected to balloon via parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N72-11041
- BALLS**
- Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XPR-04104] c03 N70-42673
- BANDPASS FILTERS**
- Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323
- High Q bandpass resonators suitable for operation in microwave frequency range
[NASA-CASE-GSC-10990-1] c09 N71-28470
- Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-XNP-01107] c10 N71-28859
- BANDWIDTH**
- Improvements in receiver of narrow bandwidth television system
[NASA-CASE-XMS-06740-1] c07 N71-26579
- Electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ARC-10264-1] c09 N72-15200
- BARIUM**
- Chemical system for releasing barium in vapor phase to create artificial clouds in upper atmosphere and interplanetary space for geophysical studies
[NASA-CASE-LAR-10670-1] c06 N70-36004
- BARIUM COMPOUNDS**
- Improved cathode containing barium carbonate block and heated tungsten screen for electron bombardment ion thruster
[NASA-CASE-XLE-07087] c06 N69-39889
- BARIUM FLUORIDES**
- Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105
- BARIUM TITANATES**
- Memory device employing semiconductor and ferroelectric properties of single crystal barium titanate
[NASA-CASE-ERC-10307] c08 N72-21198
- BASES (CHEMICAL)**
- Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047

SUBJECT INDEX

BIMETALS

- BATTERY CHARGERS**
 Battery charging system with cell to cell voltage balance
 [NASA-CASE-XGS-05432] c03 N71-19438
 Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
 [NASA-CASE-XGS-05434] c03 N71-20491
 Development and characteristics of battery charging circuits with coulometer for control of available current
 [NASA-CASE-GSC-10487-1] c03 N71-24719
 Method for charging battery at high rate from limited power source
 [NASA-CASE-HQN-10697] c03 N72-20037
- BAYARD-ALPERT IONIZATION GAGES**
 Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
 [NASA-CASE-XLA-07424] c14 N71-18482
- BEADS**
 Rotary bead dropper and selector for testing micrometeorite transducers
 [NASA-CASE-XGS-03304] c09 N71-22988
- BEAM LEADS**
 Beam lead integrated circuit package and method for preparing lead frame array
 [NASA-CASE-MFS-21374] c10 N72-21274
- BEAM SPLITTERS**
 Optical range finder using reflective first surfaces mirror and transmitting beam splitter
 [NASA-CASE-MS-C-12105-1] c14 N72-21409
- BEAM SWITCHING**
 Using electron beam switching for brushless motor commutation
 [NASA-CASE-XGS-01451] c09 N71-10677
 Antenna array at focal plane of reflector with coupling network for beam switching
 [NASA-CASE-GSC-10220-1] c07 N71-27233
- BEAM WAVEGUIDES**
 Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications
 [NASA-CASE-HQN-10541-2] c15 N71-27135
 Optical communication system with gas filled waveguide for laser beam transmission
 [NASA-CASE-HQN-01054-1] c16 N71-27183
 Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
 [NASA-CASE-NPO-11087] c23 N71-29125
- BEAMS (RADIATION)**
 Method and means for recording and reconstructing holograms without use of reference beam
 [NASA-CASE-ERC-10020] c16 N71-26154
- BEARING (DIRECTION)**
 Light radiation direction indicator with baffle of two parallel grids
 [NASA-CASE-XNP-03930] c14 N69-24331
 Solar radiation direction detector and device for compensating degradation of photocells
 [NASA-CASE-XLA-00183] c14 N70-40239
 Michelson interferometer with photodetector for optical direction sensing
 [NASA-CASE-NPO-10320] c14 N71-17655
 Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
 [NASA-CASE-HQN-10780] c14 N71-30265
- BEARINGS**
 Measuring device for bearing preload in spacecraft ventilation fans
 [NASA-CASE-MFS-20434] c11 N70-35536
 Metal alloy bearing materials for space applications
 [NASA-CASE-XLE-05033] c15 N71-23810
 Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
 [NASA-CASE-GSC-10556-1] c31 N71-26537
 Magnetic bearing with diverse magnetic sources coupled to same air gap via different low magnetic reluctance paths for use with permanent magnets
 [NASA-CASE-GSC-11079-1] c21 N71-28461
 Direct current motor design with magnetic bearing for use in low friction disturbance control systems
 [NASA-CASE-XGS-07805] c15 N71-34420
 Shock absorber for supporting bearings subjected to omnidirectional shock loading in high gravity environments
 [NASA-CASE-NPO-10626] c15 N72-15465
- BEDS (PROCESS ENGINEERING)**
 Catalyst bed element removing tool
 [NASA-CASE-XPR-00811] c15 N70-36901
- BEER LAW**
 Multichannel photoionization chamber for measuring absorption, photoionization yield, and coefficients of gases
 [NASA-CASE-ERC-10044-1] c14 N71-27090
- BEES**
 Decontamination of petroleum products with honey
 [NASA-CASE-XNP-03835] c06 N71-23499
- BELLOWS**
 Compact bellows spirometer for high speed and high altitude space travel
 [NASA-CASE-XAR-01547] c05 N69-21473
 Space suit with torso bellows for improved waist and torso movement
 [NASA-CASE-ARC-10275-1] c05 N70-26799
 Electrical connection for printed circuits on common board, using bellows principle in rivet
 [NASA-CASE-XNP-05082] c15 N70-41960
 Flexible bellows joint shielding sleeve for propellant transfer pipelines
 [NASA-CASE-XNP-01855] c15 N71-28937
- BENDING**
 Hermetically sealed elbow actuator for producing bending motion
 [NASA-CASE-MFS-14710] c09 N70-12623
 Coupling arrangement for isolating torque loads from axial, radial, and bending loads
 [NASA-CASE-XLA-04897] c15 N70-26810
 Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
 [NASA-CASE-XNP-09422] c07 N71-19436
 Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
 [NASA-CASE-XAC-05632] c32 N71-23971
 Elbow forming in jacketed pipes while maintaining separation between core shape and jacket pipes
 [NASA-CASE-XNP-10475] c15 N71-24679
 Device for bending metal ribbon or wire
 [NASA-CASE-XLA-05966] c15 N72-12408
- BENDING DIAGRAMS**
 Charged particle analyzer with periodically varying voltage applied across electrostatic deflection members
 [NASA-CASE-XAC-05506-1] c24 N71-16095
- BENDING FATIGUE**
 Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
 [NASA-CASE-XLE-01300] c15 N70-41993
 Cryostat for flexure fatigue testing of composite materials
 [NASA-CASE-XMP-02964] c14 N71-17659
- BENDING MOMENTS**
 Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
 [NASA-CASE-XMP-03198] c30 N70-40353
- BENDING VIBRATION**
 Mercury filled pendulum damper for controlling bending vibration induced by wind effects
 [NASA-CASE-LAR-10274-1] c14 N71-17626
- BENZENE**
 Para-benzoquinone dioxime and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
 [NASA-CASE-ARC-10304-1] c18 N71-34501
- BERYLLIUM ALLOYS**
 Development of fluoride coating to prevent oxidation of beryllium surfaces at elevated temperatures
 [NASA-CASE-LEW-10327] c17 N71-33408
- BIMETALS**
 Nonmagnetic thermal motor for magnetometer movement
 [NASA-CASE-XAR-03786] c09 N69-21313
 Application of spiral, bimetallic strip to create circular motion on mechanical shaft by change of temperature in the strip
 [NASA-CASE-NPO-11283] c09 N71-34213
 Thermal compensating structural member, consisting of bimetallic housing, compensator strut, and compensating drive linkage
 [NASA-CASE-MFS-20433] c15 N71-34423

BINARY CODES

SUBJECT INDEX

- Design and development of linear actuator based on bimetallic spring expansion
[NASA-CASE-NPO-10637] c15 N72-12409
- BINARY CODES**
- Binary digital code to analog converter
[NASA-CASE-KSC-10397] c08 N70-35566
- Location identification system for identifying particular ground location
[NASA-CASE-ERC-10324] c07 N70-36078
- Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773
- Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-INP-04623] c10 N71-26103
- Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NPO-10342] c10 N71-33407
- BINARY DATA**
- Nondestructive interrogating and state changing circuit for binary magnetic storage elements
[NASA-CASE-XGS-00174] c08 N70-34743
- Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-XGS-04766] c08 N71-18602
- Describing circuit for obtaining sum of squares of numbers
[NASA-CASE-XGS-04765] c08 N71-18693
- Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
- BINARY DIGITS**
- Logarithmic converter for compressing 19-digit binary input number to 8-digit output
[NASA-CASE-XLA-00471] c08 N70-34778
- Circuit diagram and operation of full binary adder
[NASA-CASE-XGS-00689] c08 N70-34787
- Binary number sorter for arranging numbers in order of magnitude
[NASA-CASE-NPO-10112] c08 N71-12502
- Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-INP-05415] c08 N71-12505
- Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571
- Characteristics of comparator circuits for comparison of binary numbers in information processing system
[NASA-CASE-INP-04819] c08 N71-23295
- Family of m-ary linear feedback shift register with binary logic
[NASA-CASE-NPO-11868] c10 N72-20236
- BINARY TO DECIMAL CONVERTERS**
- Binary to binary-coded decimal converter using single set of logic circuits notwithstanding number of shift register decades
[NASA-CASE-INP-00432] c08 N70-35423
- Design and operation of high speed binary to decimal conversion system
[NASA-CASE-XGS-01230] c08 N71-19544
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
- High speed apparatus for scaling and converting binary to binary coded decimal numbers using programmed boards
[NASA-CASE-KSC-10595] c08 N72-15174
- High speed direct binary to binary coded decimal converter for use in PCM telemetry systems
[NASA-CASE-KSC-10326] c08 N72-21197
- BINDERS (MATERIALS)**
- Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400
- BINOCULARS**
- Binocular scanning instrument universally applicable to scanning and stereoscopic viewing
[NASA-CASE-NPO-11002] c14 N70-35433
- BIOASSAY**
- Rapid assay technique for determination of flavin coenzymes using bacterial bioluminescent reaction
[NASA-CASE-GSC-10565-1] c06 N69-33349
- Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-XGS-01231] c14 N70-41676
- Automatic bioassay instrument for urinalysis based on adenosine triphosphate bioluminescent proportionality to urine sample bacterial content
[NASA-CASE-GSC-11169-1] c04 N71-27992
- BIOELECTRIC POTENTIAL**
- Electrochemically reversible silver-silver chloride electrode for detecting bioelectric potential differences generated by human muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925
- BIOELECTRICITY**
- Development and characteristics of electrodes in which poisoning by organic molecules is prevented by ion selective electrolytic deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
- BIOENGINEERING**
- Aesthesiometer for detecting and measuring cutaneous sensory perception
[NASA-CASE-MSC-13609] c05 N72-15095
- BIOINSTRUMENTATION**
- Temperature compensated solid state differential amplifier with application in bioinstrumentation circuits
[NASA-CASE-XAC-00435] c09 N70-35440
- Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193
- Characteristics of pressed disc electrode for biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
- Development of apparatus and method for quantitatively measuring brain activity as automatic indication of sleep state and level of consciousness
[NASA-CASE-MSC-13282-1] c05 N71-24729
- Development and characteristics of electrodes in which poisoning by organic molecules is prevented by ion selective electrolytic deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
- Portable disposable biomedical electrode for recording physiological signals
[NASA-CASE-MSC-13648-1] c05 N72-15096
- BIOLUMINESCENCE**
- Bacterial contamination monitor using adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N70-22274
- Detection instrument for light emitted from ATP biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
- Describing method for lyophilization of luciferase containing mixtures for use in life detection reactions
[NASA-CASE-XGS-05532] c06 N71-17705
- Bioluminescent reaction of adenosine triphosphate with enzyme luciferase for quantitative analysis of bacteria in urine samples
[NASA-CASE-GSC-11092-1] c04 N71-27991
- Automatic bioassay instrument for urinalysis based on adenosine triphosphate bioluminescent proportionality to urine sample bacterial content
[NASA-CASE-GSC-11169-1] c04 N71-27992
- Determination of bacterial ATP as measure of urinary tract infection using enzymatic bioluminescent assay technique
[NASA-CASE-GSC-11092-2] c04 N72-11074
- BIOMEDICAL DATA**
- Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440
- Aesthesiometer for detecting and measuring cutaneous sensory perception
[NASA-CASE-MSC-13609] c05 N72-15095
- BIOMETRICS**
- Characteristics of pressed disc electrode for biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
- BIOTELEMETRY**
- Communication system for transmitting biomedical information obtained from patient in moving ambulance to hospital for diagnosis
[NASA-CASE-PRC-10031] c05 N70-20717
- RF controlled solid state element capable of being switched from high to low impedance state, for

- biotelemetry and similar applications
[NASA-CASE-ARC-10136-1] c09 N70-20726
- Biotelemetry apparatus with dual voltage generators for implanting in animals
[NASA-CASE-XAC-05706] c05 N71-12342
- BIREFRINGENCE**
Automatic polarimeter capable of measuring transient birefringence changes in electro-optic materials
[NASA-CASE-XNP-08883] c23 N71-16101
- BISTABLE CIRCUITS**
Bistable multivibrator circuits operating at high speed and low power dissipation
[NASA-CASE-XGS-00823] c10 N71-15910
- BIT SYNCHRONIZATION**
Telemetry data unit to form multibit words for use between demodulator and computer
[NASA-CASE-XNP-C9225] c09 N69-24333
- Bit synchronization system using digital data transition tracking phased locked loop
[NASA-CASE-NPO-10844] c07 N72-20140
- BITERNARY CODE**
Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917
- BITS**
Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-XNP-04623] c10 N71-26103
- BLACK BODY RADIATION**
Development of black-body source calibration furnace
[NASA-CASE-XLE-C1399] c33 N71-15625
- Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-XNP-08961] c14 N71-24809
- Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26475
- Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27323
- BLADE TIPS**
Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264
- BLADES (CUTTERS)**
Piston in bore cutter for severing parachute control lines and sealing cable hole to prevent water leakage into load
[NASA-CASE-XMS-04072] c15 N70-42017
- BLOCKS**
Foldable blocks for construction of structures in remote areas lacking building materials
[NASA-CASE-MS-C-12233-2] c32 N71-31415
- Open and closed top, fillable, foldable construction blocks
[NASA-CASE-MS-C-12233-1] c15 N72-15470
- BLOOD**
Improved hemodialyzer for removing selected substances from blood by process of dialysis
[NASA-CASE-HQN-10741] c05 N72-20114
- BLOOD PRESSURE**
Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23317
- BLUFF BODIES**
Bluff-shaped annular configuration for supersonic decelerator for reentry vehicles
[NASA-CASE-XLE-00222] c02 N70-37939
- BLUNT BODIES**
Wind tunnel method for simulating flow fields around blunt vehicles entering planetary atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436
- BODIES OF REVOLUTION**
Conforming polisher for aspheric surfaces of revolution with inflatable tube
[NASA-CASE-XGS-02884] c15 N71-22705
- Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992
- BODY MEASUREMENT (BIOLOGY)**
Elastomer loaded with metal particles for elastic biomedical electrodes
[NASA-CASE-ARC-10268-1] c09 N70-12620
- Biomedical system for measuring volume and volume variations of human body under zero gravity conditions
[NASA-CASE-MS-C-13972-1] c05 N72-20105
- BODY TEMPERATURE**
Thermoregulating with cooling flow pipe network for humans
[NASA-CASE-XMS-10269] c05 N71-24147
- BODY VOLUME (BIOLOGY)**
Biomedical system for measuring volume and volume variations of human body under zero gravity conditions
[NASA-CASE-MS-C-13972-1] c05 N72-20105
- BOILERS**
Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104
- Shell-side liquid metal boiler employing tube and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915
- BOLOMETERS**
High impedance alternating current sensing transformer device between two bolometers for measuring insertion loss of test component
[NASA-CASE-XNP-01193] c10 N71-16057
- Thin film capacitive bolometer and capacitance temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232
- BOLTS**
Patent data on gas actuated bolt disconnect assembly
[NASA-CASE-XLA-00326] c03 N70-34667
- Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
- Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-XMF-04966] c14 N71-17658
- Split nut and bolt separation device
[NASA-CASE-XNP-06914] c15 N71-21489
- Device for securing together structural members with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N71-34422
- BONDING**
Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
- BOOMS (EQUIPMENT)**
Crane with mechanically extendible telescoping boom
[NASA-CASE-NPO-11118] c03 N70-25674
- Unfolding boom assembly with knuckle joints for positioning equipment for spacecraft
[NASA-CASE-XGS-00938] c32 N70-41367
- Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191
- Extendable, self-deploying boom apparatus
[NASA-CASE-GSC-10566-1] c15 N72-18477
- BOOSTER RECOVERY**
Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-XMF-00389] c31 N70-34176
- Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
[NASA-CASE-XMF-01973] c31 N70-41588
- BOOSTER ROCKET ENGINES**
Segmented back-up bar for butt welding large tubular structures such as rocket booster bodies or tanks
[NASA-CASE-IMP-00640] c15 N70-39924
- Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
[NASA-CASE-IMP-01973] c31 N70-41588
- BORING MACHINES**
Automatic controlled drive mechanism for portable boring bar
[NASA-CASE-XLA-03661] c15 N71-33518
- BORON CARBIDES**
Catalyst for increased growth of boron carbide crystal whiskers
[NASA-CASE-IMP-03903] c15 N69-21922
- BOUNDARY LAYER CONTROL**
Double hinged flap for boundary layer control over trailing edges of wings

BOUNDARY LAYER SEPARATION

SUBJECT INDEX

- [NASA-CASE-XLA-01290] c02 N70-42016
- BOUNDARY LAYER SEPARATION**
- Tertiary flow injection system for thrust vectoring of propulsive nozzle flow
[NASA-CASE-MFS-20831] c28 N71-29153
- BOUNDARY LAYERS**
- Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFR-02007] c12 N71-24692
- BOXES (CONTAINERS)**
- Sealed storage container for channel carriers with mounted miniature electronic components
[NASA-CASE-MFS-20075] c09 N71-26133
- BRAKES (FOR ARRESTING MOTION)**
- Energy dissipating shock absorbing system for land payload recovery or vehicle braking
[NASA-CASE-XLA-00754] c15 N70-34850
- Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-XKS-07814] c15 N71-27067
- BRAKING**
- Direct current electromotive system for regenerative braking of electric motor
[NASA-CASE-XMF-01096] c10 N71-16030
- Linear magnetic braking system with nonuniformly wrapped primary coil producing constant braking force on secondary coil
[NASA-CASE-XLE-05079] c15 N71-17652
- Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-XMF-05224] c14 N71-23726
- BRAZING**
- Anti-wettable materials brazing processes using titanium and zirconium for surface pretreatment
[NASA-CASE-XMS-03537] c15 N69-21471
- Application techniques for protecting materials during salt bath brazing
[NASA-CASE-XLE-00046] c15 N70-33311
- Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
- Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
- BREATHING APPARATUS**
- Three-port transfer valve with one port open continuously suitable for manned space flight
[NASA-CASE-XAC-01158] c15 N71-23051
- BRIGHTNESS**
- Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
- BRIGHTNESS DISCRIMINATION**
- Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
- Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ARC-10329-1] c05 N72-21079
- BROADBAND**
- Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
[NASA-CASE-XMS-05303] c07 N69-27462
- Flexible monopole antenna with broad bandwidth and low voltage standing wave ratio
[NASA-CASE-MSC-12101] c09 N71-18720
- Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583
- Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808
- Comb type traveling wave maser amplifier for improved high gain broadband output
[NASA-CASE-NPO-10548] c16 N71-24831
- Wideband voltage controlled oscillator with high phase stability
[NASA-CASE-XLA-03893] c10 N71-27271
- BROADBAND AMPLIFIERS**
- Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331
- Broadband distribution amplifier with complementary pair transistor output stages
[NASA-CASE-NPO-10003] c10 N71-26415
- BRUSHES**
- Fabrication of sintered impurity semiconductor brushes for electrical energy transfer
[NASA-CASE-XMF-01016] c26 N71-17818
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- High-voltage isolator design for injecting hydrogen bubbles into liquid metal feed lines to interrupt electrical continuity
[NASA-CASE-NPO-11075] c09 N71-34208
- BUCKLING**
- Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
- Test equipment to prevent buckling of small diameter specimens during compression tests
[NASA-CASE-LAR-10440-1] c14 N72-21420
- BUFFER STORAGE**
- Data handling based on source significance, storage availability, and data received from source
[NASA-CASE-XNP-04162-1] c08 N70-34675
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- BUILDINGS**
- Expandable space frames for three dimensional or planar building structures
[NASA-CASE-ERC-10365] c31 N71-28948
- BULBS**
- Atomic hydrogen maser with automatic bulb temperature control to eliminate frequency shift due to collision of hydrogen atoms with storage bulb walls
[NASA-CASE-HQN-10654-1] c16 N72-21502
- BULKHEADS**
- Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XMF-01899] c31 N70-41948
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- Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
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- Burn rate test apparatus with photocell for measuring flame propagation between two points on sample material
[NASA-CASE-XMS-09690-1] c33 N70-12625
- Pressurized gas injection for burning rate control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
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- Manufacture of polyperfluorobutadiene
[NASA-CASE-NPO-10863-2] c06 N72-20127
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- Method for synthesizing polymerized isobutylene with functional groups at each end by contacting isobutylene with molecular sieve
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[NASA-CASE-XGS-04999] c09 N69-24317
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[NASA-CASE-XGS-02816] c07 N69-24323
- Current regulating voltage divider design with load current shunting
[NASA-CASE-MFS-20935] c09 N71-34212

C

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Design and characteristics of device for showing amount of cable payed out from winch and load imposed
[NASA-CASE-MSC-12052-1] c15 N71-24599

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Cable guide and restraint device for reefing tubes in uniform manner
[NASA-CASE-LAR-10129-1] c15 N72-15462

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High voltage cable for use in high intensity ionizing radiation fields
[NASA-CASE-XNP-00738] c09 N70-38201

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[NASA-CASE-KSC-10513] c15 N70-41956

Force separation rigid tethering device using cables
[NASA-CASE-XLA-02332] c32 N71-17609

Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
[NASA-CASE-XMP-07587] c15 N71-18701

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[NASA-CASE-LEW-11003-1] c03 N70-35541

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Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400

Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105

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[NASA-CASE-ERC-10338] c04 N70-36053

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[NASA-CASE-XLA-00781] c09 N71-22999

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[NASA-CASE-XNP-01660] c14 N71-23036

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[NASA-CASE-XMP-04134] c14 N71-23755

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[NASA-CASE-XKS-10804] c05 N71-24606

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[NASA-CASE-XLA-03410] c16 N71-25914

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[NASA-CASE-XLA-11154] c07 N72-21117

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[NASA-CASE-XNP-00637] c14 N70-40273

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[NASA-CASE-NPO-10417] c16 N71-33410

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[NASA-CASE-MSC-12363-1] c14 N72-11373

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[NASA-CASE-LAR-10319-1] c14 N72-21423

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[NASA-CASE-XLE-03583] c31 N71-17629

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[NASA-CASE-NPO-10607] c09 N71-27232

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[NASA-CASE-LEW-11159-1] c14 N71-31127

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[NASA-CASE-XGS-00381] c09 N70-34819

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[NASA-CASE-XAC-10607] c10 N71-23669

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[NASA-CASE-XNP-09753] c14 N69-39937

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[NASA-CASE-LAR-10551-1] c06 N72-21099
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[NASA-CASE-MSC-13332-1] c14 N72-21408
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- Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832
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- Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
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[NASA-CASE-XMP-01160] c07 N71-11298
- Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628] c07 N72-20156
- Carrier-type transducer with carrier modulation
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- Variable frequency subcarrier oscillator with temperature compensation
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- Sealed storage container for channel carriers with mounted miniature electronic components
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[NASA-CASE-IGS-00769] c14 N70-41647
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- Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
- Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
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[NASA-CASE-XGS-00886] c03 N71-11053
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[NASA-CASE-LAR-10551-1] c06 N72-21099

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[NASA-CASE-MFS-11537] c14 N71-20442

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[NASA-CASE-LEW-10814-1] c28 N70-35422

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[NASA-CASE-XLA-00415] c15 N71-16079

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[NASA-CASE-LAR-10194-1] c12 N72-11293

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[NASA-CASE-XLE-01604-2] c15 N71-15610

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[NASA-CASE-XLE-00808] c24 N71-10560
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[NASA-CASE-XLE-02991] c17 N71-16025
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[NASA-CASE-XLE-03629] c17 N71-23248
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[NASA-CASE-LEW-10436-1] c17 N72-21538
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[NASA-CASE-XNP-02748] c08 N71-22749
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[NASA-CASE-XMS-04269] c16 N71-22895
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[NASA-CASE-LAR-10483-1] c14 N72-11371
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[NASA-CASE-MFS-20546-2] c14 N70-35586
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[NASA-CASE-LAR-10403] c21 N71-11766
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[NASA-CASE-ERC-10090] c21 N71-24948
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[NASA-CASE-LAR-10545-1] c09 N72-21244
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[NASA-CASE-XLE-00817] c28 N70-33265
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[NASA-CASE-XLE-00164] c15 N70-36411
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[NASA-CASE-XLE-00303] c15 N70-36535
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[NASA-CASE-XNP-00249] c28 N70-38249
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[NASA-CASE-XLE-00150] c28 N70-41818
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[NASA-CASE-XLE-04603] c33 N71-21507
Regenerative cooling system for rocket combustion chamber using coolant tubes in convergent-divergent nozzle
[NASA-CASE-XLE-04857] c28 N71-23968
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[NASA-CASE-XLE-03157] c28 N71-24736
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[NASA-CASE-XGS-02607] c31 N71-23009
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[NASA-CASE-XAC-06029-1] c31 N71-24813
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[NASA-CASE-XNP-02389] c07 N71-28900
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Apparatus for computing square roots
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[NASA-CASE-ERC-10180] c08 N70-11132
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[NASA-CASE-NPO-11082] c08 N70-22205
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[NASA-CASE-XNP-01753] c08 N71-22897
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[NASA-CASE-NPO-10567] c08 N71-24633
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[NASA-CASE-XMP-05835] c08 N71-12504
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[NASA-CASE-XNP-05415] c08 N71-12505
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[NASA-CASE-XNP-01318] c10 N71-23033
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[NASA-CASE-GSC-10131-1] c07 N71-24624
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[NASA-CASE-NPO-10150] c08 N71-24650
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[NASA-CASE-XNP-01466] c10 N71-26434
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[NASA-CASE-GSC-10564] c10 N71-29135
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[NASA-CASE-NPO-11456] c08 N71-34189
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[NASA-CASE-XLA-01952] c08 N71-12507

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[NASA-CASE-MS-C-13932-1] c08 N72-21206

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[NASA-CASE-XGS-01036] c14 N70-40003

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[NASA-CASE-XLE-01716] c09 N70-40234

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Apparatus for determining volatile condensable material present in polymeric products
[NASA-CASE-NXP-09699] c06 N71-24607

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[NASA-CASE-NPO-10890] c11 N71-33868

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[NASA-CASE-XLA-C8645] c15 N69-21465

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[NASA-CASE-NPO-10755] c15 N71-27084

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[NASA-CASE-XLE-00266] c14 N70-34156

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[NASA-CASE-XMS-09571] c05 N71-19439

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[NASA-CASE-NXP-07587] c15 N71-18701

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[NASA-CASE-INP-C9761] c14 N71-26475

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[NASA-CASE-XLE-00715] c15 N70-34859

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[NASA-CASE-NPO-10303] c07 N70-36055

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[NASA-CASE-XKS-03495] c14 N69-39785

Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580

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[NASA-CASE-XMS-04292] c15 N71-22722

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[NASA-CASE-XGS-01395] c03 N69-21539

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[NASA-CASE-MS-C-11849-1] c15 N70-25675

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[NASA-CASE-XLA-01141] c15 N71-13789

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[NASA-CASE-GSC-11215-1] c09 N72-10192

Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389

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[NASA-CASE-MS-C-13282-1] c05 N71-24729

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[NASA-CASE-NPO-11120] c33 N70-41524

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[NASA-CASE-GSC-10306-1] c15 N71-24694

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[NASA-CASE-LAR-10129-1] c15 N72-15462

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[NASA-CASE-ERC-10364] c18 N70-40061

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[NASA-CASE-ERC-10365] c31 N71-28948

Foldable blocks for construction of structures in remote areas lacking building materials
[NASA-CASE-MS-C-12233-2] c32 N71-31415

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[NASA-CASE-HSC-12233-1] c15 N72-15470

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[NASA-CASE-XGS-01593] c03 N70-35408

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Manufacture of fluid containers from fused coated polyester sheets having resealable septum
[NASA-CASE-NPO-10123] c15 N71-24835

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[NASA-CASE-ERC-10045] c15 N71-24910

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[NASA-CASE-NXP-02500] c18 N71-27397

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[NASA-CASE-GSC-10879-1] c14 N70-22274

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[NASA-CASE-XMS-01905] c12 N71-21089

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[NASA-CASE-NXP-02039] c15 N71-15871

Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-XGS-01971] c15 N71-15922

Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372

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[NASA-CASE-INP-07223] c07 N70-41680

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[NASA-CASE-XLA-08646] c14 N71-17586

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[NASA-CASE-MS-C-13467-1] c10 N72-20225

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[NASA-CASE-XMS-05890] c09 N71-23191
- Control system for pressure balance device used in calibrating pressure gages
[NASA-CASE-XMP-04134] c14 N71-23755
- Power control system for thermal nuclear reactor
[NASA-CASE-XLE-05799] c22 N72-21644
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- Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers
[NASA-CASE-XLE-00787] c14 N71-21090
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[NASA-CASE-GSC-10366-1] c10 N71-18772
- Voltage drift compensation circuit for analog-to-digital converter
[NASA-CASE-XNP-04780] c08 N71-19687
- Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
[NASA-CASE-XAC-08972] c02 N71-20570
- Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-XAC-10019] c15 N71-23809
- Controlled release device for use in launching rockets or missiles
[NASA-CASE-XKS-03338] c15 N71-24043
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[NASA-CASE-XNP-07477] c09 N71-26092
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[NASA-CASE-XNP-01466] c10 N71-26434
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[NASA-CASE-XLE-09341] c12 N71-28741
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[NASA-CASE-LEW-10835-1] c28 N71-28873
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[NASA-CASE-LEW-11188-1] c02 N71-34017
- Control device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-10066
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[NASA-CASE-NPO-11064] c07 N72-11150
- Design and development of manipulator for handling objects in zero gravity environment inside and outside orbiting space vehicle
[NASA-CASE-MFS-14405] c15 N72-15474
- Interferometric prism and control system for precisely determining direction to remote light source
[NASA-CASE-ARC-10278-1] c14 N72-21434
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- Unit for generating thrust from catalytic decomposition of hydrogen peroxide, for high altitude aircraft or spacecraft reaction control
[NASA-CASE-XMS-00583] c28 N70-38504
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- Nuclear reactor control rod assembly with improved driving mechanism
[NASA-CASE-XLE-00298] c22 N70-34501
- Manual control mechanism for adjusting control rod to null position
[NASA-CASE-XLA-01808] c15 N71-20740
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[NASA-CASE-LAR-10276-1] c11 N70-26813
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[NASA-CASE-XLE-00715] c15 N70-34859
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[NASA-CASE-XNP-02982] c31 N70-41855
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[NASA-CASE-NPO-10567] c08 N71-24633
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[NASA-CASE-NPO-11358] c07 N71-34160
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[NASA-CASE-XLE-00715] c15 N70-34859
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[NASA-CASE-NPO-10416] c12 N71-27332
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[NASA-CASE-NPO-10808] c15 N71-27432
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[NASA-CASE-MSC-13587] c15 N72-21483
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[NASA-CASE-XFR-04104] c03 N70-42073
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[NASA-CASE-XMS-07487] c15 N71-23255
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[NASA-CASE-NPO-10617] c14 N70-12618
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[NASA-CASE-XMP-01544] c28 N70-34162
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[NASA-CASE-XLE-04857] c28 N71-23968
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[NASA-CASE-XLE-00724] c14 N70-34669
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[NASA-CASE-MFS-20333] c09 N71-13486
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[NASA-CASE-GSC-10891-1] c10 N71-26626
- Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440
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- Differential thermopile for measuring cooling water temperature rise
[NASA-CASE-IAC-00812] c14 N71-15598
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[NASA-CASE-MFS-14114-2] c09 N71-24807
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[NASA-CASE-NPO-10467] c23 N71-26654
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[NASA-CASE-YHQ-03673] c33 N71-29046
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[NASA-CASE-HQN-00938] c33 N71-29053
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[NASA-CASE-XLE-00027] c33 N71-29152
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[NASA-CASE-NPO-10634] c23 N72-11567
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[NASA-CASE-NPO-10828] c33 N72-17948
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[NASA-CASE-LEW-11003-1] c03 N70-35541
- Method for producing alternating ether-siloxane copolymers with stable properties when exposed to elevated temperatures and UV radiation
[NASA-CASE-XMF-02584] c06 N71-20905
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[NASA-CASE-XNP-03250] c06 N71-23500
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[NASA-CASE-IGS-06306] c17 N71-16044
- Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
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- Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-XNP-01960] c09 N71-23027
- Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MPS-20180] c16 N72-12440
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- Method to produce high purity copper fluoride by heating copper hydroxyfluoride powder and subjecting to flowing fluorine gas
[NASA-CASE-LEW-10794-1] c06 N72-17093
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- Fabrication of root cord restrained fabric suit sections from sheets of fabric
[NASA-CASE-MSC-12398] c05 N72-20098
- COBE STORAGE**
- Memory device employing semiconductor and ferroelectric properties of single crystal barium titanate
[NASA-CASE-ERC-10307] c08 N72-21198
- CORRECTION**
- Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-IGS-02749] c07 N69-39978
- CORRELATORS**
- Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723
- CORROSION PREVENTION**
- Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075
- Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393
- Method and apparatus for inducing compressive stresses in pressure vessel to prevent stress corrosion
[NASA-CASE-XLA-07390] c15 N71-18616
- Development of fluoride coating to prevent oxidation of beryllium surfaces at elevated temperatures
[NASA-CASE-LEW-10327] c17 N71-33408
- CORROSION RESISTANCE**
- High strength, corrosion resistant cobalt-based alloys for aerospace structures
[NASA-CASE-XLE-00726] c17 N71-15644
- Hydrazine monoperfluoro alkanoate solder flux leaving corrosion resistant coating, for metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688
- High temperature cobalt-base alloy resistant to corrosion by liquid metals and to sublimation in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025
- Metal soldering with hydrazine monoperfluoro alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078
- COSINE SERIES**
- Service life of electromechanical device for generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
- Function generator for producing complex vibration mode patterns used to identify vibration mode data
[NASA-CASE-LAR-10310-1] c10 N72-21275
- COSMIC DUST**
- System for detecting impact position of cosmic dust and similar outer space particles on detector surface
[NASA-CASE-GSC-11291-1] c25 N71-29183
- Sensor for detecting and measuring energy, velocity and direction of travel of a cosmic dust particle
[NASA-CASE-GSC-10503-1] c14 N72-20381
- Cosmic dust analyzer using ion time of flight techniques to determine constituency of hypervelocity particles such as micrometeoroids
[NASA-CASE-MSC-13802-1] c30 N72-20805
- COST REDUCTION**
- Resistance welding to join compressor and turbine parts reducing weight and cost of jet engines
[NASA-CASE-LEW-10533-1] c15 N71-34424
- COUCHES**
- Shock absorbing couch for body support under high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152
- Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module
[NASA-CASE-MSC-12279-1] c15 N70-35679
- Shock absorbing articulated multiple couch assembly
[NASA-CASE-MSC-11253] c05 N71-12343
- Collapsible couch system for manned space vehicles
[NASA-CASE-MSC-13140] c05 N72-11085
- COULOMETERS**
- Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
[NASA-CASE-IGS-05434] c03 N71-20491
- Development and characteristics of battery charging circuits with coulometer for control of available current
[NASA-CASE-GSC-10487-1] c03 N71-24719
- COUNTERS**
- Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- Electronic strain-level counter for in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N72-11803
- COUNTING CIRCUITS**
- Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-IGS-08266] c14 N69-27432

- Design of transistorized ring counter circuit with special steering and triggering circuits
[NASA-CASE-XGS-03095] c09 N69-27463
- Counter-divider circuit for accuracy and reliability in binary circuits
[NASA-CASE-XMF-00421] c09 N70-34502
- Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
- Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797
- Electronic counter circuit utilizing magnetic core and low power consumption
[NASA-CASE-XNP-08836] c09 N71-12515
- Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432
- Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-XNP-01753] c08 N71-22897
- Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- COUPLING**
- Coupling arrangement for isolating torque loads from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N70-26810
- Coupling device for linear shaped charge for space vehicle abort system
[NASA-CASE-XLA-00189] c33 N70-36846
- Base support for expandable and contractible coupling between two members
[NASA-CASE-NPO-11059] c15 N72-17454
- COUPLING CIRCUITS**
- Pulse coupling circuits
[NASA-CASE-LEW-10433-1] c09 N70-11243
- Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
- Antenna array at focal plane of reflector with coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233
- Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429
- High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
- COUPLINGS**
- Releasable coupling device designed to receive and retain matching ends of electrical connectors
[NASA-CASE-XMS-07846-1] c09 N69-21927
- Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490
- Space vehicle stage coupling and quick release separation mechanism
[NASA-CASE-XLA-01441] c15 N70-41679
- Standard coupling design for mass production
[NASA-CASE-XMS-02532] c15 N70-41808
- Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
- Ratchet mechanism for high speed operation at reduced backlash
[NASA-CASE-MFS-12805] c15 N71-17805
- Split nut and bolt separation device
[NASA-CASE-XNP-06914] c15 N71-21489
- Quick disconnect duct coupling device for single-handled operation
[NASA-CASE-MFS-20395] c15 N71-24903
- Gas operated quick disconnect coupling for use in coupling umbilical leads
[NASA-CASE-NPO-11202] c15 N72-15467
- Variable direction force coupler for transmitting reciprocating force along curved path
[NASA-CASE-MFS-20317] c15 N72-20456
- COVERINGS**
- Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-XMF-04132] c15 N69-27502
- Cover plate for controlling illumination of solar cells
[NASA-CASE-NPO-10747] c03 N70-25867
- Transparent plastic film for attaching cover glasses to silicon solar cells
[NASA-CASE-LEW-11065-1] c03 N72-11064
- CRACKING (FRACTURING)**
- Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393
- CRANES**
- Crane with mechanically extendible telescoping boom
[NASA-CASE-NPO-11118] c03 N70-25674
- CRASHES**
- Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431
- CRREP RUPTURE STRENGTH**
- Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
[NASA-CASE-XLE-02082] c17 N71-16026
- CRITICAL EXPERIMENTS**
- Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372
- CROSSED FIELDS**
- Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
- Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
[NASA-CASE-XLE-00212] c03 N70-34134
- Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
- CROSSLINKING**
- New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244
- CRUCIBLES**
- Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
[NASA-CASE-XLA-03105] c15 N69-27483
- CRUDE OIL**
- Decontamination of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499
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- Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
[NASA-CASE-NPO-10309] c15 N69-23190
- Low thermal loss piping arrangement for moving cryogenic media through double chamber structure
[NASA-CASE-XNP-08882] c15 N69-39935
- Penetration unit for transferring liquid nitrogen through chamber wall of vacuum system
[NASA-CASE-LAR-10331-1] c15 N70-20714
- Method and apparatus for removing plastic insulation from wire using cryogenic equipment
[NASA-CASE-MFS-10340] c15 N71-17628
- Dual solid cryogens for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
- Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
- Dual stage check valve for cryogenic supply systems used in space flight environmental control system
[NASA-CASE-MSC-13587] c15 N72-21483
- CRYOGENIC FLUID STORAGE**
- Control system for maintaining liquid nitrogen level in cryogenic reservoir
[NASA-CASE-XLA-09714] c03 N70-35700
- Apparatus for cryogenic liquid storage with heat transfer reduction and for liquid transfer at zero gravity conditions
[NASA-CASE-XLE-00345] c15 N70-38020
- Cryogenic storage system for gases onboard spacecraft
[NASA-CASE-XMS-04390] c31 N70-41871

- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
- Fabrication of filament wound propellant tank for cryogenic storage
[NASA-CASE-XLE-03803-2] c15 N71-17651
- Prefabricated multilayered self-evacuating insulation panels using gas with low vapor pressure at cryogenic temperatures for application to storage of cryogens
[NASA-CASE-XLE-04222] c23 N71-22881
- Multilayer insulation panels for cryogenic liquid containers
[NASA-CASE-MFS-14023] c33 N71-25351
- Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
[NASA-CASE-XMP-05046] c33 N71-28892
- Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893
- CRYOGENIC FLUIDS**
- Cryogenic flux-gated magnetometer using superconductors
[NASA-CASE-XAC-02407] c14 N69-27423
- Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c15 N70-34247
- Conical valve plug for use with reactive cryogenic fluids
[NASA-CASE-XLE-00715] c15 N70-34859
- Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492
- Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures
[NASA-CASE-XGS-02441] c15 N70-41629
- High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
[NASA-CASE-XLE-02998] c14 N70-42074
- Automatic thermal switch for improving efficiency of cooling gases below 40 K
[NASA-CASE-XNP-03796] c23 N71-15467
- Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
- Development of apparatus for measuring thermal conductivity
[NASA-CASE-XGS-01052] c14 N71-15992
- Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
[NASA-CASE-NPO-10250] c23 N71-16212
- Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
[NASA-CASE-XLE-02823] c09 N71-23443
- Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
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- Improved alternator with windings of superconducting materials acting as permanent magnet
[NASA-CASE-XLE-02824] c03 N69-39890
- CRYOGENIC ROCKET PROPELLANTS**
- Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
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[NASA-CASE-XLE-00454] c23 N71-17802
- Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
- CRYOGENIC STORAGE**
- Light weight plastic foam thermal insulation for cryogenic storage
[NASA-CASE-XLE-02647] c18 N71-23658
- Development of foam insulation for filament wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816
- CRYOGENICS**
- High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XMP-02786] c17 N71-20743
- Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654
- CRYOLITE**
- Ultraviolet filter of thorium fluoride and cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332
- CRYOSTATS**
- Cryostat for flexure fatigue testing of composite materials
[NASA-CASE-XMP-02964] c14 N71-17659
- Cryostat for use with horizontal fatigue testing machines at low temperatures
[NASA-CASE-XMP-10968] c14 N71-24234
- CRYSTAL GROWTH**
- Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015
- Electrodeposition method for producing crystalline material from dense gaseous medium
[NASA-CASE-NPO-10440] c15 N72-21466
- CRYSTAL OSCILLATORS**
- Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
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- Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
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- Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
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- Method for curing thick sections of room temperature vulcanizing single component silicone rubber
[NASA-CASE-MSC-12230-1] c15 N70-35640
- CURRENT DENSITY**
- Solid state switching circuit design to increase current capacity of low rated relay contacts
[NASA-CASE-XNP-09228] c09 N69-27500
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- Distribution of currents to circuits using electrical adaptor
[NASA-CASE-XLA-01288] c09 N69-21470
- Electron bombardment ion rocket engine with improved propellant introduction system
[NASA-CASE-XLE-02066] c28 N71-15661
- Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
- Electric circuit for reversing direction of current flow
[NASA-CASE-XNP-00952] c10 N71-23271
- Power converters for supplying direct current from one voltage for another voltage for use
[NASA-CASE-XER-11046-2] c09 N72-21251
- CURRENT REGULATORS**
- Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318
- Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
- Describing magnetic core current switching device for steering bipolar current pulses to memory units
[NASA-CASE-NPO-10201] c08 N71-18694
- Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040
- Switching series regulator with gating control network
[NASA-CASE-XMS-09352] c09 N71-23316
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[NASA-CASE-ERC-10075] c09 N71-24800

- Automatic power supply circuit design for driving inductive loads and minimizing power consumption including solenoid example
[NASA-CASE-NPO-12716] c09 N71-24892
- Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
- Current regulating voltage divider design with load current shunting
[NASA-CASE-MFS-20935] c09 N71-34212
- Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
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[NASA-CASE-XMF-01083] c15 N71-22723
- CURVE FITTING**
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[NASA-CASE-XMS-01554] c10 N71-10578
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[NASA-CASE-XLE-08917] c15 N71-15597
- Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XMP-09422] c07 N71-19436
- Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
[NASA-CASE-NPO-10188] c03 N71-20273
- Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836
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Hand tool for cutting and sealing fusible fabrics
[NASA-CASE-XMF-09386] c15 N69-21854
- Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798
- Portable cutting machine for piping weld preparation
[NASA-CASE-XKS-07953] c15 N71-26134
- Device for cutting negatives for screen circuits and other microcircuits requiring precision layout
[NASA-CASE-XLA-09843] c15 N72-14497
- CUTTING**
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[NASA-CASE-XLA-03102] c14 N71-21079
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Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469
- CYCLIC HYDROCARBONS**
Para-benzoquinone dioxide and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ARC-10304-1] c18 N71-34501
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[NASA-CASE-XLA-02059] c33 N71-24276
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[NASA-CASE-NPO-11120] c33 N70-41524
- D**
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[NASA-CASE-XLA-01989] c21 N70-34295
- Slosh damping method for liquid rocket propellant tanks
[NASA-CASE-XMF-00658] c12 N70-38997
- Utilization of momentum devices for forming attitude control and damping system for spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708
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[NASA-CASE-XAC-00404] c08 N70-40125
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[NASA-CASE-GSC-10083-1] c30 N71-16090
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[NASA-CASE-NPO-10344] c10 N71-26544
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
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[NASA-CASE-XNP-00614] c14 N70-36907
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[NASA-CASE-NPO-11016] c08 N70-35351
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[NASA-CASE-XPR-00756] c02 N71-13421
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[NASA-CASE-NPO-10595] c10 N71-25917
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
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[NASA-CASE-XNP-01068] c10 N71-28739
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[NASA-CASE-XLA-07828] c08 N71-27057
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[NASA-CASE-NPO-11630] c08 N71-34188
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[NASA-CASE-XNP-04162-1] c08 N70-34675
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[NASA-CASE-XLA-07828] c08 N71-27057
Development of arithmetic unit for decoding data encoded by convolutional encoding with fewer channels than prior units
[NASA-CASE-NPO-11371] c08 N71-34187
Development of computer memory system for automated attendance accounting system
[NASA-CASE-NPO-11456] c08 N71-34189

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[NASA-CASE-XNP-09225] c09 N69-24333
Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-XNP-00911] c08 N7C-41961
Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435
Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763
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[NASA-CASE-XNP-02791] c07 N71-23026
Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-XGS-01537] c07 N71-23405
Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741
Subcarrier frequency multiplexing to separate independent PCM data streams on common carrier by using digital circuits
[NASA-CASE-NPO-11338] c07 N71-33923
Digital slope threshold data compressor
[NASA-CASE-NPO-11630] c08 N71-34188
Data reduction and transmission system for TV PCM data
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Solar sensor with coarse and fine sensing elements for matching preirradiated cells on degradation rates
[NASA-CASE-XLA-01584] c14 N71-23269

DECELERATION
Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XMP-00641] c31 N70-36410
Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XMS-03792] c14 N70-41812
Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037
Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XHF-06515] c14 N71-23227

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Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650
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[NASA-CASE-XKS-06167] c08 N71-24890

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- Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NPO-10342] c10 N71-33407
- DECODING**
Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741
- DECONTAMINATION**
Decontamination of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499
- DEEP SPACE NETWORK**
Low phase noise frequency divider for use with Deep Space Network communication system
[NASA-CASE-NPO-11569] c10 N72-20231
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Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788
Aircraft wheel spray drag alleviator for dual tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
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[NASA-CASE-LEW-10689-1] c28 N71-26173
- DEFOCUSING**
Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
- DEFORMATION**
Deformation measuring apparatus with feedback control for arbitrarily shaped structures
[NASA-CASE-LAR-10098] c32 N71-26681
- DEGREES OF FREEDOM**
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006
- DEHUMIDIFICATION**
Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465
- DEHYDRATED FOOD**
Freeze drying rice with two freeze-thaw cycles
[NASA-CASE-MSC-13540-1] c05 N70-39923
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[NASA-CASE-XGS-C4224] c10 N71-26418
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[NASA-CASE-ERC-10032] c10 N71-25900
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[NASA-CASE-MSC-13855-1] c07 N72-20157
- DELTA WINGS**
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[NASA-CASE-XLA-00241] c31 N70-37986
- DEMAGNETIZATION**
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[NASA-CASE-XGS-C2437] c15 N69-21472
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[NASA-CASE-XAC-C6302] c08 N71-19763
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[NASA-CASE-GSC-10185-1] c07 N72-12081
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[NASA-CASE-IGS-02889] c07 N71-11282
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[NASA-CASE-XMF-01160] c07 N71-11298
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[NASA-CASE-XAC-04030] c10 N71-19472
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[NASA-CASE-XLA-03410] c16 N71-25914
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[NASA-CASE-MSC-12165-1] c07 N71-33696
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[NASA-CASE-FRC-10072-1] c09 N72-15206
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Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- DENSITY DISTRIBUTION**
Increasing available power per unit area in ion rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
- DENSITY MEASUREMENT**
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[NASA-CASE-ARC-10263-1] c14 N70-20729
Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
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[NASA-CASE-ERC-10338] c04 N70-36053
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[NASA-CASE-HQN-10537-1] c06 N72-10138
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[NASA-CASE-LAR-10551-1] c06 N72-21099
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[NASA-CASE-NPO-11104] c08 N70-25930
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[NASA-CASE-XNP-C0595] c15 N70-34967
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[NASA-CASE-ERC-10210] c16 N70-41525
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[NASA-CASE-MSC-12084-1] c12 N71-17569
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[NASA-CASE-LAR-10323-1] c12 N71-17573
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- [NASA-CASE-ARC-10097-2] c07 N72-21161
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[NASA-CASE-LAR-10295-1] c15 N72-21472
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[NASA-CASE-XLA-00936] c14 N71-14996
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[NASA-CASE-XLA-05906] c31 N71-16221
Development of pulse-activated polarographic
hydrogen detector
[NASA-CASE-XMF-06531] c14 N71-17575
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[NASA-CASE-XNP-01059] c23 N71-21821
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[NASA-CASE-ERC-10045] c15 N71-24910
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cessation of rain
[NASA-CASE-XLA-02619] c10 N71-26334
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dust and similar outer space particles on
detector surface
[NASA-CASE-GSC-11291-1] c25 N71-29183
Cold cathode discharge tube with pressurized cell
for meteoroid detection in space
[NASA-CASE-LAR-10483-1] c14 N72-11371
Device for detection of combustion light preceding
explosion in coal mine
[NASA-CASE-LAR-10739-1] c14 N72-21424
- DETONATION WAVES**
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housing enclosing pair of inner walls for
continuous flow
[NASA-CASE-XMF-36926] c28 N71-22983
- DETONATORS**
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[NASA-CASE-MSC-11849-1] c15 N70-25675
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[NASA-CASE-NPO-11322] c06 N72-13101
- DIALYSIS**
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[NASA-CASE-HQN-10741] c05 N72-20114
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[NASA-CASE-XMF-04133] c06 N71-20717
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polymers using Schiff base
[NASA-CASE-XMF-03074] c06 N71-24740
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with diamond particles to increase resistance to
corrosion, galling, and erosion
[NASA-CASE-NPO-10779] c15 N70-34641
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and anvil in apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446
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industrial grade synthetic diamonds
[NASA-CASE-MFS-20698-2] c15 N72-21481
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vehicles
[NASA-CASE-MFS-14216] c14 N70-35564
- DIAPHRAGMS (MECHANICS)**
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quantity of liquid in tank under conditions of
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[NASA-CASE-XMS-01546] c14 N70-40233
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[NASA-CASE-XNP-01962] c32 N70-41370
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[NASA-CASE-XLA-02651] c28 N70-41967
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[NASA-CASE-XAC-00731] c11 N71-15960
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[NASA-CASE-XLA-03660] c15 N71-21060
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[NASA-CASE-XAC-02981] c14 N71-21072
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[NASA-CASE-XNP-05297] c15 N71-23811
Rubber composition for expulsion bladders and
diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140
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Laser utilizing infrared rotation transitions of
diatomic gas for production of different
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[NASA-CASE-ARC-10370-1] c16 N72-10432
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constant of fluid in conduit
[NASA-CASE-MFS-20974] c14 N72-15430
- DIELECTRICS**
Fabricating solar cells with dielectric layers to
improve glass fusion
[NASA-CASE-XGS-04531] c03 N69-24267
Temperature sensitive capacitor device for
detecting very low intensity infrared radiation
[NASA-CASE-XNP-09750] c14 N69-39937
Electrical power system for space flight vehicles
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[NASA-CASE-XMF-00517] c03 N70-34157
Nose cone mounted heat resistant antenna
comprising plurality of adjacent layers of
silica not introducing paths of high thermal
conductivity through ablative shield
[NASA-CASE-XMS-04312] c07 N71-22984
Broadband microwave waveguide window to compensate
dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808
Laser machining device with dielectric functioning
as beam waveguide for mechanical and medical
applications
[NASA-CASE-HQN-10541-2] c15 N71-27135
Quasi-optical microwave circuit with dielectric
body for use with oversize waveguides
[NASA-CASE-ERC-10011] c07 N71-29665
Semiconductor device manufacture using refractory
dielectrics as diffusant masks and
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[NASA-CASE-XER-08476-1] c26 N72-17820
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refractory dielectrics as diffusant masks
[NASA-CASE-XER-08476-2] c26 N72-21800
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[NASA-CASE-XNP-05297] c15 N71-23811
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die nib for extrusion of refractory metals
[NASA-CASE-XLE-06773] c15 N71-23817
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[NASA-CASE-XAC-00435] c09 N70-35440
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in proper time sequence to cause motor to rotate
in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
- DIFFERENTIAL INTERFEROMETRY**
Device for determining acceleration of gravity by
interferometric measurement of travel of falling
body
[NASA-CASE-XMF-05844] c14 N71-17587
- DIFFERENTIAL PRESSURE**
Relief valve to permit slow and fast bleeding
rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924
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[NASA-CASE-XMF-04132] c15 N69-27502
Differential pressure control with dual diaphragms
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vehicles
[NASA-CASE-MFS-14216] c14 N70-35564
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differential pressure and vacuum sealing
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- DIFFRACTION**
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[NASA-CASE-ERC-10001] c23 N71-24868
- DIFFRACTION PATTERNS**
Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215
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Selective gold diffusion on monolithic silicon chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits
[NASA-CASE-ERC-10072] c09 N70-11148
Metallic film diffusion for boundary lubrication in aerospace engineering
[NASA-CASE-XLE-10337] c15 N71-24046
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[NASA-CASE-MFS-21077] c18 N71-34502
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[NASA-CASE-XGS-02317] c09 N71-23525
System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-XMF-06892] c09 N71-24805
Digital filter for reducing jitter in digital control systems
[NASA-CASE-NPO-11088] c08 N71-29034
- DIGITAL COMPUTERS**
Computer communications link with selected member of several computers
[NASA-CASE-NPO-11161] c08 N70-22193
Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
[NASA-CASE-LAR-10590-1] c15 N70-26819
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[NASA-CASE-ERC-10223] c08 N70-35432
Binary number sorter for arranging numbers in order of magnitude
[NASA-CASE-NPO-10112] c08 N71-12502
Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-XNP-05415] c08 N71-12505
Digital computer system for automatic prelaunch checkout of spacecraft
[NASA-CASE-XKS-08012-2] c31 N71-15566
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[NASA-CASE-XNP-02748] c08 N71-22749
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[NASA-CASE-NPO-10150] c08 N71-24650
Digital magnetic core memory with sensing amplifier circuits
[NASA-CASE-XNP-01012] c08 N71-28925
Redundant memory for enhanced reliability of digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135
- DIGITAL DATA**
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[NASA-CASE-XNP-C0911] c08 N70-41961
Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420
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[NASA-CASE-XGS-01812] c07 N71-23001
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[NASA-CASE-GSC-10975-1] c08 N71-28420
Digital data handling circuits for pulse amplifiers
[NASA-CASE-XNP-01068] c10 N71-28739
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[NASA-CASE-NPO-11358] c07 N71-34160
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[NASA-CASE-NPO-10844] c07 N72-20140
- DIGITAL FILTERS**
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[NASA-CASE-XGS-03502] c10 N71-20852
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[NASA-CASE-NPO-11088] c08 N71-29034
- DIGITAL SPACECRAFT TELEVISION**
TV camera output signal control system for digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807
- DIGITAL SYSTEMS**
Asynchronous binary array divider for computerized division operations
[NASA-CASE-ERC-10180] c08 N70-11132
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[NASA-CASE-NPO-11082] c08 N70-22205
Digital function generator for arbitrary single valued functions representable by independent and dependent variables
[NASA-CASE-NPO-11104] c08 N70-25930
Light sensitive digital aspect sensor for attitude control of earth satellites or space probes
[NASA-CASE-XGS-00359] c14 N70-34158
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[NASA-CASE-XGS-00689] c08 N70-34787
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[NASA-CASE-NPO-11016] c08 N70-35351
Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-XGS-01812] c07 N71-23001
Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-23033
Noninterruptible digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
Digital memory system with multiple switch cores for driving each word location
[NASA-CASE-XNP-01466] c10 N71-26434
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[NASA-CASE-NPO-10636] c19 N71-33493
Binary coded sequential acquisition ranging system for very distant objects
[NASA-CASE-NPO-11194] c08 N71-33869
Subcarrier frequency multiplexing to separate independent PCM data streams on common carrier by using digital circuits
[NASA-CASE-NPO-11338] c07 N71-33923
Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176
Low phase noise frequency divider for use with Deep Space Network communication system
[NASA-CASE-NPO-11569] c10 N72-20231
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[NASA-CASE-NPO-11072] c21 N70-35437
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[NASA-CASE-MFS-14322] c08 N71-18692
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[NASA-CASE-XLA-07732] c08 N71-18751
Horizon sensor design with digital sampling of spaced radiation-compensated thermopile infrared detectors
[NASA-CASE-XNP-06957] c14 N71-21088
Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
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DIGITAL TO ANALOG CONVERTERS

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- [NASA-CASE-LAR-10204] c14 N71-27215
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 [NASA-CASE-NPO-11630] c08 N71-34188
 Apparatus and digital technique for coding rate data
 [NASA-CASE-LAR-10128-1] c08 N72-15177
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 [NASA-CASE-NPO-11016] c08 N70-35351
 Binary digital code to analog converter
 [NASA-CASE-KSC-10397] c08 N70-35566
 Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
 [NASA-CASE-XLA-07828] c08 N71-27057
 Digital to analog converter for reconstructing a sampled analog by interpolations between sample points
 [NASA-CASE-MSC-12458-1] c08 N72-11209
- DIGITAL TRANSDUCERS**
 Digital to analog converter for reconstructing a sampled analog by interpolations between sample points
 [NASA-CASE-MSC-12458-1] c08 N72-11209
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 Measuring device for determining distance and orientation of surface with respect to spherical surface
 [NASA-CASE-XLA-06683] c14 N70-25677
- DIODES**
 Single electrical circuit component combining diode, fuse, and blown indicator with elongated tube of heat resistant transparent material
 [NASA-CASE-XKS-03381] c09 N71-22796
 Maintaining current flow through solar cells with open connection using shunting diode
 [NASA-CASE-XLE-04535] c03 N71-23354
 Temperature compensated light source with light emitting diode and circuitry for maintaining luminous power independent of temperature changes
 [NASA-CASE-ARC-10467-1] c09 N72-21249
 Transducer and frequency discriminator circuit with four-terminal circulating diode bridge
 [NASA-CASE-ARC-10364-1] c10 N72-21276
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 [NASA-CASE-ERC-10119] c26 N72-21701
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 [NASA-CASE-XGS-03429] c03 N69-21330
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 [NASA-CASE-XMS-04215-1] c09 N69-39987
 Continuously variable voltage-controlled phase shifter
 [NASA-CASE-NPO-11129] c09 N70-35396
 Controllable load insensitive power converter of ac or dc currents
 [NASA-CASE-ERC-10268] c09 N70-35582
 Thermionic diode switch for use in high temperature region to chop current from dc source
 [NASA-CASE-NPO-10404] c03 N71-12255
 Transistorized dc-coupled multivibrator with noninverted output signal
 [NASA-CASE-XNP-09450] c10 N71-18723
 Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
 [NASA-CASE-GSC-10366-1] c10 N71-18772
 Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
 [NASA-CASE-GSC-10041-1] c10 N71-19418
 Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels
 [NASA-CASE-XLA-03103] c25 N71-21693
 Conversion of positive dc voltage to positive dc voltage of lower amplitude
 [NASA-CASE-XMP-14301] c09 N71-23188
 Converting output of positive dc voltage source to negative dc voltage across load with common reference point
 [NASA-CASE-XMP-08217] c03 N71-23239
 Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
 [NASA-CASE-XMS-06061] c05 N71-23317
- Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
 [NASA-CASE-XGS-01418] c09 N71-23573
 Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
 [NASA-CASE-NFS-20385] c09 N71-24904
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 [NASA-CASE-XGS-06226] c10 N71-25950
 Circuits for controlling reversible dc motor
 [NASA-CASE-XNP-07477] c09 N71-26092
 Feedback control for direct current motor to achieve constant speed under varying loads
 [NASA-CASE-NFS-14610] c09 N71-28886
 Load insensitive dc to dc power converter with solid state circuitry
 [NASA-CASE-XER-11046] c09 N71-28902
 High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
 [NASA-CASE-LEW-10155-1] c09 N71-29035
 Direct current motor design with magnetic bearing for use in low friction disturbance control systems
 [NASA-CASE-XGS-07805] c15 N71-34420
 Transistor amplifier and square wave oscillator for obtaining ac voltage from dc source
 [NASA-CASE-NPO-11365] c09 N72-15204
 Circuit configuration with parallel series transformer circuits for providing power to dc loads
 [NASA-CASE-NPO-11078] c09 N72-15205
 Power converters for supplying direct current from one voltage for another voltage for use
 [NASA-CASE-XER-11046-2] c09 N72-21251
- DIRECT POWER GENERATORS**
 Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
 [NASA-CASE-XLE-00212] c03 N70-34134
 Thermal pump-compressor for converting solar energy
 [NASA-CASE-XLA-00377] c33 N71-17610
 Converting output of positive dc voltage source to negative dc voltage across load with common reference point
 [NASA-CASE-XMP-08217] c03 N71-23239
 Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment
 [NASA-CASE-ERC-10125] c09 N71-24893
 Power converters for supplying direct current from one voltage for another voltage for use
 [NASA-CASE-XER-11046-2] c09 N72-21251
- DIRECTIONAL ANTENNAS**
 Dual, low noise, directional microwave antenna system for observing solar activity, atmospheric attenuation, and atmospheric emission
 [NASA-CASE-ERC-10276] c14 N70-26820
 Mechanical coordinate converter for use with spacecraft tracking antennas
 [NASA-CASE-XNP-00614] c14 N70-36907
 Weatherproof helix antenna
 [NASA-CASE-XKS-08485] c07 N71-19493
 Tracking antenna system with array for synchronous satellite or ground based radar
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Drive system for parabolic tracking antenna with reversible motion and minimal backlash
 [NASA-CASE-NPO-10173] c15 N71-24696
- DIRECTIONAL CONTROL**
 Gimbaled partially submerged nozzle for solid propellant rocket engines for providing directional control
 [NASA-CASE-XMP-01544] c28 N70-34162
- DIRECTIONAL STABILITY**
 Nose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control
 [NASA-CASE-XLA-01804] c02 N70-34160
- DISCOLORATION**
 Chemical process for coating pigment particles to provide electron and hole recombination sites and prevent pigment degradation and discoloration by ultraviolet radiation
 [NASA-CASE-NPO-11139] c06 N72-10136

DISCONNECT DEVICES

Patent data on gas actuated bolt disconnect assembly
 [NASA-CASE-XLA-00326] c03 N70-34667
 Remotely actuated quick disconnect mechanism for umbilical cables
 [NASA-CASE-XLA-00711] c03 N71-12258
 Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
 [NASA-CASE-XLA-01396] c03 N71-12259
 Design and development of quick release connector
 [NASA-CASE-XLA-01141] c15 N71-13789
 Split nut and bolt separation device
 [NASA-CASE-XNP-06914] c15 N71-21489
 Electrical circuit selection device for simulating stage separation of flight vehicle
 [NASA-CASE-XKS-04631] c10 N71-23663
 Quick disconnect duct coupling device for single-handed operation
 [NASA-CASE-MFS-20395] c15 N71-24903
 Gas operated quick disconnect coupling for use in coupling umbilical leads
 [NASA-CASE-NPO-11202] c15 N72-15467
 Breakaway multiwire electrical cable connector with particular application for umbilical type cables
 [NASA-CASE-NPO-11140] c15 N72-17455
 Torsional disconnect device for releasably coupling distal ends of fluid conduits
 [NASA-CASE-NPO-10704] c15 N72-20445

DISCONTINUITY

Servocontrol system for measuring local stresses at geometric discontinuity in stressed material
 [NASA-CASE-XLA-08530] c32 N71-25360

DISCRIMINATORS

Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
 [NASA-CASE-XMP-00701] c09 N70-40272
 Difference indicating circuit used in conjunction with device measuring gravitational fields
 [NASA-CASE-XNP-08274] c10 N71-13537
 Describing frequency discriminator using digital logic circuits and supplying single binary output signal
 [NASA-CASE-MFS-14322] c08 N71-18692
 Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
 [NASA-CASE-XMS-03478] c14 N71-21040
 Characteristics of comparator circuits for comparison of binary numbers in information processing system
 [NASA-CASE-XNP-04819] c08 N71-23295

DISILICIDES

Polymerization of disilanolols containing perfluoroalkyl groups for use as fuel tank sealants
 [NASA-CASE-MFS-20979] c06 N72-15128

DISPENSERS

Liquid aerosol dispenser with explosively driven piston to compress light gas to extremely high pressure
 [NASA-CASE-MFS-20829] c12 N72-21310
 Lyophilized spore dispenser for production of finely divided monoparticulate cloud of bacterial spores
 [NASA-CASE-LAR-10544-1] c15 N72-21477

DISPERSING

Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
 [NASA-CASE-XLE-04946] c17 N71-24911

DISPERSIONS

Grinding mixtures of coarse metal powders and dispersoids to submicron size in gas-tight mill pressurized with hydrogen halide for dispersion hardened alloys
 [NASA-CASE-LEW-10450-1] c15 N70-26818

DISPLACEMENT MEASUREMENT

Null-type vacuum microbalance for measuring minute mechanical displacements
 [NASA-CASE-XAC-00472] c15 N70-40180
 Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
 [NASA-CASE-XLA-00781] c09 N71-22999

Gas bearing for model support with capacity for measuring angular displacement of model in bearing
 [NASA-CASE-XLA-09346] c15 N71-28740
 Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
 [NASA-CASE-NPO-10778] c14 N72-11364

DISPLAY DEVICES

High speed movie data acquisition system for digitizing graphic display to obtain position and orientation of objects on it
 [NASA-CASE-NPO-10745] c08 N70-20727
 Artificial horizon instrument providing head-up attitude display
 [NASA-CASE-ERC-10392] c21 N70-35429
 Display device for preparation and introduction of information into digital computer
 [NASA-CASE-ERC-10223] c08 N70-35432
 Situational display suitable for aircraft control
 [NASA-CASE-ERC-10350] c14 N70-40019
 Integrated time shared instrumentation display for aerospace vehicle simulators
 [NASA-CASE-XLA-01952] c08 N71-12507
 Data processing and display system for terminal guidance of X-15 aircraft
 [NASA-CASE-XFR-00756] c02 N71-13421
 Fluidic-thermochromic display device
 [NASA-CASE-ERC-10031] c12 N71-18603
 Cathode ray tube system for displaying ones and zeros in binary wave train
 [NASA-CASE-XGS-04987] c08 N71-20571
 Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
 [NASA-CASE-XNP-03853] c23 N71-21882
 Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
 [NASA-CASE-XKS-03509] c14 N71-23175
 Binary to decimal decoder logic circuit design with feedback control and display device
 [NASA-CASE-XKS-06167] c08 N71-24890
 Noninterruptable digital counter circuit design with display device for pulse frequency modulation
 [NASA-CASE-XNP-09759] c08 N71-24891
 Data acquisition system for converting displayed analog signal to digital values
 [NASA-CASE-NPO-10344] c10 N71-26544
 Plasma-fluidic hybrid display system combining high brightness and memory characteristics
 [NASA-CASE-ERC-10100] c09 N71-33519
 Multispectral imaging system for displaying some scene at different wave lengths on different devices
 [NASA-CASE-MSC-12404-1] c23 N72-11569
 Audio frequency marker for determining instantaneous frequency of sweeping signal generator
 [NASA-CASE-NPO-11147] c14 N72-15417

DISSIPATION
 Dissipative voltage regulator system for minimizing heat dissipation
 [NASA-CASE-GSC-10891-1] c10 N71-26626

DISSOLVING
 Apparatus for mixing two or more liquids under zero gravity conditions
 [NASA-CASE-LAR-10195-1] c15 N72-21488

DISTANCE MEASURING EQUIPMENT
 Measuring device for determining distance and orientation of surface with respect to spherical surface
 [NASA-CASE-XLA-06683] c14 N70-25677

DISTILLATION EQUIPMENT
 Utilization of solar radiation by solar still for converting salt and brackish water into potable water
 [NASA-CASE-XMS-04533] c15 N71-23086
 Purification apparatus for vaporization and fractional distillation of liquids
 [NASA-CASE-XNP-08124] c15 N71-27184
 Method and apparatus for distillation of liquid metals
 [NASA-CASE-XNP-08124-2] c06 N72-13102
 System for recovering oxygen and/or water from extraterrestrial soil and iron oxide materials

DISTRIBUTED AMPLIFIERS

SUBJECT INDEX

- [NASA-CASE-MSC-12332-1] c15 N72-15476
DISTRIBUTED AMPLIFIERS
 Broadband distribution amplifier with complementary pair transistor output stages [NASA-CASE-NPO-10003] c10 N71-26415
- DIVIDING (MATHEMATICS)**
 Asynchronous binary array divider for computerized division operations [NASA-CASE-ERC-10180] c08 N70-11132
- DOCUMENT STORAGE**
 Describing device for flagging punched business cards [NASA-CASE-XLA-02705] c08 N71-15908
- DOORS**
 Design and specifications of emergency escape system for spacecraft structures [NASA-CASE-MSC-12086-1] c05 N71-12345
- DOPPLER EFFECT**
 Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites [NASA-CASE-XGS-02749] c07 N69-39978
 System of positioning aircraft by Doppler effect for air traffic control [NASA-CASE-GSC-10087-4] c07 N70-41978
 Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow [NASA-CASE-MFS-20386] c21 N71-19212
- DOPPLER RADAR**
 Cooperative Doppler radar system for avoiding midair collisions [NASA-CASE-LAR-10403] c21 N71-11766
- DOSIMETERS**
 Development of dosimeter for measuring absorbed dose of high energy ionizing radiation [NASA-CASE-XLA-03645] c14 N71-20430
- DRAG CHUTES**
 Deployment system for flexible wing with rigid superstructure [NASA-CASE-XLA-01220] c02 N70-41863
 Development and characteristics of parachute fabric for aerodynamic decelerator using lightweight, variable solidity, knitted material [NASA-CASE-LAR-10776-1] c02 N72-21004
- DRAG MEASUREMENT**
 Device for measuring drag forces in flight tests [NASA-CASE-XLA-00113] c14 N70-33386
 Electric analog for measuring induced drag on nonplanar airfoils [NASA-CASE-XLA-00755] c01 N71-13410
 Electric analog for measuring induced drag on nonplanar airfoils [NASA-CASE-XLA-05828] c01 N71-13411
 Impact energy absorber with decreasing absorption rate [NASA-CASE-XLA-01530] c14 N71-23092
- DRAG REDUCTION**
 Directed fluid stream for propeller blade loading control [NASA-CASE-XAC-00139] c02 N70-34856
 Aircraft wheel spray drag alleviator for dual tandem landing gear [NASA-CASE-XLA-01583] c02 N70-36825
- DRIFT (INSTRUMENTATION)**
 Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier [NASA-CASE-XMS-05562-1] c09 N69-39986
 Solar radiation direction detector and device for compensating degradation of photocells [NASA-CASE-XLA-00183] c14 N70-40239
- DRILL BITS**
 Impact bit for cutting, collecting, and storing samples such as lunar rock cuttings [NASA-CASE-XNP-01412] c15 N70-42034
- DRILLS**
 Rotary impact-type rock drill for recovering rock cuttings [NASA-CASE-XNP-07478] c14 N69-21923
- DRIVES**
 Inverter drive circuit for semiconductor switch [NASA-CASE-LEW-10233] c10 N71-27126
- DROPS (LIQUIDS)**
 Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream [NASA-CASE-NPO-10985] c14 N72-15420
- DRY CELLS**
 Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles [NASA-CASE-LAR-10367-1] c03 N70-26817
- DRYING**
 Drying chamber for photographic sheet material [NASA-CASE-GSC-11074-1] c14 N72-20391
- DRYING APPARATUS**
 Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove [NASA-CASE-XLE-02531] c05 N71-23080
- DUCTS**
 Quick disconnect duct coupling device for single-handed operation [NASA-CASE-MFS-20395] c15 N71-24903
- DUST COLLECTORS**
 Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning [NASA-CASE-LAR-10590-1] c15 N70-26819
 Cosmic dust analyzer using ion time of flight techniques to determine constituency of hypervelocity particles such as micrometeoroids [NASA-CASE-MSC-13802-1] c30 N72-20805
- DYES**
 Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen [NASA-CASE-IMP-02221] c18 N71-27170
- DYNAMIC CHARACTERISTICS**
 Dynamic sensor for gas pressure or density measurement [NASA-CASE-XAC-02877] c14 N70-41681
- DYNAMIC LOADS**
 Multilegged support system for wind tunnel test models subjected to thermal dynamic loading [NASA-CASE-XLA-01326] c11 N71-21481
 Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap [NASA-CASE-XMS-04545] c15 N71-22878
- DYNAMIC MODULUS OF ELASTICITY**
 Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere [NASA-CASE-XLE-01300] c15 N70-41993
- DYNAMIC RESPONSE**
 Lunar and planetary gravity simulator to test vehicular response to landing [NASA-CASE-XLA-00493] c11 N70-34786
 Pressure sensor network for measuring liquid dynamic response in flight including fuel tank acceleration, liquid slosh amplitude, and fuel depth monitoring [NASA-CASE-XLA-05541] c12 N71-26387
 Response analyzing apparatus for liquid vapor interface sensor of sloshing rocket propellant [NASA-CASE-MFS-11204] c14 N71-29134
- DYNAMIC TESTS**
 Hydraulic support equipment for full scale dynamic testing of large rocket vehicle under free flight conditions [NASA-CASE-IMP-01772] c11 N70-41677
 Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions [NASA-CASE-IMP-03248] c11 N71-10604
- DYNAMOMETERS**
 Dynamometer measuring microforce thrust produced by ion engine [NASA-CASE-XLE-00702] c14 N70-40203
 Development of thrust dynamometer for measuring performance of jet and rocket engines [NASA-CASE-XLE-05260] c14 N71-20429

E

- EAR**
 Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers [NASA-CASE-XAC-05422] c04 N71-23185
- EARTH ATMOSPHERE**
 Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres [NASA-CASE-XLA-01791] c14 N71-22991
 Restraint system for ergometer used under zero gravity conditions or earth atmosphere in

- unconventional positions
[NASA-CASE-MFS-21046] c05 N71-34080
- ECONOMIC ANALYSIS**
Economic satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631
- EDITING**
Electronic video editor for switching input signals to common output channel
[NASA-CASE-KSC-10003] c10 N70-41966
- EFFICIENCY**
Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- EJECTION**
Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-XMF-04132] c15 N69-27502
- EJECTION SEATS**
Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-XMS-04625] c05 N71-20718
- EJECTORS**
Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-XNP-00676] c15 N70-38996
Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-XMS-04625] c05 N71-20718
Latching mechanism with pivoting catch and self-contained spring ejector
[NASA-CASE-XLA-03538] c15 N71-24897
- ELASTIC BODIES**
Bellefonte spring assembly with elastic guides having low hysteresis
[NASA-CASE-XNP-09452] c15 N69-27504
Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
[NASA-CASE-XAC-05632] c32 N71-23971
- ELASTIC DEFORMATION**
Measuring shear-creep compliance of solid and liquid materials used in spacecraft components
[NASA-CASE-XLE-01481] c14 N71-10781
Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
[NASA-CASE-XAC-05632] c32 N71-23971
- ELASTIC MEDIA**
Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
- ELASTIC PROPERTIES**
Elastic universal joint for rocket motor mounting
[NASA-CASE-XNP-00416] c15 N70-36947
Resilient vehicle wheel for lunar surface travel
[NASA-CASE-MFS-20400] c31 N71-18611
Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-XPR-05302] c15 N71-23254
- ELASTIC SHEETS**
Hot forming of plastic sheets
[NASA-CASE-XMS-05516] c15 N71-17803
Elastic mandrel fabrication of thin bottom walls with cavities for temperature measurement
[NASA-CASE-LAR-10318-1] c14 N72-20396
- ELASTOMERS**
Elastomer loaded with metal particles for elastic biomedical electrodes
[NASA-CASE-ARC-10268-1] c09 N70-12620
Compressible elastomeric material with predetermined modulus of elasticity and controlled resiliency
[NASA-CASE-NPO-10853] c18 N70-34685
Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648
Development of apparatus for measuring successive increments of strain on elastomers
[NASA-CASE-XMP-04680] c15 N71-19489
Preparation of elastomeric diamine silazane polymers
[NASA-CASE-XMP-04133] c06 N71-20717
- Leak resistant bonded elastomeric seal for secondary electrochemical cells
[NASA-CASE-XGS-02631] c03 N71-23006
- ELECTRIC ARCS**
Magnetically diffused radial electric arc heater
[NASA-CASE-XLA-00330] c33 N70-34540
Controlled arc spot welding method
[NASA-CASE-XMF-00392] c15 N70-34814
Triggering system for electric arc driven impulse wind tunnel
[NASA-CASE-XMF-00411] c11 N70-36913
Electric arc device for minimizing electrode ablation and heating gases to supersonic or hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628
Electric arc heater with supersonic nozzle and fixed arc length for use in high temperature wind tunnels
[NASA-CASE-XAC-01677] c09 N71-20816
Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987
Nonconsumable metal electric arc electrodes for producing solar simulator radiation source
[NASA-CASE-LEW-11162-1] c09 N71-34210
- ELECTRIC BATTERIES**
Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
Ionene membrane separator for batteries
[NASA-CASE-NPO-11091] c18 N70-34742
Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051
Battery charging system with cell to cell voltage balance
[NASA-CASE-XGS-05432] c03 N71-19438
Development and characteristics of battery charging circuits with coulometer for control of available current
[NASA-CASE-GSC-10487-1] c03 N71-24719
Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
Control device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-10066
Method for charging battery at high rate from limited power source
[NASA-CASE-HQN-10697] c03 N72-20037
- ELECTRIC BRIDGES**
Pulsed excitation voltage circuit for strain gage bridge systems with transformers, for voltage spike control
[NASA-CASE-FRC-10036] c09 N70-22164
Transducer and frequency discriminator circuit with four-terminal circulating diode bridge
[NASA-CASE-ARC-10364-1] c10 N72-21276
- ELECTRIC CELLS**
Expanding and contracting connector strip for solar cell array of Nimbus satellite
[NASA-CASE-XGS-01395] c03 N69-21539
Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084
Development and characteristics of ion-exchange membrane and electrode assembly for fuel cells or electrolysis cells
[NASA-CASE-XMS-02063] c03 N71-29044
- ELECTRIC CHARGE**
Indicator device for monitoring charge of wet cell battery, using semiconductor light emitter and photodetector
[NASA-CASE-NPO-10194] c03 N71-20407
Automatically charging battery of electric storage cells
[NASA-CASE-XNP-04758] c03 N71-24605
- ELECTRIC CHOPPERS**
Monostable multivibrator for conserving power in spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221
- ELECTRIC COILS**
Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
[NASA-CASE-XMS-05303] c07 N69-27462
- ELECTRIC CONDUCTORS**
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator

- [NASA-CASE-XLE-03778] c09 N69-21542
Formation of insulating oxide layer between thin metal electrical conductors
- [NASA-CASE-LEW-1C489-1] c15 N70-22134
Conductor for connecting parallel cells into submodules in series to form solar cell matrix
- [NASA-CASE-NPO-10821] c03 N71-19545
Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling
- [NASA-CASE-NPO-10037] c09 N71-19610
Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
- [NASA-CASE-FRC-10C29] c09 N71-24618
Technique for attaching leads to electronic devices
- [NASA-CASE-ERC-10224-2] c09 N72-21253
- ELECTRIC CONNECTORS**
- Distribution of currents to circuits using electrical adaptor
- [NASA-CASE-XLA-C1288] c09 N69-21470
Fixture for simultaneously supporting several components for electrical testing
- [NASA-CASE-XNP-06032] c09 N69-21926
Releasable coupling device designed to receive and retain matching ends of electrical connectors
- [NASA-CASE-XMS-07846-1] c09 N69-21927
Electrical feedthrough connection for printed circuit boards
- [NASA-CASE-XMP-C1483] c14 N69-27431
Electrical connector pin with wiping action to assure reliable contact
- [NASA-CASE-XMP-04238] c09 N69-39734
Rectangular electric conductors for conductor cables to withstand spacecraft vibration and controlled atmosphere
- [NASA-CASE-HFS-14741] c09 N70-20737
Patent data on terminal insert connector for flat electric cables
- [NASA-CASE-XMP-00324] c09 N70-34596
Electric connector for printed cable to printed cable or to printed board
- [NASA-CASE-XHP-00369] c09 N70-36494
Electrical connection for printed circuits on common board, using bellows principle in rivet
- [NASA-CASE-XNP-05082] c15 N70-41960
Method of making molded electric connector for use with flat conductor cables
- [NASA-CASE-XMF-03498] c15 N71-15986
Design and development of electric connectors for rigid and semi-rigid coaxial cables
- [NASA-CASE-XNP-04732] c09 N71-20851
Connector internal force gage for measuring strength of electrical connection
- [NASA-CASE-XNP-03918] c14 N71-23087
Maintaining current flow through solar cells with open connection using shunting diode
- [NASA-CASE-XLE-04535] c03 N71-23354
Electrical connections for thin film hybrid microcircuits
- [NASA-CASE-XMS-02182] c10 N71-28783
Separable electrical connectors for engaging flat cables with round wire cables or with other flat cables
- [NASA-CASE-HFS-20757] c09 N71-34211
Breakaway multiwire electrical cable connector with particular application for umbilical type cables
- [NASA-CASE-NPO-11140] c15 N72-17455
Reliability of electrical connectors after heat sterilization
- [NASA-CASE-NPO-10694] c09 N72-20200
- ELECTRIC CONTACTS**
- Solid state switching circuit design to increase current capacity of low rated relay contacts
- [NASA-CASE-XNP-09228] c09 N69-27500
Characteristics of hermetically sealed electric switch with flexible operating capability
- [NASA-CASE-XNP-09808] c09 N71-12518
Electrode connection for n-on-p silicon solar cell
- [NASA-CASE-XLE-04787] c03 N71-20492
Development of slip ring assembly with inner and outer peripheral surfaces used as electrical contacts for brushes
- [NASA-CASE-XMP-01C49] c15 N71-23049
Adjustable force probe for determining stability of electric contacts
- [NASA-CASE-MFS-20760] c14 N72-15431
- ELECTRIC CONTROL**
- Switching series regulator with gating control network
- [NASA-CASE-XMS-09352] c09 N71-23316
- ELECTRIC CURRENT**
- Constant current source having two matched transistors
- [NASA-CASE-NPO-10733] c09 N70-35631
Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
- [NASA-CASE-XGS-03505] c03 N71-10608
Development of in-line fuse device for protection of electric circuits from excessive currents and voltages
- [NASA-CASE-MSC-12135-1] c09 N71-12526
Micromicroampere current measuring circuit, with two subminiature thermionic diodes with filament cathodes
- [NASA-CASE-XNP-00384] c09 N71-13530
Connector internal force gage for measuring strength of electrical connection
- [NASA-CASE-XNP-C3918] c14 N71-23C87
Electric circuit for producing high current pulse having fast rise and fall time
- [NASA-CASE-XMS-04919] c09 N71-23270
Electric circuit for reversing direction of current flow
- [NASA-CASE-XNP-00952] c10 N71-23271
Maintaining current flow through solar cells with open connection using shunting diode
- [NASA-CASE-XLE-C4535] c03 N71-23354
Color television system utilizing single gun current sensitive color cathode ray tube
- [NASA-CASE-ERC-10098] c09 N71-28618
Current dependent variable inductance for input filter chokes of ac or dc power supplies
- [NASA-CASE-ERC-10139] c09 N72-17154
Amplifying circuit with constant current source for accumulator load and high gain voltage amplification
- [NASA-CASE-NPO-11023] c09 N72-17155
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- Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193
- Characteristics of pressed disc electrode for biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
- Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492
- Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987
- Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022
- Automatic recording McLeod gage with three electrodes and solenoid valve connection
[NASA-CASE-XLE-03280] c14 N71-23093
- Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
[NASA-CASE-FRC-10029] c09 N71-24618
- Development and characteristics of electrodes in which poisoning by organic molecules is prevented by ion selective electrolytic deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
- Adhesive spray process for attaching biomedical skin electrodes
[NASA-CASE-XPR-07658-1] c05 N71-26293
- Electrodes having array of small surfaces for field ionization
[NASA-CASE-ERC-10013] c09 N71-26678
- Nonconsumable metal electric arc electrodes for producing solar simulator radiation source
[NASA-CASE-LEW-11162-1] c09 N71-34210
- Ion rocket engine with combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N72-20766

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ELECTROFORMING

Development of electrolytic bath and technique for electroforming large area foil structures and hollow core aluminum substrate for solar panels
[NASA-CASE-NPO-12090] c15 N72-11396

ELECTROHYDRAULIC FORMING

Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-XMP-00375] c15 N70-34249

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Control valve for switching main stream of fluid from one stable position to another by means of electrohydrodynamic forces
[NASA-CASE-NPO-10416] c12 N71-27332

ELECTROKINETICS

Zeta potential flowmeter for measuring very slow to very high flows
[NASA-CASE-XNP-06509] c14 N71-23226

ELECTROLYSIS

Water electrolysis rocket engine with self-regulating stoichiometric fuel mixing regulator
[NASA-CASE-XGS-08729] c28 N71-14044
Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism
[NASA-CASE-XLE-01645] c03 N71-20904

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Apparatus for measuring polymer membrane expansion in electrochemical cells
[NASA-CASE-XGS-03865] c14 N69-21363

Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052

Sealed electrochemical cell with flexible casing for varying electrolyte level in cell
[NASA-CASE-XGS-01513] c03 N71-23336

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Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034

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Tumbling motion system for object demagnetization
[NASA-CASE-XGS-02437] c15 N69-21472

Electromagnetic detection system for determining intrusion, relative size, and physical characteristics of metallic object in predetermined space
[NASA-CASE-ARC-10265-1] c10 N70-41949

Device for high vacuum film deposition with electromagnetic ion steering
[NASA-CASE-NPO-10331] c09 N71-26701

Detecting molecular constituents in radiation transparent media by measuring intensity of light transmitted through cell while applying electrostatic or electromagnetic field
[NASA-CASE-ERC-10021] c06 N71-28635

Design and operation of electromagnetic flow rate meter for liquid metals
[NASA-CASE-LEW-10981-1] c14 N72-20406

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[NASA-CASE-XNP-05114] c15 N71-17650

Portable magnetomotive hammer for metal working
[NASA-CASE-XNP-03793] c15 N71-24833

ELECTROMAGNETIC INTERFERENCE

Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-MS-C-12168-1] c09 N71-18600

ELECTROMAGNETIC MEASUREMENT

Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678

ELECTROMAGNETIC NOISE

Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-15196

ELECTROMAGNETIC PUMPS

Multiducted electromagnetic pump for conductive liquids
[NASA-CASE-NPO-10755] c15 N71-27084

ELECTROMAGNETIC RADIATION

Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063

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[NASA-CASE-XNP-02140] c09 N71-23097

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[NASA-CASE-GSC-10021-1] c09 N71-24595

Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna
[NASA-CASE-XLA-10772] c07 N71-28980

Electromagnetic radiation measuring instrument utilizing ac p-n junction diode capacitance
[NASA-CASE-LEW-11159-1] c14 N71-31127

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[NASA-CASE-MPS-13687] c09 N71-28691

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Design and characteristics of laser camera system with diffusion filter of small particles with average diameter larger than wavelength of laser light
[NASA-CASE-NPO-10417] c16 N71-33410

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Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-IGS-02608] c07 N70-41678

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Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-XNP-06936] c15 N71-24695

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[NASA-CASE-XLA-03724] c14 N69-27461

Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
[NASA-CASE-XNP-01951] c09 N70-41929

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[NASA-CASE-IGS-07514] c23 N71-16099

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[NASA-CASE-LAR-10372] c09 N71-18599

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[NASA-CASE-GSC-11079-1] c21 N71-28461

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[NASA-CASE-XMP-09386] c15 N69-21854

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[NASA-CASE-XNP-05975] c15 N69-23185

Power controlled bimetallic electromechanical actuator for accurate, timely, and reliable response to remote control signal
[NASA-CASE-XNP-09776] c09 N69-39929

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[NASA-CASE-XAC-00086] c09 N70-33182

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[NASA-CASE-XGS-03532] c14 N71-17627

Mechanical actuator wherein linear motion changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

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[NASA-CASE-ERC-10088] c26 N71-25490

Electromechanical control actuator system using double differential screws
[NASA-CASE-ERC-10022] c15 N71-26635

Miniature electromechanical junction transducer operating on piezoelectric effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334

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[NASA-CASE-LAR-10503-1] c09 N72-21248

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[NASA-CASE-ERC-10087-2] c14 N72-21430

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[NASA-CASE-LEW-11359] c03 N71-28579
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[NASA-CASE-XGS-01451] c09 N71-10677
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[NASA-CASE-ERC-10552] c09 N71-12539
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[NASA-CASE-XMF-06617] c09 N71-24843
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[NASA-CASE-XLE-07087] c06 N69-39889
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[NASA-CASE-XNP-04124] c28 N71-21822
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[NASA-CASE-XLE-04501] c09 N71-23190
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[NASA-CASE-LEW-10770-1] c28 N70-26815
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[NASA-CASE-XLE-01015] c03 N69-39898
- ELECTRON ENERGY**
Electrostatic ion engines with radial magnetic fields for uniformity in electron density and energy
[NASA-CASE-LEW-10770-1] c28 N70-26815
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[NASA-CASE-XGS-01725] c14 N69-39982
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[NASA-CASE-XLE-03376] c28 N70-37245
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[NASA-CASE-XGS-01725] c14 N69-39982
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[NASA-CASE-ARC-10448-1] c14 N72-21421
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[NASA-CASE-ARC-10370-1] c16 N72-10432
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[NASA-CASE-XLE-00387] c33 N70-34812
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[NASA-CASE-NPO-11129] c09 N70-35396
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[NASA-CASE-XMP-01129] c09 N70-38712
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[NASA-CASE-KSC-10003] c10 N70-41966
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[NASA-CASE-NPO-10302] c10 N71-26142
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[NASA-CASE-LEW-10689-1] c28 N71-26173
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[NASA-CASE-XGS-05582] c07 N69-27460
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[NASA-CASE-XMP-06531] c14 N71-17575
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[NASA-CASE-XGS-02812] c09 N71-19466
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[NASA-CASE-XGS-05289] c09 N71-19470
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[NASA-CASE-XNP-02140] c09 N71-23097
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[NASA-CASE-XGS-00740] c07 N71-23098
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[NASA-CASE-XLE-04501] c09 N71-23190
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[NASA-CASE-XNP-05524] c33 N71-24876
Development and characteristics of solid state acoustic variable time delay line using direct current voltage and radio frequency pulses
[NASA-CASE-ERC-10032] c10 N71-25900
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[NASA-CASE-XMS-06497] c14 N71-26244
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[NASA-CASE-LAR-10204] c14 N71-27215
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[NASA-CASE-XNP-02792] c14 N71-28958
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[NASA-CASE-NPO-11456] c08 N71-34189
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[NASA-CASE-NPO-10769] c08 N72-11171
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[NASA-CASE-LAR-10756-1] c32 N72-11803

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[NASA-CASE-KSC-10108] c14 N72-15426
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[NASA-CASE-ERC-10224-2] c09 N72-21253
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Apparatus for automatically testing analog to digital converters for open and short circuits
[NASA-CASE-XLA-06713] c14 N71-28991
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[NASA-CASE-ARC-10264-1] c09 N72-15200
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[NASA-CASE-XMS-02087] c09 N70-41717
- Fabrication methods for matrices of solar cell submodules
[NASA-CASE-XNP-05821] c03 N71-11056
- Development and characteristics of cooling system to maintain temperature of rack mounted electronic modules
[NASA-CASE-MSC-12389] c33 N71-29052
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[NASA-CASE-XMF-01483] c14 N69-27431
- Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
[NASA-CASE-LEW-10364-1] c09 N71-13522
- Method of evaluating moisture barrier properties of materials used in electronics encapsulation
[NASA-CASE-NPO-10051] c18 N71-24934
- Electrical connections for thin film hybrid microcircuits
[NASA-CASE-XMS-02182] c10 N71-28783
- Flexible, fragile electrochemical cell and package for operation in low temperature environment
[NASA-CASE-XGS-10010] c03 N72-15986
- ELECTRONIC RECORDING SYSTEMS**
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[NASA-CASE-NPO-10185] c10 N71-26339
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[NASA-CASE-XMF-02433] c14 N71-10616
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[NASA-CASE-ARC-10132-1] c09 N71-24597
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[NASA-CASE-GSC-10114-1] c10 N71-27366
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[NASA-CASE-ERC-10174] c21 N70-35861
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[NASA-CASE-MFS-20044] c14 N71-28993
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[NASA-CASE-FRC-10029] c05 N72-13081
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[NASA-CASE-XLA-08966-1] c17 N71-25903
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[NASA-CASE-MFS-13687] c09 N71-28691
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[NASA-CASE-LEW-10920-1] c17 N71-31130
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[NASA-CASE-MSC-12255-1] c18 N70-20713
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[NASA-CASE-XAC-05506-1] c24 N71-16095
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[NASA-CASE-XLE-00817] c28 N70-33265
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[NASA-CASE-LEW-10814-1] c28 N70-35422
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[NASA-CASE-XLE-00376] c28 N70-37245
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[NASA-CASE-XLE-02066] c28 N71-15661
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[NASA-CASE-XLA-01400] c07 N70-41331
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[NASA-CASE-XLE-00820] c14 N71-16014
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[NASA-CASE-XLE-00818] c22 N70-34248
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[NASA-CASE-XLE-00267] c28 N70-33356
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[NASA-CASE-XLE-01783] c28 N70-34175
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[NASA-CASE-MFS-14017] c14 N71-26627
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[NASA-CASE-XKS-07814] c15 N71-27067
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[NASA-CASE-XLA-03102] c14 N71-21079
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[NASA-CASE-NPO-11307] c10 N72-11258
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[NASA-CASE-MFS-21042] c07 N72-20163

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[NASA-CASE-XMS-06162] c31 N71-28851
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[NASA-CASE-XMF-02039] c15 N71-15871
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[NASA-CASE-GSC-11063-1] c03 N70-35584
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[NASA-CASE-GSC-10007] c18 N71-16046
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[NASA-CASE-XGS-05180] c18 N71-25881
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[NASA-CASE-XMF-09422] c07 N71-19436
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[NASA-CASE-XLE-00810] c15 N70-34861
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[NASA-CASE-MSC-12279-1] c15 N70-35679
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[NASA-CASE-XLE-00720] c14 N70-40201
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[NASA-CASE-XMS-03722] c15 N71-21530
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[NASA-CASE-XMF-10040] c15 N71-22877
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[NASA-CASE-XNP-01848] c15 N71-28959
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[NASA-CASE-XNP-00644] c03 N70-36803
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[NASA-CASE-XLE-00212] c03 N70-34134
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[NASA-CASE-XLE-00266] c14 N70-34156

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Method and system for controlling vapor content of gas used in environmental test chamber
[NASA-CASE-NPO-10633] c03 N70-35641

Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
[NASA-CASE-ARC-10100-1] c05 N71-24738

Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619

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Space environment simulator for testing spacecraft components under aerospace conditions
[NASA-CASE-NPO-10141] c11 N71-24964

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Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203

Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721

Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890

Dual solid cryogenics for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725

Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169

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[NASA-CASE-KSC-10198] c11 N71-28629

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[NASA-CASE-NPO-11304] c14 N71-33106

Spacecraft with artificial gravity and earthlike atmospheric environment
[NASA-CASE-LEW-11101-1] c31 N72-11793

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[NASA-CASE-LAR-10076-1] c05 N72-20106

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[NASA-CASE-MSC-13587] c15 N72-21483

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Thermal control wall panel with application to spacecraft cabins
[NASA-CASE-XLA-01243] c33 N71-22792

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Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042

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[NASA-CASE-XAC-07043] c05 N71-23161

Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985

Multiaxial vibration device for making vibration tests along orthogonal axes of test specimen
[NASA-CASE-MFS-20242] c14 N72-20405

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Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
[NASA-CASE-XGS-C5533] c04 N69-27487

Determination of bacterial ATP as measure of urinary tract infection using enzymatic bioluminescent assay technique
[NASA-CASE-GSC-11092-2] c04 N72-11074

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Bioluminescent reaction of adenosine triphosphate with enzyme luciferase for quantitative analysis of bacteria in urine samples
[NASA-CASE-GSC-11092-1] c04 N71-27991

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Earth orbital spacecraft escape vehicle
[NASA-CASE-MSC-13281-1] c31 N70-25650

EPITAXY

Making epitaxial germanium films at low substrate temperatures in ultrahigh vacuum
[NASA-CASE-ERC-10234] c18 N70-11226

EPOXY COMPOUNDS

Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-MFS-13994-1] c06 N71-11240

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Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-IGS-00886] c03 N71-11053

Epoxy resin sealing device for electrochemical cells in high vacuum environments
[NASA-CASE-IGS-02630] c03 N71-22974

Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346

Miniature electromechanical junction transducer operating on piezoelectric effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334

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[NASA-CASE-NPO-10701] c06 N71-28620

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[NASA-CASE-XAC-00042] c14 N70-34816

High-temperature, high-pressure spherical segment valve
[NASA-CASE-XAC-00074] c15 N70-34817

Remote-reading torque meter for use where high horsepower are transmitted at high rotative speeds
[NASA-CASE-XLE-00503] c14 N70-34818

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[NASA-CASE-XAC-00030] c14 N70-34820

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[NASA-CASE-XLE-00252] c11 N70-34844

Channel-type shell construction for rocket engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860

Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861

Slit regulated gas journal bearing
[NASA-CASE-XNP-00476] c15 N70-38620

Specifications and drawings for semipassive optical communication system
[NASA-CASE-XLA-01090] c07 N71-12389

Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMP-06589] c05 N71-23159

Development of computer memory system for automated attendance accounting system
[NASA-CASE-NPO-11456] c08 N71-34189

Simplified technique and device for producing industrial grade synthetic diamonds
[NASA-CASE-MFS-20698-2] c15 N72-21481

EQUIPOTENTIALS

Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195

Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421

ERGOMETERS

Restraint system for ergometer used under zero gravity conditions or earth atmosphere in unconventional positions
[NASA-CASE-MFS-21046] c05 N71-34080

Ergometer for use as quantitative exercise device in spacecraft environment
[NASA-CASE-MSC-11561-1] c05 N72-11087

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 [NASA-CASE-HFS-21109] c05 N72-20112

ERROR CORRECTING DEVICES

Error correction circuitry for binary signal channels
 [NASA-CASE-XNP-03263] c09 N71-18843

Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
 [NASA-CASE-XNP-01306] c07 N71-20814

Description of error correcting methods for use with digital data computers and apparatus for encoding and decoding digital data
 [NASA-CASE-XNP-02748] c08 N71-22749

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Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
 [NASA-CASE-NPO-10567] c08 N71-24633

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Analog to digital converter using offset voltage to eliminate offset errors
 [NASA-CASE-MSC-13110-1] c08 N70-36077

Error correction circuitry for binary signal channels
 [NASA-CASE-XNP-03263] c09 N71-18843

Feedback controller for sampling error signals within single control formulation time interval
 [NASA-CASE-GSC-10554-1] c08 N71-29033

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Earth orbital spacecraft escape vehicle
 [NASA-CASE-MSC-13281-1] c31 N70-25650

Aerial capsule emergency separation device using jettisonable towers
 [NASA-CASE-XLA-00115] c03 N70-33343

Emergency escape cabin system for launch towers
 [NASA-CASE-XKS-02342] c05 N71-11199

Spacecraft design with single point aerodynamic and hydrodynamic stability for emergency transport of men from space station to splashdown
 [NASA-CASE-MSC-13281] c31 N72-18859

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Design and specifications of emergency escape system for spacecraft structures
 [NASA-CASE-MSC-12086-1] c05 N71-12345

Automatic braking device for rapidly transferring humans or materials from elevated location
 [NASA-CASE-XKS-07814] c15 N71-27067

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Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperatures
 [NASA-CASE-HFS-21040] c06 N72-10135

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Reusable masking boot for chemical machining operations
 [NASA-CASE-XNP-02092] c15 N70-42033

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 [NASA-CASE-XGS-06306] c17 N71-16044

Composition and process for improving definition of resin masks used in chemical etching
 [NASA-CASE-XGS-04993] c14 N71-17574

Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dichromate for adhesive bonding
 [NASA-CASE-XMF-02303] c17 N71-23828

Selective plating of etched circuits without removing previous plating
 [NASA-CASE-XGS-03120] c15 N71-24047

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 [NASA-CASE-XNP-04148] c17 N71-24830

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Method for producing alternating ether-siloxane copolymers with stable properties when exposed to elevated temperatures and UV radiation
 [NASA-CASE-XMF-02584] c06 N71-20905

Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
 [NASA-CASE-NPO-10768] c06 N71-27254

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 [NASA-CASE-NPO-10768-2] c06 N71-33516

ETHYLENE OXIDE

Using ethylene oxide in preparation of sterilized solid rocket propellants and encapsulating materials
 [NASA-CASE-XNP-01749] c27 N70-41897

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 [NASA-CASE-XNP-09763] c14 N71-20461

EVACUATING (VACUUM)

Filling honeycomb matrix with deaerated paste filler
 [NASA-CASE-XMS-01108] c15 N69-24322

Sealing evacuation port and evacuating vacuum container such as space jackets
 [NASA-CASE-XMF-03290] c15 N71-23256

Gas leak detection in evacuated systems using ultraviolet radiation probe
 [NASA-CASE-ERC-10034] c15 N71-24896

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Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
 [NASA-CASE-XLA-03105] c15 N69-27483

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Spatter proof evaporant source design for use in vacuum deposition of solid thin films on substrates
 [NASA-CASE-XMF-06065] c15 N71-20395

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Ergometer for use as quantitative exercise device in spacecraft environment
 [NASA-CASE-MSC-11561-1] c05 N72-11087

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Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature
 [NASA-CASE-XMF-01813] c28 N70-41582

EXHAUST NOZZLES

High thrust annular liquid propellant rocket engine and exhaust nozzle design
 [NASA-CASE-XLE-00078] c28 N70-33284

Exhaust nozzle with afterburning for generating thrust
 [NASA-CASE-XLA-00154] c28 N70-33374

Penshaped, supersonic exhaust nozzle design
 [NASA-CASE-XLE-00057] c28 N70-38711

Automatic ejection valve for attitude control and midcourse guidance of space vehicles
 [NASA-CASE-XNP-00676] c15 N70-38996

EXPANDABLE STRUCTURES

Expanding and contracting connector strip for solar cell array of Nimbus satellite
 [NASA-CASE-XGS-01395] c03 N69-21539

Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
 [NASA-CASE-XLA-00138] c31 N70-37981

Foldable conduit capable of springing back as self erecting structural member
 [NASA-CASE-XLE-00620] c32 N70-41579

Expandable space frames for three dimensional or planar building structures
 [NASA-CASE-ERC-10365] c31 N71-28948

Collapsible high gain antenna which can be automatically expanded to operating state
 [NASA-CASE-KSC-10392] c07 N72-20168

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Apparatus for measuring polymer membrane expansion in electrochemical cells
 [NASA-CASE-XGS-03865] c14 N69-21363

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Efficient operation of improved hydrofoil design
 [NASA-CASE-XLA-00229] c12 N70-33305

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 [NASA-CASE-XNP-03378] c03 N71-11051

Electrode attached to helmets for detecting low level signals from skin of living creatures
 [NASA-CASE-ARC-10043-1] c05 N71-11193

Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
 [NASA-CASE-XLA-02898] c05 N71-20268

Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
 [NASA-CASE-XAC-07043] c05 N71-23161

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Hermetically sealed explosive release mechanism for actuator device

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[NASA-CASE-XGS-02422] c15 N71-21529
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[NASA-CASE-NPO-11330] c33 N71-35154
Apparatus and method for quantitatively determining performance of linear explosives, mild detonating fuze, and flexible linear shaped charges

[NASA-CASE-LAR-108CG-1] c33 N72-21955

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Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-XMF-00375] c15 N70-34249

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[NASA-CASE-MFS-20861] c18 N71-34500

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Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176

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Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N72-21423

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[NASA-CASE-XNP-00612] c11 N70-38182
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[NASA-CASE-NPO-11433] c18 N71-31140

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[NASA-CASE-XMF-07587] c15 N71-18701

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[NASA-CASE-XLA-10322] c15 N72-17452

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Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
Improved hemodialyzer for removing selected substances from blood by process of dialysis
[NASA-CASE-HQN-10741] c05 N72-20114

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Space suit with torso bellows for improved waist and torso movement
[NASA-CASE-ARC-10275-1] c05 N70-26799
Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
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[NASA-CASE-XMS-05304] c05 N71-12336
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[NASA-CASE-XMF-05344] c31 N71-16345
Releasable, pin-type fastener, easily operated during EVA
[NASA-CASE-ARC-10140-1] c15 N71-17653
Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-MSC-12243-1] c05 N71-24728
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[NASA-CASE-MSC-12411-1] c05 N72-20096

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[NASA-CASE-XKS-09340] c07 N71-24614

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[NASA-CASE-NPO-10811] c15 N71-34425
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[NASA-CASE-NPO-10812] c15 N71-34428

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Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-XMF-03934] c09 N71-22985

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[NASA-CASE-MSC-13601-1] c05 N72-11088
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[NASA-CASE-ARC-10329-1] c05 N72-21079

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[NASA-CASE-XMS-06056-1] c23 N71-24857

F

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[NASA-CASE-XNP-09752] c14 N69-21541
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[NASA-CASE-XLE-00150] c28 N70-41818
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[NASA-CASE-XNP-05821] c03 N71-11056
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[NASA-CASE-LEW-10364-1] c09 N71-13522
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[NASA-CASE-XNP-03413] c03 N71-26726
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[NASA-CASE-MSC-12398] c05 N72-20098
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[NASA-CASE-PRC-10038] c15 N72-20444

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Fabrication of root cord restrained fabric suit sections from sheets of fabric
[NASA-CASE-MSC-12398] c05 N72-20098

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[NASA-CASE-XGS-04480] c16 N69-27491

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[NASA-CASE-GSC-10185-1] c07 N72-12081

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[NASA-CASE-XLA-05332] c05 N71-11194
Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195

FAIL-SAFE SYSTEMS
Computer system using adaptive voting to tolerate failure and operate in fail-operational, fail-safe manner
[NASA-CASE-MSC-13932-1] c08 N72-21206

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[NASA-CASE-GSC-10590-1] c31 N71-35081

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Device for determining acceleration of gravity by interferometric measurement of travel of falling body
[NASA-CASE-XHP-05844] c14 N71-17587

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Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641

FASTENERS
Frangible connecting link for securing separable structural members, using explosive detonators
[NASA-CASE-MSC-11849-1] c15 N70-25675
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[NASA-CASE-XMF-00456] c14 N70-34705

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[NASA-CASE-XMS-0J864] c05 N70-36493
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[NASA-CASE-XLA-01807] c15 N71-10799
- Releasable, pin-type fastener, easily operated during EVA
[NASA-CASE-ARC-10140-1] c15 N71-17653
- Ultrasonic wrench for applying vibratory energy to mechanical fasteners
[NASA-CASE-MFS-20586] c15 N71-17686
- Design and development of electric connectors for rigid and semirigid coaxial cables
[NASA-CASE-XNP-04732] c09 N71-20851
- Design, development, and characteristics of latching mechanism for operation in limited access areas
[NASA-CASE-XMS-03745] c15 N71-21076
- Design and development of module joint clamping device for application to solar array construction
[NASA-CASE-XNP-02341] c15 N71-21531
- Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-XFR-05302] c15 N71-23254
- Development of resilient fastener for attaching skin of aerospace vehicles to permit movement of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035
- Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
- FATIGUE (MATERIALS)**
Servocontrol system for measuring local stresses at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360
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Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505
- Improving load capacity and fatigue life of rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052
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[NASA-CASE-XMP-10968] c14 N71-24234
- Fatigue testing apparatus with light shield and infrared reflector for high temperature evaluation of loaded sheet samples
[NASA-CASE-XLA-01782] c14 N71-26136
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[NASA-CASE-LAR-10270-1] c32 N72-15874
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[NASA-CASE-XLA-02131] c32 N70-42003
- FECES**
Fecal waste disposal container
[NASA-CASE-XMS-06761] c05 N69-23192
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Nonconductive tube as feed system for plasma thruster
[NASA-CASE-XLE-02902] c25 N71-21694
- Method and apparatus for pressurizing propellant tanks used in propulsion motor feed system
[NASA-CASE-XNP-00650] c27 N71-28929
- Injector for introducing fluids into feed lines
[NASA-CASE-NPO-11377] c15 N72-21475
- FEEDBACK**
RC networks with voltage amplifier, RC input circuit, and positive feedback
[NASA-CASE-ARC-10020] c10 N72-17172
- FEEDBACK AMPLIFIERS**
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[NASA-CASE-MSC-13276-1] c14 N71-27058
- Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-XNP-01107] c10 N71-28859
- Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
[NASA-CASE-MSC-13492-1] c10 N71-28860
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[NASA-CASE-XGS-04999] c09 N69-24317
- Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503
- Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
- Feedback integrating circuit with grounded capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669
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[NASA-CASE-LAR-10253-1] c09 N72-15196
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[NASA-CASE-NPO-11082] c08 N70-22205
- Describing continuous analog to digital converter with parallel digital output and nonlinear feedback
[NASA-CASE-XAC-04031] c08 N71-18594
- Pulsed magnetic core memory element with blocking oscillator feedback for interrogation without loss of digital information
[NASA-CASE-XGS-03303] c08 N71-18595
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-YKS-06167] c08 N71-24890
- Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-MFS-14610] c09 N71-28886
- Feedback controller for sampling error signals within single control formulation time interval
[NASA-CASE-GSC-10554-1] c08 N71-29033
- Closed loop servosystem for variable speed tape recorders onboard spacecraft
[NASA-CASE-NPO-10700] c07 N71-33613
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Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres
[NASA-CASE-XLA-01127] c07 N70-41372
- FEEDING (SUPPLYING)**
Automatic pair feeding device for controlled feeding of test animals
[NASA-CASE-ARC-10302-1] c04 N72-21052
- FERRITES**
Magnetic recording head composed of ferrite core coated with thin film of aluminum-iron-silicon alloy
[NASA-CASE-GSC-10097-1] c08 N71-27210
- FERROMAGNETISM**
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[NASA-CASE-XLE-03629] c17 N71-23248
- FIBER OPTICS**
Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XNP-02433] c14 N71-10616
- FIBERS**
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[NASA-CASE-XNP-00597] c18 N71-23088
- FIELD EFFECT TRANSISTORS**
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[NASA-CASE-NPO-10733] c09 N70-35631
- Frequency to analog converters with unipolar field effect transistor for determining potential charge by pulse duration of input signal
[NASA-CASE-XNP-07040] c08 N71-12500
- Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
- Single integrated circuit chip with field effect transistor
[NASA-CASE-GSC-10835-1] c09 N72-11231
- Circuitry for high input impedance video processor with high noise immunity
[NASA-CASE-NPO-10199] c09 N72-17156
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[NASA-CASE-LAR-10106-1] c15 N71-27169
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[NASA-CASE-XNP-08881] c17 N71-28747
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[NASA-CASE-GSC-10366-1] c10 N71-18772
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[NASA-CASE-XNP-00952] c10 N71-23271
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[NASA-CASE-XMP-01779] c12 N71-20815
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[NASA-CASE-XLE-00724] c14 N70-34669
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[NASA-CASE-XNP-01020] c03 N71-12260
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[NASA-CASE-XMF-02822] c14 N70-41994
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[NASA-CASE-XNP-06509] c14 N71-23226
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[NASA-CASE-NPO-10808] c15 N71-27432
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[NASA-CASE-NPO-10722] c09 N72-20199
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[NASA-CASE-XMF-01779] c12 N71-20815
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[NASA-CASE-XLE-00724] c14 N70-34669
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[NASA-CASE-XMF-02822] c14 N70-41994
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[NASA-CASE-MSC-12084-1] c12 N71-17569
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[NASA-CASE-MFS-20386] c21 N71-19212
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[NASA-CASE-XNP-06509] c14 N71-23226
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[NASA-CASE-XAC-10770-1] c16 N71-24828
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[NASA-CASE-FRC-10022] c12 N71-26546
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[NASA-CASE-MFS-20485] c14 N72-11365
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[NASA-CASE-ARC-10106-1] c28 N70-12624
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[NASA-CASE-INP-00732] c28 N70-41447
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[NASA-CASE-GSC-10518] c15 N69-21855
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[NASA-CASE-XMF-04709] c15 N71-15609
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 [NASA-CASE-MSC-15567-1] c33 N72-15893

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 [NASA-CASE-NPO-10722] c09 N72-20199

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 [NASA-CASE-MFS-18737] c15 N72-20462

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FLUID INJECTION

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 [NASA-CASE-XLE-01988] c27 N71-15634

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 [NASA-CASE-XGS-01143] c31 N71-15647

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 [NASA-CASE-ERC-10097] c15 N71-28465

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 [NASA-CASE-XNP-05429] c26 N71-21824

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 [NASA-CASE-XKS-05932] c09 N71-26787

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 [NASA-CASE-LEW-10327] c17 N71-33408

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 [NASA-CASE-XNP-03459-2] c18 N71-15688

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 [NASA-CASE-XNP-03459] c15 N71-21078

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 [NASA-CASE-ARC-10280-1] c18 N70-34695

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 [NASA-CASE-XLA-00838] c03 N70-36778

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[NASA-CASE-NPO-11369] c15 N71-34419
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Development of filter system for control of outgas contamination in vacuum conditions using absorbent beds of molecular sieve zeolite, silica gel, and charcoal
[NASA-CASE-MFS-14711] c15 N71-26185
- GAS EXPANSION**
Sealed electric storage battery with gas manifold

SUBJECT INDEX

GASEOUS ROCKET PROPELLANTS

interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051

Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025

Gas operated actuator including expansion chamber and selectively permeable membrane
[NASA-CASE-NPO-11340] c15 N72-20455

GAS FLOW

Vortex amplifiers in fluidic proportional thruster system for vehicle attitude control
[NASA-CASE-ARC-10106-1] c28 N70-12624

Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608

Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-MPS-12806] c14 N71-17588

Burst diaphragm flow initiator for installation in short duration wind tunnels
[NASA-CASE-MPS-12915] c11 N71-17600

Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-XMF-01779] c12 N71-20815

Transducer for monitoring oxygen flow in respirator
[NASA-CASE-FRC-10012] c14 N72-17329

Method and apparatus for analyzing respiratory gas flow rate and inspiration-expiration frequencies in real time
[NASA-CASE-MS-13436-1] c65 N72-20113

Gas flow control device
[NASA-CASE-NPO-11479] c15 N72-20459

GAS GENERATORS

Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933

Development and characteristics of gas operated actuator designed to eliminate need for external supply of drive gas for operation
[NASA-CASE-NPO-11369] c15 N71-34419

Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N72-11792

GAS GUNS

Self-closing gas-operated launcher for launching projectiles in decontaminated medium
[NASA-CASE-NPO-11013] c11 N70-35519

Electric arc device for minimizing electrode ablation and heating gases to supersonic or hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628

GAS INJECTION

Pressurized gas injection for burning rate control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819

GAS IONIZATION

Electrostatic modulator for communicating through plasma sheath formed around spacecraft during reentry
[NASA-CASE-XLA-01400] c07 N70-41331

Multichannel photoionization chamber for measuring absorption, photoionization yield, and coefficients of gases
[NASA-CASE-ERC-10044-1] c14 N71-27990

GAS LASERS

Remote control system using modulated continuous wave He-Ne laser
[NASA-CASE-LAR-10311-1] c16 N70-35542

Gas laser with lasing medium for removing films deposited on terminating optics of cavity
[NASA-CASE-ERC-10210] c16 N70-41525

Gas laser frequency stabilized by position of mirrors in resonant cavity
[NASA-CASE-XGS-03644] c16 N71-18614

Laser utilizing infrared rotation transitions of diatomic gas for production of different wavelengths
[NASA-CASE-ARC-10370-1] c16 N72-10432

GAS LUBRICANTS

High temperature gas lubricant consisting of two fluoro-bromo-methanes
[NASA-CASE-XLE-00353] c18 N70-39897

GAS MASERS

Solid state chemical source for ammonia beam
[NASA-CASE-XGS-01504] c16 N70-41578

MASERS

[NASA-CASE-XGS-01504] c16 N70-41578

GAS MIXTURES

Gas analyzer for bi-gaseous mixtures suitable for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10774

Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741

Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-XMS-02952] c18 N71-20742

Infrared detector for determining ratio of hydrogen to deuterium in gas mixture
[NASA-CASE-NPO-11322] c06 N72-13101

GAS PIPES

Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608

GAS PRESSURE

Wide range dynamic pressure sensor with vibrating diaphragm for measuring density and pressure of gaseous environment
[NASA-CASE-ARC-10263-1] c14 N70-20729

Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness
[NASA-CASE-XMS-01546] c14 N70-40233

Dynamic sensor for gas pressure or density measurement
[NASA-CASE-XAC-02877] c14 N70-41681

GAS STREAMS

Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074

GAS TEMPERATURE

Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074

GAS TURBINE ENGINES

Variable-orifice gas turbine system for fuel rate control in aircraft
[NASA-CASE-LEW-11187-1] c28 N72-10824

Swirl can, full-annulus combustion chambers for high performance gas turbine engines
[NASA-CASE-LEW-11326-1] c28 N72-15714

GAS TURBINES

Method for maintaining good performance in gas turbine during air flow distortion
[NASA-CASE-LEW-10286-1] c28 N71-28915

GAS VALVES

High-temperature, high-pressure spherical segment valve
[NASA-CASE-XAC-00074] c15 N70-34817

Shrink-fit vacuum system gas valve
[NASA-CASE-XGS-00587] c15 N70-35087

Gas valve operated by thermally expanding and contracting device
[NASA-CASE-XLE-00815] c15 N70-35407

Three-port transfer valve with one port open continuously suitable for manned space flight
[NASA-CASE-XAC-01158] c15 N71-23051

GAS WELDING

Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
[NASA-CASE-XMF-02039] c15 N71-15871

GASEOUS DIFFUSION

Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080

Gaseous core diffusion nuclear reactor for thermal energy generation
[NASA-CASE-LEW-10250-1] c22 N71-28759

GASEOUS FISSION REACTORS

Nuclear gaseous reactor for heating working fluid to high temperatures
[NASA-CASE-XLE-00321] c22 N70-34572

Gaseous core diffusion nuclear reactor for thermal energy generation
[NASA-CASE-LEW-10250-1] c22 N71-28759

GASEOUS ROCKET PROPELLANTS

Electrostatic ion engines using high velocity electrons to ionize propellant
[NASA-CASE-XLE-00376] c28 N70-37245

Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-XMF-06926] c28 N71-22983

GASES

- Method and system for controlling vapor content of gas used in environmental test chamber
[NASA-CASE-NPO-10633] c03 N70-35641
- Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372
- High speed scanner for measuring mass of preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432
- GASKETS**
- Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures
[NASA-CASE-XGS-02441] c15 N70-41629
- Laminated polyquinoxaline resin/fiberglass gasket, resistant to ionizing radiation and liquid hydrogen temperatures
[NASA-CASE-MFS-21364] c15 N72-20460
- GATES (CIRCUITS)**
- Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
[NASA-CASE-XGS-01881] c09 N70-40123
- Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514
- Logic AND gate for fluid circuits
[NASA-CASE-XLA-07391] c12 N71-17579
- Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432
- Switching series regulator with gating control network
[NASA-CASE-XMS-09352] c09 N71-23316
- GATES (OPENINGS)**
- Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
- GEARS**
- Precision stepping drive device using cam disk
[NASA-CASE-MFS-14772] c15 N71-17692
- Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744
- Self lubricating gears and other mechanical parts having surface adapted to frictional contact
[NASA-CASE-MFS-14971] c15 N71-24984
- GELLED ROCKET PROPELLANTS**
- Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
[NASA-CASE-NPO-10250] c23 N71-16212
- GELS**
- Repair of dental enamel using calcium phosphate gel
[NASA-CASE-ERC-10338] c04 N70-36053
- Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-XNP-00920] c15 N71-15906
- GERMANIUM**
- Making epitaxial germanium films at low substrate temperatures in ultrahigh vacuum
[NASA-CASE-ERC-10234] c18 N70-11226
- GEYSERS**
- Geysering inhibitor using thin-wall tube inside long vertical pipe between liquid oxygen tank and main propulsion engines on space shuttle booster
[NASA-CASE-KSC-10615] c15 N72-15469
- GIMBALS**
- Gimballed partially submerged nozzle for solid propellant rocket engines for providing directional control
[NASA-CASE-XMP-01544] c28 N70-34162
- Inertial gimbal alignment system for spacecraft guidance
[NASA-CASE-XMP-01669] c21 N71-23289
- Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10366-1] c15 N71-24694
- Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
[NASA-CASE-MSC-10959] c15 N71-26243
- Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
[NASA-CASE-GSC-10556-1] c31 N71-26537
- GLASS**
- Fabricating solar cells with dielectric layers to improve glass fusion
[NASA-CASE-XGS-04531] c03 N69-24267
- Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988
- Metal pattern bonding technique for cover glass attachment to silicon solar cells for space applications
[NASA-CASE-XLE-08569] c03 N71-23449
- GLASS COATINGS**
- Apparatus for applying thin layer glass coatings to solar cells
[NASA-CASE-NPO-10575] c15 N70-25621
- Method of attaching cover glass to silicon solar cell without using adhesive
[NASA-CASE-XLE-08569-2] c03 N71-24681
- Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582
- GLASS FIBERS**
- Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053
- Polyimide impregnated laminated fiberglass cloth layers for printed circuit board
[NASA-CASE-MFS-20408] c18 N72-15543
- Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489
- GLASSWARE**
- Variable angle tube holder permitting agar slants at any angle from horizontal to vertical
[NASA-CASE-LAR-10507-1] c11 N70-21006
- GLOBES**
- Orbital and entry tracking accessory mounted on global map to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c14 N72-21416
- GLOVES**
- Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
- GLOW DISCHARGES**
- Development of method for applying metal alloy film or coating to irregular shaped metal object
[NASA-CASE-LEW-11262-1] c17 N71-34455
- GLUCOSE**
- Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
[NASA-CASE-XGS-05533] c04 N69-27487
- GLYCOLS**
- Polyimide foams produced in presence of alkanolamine or siloxane-glycol polymer
[NASA-CASE-ARC-10464-1] c06 N72-21102
- GOLD COATINGS**
- Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
- GONDOLAS**
- System for controlling torque buildup in suspension of gondola connected to balloon via parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N72-11041
- GRANULAR MATERIALS**
- Development of device for separating, collecting, and viewing soil particles
[NASA-CASE-XNP-09770] c15 N71-20440
- GRAPHITE**
- Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
- Diffusion bonded graphite reinforced aluminum composites
[NASA-CASE-MFS-21077] c18 N71-34502
- GRATINGS (SPECTRA)**
- Concave grating spectrometer for use in near and

- vacuum ultraviolet regions
[NASA-CASE-XGS-01036] c14 N70-43003
- GRAVIMETERS**
Device for determining acceleration of gravity by interferometric measurement of travel of falling body
[NASA-CASE-XMF-05844] c14 N71-17587
- GRAVITATIONAL CONSTANT**
Gravity device for accurate and rapid indication of relative gravity conditions aboard accelerating carrier
[NASA-CASE-XMF-00424] c11 N70-38196
- GRAVITATIONAL EFFECTS**
Computation method and apparatus for predicting solar flares by correlating planetary ephemeris data with gravitational force effects on sun
[NASA-CASE-ERC-10323-1] c30 N7J-22183
Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619
- GRAVITATIONAL FIELDS**
Difference indicating circuit used in conjunction with device measuring gravitational fields
[NASA-CASE-XNP-08274] c10 N71-13537
Alignment equipment using laser with gravitationally sensitive cavity reflector
[NASA-CASE-ARC-10444-1] c16 N72-20476
- GRAVITY GRADIENT SATELLITES**
Stabilization system for gravity-oriented satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
Method of stationkeeping for lenticular gravity gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969
- GRAVITY GRADIOMETERS**
Gravity device for accurate and rapid indication of relative gravity conditions aboard accelerating carrier
[NASA-CASE-XMF-00424] c11 N70-38196
Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324
- GRINDING (COMMUNION)**
Grinding mixtures of coarse metal powders and dispersoids to submicron size in gas-tight mill pressurized with hydrogen halide for dispersion hardened alloys
[NASA-CASE-LW-10450-1] c15 N70-26818
- GRINDING (MATERIAL REMOVAL)**
Laser device for removing material from rotating object for dynamic balancing
[NASA-CASE-MFS-11279] c16 N71-20400
- GROOVES**
Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
[NASA-CASE-XMF-10040] c15 N71-22877
- GROUND EFFECT MACHINES**
Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MS-12111-1] c02 N71-11039
Platform with several ground effect pads and plenum chambers
[NASA-CASE-MFS-14685] c31 N71-15689
Tubular guideway for high speed ground effect machines
[NASA-CASE-LAR-10256-1] c11 N72-20253
- GROUND HANDLING**
Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-XMF-00580] c11 N70-35383
- GROUND STATIONS**
Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
- GROUND SUPPORT EQUIPMENT**
Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-IMS-05454-1] c07 N71-12391
Controlled release device for use in launching rockets or missiles
[NASA-CASE-XKS-03338] c15 N71-24043
- GROUND-AIR-GROUND COMMUNICATIONS**
Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-XGS-04480] c16 N69-27491
Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930
- GUIDANCE (MOTION)**
Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MS-12111-1] c02 N71-11039
Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571
Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136
- GUIDANCE SENSORS**
Light sensitive digital aspect sensor for attitude control of earth satellites or space probes
[NASA-CASE-XGS-00359] c14 N70-34158
Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621
Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673
Development of light sensing system for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-15422
- GUNN EFFECT**
Voltage tunable Gunn effect semiconductor for microwave generation
[NASA-CASE-XER-07894] c09 N71-18721
Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
- GYRATORS**
Design of gyrator circuit using operational amplifiers to replace ungrounded inductors
[NASA-CASE-XAC-10608-1] c09 N71-12517
Gyrator circuit using MOS field effect transistors
[NASA-CASE-MFS-21433] c09 N72-21255
- GYROSCOPES**
Externally pressurized air bearing for gyros operating in high temperature, low gravity environments
[NASA-CASE-XMF-00515] c15 N70-34664
Air bearings for spacecraft gyros
[NASA-CASE-XMF-00339] c15 N70-39896
Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132

H

- HALL EFFECT**
Current measurement by use of Hall effect generator
[NASA-CASE-XAC-01662] c14 N71-23037
Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MFS-20385] c09 N71-24904
Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-11230
- HALL GENERATORS**
Current measurement by use of Hall effect generator
[NASA-CASE-XAC-01662] c14 N71-23037
- HALOGENS**
Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739
- HAMMERS**
Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446

HAND (ANATOMY)

SUBJECT INDEX

HAND (ANATOMY)

- Mechanically operated hand which can depress trigger using touch control device
[NASA-CASE-MFS-20413] c15 N72-21463
- HANDLING EQUIPMENT**
Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-XMF-00580] c11 N70-35383
Handling tool for printed circuit cards
[NASA-CASE-MFS-20453] c15 N71-29133
- HARMONIC GENERATORS**
Wideband generator for producing sine wave quadrature and second harmonic of input signal
[NASA-CASE-NPO-11133] c10 N72-20223
- HARNESSES**
Helmet and torso tiedown mechanism for shortening pressure suits upon inflation
[NASA-CASE-XMS-00784] c05 N71-12335
- HATCHES**
Design and specifications of emergency escape system for spacecraft structures
[NASA-CASE-MSC-12086-1] c05 N71-12345
- HEART RATE**
Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
Instantaneous rate reading tachometer for measuring ECG signal rate
[NASA-CASE-MFS-20418] c14 N71-34386
- HEAT**
Thermionic converter for converting heat energy directly into electrical energy
[NASA-CASE-XLE-01903] c22 N71-23599
- HEAT EXCHANGERS**
Electrothermal rocket engine using resistance heated heat exchanger
[NASA-CASE-XLE-00267] c28 N70-33356
Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439
Dual solid cryogens for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
Series-connected heat exchangers for multi-stage helium refrigerator with valved by-pass circuit for fast decontamination
[NASA-CASE-NPO-10634] c23 N72-11567
Shell-side liquid metal boiler employing tube and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915
- HEAT FLUX**
Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459
Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085
Radial heat flux transformer for use in heating and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948
- HEAT MEASUREMENT**
Electromagnetic energy detection by thermal sensor with vibrating electrode
[NASA-CASE-IAC-10768] c09 N71-18830
- HEAT PIPES**
Heat transfer device with restraint mechanism for supporting wick against wall of shell
[NASA-CASE-NPO-11120] c33 N70-41524
Electric power system utilizing thermionic plasma diodes in parallel and heat pipes as cathodes
[NASA-CASE-XMF-05843] c03 N71-11055
Microwave power receiving antenna solving heat dissipation problems by construction of elements as heat pipe devices
[NASA-CASE-MFS-20333] c09 N71-13486
Double-wall isothermal cylinder containing heat transfer fluid thermal reservoir as spacecraft insulation cover
[NASA-CASE-MFS-20355] c33 N71-25353
- HEAT PUMPS**
Thermal pump-compressor for converting solar energy
[NASA-CASE-XLA-00377] c33 N71-17610
Manually activated heat pump for mechanically converting human operator output into heat energy
[NASA-CASE-NPO-10677] c05 N72-11084
- HEAT RADIATORS**
Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-G3307] c33 N71-14035
Hydraulic actuator design for space deployment of heat radiators
[NASA-CASE-MSC-11817-1] c15 N71-26611
Development of method and equipment for testing heat radiative properties of material under controlled environmental conditions
[NASA-CASE-MFS-20096] c14 N71-30026
- HEAT RESISTANT ALLOYS**
Preparation of nickel alloys for jet turbine blades operating at high temperatures
[NASA-CASE-XLE-00151] c17 N70-33283
Nickel alloy series for aerospace structures subjected to high temperatures
[NASA-CASE-XLE-00283] c17 N70-36616
High temperature cobalt-base alloy resistant to corrosion by liquid metals and to sublimation in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025
Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
Development of nickel base alloys with superior strength at elevated temperatures, high incipient melting points, and high impact resistance
[NASA-CASE-LEW-10874-1] c17 N71-28972
Pressure tight seal for superalloy used in hypersonic aircraft fuel tank joints
[NASA-CASE-LAR-10170-1] c15 N72-21471
Superalloy material from prealloyed powders
[NASA-CASE-LEW-10805-2] c15 N72-21485
- HEAT SHIELDING**
Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459
Oven for heat treating heat shields
[NASA-CASE-XMS-04318] c15 N69-27871
Compact heat shielding for interplanetary space vehicles
[NASA-CASE-XMS-00486] c33 N70-33344
Sandwich panel structure for removing heat from shield between hot and cold areas
[NASA-CASE-XLA-00349] c33 N70-37979
Aerodynamic configuration of reentry vehicle heat shield to provide longitudinal and directional stability at hypersonic velocities
[NASA-CASE-XMS-04142] c31 N70-41631
Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-G2677] c31 N70-42075
Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XMF-08656] c06 N71-11242
Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-XMF-08652] c06 N71-11243
Preparation and characteristics of lightweight refractory insulation
[NASA-CASE-XMF-05279] c18 N71-16124
Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module
[NASA-CASE-MSC-13047-1] c31 N71-25434
Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
- HEAT SINKS**
Thermal conductive, electrically insulated cleavable adhesive connection between electronic module and heat sink
[NASA-CASE-XMS-02087] c09 N70-41717

- Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature
[NASA-CASE-XMP-04208] c33 N71-29051
- HEAT SOURCES**
- Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26475
- Radioactive isotope capsule container design for atmospheric reentry protection and heat transmission to spacecraft
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- HYDROCARBON FUELS**
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[NASA-CASE-XMF-03873] c06 N69-39733
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[NASA-CASE-XGS-01419] c03 N70-41864
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[NASA-CASE-XMF-66531] c14 N71-17575
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[NASA-CASE-MFS-11537] c14 N71-20442
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[NASA-CASE-NPO-11075] c09 N71-34208
Infrared detector for determining ratio of hydrogen to deuterium in gas mixture
[NASA-CASE-NPO-11322] c06 N72-13101
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- HYDROGEN OXYGEN FUEL CELLS**
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[NASA-CASE-NPO-10768-2] c06 N71-33516
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[NASA-CASE-NPO-10051] c18 N71-24934
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[NASA-CASE-XGS-01418] c09 N71-23573
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[NASA-CASE-XLA-00117] c31 N71-17680
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[NASA-CASE-XGS-02884] c15 N71-22705
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[NASA-CASE-XLE-00111] c28 N70-38199
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 [NASA-CASE-MFS-20408] c18 N72-15543

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 [NASA-CASE-ERC-10283] c16 N70-34554

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 [NASA-CASE-ERC-10335] c16 N70-36054

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[NASA-CASE-XLA-00679] c15 N70-38601

Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190

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[NASA-CASE-MFS-11132] c15 N71-17649

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[NASA-CASE-XLA-03538] c15 N71-24897

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[NASA-CASE-MSC-15474-1] c15 N71-26162

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[NASA-CASE-XAC-01404] c05 N70-41581

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[NASA-CASE-XNP-01307] c21 N70-41856

Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088

LATEX

Nonflammable coatings of synthetic mica and silicate gelant solution mixed with latex paint for use in liquid oxygen or high oxygen gaseous atmospheres
[NASA-CASE-MFS-20486] c18 N72-21557

LATHES

Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-XMS-04292] c15 N71-22722

Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489

LAUNCH ESCAPE SYSTEMS

Emergency escape cabin system for launch towers
[NASA-CASE-XKS-02342] c05 N71-11199

Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-XMS-04625] c05 N71-20718

LAUNCH VEHICLES

Support techniques for restraint of slender bodies such as launch vehicles
[NASA-CASE-XLA-02744] c11 N69-21540

Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779

LAUNCHING PADS

Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-XMF-03198] c30 N70-40353

Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XLA-01396] c03 N71-12259

Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292

LEAD TELLURIDES

Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes
[NASA-CASE-XGS-04554] c15 N69-39786

Procedure for segmenting lead telluride and silicon germanium thermoelectric elements to obtain composite elements effective over wide temperature range
[NASA-CASE-XGS-05718] c26 N71-16037

LEADING EDGES

Leading edge design for hypersonic reentry vehicles
[NASA-CASE-XLA-00165] c31 N70-33242

Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-C1486] c01 N71-23497

LEAKAGE

Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XPR-09479] c14 N69-27503

Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779

Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573

Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161

Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XMF-02392] c32 N71-24285

Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896

Method for locating leaks in hermetically sealed containers
[NASA-CASE-ERC-10045] c15 N71-24910

Volume displacement transducer for leak detection in hermetically sealed semiconductor devices
[NASA-CASE-ERC-10033] c14 N71-26672

Low leakage shaft seal for use with various types of liquids
[NASA-CASE-LEW-10326-2] c15 N71-28679

Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992

LENSES

Optical system for increasing light beam intensity within solar simulators
[NASA-CASE-NPO-11096] c11 N70-25959

Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622

Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-XMF-03844-1] c14 N71-26474

Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on curved photoreceptor
[NASA-CASE-GSC-10700] c23 N71-30027

Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568

Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-MSC-12448-1] c14 N72-20394

LENTICULAR BODIES

Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924

LEVEL (HORIZONTAL)

Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802

LEVEL (QUANTITY)

Gauge for measuring quantity of liquid in

LEVELING

spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
Conversion of positive dc voltage to positive dc
voltage of lower amplitude
[NASA-CASE-XMF-14301] c09 N71-23188

LEVELING
Development of adjustable attitude guide block for
setting pins perpendicular to irregular convex
work surface
[NASA-CASE-XLA-07911] c15 N71-15571
Electrical switching device comprising conductive
liquid confined within square loop of deformable
nonconductive tubing also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610
Adjustable support for leveling or positioning of
movable objects
[NASA-CASE-NPO-10721] c15 N72-15466

LIFE (DURABILITY)
High speed, long life roller bearing with reduced
mass
[NASA-CASE-LEW-10856-1] c15 N70-26816

LIFE DETECTORS
Use of enzyme hexokinase and glucose to reduce
inherent light levels of ATP in luciferase
compositions
[NASA-CASE-XGS-05533] c04 N69-27487
Describing method for lyophilization of luciferase
containing mixtures for use in life detection
reactions
[NASA-CASE-XGS-05532] c06 N71-17705

LIFE RAFTS
Design of inflatable life raft for aircrafts and
boats
[NASA-CASE-XMS-00863] c05 N70-34857
Inflatable stabilizing system for use on life
rafts
[NASA-CASE-MS-C-12393-1] c02 N72-20016
Inflatability and flotation of one man life raft
after puncture to main wall
[NASA-CASE-LAR-10241-1] c05 N72-21076

LIFE SUPPORT SYSTEMS
Oxygen metabolism monitor with carbon dioxide
analyzer, used with space suit and life support
system
[NASA-CASE-MFS-20092] c05 N70-20736
Shock absorbing couch for body support under high
acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152
Portable environmental control and life support
system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
Design and development of flexible tunnel for use
by spacecrews in performing extravehicular
activities
[NASA-CASE-MS-C-12243-1] c05 N71-24728
Development of improved convolute section for
pressurized suits to provide high degree of
mobility in response to minimum of applied
torque
[NASA-CASE-XMS-09637-1] c05 N71-24730
Development and characteristics of inflatable
structure to provide escape from orbit for
spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851
Chlorine generator for purifying water in life
support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
Open loop life support subsystem using breathing
bag as reservoir for EVA
[NASA-CASE-MS-C-12411-1] c05 N72-20096

LIFT
Turbofans under wings to provide lift and thrust
for STOL aircraft
[NASA-CASE-LEW-11224-1] c02 N72-10033
Balancing system for static lift forces for
lifting body in free flight suspension in wind
tunnel
[NASA-CASE-LAR-10348-1] c11 N72-15241

LIFT DEVICES
Device for handling heavy loads by distributing
forces
[NASA-CASE-XNP-04969] c11 N69-27466
Techniques for recovery of multistage rocket
vehicles by providing lifting surfaces on
individual sections
[NASA-CASE-XMF-00389] c31 N70-34176
Auxiliary lift system providing transportation
means for HL-10 reentry vehicle
[NASA-CASE-LAR-10574-1] c11 N70-41958

SUBJECT INDEX

Direct lift control system having flaps with slots
adjacent to their leading edge and particularly
adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110

LIFT DRAG RATIO
Design of ring wing vehicle of high drag-to-weight
ratio to withstand reentry stress into low
density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315

LIFTING BODIES
Techniques for recovery of multistage rocket
vehicles by providing lifting surfaces on
individual sections
[NASA-CASE-XMF-00389] c31 N70-34176
Graphic illustration of lifting body design
[NASA-CASE-FRC-10063] c01 N71-12217
Balancing system for static lift forces for
lifting body in free flight suspension in wind
tunnel
[NASA-CASE-LAR-10348-1] c11 N72-15241

LIFTING REENTRY VEHICLES
Lenticular vehicle with foldable aerodynamic
control flaps and reaction jets for operation
above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924
Variable geometry manned orbital vehicle having
high aerodynamic efficiency over wide speed
range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
Designing spacecraft for flight into space,
atmospheric reentry, and landing at selected
sites
[NASA-CASE-XAC-02058] c02 N71-16087

LIGHT (VISIBLE RADIATION)
Thin silica coating on ultraviolet grade fused
silica substrate for ultraviolet light diffusion
[NASA-CASE-LAR-10385-1] c14 N70-35544
Light baffle with oblate hemispheroid surface and
shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
Optical imaging system for increasing absorbing
efficiency of light or radiant energy at light
sensitive face of imaging detector
[NASA-CASE-ARC-10194-1] c23 N71-31142
Interferometer-polarimeter for measuring intensity
polarization of optical radiation
[NASA-CASE-NPO-11239] c14 N71-33024
Thin film, light detecting photovoltaic cell
fabricated by metal vapor deposition on quartz
[NASA-CASE-NPO-11432] c14 N71-33322
Thin metallic film and substrate-stretching
mechanism for visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-11653
Testing equipment for study of reaction to light
stimuli
[NASA-CASE-MS-C-13604-1] c05 N72-15097
Device for detection of combustion light preceding
explosion in coal mine
[NASA-CASE-LAR-10739-1] c14 N72-21424
Method and apparatus for producing intense,
coherent, monochromatic light from low
temperature plasma
[NASA-CASE-XNP-04167-3] c25 N72-21693

LIGHT AIRCRAFT
Direct lift control system having flaps with slots
adjacent to their leading edge and particularly
adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110

LIGHT BEAMS
Overlapping beams of neodymium laser for detecting
picosecond light pulses
[NASA-CASE-ERC-10227] c14 N70-12626
Optical system for increasing light beam intensity
within solar simulators
[NASA-CASE-NPO-11096] c11 N70-25959
Cylindrical reflector for resolving wide angle
light beam from telescope into narrow beam for
spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
Development and characteristics of optical
communications system based on modulation of
light beams
[NASA-CASE-XLA-01090] c16 N71-28963
Multiple pattern holographic information storage
and readout system
[NASA-CASE-ERC-10151] c16 N71-29131

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LIQUID FILLED SHELLS

LIGHT GAS GUNS

Implosion driven, light gas, hypervelocity gun
[NASA-CASE-XAC-05902] c11 N71-18578

LIGHT MODULATION

Optical retrodirective modulator with focus
spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15635
Modulating and controlling intensity of light beam
from high temperature source by servocontrolled
rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
Method and apparatus for optically modulating
light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722
Development and characteristics of optical
communications system based on modulation of
light beams
[NASA-CASE-XLA-01090] c16 N71-28963

LIGHT SOURCES

Light radiation direction indicator with baffle of
two parallel grids
[NASA-CASE-XNP-03930] c14 N69-24331
High intensity heat and light unit containing
quartz lamp elements protectively positioned to
withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
Photosensitive light source device for detecting
unmanned spacecraft deviation from reference
attitude
[NASA-CASE-XNP-00438] c21 N70-35089
Ultrastrable calibrated light source for use as
standard
[NASA-CASE-MSC-12293-1] c14 N70-36029
Electro-optical detector for determining position
of light source
[NASA-CASE-XNP-01059] c23 N71-21821
Optical system for selecting particular wavelength
light beams from multiple wavelength light
source
[NASA-CASE-ERC-10248] c14 N72-17323
Temperature compensated light source with light
emitting diode and circuitry for maintaining
luminous power independent of temperature
changes
[NASA-CASE-ARC-10467-1] c09 N72-21249
Interferometric prism and control system for
precisely determining direction to remote light
source
[NASA-CASE-ARC-10278-1] c14 N72-21434

LIGHT TRANSMISSION

Hybrid holographic system using reference,
transmitted, and reflected beams simultaneously
[NASA-CASE-MFS-20074] c16 N71-15565
Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365
Optical monitor panel consisting of translucent
screen with test or meter information projected
onto it from rear for application in control
rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
Detecting molecular constituents in radiation
transparent media by measuring intensity of
light transmitted through cell while applying
electrostatic or electromagnetic field
[NASA-CASE-ERC-10021] c06 N71-28635
Thin metallic film and substrate-stretching
mechanism for visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-11653

LIGHTING EQUIPMENT

Sealed fluorescent tube light unit capable of
connection with other units to form string of
work lights
[NASA-CASE-XKS-05932] c09 N71-26787
Safe pressurized lighting system for operating in
hazardous environments
[NASA-CASE-KSC-10644-1] c09 N72-21250

LIGHTNING

Apparatus for determining distance to lightning
stroke by sensing magnetic and electric fields
[NASA-CASE-KSC-10698-1] c07 N72-21159

LIMITER CIRCUITS

Transistorized current-limiting voltage regulator
for use between unregulated voltage source and
load
[NASA-CASE-MSC-11824-1] c09 N70-35574
Variable duration pulse integrator design for
integrating pulse duration modulated pulses with
elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084

Circuits for amplitude limiting of random noise
inputs
[NASA-CASE-NPO-10169] c10 N71-24844
Velocity limiting safety system for motor driven
research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895

LINEAR ACCELERATORS

Linear accelerator frequency control system
[NASA-CASE-XGS-05441] c10 N71-22962

LINEAR RECEIVERS

Antenna array at focal plane of reflector with
coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233

LINEAR SYSTEMS

Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503
Family of m-ary linear feedback shift register
with binary logic
[NASA-CASE-NPO-11868] c10 N72-20236

LINEARITY

Semilinear bearing comprising two rows of roller
bearings separated by spherical bearings and
permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982
Mechanical actuator wherein linear motion changes
to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

LINKAGES

Computer communications link with selected member
of several computers
[NASA-CASE-NPO-11161] c08 N70-22193
Frangible connecting link for securing separable
structural members, using explosive detonators
[NASA-CASE-MSC-11849-1] c15 N70-25675
Development of collapsible nozzle extension for
rocket engines
[NASA-CASE-MFS-11497] c28 N71-16224

LIQUID BEARINGS

Design, development, and characteristics of hybrid
antifriction bearing with increased fatigue life
at ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N72-15473

LIQUID COOLING

Water cooled contactors for holding rotating
carbon arc anode
[NASA-CASE-XMS-03700] c15 N69-24266
External device for liquid spray cooling of gas
turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Water cooled solenoid capable of producing
magnetic field intensities up to 100 kilogauss
[NASA-CASE-XNP-01951] c09 N70-41929
Laminar flow of liquid coolants in rocket engines
[NASA-CASE-NPO-10122] c12 N71-17631
Space suit body heat exchanger design composed of
thermal conductance yarn and liquid coolant
loops
[NASA-CASE-XMS-09571] c05 N71-19439
Electric power system with circulatory liquid
coolant cooling system
[NASA-CASE-MFS-14114-2] c09 N71-24807
Electric power system with thermionic diodes and
circulatory liquid metal coolant lines
[NASA-CASE-MFS-14114] c33 N71-27862
Apparatus for liquid spray cooling of turbine
blades
[NASA-CASE-XLE-00027] c33 N71-29152
Automatic control device for regulating inlet
water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098

LIQUID CRYSTALS

Multi-state devices using bodies of cholesteric
phase liquid crystalline material as memory
elements
[NASA-CASE-ERC-10330] c08 N70-36002
Angular velocimeter and accelerometer formed by
liquid crystals between rotary and stationary
discs
[NASA-CASE-ERC-10292] c14 N70-36079
Voltage and current measuring devices using liquid
crystals exhibiting visible changes to high
input signals
[NASA-CASE-ERC-10275] c26 N70-40022

LIQUID FILLED SHELLS

Liquid rocket systems for propulsion and control
of spacecraft
[NASA-CASE-XNP-00610] c28 N70-36910
Design and development of fluid sample collector
[NASA-CASE-XMS-06767-1] c14 N71-20435

- Manufacture of fluid containers from fused coated polyester sheets having resealable septum
[NASA-CASE-NPO-10123] c15 N71-24835
- Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
[NASA-CASE-HQN-1078C] c14 N71-30265
- Nutation oscillation damper based on fluid radial flow through porous material placed parallel to axes of rotation
[NASA-CASE-GSC-11205-1] c15 N71-31128
- LIQUID FLOW**
- Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988
- Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409
- Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492
- Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
[NASA-CASE-XMF-02822] c14 N70-41994
- High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
[NASA-CASE-XLE-02998] c14 N70-42074
- LIQUID HYDROGEN**
- Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
[NASA-CASE-XMP-05046] c33 N71-28892
- Laminated polyquinoxaline resin/fiberglass gasket, resistant to ionizing radiation and liquid hydrogen temperatures
[NASA-CASE-MFS-21364] c15 N72-20460
- LIQUID INJECTION**
- Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
- System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582
- Propellant injection assembly having individually removable and replaceable nozzles for liquid fueled rocket engines
[NASA-CASE-XMP-00968] c28 N71-15660
- LIQUID LASERS**
- Method and apparatus using temperature control for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
- LIQUID LEVELS**
- Control system for maintaining liquid nitrogen level in cryogenic reservoir
[NASA-CASE-XLA-09714] c03 N70-35700
- Inductive liquid level detection system
[NASA-CASE-XLE-01609] c14 N71-10500
- LIQUID METALS**
- Magnetohydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
[NASA-CASE-XLE-02083] c03 N69-39983
- Thermoelectric power conversion by liquid metal flowing through magnetic field
[NASA-CASE-XNP-00644] c03 N70-36803
- Analytical test apparatus and method for determining oxygen content in alkali liquid metal
[NASA-CASE-XLE-01997] c06 N71-23527
- Electric power system with thermionic diodes and circulatory liquid metal coolant lines
[NASA-CASE-MFS-14114] c33 N71-27862
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- High-voltage isolator design for injecting hydrogen bubbles into liquid metal feed lines to interrupt electrical continuity
[NASA-CASE-NPO-11075] c09 N71-34208
- Method and apparatus for distillation of liquid metals
[NASA-CASE-XNP-08124-2] c06 N72-13102
- Design and operation of electromagnetic flow rate meter for liquid metals
[NASA-CASE-LEW-10981-1] c14 N72-20406
- Shell-side liquid metal boiler employing tube and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915
- LIQUID NITROGEN**
- Penetration unit for transferring liquid nitrogen through chamber wall of vacuum system
[NASA-CASE-LAR-10031-1] c15 N70-26714
- Control system for maintaining liquid nitrogen level in cryogenic reservoir
[NASA-CASE-XLA-09714] c03 N70-35700
- LIQUID OXYGEN**
- Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-XMP-02221] c18 N71-27170
- Geysering inhibitor using thin-wall tube inside long vertical pipe between liquid oxygen tank and main propulsion engines on space shuttle booster
[NASA-CASE-KSC-10615] c15 N72-15469
- Nonflammable coatings of synthetic mica and silicate gelant solution mixed with latex paint for use in liquid oxygen or high oxygen gaseous atmospheres
[NASA-CASE-MFS-20486] c18 N72-21557
- LIQUID PHASES**
- Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635
- Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975
- Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199
- LIQUID PROPELLANT ROCKET ENGINES**
- High thrust annular liquid propellant rocket engine and exhaust nozzle design
[NASA-CASE-XLE-00078] c28 N70-33284
- Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-XMP-00185] c21 N70-34539
- Coaxial injector for reaction motors
[NASA-CASE-NPO-11095] c28 N70-35103
- Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XMP-00148] c28 N70-38710
- Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity
[NASA-CASE-XNP-01390] c28 N70-41275
- Development and characteristics of rocket throttling system of bipropellant liquid propellant rocket engine
[NASA-CASE-LEW-10374-1] c28 N71-31103
- Geysering inhibitor using thin-wall tube inside long vertical pipe between liquid oxygen tank and main propulsion engines on space shuttle booster
[NASA-CASE-KSC-10615] c15 N72-15469
- LIQUID ROCKET PROPELLANTS**
- Maximum density fuming nitric acid used as sterilizable oxidizer in bipropellants
[NASA-CASE-NPO-10687] c27 N69-33347
- Propellant injectors for rocket combustion chambers
[NASA-CASE-XLE-00103] c28 N70-33241
- Liquid rocket systems for propulsion and control of spacecraft
[NASA-CASE-XNP-00610] c28 N70-36910
- Igniter capsule for chemical ignition of liquid rocket propellants
[NASA-CASE-XLE-00323] c28 N70-38505
- High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925
- Compact high pressure filter for rocket fuel lines
[NASA-CASE-XNP-00732] c28 N70-41447
- Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
- Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XMP-01899] c31 N70-41948
- Method and feed system for separating and orienting liquid and vapor phases of liquid

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LOADS (FORCES)

propellants in zero gravity environment
 [NASA-CASE-XLE-01182] c27 N71-15635

Control valve and coaxial variable injector for
 controlling bipropellant mixture ratio and flow
 [NASA-CASE-XNP-09702] c15 N71-17654

Slosh and swirl alleviator for liquid propellant
 tanks during transport and flight
 [NASA-CASE-XLA-05749] c15 N71-19569

Filler valve design for supplying liquid
 propellants at high pressure to space vehicles
 [NASA-CASE-XNP-01747] c15 N71-23024

Electronic recording system for spatial mass
 distribution of liquid rocket propellant
 droplets or vapors ejected from high velocity
 nozzles
 [NASA-CASE-NPO-10185] c10 N71-26339

Flexible barrier membrane comprising porous
 substrate and incorporating liquid gallium or
 indium metal used as sealant barriers for
 spacecraft walls and pumping liquid propellants
 [NASA-CASE-XNP-08881] c17 N71-28747

Response analyzing apparatus for liquid vapor
 interface sensor of sloshing rocket propellant
 [NASA-CASE-MFS-11204] c14 N71-29134

Development and characteristics of rocket
 throttling system of bipropellant liquid
 propellant rocket engine
 [NASA-CASE-LEW-10374-1] c28 N71-31103

LIQUID SLOSHING

Slosh damping method for liquid rocket propellant
 tanks
 [NASA-CASE-XMP-00658] c12 N70-38997

Flexible ring slosh damping baffle for spacecraft
 fuel tank
 [NASA-CASE-LAR-10317-1] c32 N71-16103

Submerged fuel tank baffles to prevent sloshing in
 liquid propellant rocket flight
 [NASA-CASE-XLA-04605] c32 N71-16106

Hot-wire liquid level detector for cryogenic
 propellants
 [NASA-CASE-XLE-00454] c23 N71-17802

Slosh and swirl alleviator for liquid propellant
 tanks during transport and flight
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 [NASA-CASE-XLE-01449] c15 N70-41646

Liquid-gaseous centrifugal separator for
 weightlessness environment
 [NASA-CASE-XLA-00415] c15 N71-16079

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 [NASA-CASE-XMF-04042] c15 N71-23323

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 cryogenic liquid under zero gravity and for
 venting gas from fuel tank
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 pumps and liquid cooling of mercury vapor
 [NASA-CASE-XNP-02862-1] c15 N71-26294

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 [NASA-CASE-XMS-06329-1] c15 N71-20441

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M

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[NASA-CASE-XNP-01641] c15 N71-22997
- Magnetic current regulator for saturable core
transformer
[NASA-CASE-ERC-10075] c09 N71-24800
- MAGNETIC FORMING**
- Portable magnetomotive hammer for metal working
[NASA-CASE-XMP-03793] c15 N71-24833
- Method and apparatus for portable high precision
magnetomotive bulging, constricting, and joining
of large diameter metal tubes
[NASA-CASE-XMP-05114-3] c15 N71-24865
- MAGNETIC INDUCTION**
- Continuous operation, single phased, induction
plasma accelerator producing supersonic speeds
[NASA-CASE-XLA-01354] c25 N70-36946
- Automatic power supply circuit design for driving
inductive loads and minimizing power consumption
including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892
- Double-induction variable speed system for
constant-frequency electrical power generation
[NASA-CASE-ERC-10065] c09 N71-27364
- MAGNETIC MATERIALS**
- Low density and low viscosity magnetic propellant
for use under zero gravity conditions
[NASA-CASE-XLE-01512] c12 N70-40124
- MAGNETIC MEASUREMENT**
- Cryogenic flux-gated magnetometer using
superconductors
[NASA-CASE-XAC-02407] c14 N69-27423
- Magnetic field measurements for aircraft position
detection and landing aid
[NASA-CASE-ARC-10179-1] c21 N70-12611
- Electromagnetic detection system for determining
intrusion, relative size, and physical
characteristics of metallic object in
predetermined space
[NASA-CASE-ARC-10265-1] c10 N70-41949
- Development of wide range linear fluxgate
magnetometer
[NASA-CASE-XGS-01587] c14 N71-15962
- Active RC filter networks and amplifiers for deep
space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
- MAGNETIC POLES**
- Design of magnetohydrodynamic induction machine
with end poles which produce compensating
magnetic fields
[NASA-CASE-XNP-037481] c25 N69-21929
- MAGNETIC RECORDING**
- Development of data storage system for storing
digital data in high density format on magnetic
tape
[NASA-CASE-XNP-02778] c08 N71-22710
- Magnetic recording head composed of ferrite core
coated with thin film of aluminum-iron-silicon
alloy
[NASA-CASE-GSC-10097-1] c08 N71-27210
- MAGNETIC SIGNALS**
- Plural recorder system which limits signal
recording to signals of sufficient interest
[NASA-CASE-XMS-06949] c09 N69-21467
- MAGNETIC STORAGE**
- Operation of two dimensional, word oriented,
coincident current, magnetic core memory with
reduced bit switching current and increased word
switching current for lower power dissipation
[NASA-CASE-ERC-10166] c08 N70-22136
- Nondestructive interrogating and state changing
circuit for binary magnetic storage elements
[NASA-CASE-XGS-00174] c08 N70-34743
- Magnetic matrix memory system for nondestructive
reading of information contained in matrix
[NASA-CASE-XMF-05835] c08 N71-12504
- Pulse duration control device for driving slow
response time loads in selected sequence
including switching and delay circuits and
magnetic storage
[NASA-CASE-IGS-04224] c10 N71-26418
- Redundant memory for enhanced reliability of
digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135
- Momentum wheel design for spacecraft attitude
control and magnetic drum and head system for
data storage
[NASA-CASE-NPO-11481] c21 N71-34591
- MAGNETIC SWITCHING**
- Power switch with transfluxor type magnetic core
[NASA-CASE-NPO-10242] c09 N71-24803
- Design and development of multistage current
steering switch with inductively coupled
magnetic cores
[NASA-CASE-XNP-08567] c09 N71-26000
- MAGNETIC TAPES**
- Tape cartridge with high capacity storage of
endless-loop magnetic tape
[NASA-CASE-XGS-00769] c14 N70-41647
- Endless loop tape transport mechanism for driving
and tensioning recording medium in magnetic tape
recorder
[NASA-CASE-IGS-01223] c07 N71-10609
- Development of low friction magnetic recording
tape
[NASA-CASE-XGS-00373] c23 N71-15978
- System for recording and reproducing PCM data from
data stored on magnetic tape
[NASA-CASE-IGS-01021] c08 N71-21042
- Kinetic and static friction force measurement
between magnetic tape and magnetic head surfaces
[NASA-CASE-XNP-08680] c14 N71-22995
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- Permanently magnetized ion engine casing
construction for use in spacecraft propulsion
systems
[NASA-CASE-XNP-06942] c28 N71-23293
- MAGNETOHYDRODYNAMIC FLOW**
- Improving performance of magnetohydrodynamic arc
rocket engine
[NASA-CASE-LEW-11180-1] c25 N72-20691
- MAGNETOHYDRODYNAMIC GENERATORS**
- Design of magnetohydrodynamic induction machine
with end poles which produce compensating
magnetic fields
[NASA-CASE-XNP-07481] c25 N69-21929
- Magnetohydrodynamic generator for mixing
nonconductive gas and liquid metal mist to form
slugs
[NASA-CASE-XLE-02083] c03 N69-39983
- Thermoelectric power conversion by liquid metal
flowing through magnetic field
[NASA-CASE-XNP-02644] c03 N70-36803
- Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
- MAGNETOMETERS**
- Nonmagnetic thermal motor for magnetometer
movement
[NASA-CASE-XAR-03786] c09 N69-21313
- Cryogenic flux-gated magnetometer using
superconductors
[NASA-CASE-XAC-02407] c14 N69-27423

- Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
[NASA-CASE-IGS-01881] c09 N70-40123
- Electromagnetic detection system for determining intrusion, relative size, and physical characteristics of metallic object in predetermined space
[NASA-CASE-ARC-10265-1] c10 N70-41949
- Development of wide range linear fluxgate magnetometer
[NASA-CASE-IGS-01587] c14 N71-15962
- Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-IGS-04879] c14 N71-20428
- Temperature sensitive magnetometer with pulsating thermally cycled magnetic core
[NASA-CASE-XAC-03740] c14 N71-26135
- Fluxgate magnetometer for measuring magnetic field along two axes using one sensor
[NASA-CASE-GSC-10441-1] c14 N71-27325
- MAGNETRONS**
- Tuning arrangement for frequency control of magnetron-type electron discharge device
[NASA-CASE-XNP-09771] c09 N71-24841
- MAGNETS**
- Magnetic bearing with diverse magnetic sources coupled to same air gap via different low magnetic reluctance paths for use with permanent magnets
[NASA-CASE-GSC-11079-1] c21 N71-28461
- MAGNIFICATION**
- Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-XMP-03844-1] c14 N71-26474
- Passive force transducer for measuring, magnifying, and recording maximum load on given specimen
[NASA-CASE-LAR-10496-1] c14 N71-28654
- MAGNITUDE**
- Torque meter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field
[NASA-CASE-XGS-01013] c14 N71-23725
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- Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
[NASA-CASE-NPO-10567] c08 N71-24633
- MALFUNCTIONS**
- Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
- MANDRELS**
- Mandrel for shaping solid propellant rocket fuel into engine casing
[NASA-CASE-XLA-00304] c27 N70-34783
- Rotating, multisided mandrel for fabricating gored inflatable spacecraft
[NASA-CASE-XLA-04143] c15 N71-17687
- Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
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- Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XMF-00148] c28 N70-38710
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- Design and development of manipulator for handling objects in zero gravity environment inside and outside orbiting space vehicle
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[NASA-CASE-XLA-03127] c11 N71-10776
- Expandable space frames for three dimensional or planar building structures
[NASA-CASE-ERC-10365] c31 N71-28948
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[NASA-CASE-XLA-00678] c31 N70-34296
- Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373
- MANNED SPACE FLIGHT**
- Three-port transfer valve with one port open continuously suitable for manned space flight
[NASA-CASE-XAC-01158] c15 N71-23051
- MANNED SPACECRAFT**
- Manned space capsule configuration for orbital flight and atmospheric reentry
[NASA-CASE-XLA-00149] c31 N70-37938
- Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986
- Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
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[NASA-CASE-XLA-01332] c31 N71-15664
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[NASA-CASE-XNP-02595] c31 N71-21881
- Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
- Collapsible couch system for manned space vehicles
[NASA-CASE-MSC-13140] c05 N72-11085
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[NASA-CASE-LEW-11101-1] c31 N72-11793
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- Magnetically centered liquid column float
[NASA-CASE-XAC-00030] c14 N70-34820
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- Multiple circuit switch apparatus requiring minimum hand and eye movement by operator
[NASA-CASE-XAC-03777] c10 N71-15909
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[NASA-CASE-XLA-01808] c15 N71-20740
- Manually activated heat pump for mechanically converting human operator output into heat energy
[NASA-CASE-NPO-10677] c05 N72-11084
- Computer peripheral device with manual controls for cursor position definition
[NASA-CASE-NPO-11497] c08 N72-11208
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[NASA-CASE-XMS-02532] c15 N70-41808
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[NASA-CASE-XLE-00953] c15 N71-15966
- Describing apparatus for manufacturing operations in low and zero gravity environments of orbital space flight
[NASA-CASE-MFS-20410] c15 N71-19214
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[NASA-CASE-NPO-10123] c15 N71-24835
- Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
- Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-MFS-13687] c09 N71-28691
- Production method for manufacturing porous tungsten bodies from tungsten powder particles
[NASA-CASE-XNP-04339] c17 N71-29137
- Development of electrolytic bath and technique for electroforming large area foil structures and hollow core aluminum substrate for solar panels
[NASA-CASE-NPO-12090] c15 N72-11396
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- Solid state device for mapping flux and power in nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808
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[NASA-CASE-XLA-01401] c15 N71-21179

- Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-110C1] c07 N72-21118
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[NASA-CASE-LAR-10626-1] c14 N72-21416
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[NASA-CASE-XGS-10518] c16 N71-28554
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Reusable masking boot for chemical machining operations
[NASA-CASE-XNP-02092] c15 N70-42033
Composition and process for improving definition of resin masks used in chemical etching
[NASA-CASE-XGS-04993] c14 N71-17574
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Apparatus for measuring human body mass in zero or reduced gravity environment
[NASA-CASE-XMS-03371] c05 N70-42060
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[NASA-CASE-LAR-10083-1] c15 N71-27006
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Control system for pressure balance device used in calibrating pressure gages
[NASA-CASE-XMF-04134] c14 N71-23755
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Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
- MASS FLOW**
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[NASA-CASE-XLE-03157] c28 N71-24736
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[NASA-CASE-MFS-20485] c14 N72-11365
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Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
Design and characteristics of time of flight mass spectrometer to measure or analyze gases at low pressures and time of flight of single gas molecule
[NASA-CASE-XNP-01056] c14 N71-23041
Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863
Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992
Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatograph
[NASA-CASE-GSC-10903-1] c14 N72-10377
High speed scanner for measuring mass of preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432
- MATERIAL ABSORPTION**
Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-pervious container filled with gas and vapor sorbent material
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[NASA-CASE-XLE-00397] c15 N70-36492
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[NASA-CASE-XPR-00811] c15 N70-36901
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[NASA-CASE-XMF-01887] c15 N71-10617
- Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
Method and apparatus for removing plastic insulation from wire using cryogenic equipment
[NASA-CASE-MFS-10340] c15 N71-17628
Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention
[NASA-CASE-XMS-01905] c12 N71-21089
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[NASA-CASE-XMF-09902] c15 N72-11387
- MATERIALS RECOVERY**
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[NASA-CASE-MSC-12332-1] c15 N72-15476
- MATERIALS SCIENCE**
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Burn rate test apparatus with photocell for measuring flame propagation between two points on sample material
[NASA-CASE-XMS-09690-1] c33 N70-12625
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[NASA-CASE-XLE-02024] c14 N71-22964
Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161
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[NASA-CASE-NPO-10431] c15 N71-29132
Material testing system with load sensor for applying and measuring cyclic tensile and compressive loads to test specimens
[NASA-CASE-MFS-20673] c14 N72-15432
Multiaxes vibration device for making vibration tests along orthogonal axes of test specimen
[NASA-CASE-MFS-23242] c14 N72-20405
- MATRICES (CIRCUITS)**
Fabrication methods for matrices of solar cell submodules
[NASA-CASE-XNP-05821] c03 N71-11056
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[NASA-CASE-XMF-05835] c08 N71-12564
Conductor for connecting parallel cells into submodules in series to form solar cell matrix
[NASA-CASE-NPO-10821] c03 N71-19545
Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-23033
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[NASA-CASE-NPO-10150] c08 N71-24650
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- MEASURING INSTRUMENTS**
Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785
Burn rate test apparatus with photocell for measuring flame propagation between two points on sample material
[NASA-CASE-XMS-09690-1] c33 N70-12625
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[NASA-CASE-XMF-00447] c14 N70-33179
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- [NASA-CASE-XNP-01567] c15 N70-41310
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- [NASA-CASE-XLE-00821] c25 N71-15650
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- [NASA-CASE-XLA-03135] c32 N71-16428
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- [NASA-CASE-IMF-04966] c14 N71-17658
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- [NASA-CASE-XMS-06236] c14 N71-21007
Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
- [NASA-CASE-XMP-10040] c15 N71-22877
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- [NASA-CASE-XLA-01791] c14 N71-22991
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- [NASA-CASE-XMP-10289] c14 N71-23699
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- [NASA-CASE-IMF-04415] c14 N71-24693
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- [NASA-CASE-IMF-02966] c10 N71-24863
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- [NASA-CASE-ERC-10088] c26 N71-25490
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- [NASA-CASE-FRC-10005] c15 N71-26145
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- [NASA-CASE-ERC-10033] c14 N71-26672
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- [NASA-CASE-NPO-11749] c14 N72-20398
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- [NASA-CASE-IMF-08523] c31 N71-20396
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- [NASA-CASE-XAC-04886-1] c14 N71-20439
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- [NASA-CASE-XLA-01401] c15 N71-21179
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- [NASA-CASE-XNP-02341] c15 N71-21531
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- [NASA-CASE-XLE-05033] c15 N71-23810
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- [NASA-CASE-IGS-08718] c15 N71-24600
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- [NASA-CASE-XLE-04946] c17 N71-24911
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from rotating shafts
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shaft rotations into proportional electrical
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[NASA-CASE-XFR-10856] c05 N71-11189
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[NASA-CASE-XFR-08403] c05 N71-11202
- Laser machining device with dielectric functioning
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[NASA-CASE-HQN-10541-2] c15 N71-27135
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indium metal used as sealant barriers for
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[NASA-CASE-XNP-08881] c17 N71-28747
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[NASA-CASE-XGS-03865] c14 N69-21363
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current flow vaporizes mercury as circuit
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[NASA-CASE-XNP-02251] c12 N71-20896
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[NASA-CASE-XGS-02631] c03 N71-23006
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[NASA-CASE-ARC-10132-1] c09 N71-24597
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[NASA-CASE-XMF-06092] c07 N71-24612
- MINIATURIZATION**
Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-XNP-01753] c08 N71-22897
Fast response miniature carbon dioxide detector with no moving parts for measuring concentration in any atmosphere
[NASA-CASE-MS-C-13332-1] c14 N72-21408
- MIRRORS**
Pneumatic control of telescopic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321
Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
Servo system for retroreflector of Michelson interferometer
[NASA-CASE-NPO-10300] c14 N71-17662
Gas laser frequency stabilized by position of mirrors in resonant cavity
[NASA-CASE-XGS-C3644] c16 N71-18614
Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
[NASA-CASE-ERC-10001] c23 N71-24868
Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
[NASA-CASE-XNP-08907] c23 N71-29123
Optical range finder using reflective first surfaces mirror and transmitting beam splitter
[NASA-CASE-MS-C-12105-1] c14 N72-21409
- MISSILE LAUNCHERS**
Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-XMP-03198] c30 N70-40353
Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
Controlled release device for use in launching rockets or missiles
[NASA-CASE-XKS-C3338] c15 N71-24043
- MIXING CIRCUITS**
Varactor microwave frequency mixing circuit
[NASA-CASE-XGS-02171] c09 N69-24324
Microwave waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141
- MODE TRANSFORMERS**
Silicon controlled rectifier inverter with compensation of transients to avoid false gating
[NASA-CASE-XLA-08507] c09 N69-39984
Dual waveguide mode source for controlling amplitudes of two modes
[NASA-CASE-XNP-03134] c07 N71-10676
- MODULATED CONTINUOUS RADIATION**
Remote control system using modulated continuous wave He-Ne laser
[NASA-CASE-LAR-10311-1] c16 N70-35542
- MODULATION**
Carrier-type transducer with carrier modulation
[NASA-CASE-NUC-10107-1] c09 N72-21254
- MODULATORS**
Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-XGS-04480] c16 N69-27491
Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
Calibrator for measuring and modulating or demodulating laser outputs
[NASA-CASE-XLA-03410] c16 N71-25914
Solid state fullwave modulator-demodulator amplifier for generating rectified output signal
[NASA-CASE-FRC-10072-1] c09 N72-15206
- MODULES**
Biorthogonal encoder with modular design
[NASA-CASE-NPO-10629] c08 N72-18184
- MODULUS OF ELASTICITY**
Compressible elastomeric material with predetermined modulus of elasticity and controlled resiliency
[NASA-CASE-NPO-10853] c18 N70-34685
- MOISTURE**
Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
- MOISTURE METERS**
Method of evaluating moisture barrier properties of materials used in electronics encapsulation
[NASA-CASE-NPO-10051] c18 N71-24934
- MOLDING MATERIALS**
Vacuum method for molding thermosetting compounds used as ablative materials
[NASA-CASE-XLA-01091] c15 N71-10672
Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-XMF-03498] c15 N71-15986
Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975
Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346
Process for molding long thin-wall tubular bodies from thermosetting plastic molding compounds
[NASA-CASE-LAR-10782-1] c15 N72-21487
- MOLDS**
Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836
Using molds for fabricating individual fluid circuit components
[NASA-CASE-XLA-07829] c15 N72-16329
Apparatus and method for compression molding of thermosetting plastics
[NASA-CASE-LAR-10489-1] c15 N72-21484
Process for molding long thin-wall tubular bodies from thermosetting plastic molding compounds
[NASA-CASE-LAR-10782-1] c15 N72-21487
- MOLECULAR BEAMS**
Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777
- MOLECULAR IONS**
Ion plating and radio frequency sputtering method for plating adherent alloy films on objects with complex geometries
[NASA-CASE-LEW-16920-1] c17 N71-31130
- MOLECULAR PUMPS**
Omnidirectional anisotropic molecular trap, used with vacuum pump to simulate space environments for testing spacecraft components
[NASA-CASE-XGS-00783] c30 N71-17788

MOLECULAR ROTATION

SUBJECT INDEX

- Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294
- MOLECULAR ROTATION**
Laser utilizing infrared rotation transitions of diatomic gas for production of different wavelengths
[NASA-CASE-ARC-10370-1] c16 N72-10432
- MOLECULAR SPECTROSCOPY**
Microwave double resonance spectroscopy absorption cell for gas analysis
[NASA-CASE-LAR-10305] c14 N71-26137
- MOLTEN SALT ELECTROLYTES**
Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism
[NASA-CASE-XLE-01645] c63 N71-20904
- MOLYBDENUM CARBIDES**
Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077
- MOLYBDENUM COMPOUNDS**
Method for producing refractory molybdenum disilicides
[NASA-CASE-XMS-00370] c17 N71-20941
- MOMENTS OF INERTIA**
Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992
- MOMENTUM**
Utilization of momentum devices for forming attitude control and damping system for spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708
Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage
[NASA-CASE-NPO-11481] c21 N71-34591
- MONITORS**
Hardline monitoring system for monitoring plurality of transmission lines to determine predetermined tolerance characteristics
[NASA-CASE-KSC-10385] c08 N70-20719
Bacterial contamination monitor using adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N70-22274
Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
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[NASA-CASE-FRC-10010] c10 N71-24862
Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
Monitor for indicating and recording magnitude of imposed force
[NASA-CASE-MSC] c14 N72-15418
Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream
[NASA-CASE-NPO-10985] c14 N72-15420
- MONOCHROMATIC RADIATION**
Method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma
[NASA-CASE-XNP-04167-3] c25 N72-21693
- MONOCHROMATORS**
Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
Color television system for allowing monochrome television camera to produce color pictures
[NASA-CASE-MSC-12146-1] c07 N72-17109
- MONOPOLE ANTENNAS**
Monopole antenna system for maximum omnidirectional efficiency for use on satellites
[NASA-CASE-XLA-00414] c07 N70-38200
Flexible monopole antenna with broad bandwidth and low voltage standing wave ratio
[NASA-CASE-MSC-12101] c09 N71-18720
- MONOPROPELLANTS**
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[NASA-CASE-XNP-00249] c28 N70-38249
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[NASA-CASE-XNP-00876] c28 N70-41311
- MONOPULSE ANTENNAS**
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[NASA-CASE-XGS-05582] c07 N69-27460
Development and characteristics of low-noise multimode monopulse antenna feed system for use with microwave communication equipment
[NASA-CASE-XNP-01735] c07 N71-22750
Monopulse scanning network for scanning volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804
- MONOPULSE RADAR**
Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864
Monopulse tracking system with antenna array of three radiators for deriving azimuth and elevation indications
[NASA-CASE-XGS-01155] c10 N71-21483
- MONOSTABLE MULTIVIBRATORS**
Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
[NASA-CASE-MSC-13492-1] c10 N71-28860
- MOTION**
Quick attach mechanism for moving or stationary wires, ropes, or cables
[NASA-CASE-XFR-05421] c15 N71-22994
- MOTION STABILITY**
Hydraulic drive mechanism for leveling isolation platforms
[NASA-CASE-XMS-03252] c15 N71-10658
- MOTORS**
Nonmagnetic thermal motor for magnetometer movement
[NASA-CASE-XAR-03786] c09 N69-21313
System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-XMF-06892] c09 N71-24805
- MOUNTING**
Flexible mount for scientific spacecraft experiments
[NASA-CASE-MSC-12372-1] c31 N70-41959
Mounting fixture for supporting thermobulb in pipeline
[NASA-CASE-NPO-10158] c33 N71-16356
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[NASA-CASE-NPO-10138] c33 N71-16357
Inertial component clamping assembly design for spacecraft guidance and control system mounting
[NASA-CASE-XMS-02184] c15 N71-20813
Two-degree of freedom inverted flexure useful for mounting wind tunnel models
[NASA-CASE-ARC-10345-1] c32 N72-20905
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Remote control system using modulated continuous wave He-Ne laser
[NASA-CASE-LAR-10311-1] c16 N70-35542
Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420
Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763
Multichannel telemetry system for high-rate and low-rate data communication
[NASA-CASE-NPO-11572] c07 N71-34159
- MULTILAYER INSULATION**
Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal

- [NASA-CASE-XMS-01625] c15 N71-23022
Multilayer insulation panels for cryogenic liquid containers
- [NASA-CASE-MFS-14C23] c33 N71-25351
Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
- [NASA-CASE-XMF-03968] c14 N71-27186
MULTIPATH TRANSMISSION
Hardline monitoring system for monitoring plurality of transmission lines to determine predetermined tolerance characteristics
- [NASA-CASE-KSC-10385] c08 N70-20719
MULTIPLE BEAM INTERVAL SCANNERS
Tracking antenna system with array for synchronous satellite or ground based radar
- [NASA-CASE-GSC-10553-1] c07 N71-19854
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Probe and drogue assembly for mechanical linking of two space vehicles
- [NASA-CASE-XMS-03613] c31 N71-16346
MULTIPLEXING
Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
- [NASA-CASE-XGS-02749] c07 N69-39978
Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
- [NASA-CASE-XNP-01306] c07 N71-20814
Subcarrier frequency multiplexing to separate independent PCM data streams on common carrier by using digital circuits
- [NASA-CASE-NPO-11338] c07 N71-33923
Multichannel telemetry system for high-rate and low-rate data communication
- [NASA-CASE-NPO-11572] c07 N71-34159
Satellite network synchronization system with multiple access to multiplex repeater
- [NASA-CASE-GSC-10390-1] c07 N72-11149
Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
- [NASA-CASE-NPO-10769] c08 N72-11171
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Pulse duration modulation multiplier system
- [NASA-CASE-XER-09213] c07 N71-12390
Design and development of variable pulse width multiplier
- [NASA-CASE-XLA-02850] c09 N71-20447
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Multispectral imaging system for displaying some scene at different wave lengths on different devices
- [NASA-CASE-MS-12404-1] c23 N72-11569
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Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
- [NASA-CASE-XMF-00389] c31 N70-34176
Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
- [NASA-CASE-XNP-00234] c28 N70-38645
Multi-mission space vehicle module stage design
- [NASA-CASE-XMF-01543] c31 N71-17730
Separation mechanism for use between stages of multistage rocket vehicles
- [NASA-CASE-XLA-00188] c15 N71-22874
Development of remotely controlled shaped charge for lateral displacement of rocket stages after separation
- [NASA-CASE-XLA-04804] c31 N71-23008
MULTIVIBRATORS
Extra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit
- [NASA-CASE-XGS-00381] c09 N70-34819
Variable frequency magnetic coupled multivibrator with temperature compensated frequency control circuit
- [NASA-CASE-XGS-00458] c09 N70-38604
Variable frequency magnetic coupled multivibrator with output signal of constant amplitude and waveform
- [NASA-CASE-XGS-00131] c09 N70-38995
Improved semiconductor multivibrator circuit which approaches 100 percent efficiency
- [NASA-CASE-XAC-00942] c10 N71-16042
Transistorized dc-coupled multivibrator with noninverted output signal
- [NASA-CASE-XNP-09450] c10 N71-18723
One shot multivibrator circuit for producing long duration output pulses
- [NASA-CASE-ARC-10137-1] c09 N71-28468
MUSCULOSKELETAL SYSTEM
Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
- [NASA-CASE-ARC-10100-1] c05 N71-24738
- N**
- NACELLES**
Deflector for preventing objects from entering nacelle inlets of jet aircraft
- [NASA-CASE-XLE-00388] c28 N70-34788
Afterburner-equipped jet engine nacelle with slotted configuration afterbody
- [NASA-CASE-XLA-10450] c28 N71-21493
NAVIGATION SATELLITES
Satellite aided aircraft collision avoidance system effective for large number of aircraft
- [NASA-CASE-ERC-10090] c21 N71-24948
NEGATIVE FEEDBACK
Complementary regenerative transistorized switch circuit employing positive and negative feedback
- [NASA-CASE-XGS-02751] c09 N71-23015
NEODYMIUM
Overlapping beams of neodymium laser for detecting picosecond light pulses
- [NASA-CASE-ERC-10227] c14 N70-12626
NETWORK SYNTHESIS
Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks
- [NASA-CASE-GSC-10021-1] c09 N71-24595
High speed phase detector design indicating phase relationship between two square wave input signals
- [NASA-CASE-XNP-01306-2] c09 N71-24596
NICKEL
Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
- [NASA-CASE-XLE-06969] c17 N71-24142
NICKEL ALLOYS
Preparation of nickel alloys for jet turbine blades operating at high temperatures
- [NASA-CASE-XLE-00151] c17 N70-33283
Nickel alloy series for aerospace structures subjected to high temperatures
- [NASA-CASE-XLE-00283] c17 N70-36616
Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
- [NASA-CASE-XLE-02082] c17 N71-16026
Development of nickel base alloys with superior strength at elevated temperatures, high incipient melting points, and high impact resistance
- [NASA-CASE-LEW-10874-1] c17 N71-28972
NICKEL COATINGS
Intermetallic chromium containing nickel aluminide coating for high temperature corrosion protection of stainless steel
- [NASA-CASE-LEW-11267-1] c17 N72-15519
NICKEL COMPOUNDS
Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
- [NASA-CASE-XGS-03505] c03 N71-10608
NICKEL PLATE
Nickel plating onto etched aluminum castings
- [NASA-CASE-XNP-04148] c17 N71-24830
NIObIUM
Organometallic compounds of niobium and tantalum useful for film deposition
- [NASA-CASE-XNP-04023] c06 N71-28808
NITRIC ACID
Maximum density fuming nitric acid used as sterilizable oxidizer in bipropellants
- [NASA-CASE-NPO-10687] c27 N69-33347
NITROAMINES
Nitroaniline sulfate, intumescent paints
- [NASA-CASE-ARC-10099-1] c18 N71-15469

NITROFORMATES

- Solid propellant composition containing highly reactive oxidizer hydrazinium nitroformate [NASA-CASE-NPO-12015] c27 N71-33856
- NITROGEN TETROXIDE**
Gas chromatographic method for determining water in nitrogen tetroxide rocket propellant [NASA-CASE-NPO-10234] c06 N72-17094
- NOISE REDUCTION**
Upper surface, external flow, jet-augmented flap configuration for high wing jet aircraft for noise reduction [NASA-CASE-XLA-00087] c02 N70-33332
Cassegrain antenna subreflector flange for suppressing ground noise and increasing antenna transmitting efficiency [NASA-CASE-XNP-00683] c09 N70-35425
Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature [NASA-CASE-XMP-01813] c28 N70-41582
Variable time constant, wide frequency range smoothing network for noise removal from pulse chains [NASA-CASE-XGS-01983] c10 N70-41964
Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback [NASA-CASE-XGS-01812] c07 N71-23001
Audio signal processing system for noise surge elimination at low amplitude audio input [NASA-CASE-MSC-12223-1] c07 N71-26181
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects [NASA-CASE-XNP-09830] c14 N71-26266
Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects [NASA-CASE-GSC-11133-1] c23 N72-11568
Transonic propulsion fan for turbofan engine with rotor blade spacing designed to minimize noise emission [NASA-CASE-LEW-11402-1] c28 N72-20770
- NOISE TEMPERATURE**
Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources [NASA-CASE-ERC-11020] c14 N71-26774
- NOISE THRESHOLD**
Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses [NASA-CASE-MSC-12165-1] c07 N71-33696
- NONDESTRUCTIVE TESTS**
Nondestructive radiographic tests of resistance welds [NASA-CASE-XNP-C2588] c15 N71-18613
Space environment simulator for testing spacecraft components under aerospace conditions [NASA-CASE-NPO-10141] c11 N71-24964
Apparatus for semiautomatic inspection of microfilmed documents for density, resolution, size, and position [NASA-CASE-MFS-20240] c14 N71-26788
Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen [NASA-CASE-XMP-02221] c18 N71-27170
Method and photodetector device for locating abnormal voids in low density materials [NASA-CASE-MFS-20044] c14 N71-28993
Nondestructive stress testing of solder joints on printed circuit boards by holographic techniques [NASA-CASE-MFS-20687] c16 N72-11415
- NON-EQUILIBRIUM PLASMAS**
Plasma probes having guard ring and primary sensor at same potential to prevent stray wall current collection in ionized gases [NASA-CASE-XLE-00690] c25 N69-39884
- NONFLAMMABLE MATERIALS**
Nitrile rubber containing paint as fire retardant coating [NASA-CASE-ARC-10196-1] c18 N72-11456
Nonflammable coatings of synthetic mica and silicate gelant solution mixed with latex paint for use in liquid oxygen or high oxygen gaseous atmospheres [NASA-CASE-MFS-20486] c18 N72-21557
- NONLINEAR SYSTEMS**
Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal [NASA-CASE-XMP-00701] c09 N70-40272
Describing continuous analog to digital converter with parallel digital output and nonlinear feedback [NASA-CASE-XAC-04031] c08 N71-18594
Split range transducer [NASA-CASE-XLA-11189] c10 N72-20222
- NOSE CONES**
Automatically deploying nozzle exit cone extension [NASA-CASE-XLE-01640] c31 N71-15637
Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield [NASA-CASE-XMS-04312] c07 N71-22984
- NOSE WHEELS**
Nose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control [NASA-CASE-XLA-01804] c02 N70-34160
- NOTCH TESTS**
Notch cutting device with adjustable test specimen carriage [NASA-CASE-MFS-20730] c14 N72-11372
- NOZZLE DESIGN**
High thrust annular liquid propellant rocket engine and exhaust nozzle design [NASA-CASE-XLE-00078] c28 N70-33284
Penshaped, supersonic exhaust nozzle design [NASA-CASE-XLE-00057] c28 N70-38711
Telescoping-spike supersonic nozzle for turbojet or ramjet engines [NASA-CASE-XLE-00005] c28 N70-39899
Automatically deploying nozzle exit cone extension [NASA-CASE-XLE-01640] c31 N71-15637
Propellant injection assembly having individually removable and replaceable nozzles for liquid fueled rocket engines [NASA-CASE-XMP-00968] c28 N71-15660
Development of collapsible nozzle extension for rocket engines [NASA-CASE-MFS-11497] c28 N71-16224
Design and development of gas turbine combustion unit with nozzle guide vanes for introducing diluent air into combustion gases [NASA-CASE-XLE-103477-1] c28 N71-20330
Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings [NASA-CASE-XNP-02888] c18 N71-21068
- NOZZLE FLOW**
System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream [NASA-CASE-XLA-01163] c21 N71-15582
Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes [NASA-CASE-XGS-01143] c31 N71-15647
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles [NASA-CASE-NPO-10185] c10 N71-26339
Tertiary flow injection system for thrust vectoring of propulsive nozzle flow [NASA-CASE-MFS-20831] c28 N71-29153
- NOZZLE INSERTS**
Flexible rocket motor nozzle closure device to aid ignition and protect rocket chamber from foreign objects [NASA-CASE-XLA-02651] c28 N70-41967
- NUCLEAR ELECTRIC POWER GENERATION**
Nuclear electric generator for accelerating charged propellant particles in electrostatic propulsion system [NASA-CASE-XLE-00818] c22 N70-34248
- NUCLEAR EXPLOSION EFFECT**
Development of method for protecting large and oddly shaped areas from radiant and convective heat [NASA-CASE-XNP-01310] c33 N71-28852
- NUCLEAR FUELS**
Two step process for cladding nuclear fuels with tungsten [NASA-CASE-XNP-03704] c15 N71-17695
Fuel system for ion exchange thermal nuclear reactor

- [NASA-CASE-LEW-11645-1] c22 N72-20602
- NUCLEAR FUSION**
 Converging coaxial plasma accelerator for generating dense high velocity plasma bursts
 [NASA-CASE-ARC-10109] c25 N71-29181
- NUCLEAR MAGNETIC RESONANCE**
 Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
 [NASA-CASE-XNP-09830] c14 N71-26266
- NUCLEAR POWER PLANTS**
 Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
 [NASA-CASE-XHQ-03673] c33 N71-29046
- NUCLEAR REACTOR CONTROL**
 Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
 [NASA-CASE-XLE-04599] c22 N72-20597
- NUCLEAR ROCKET ENGINES**
 Nuclear gaseous reactor for heating working fluid to high temperatures
 [NASA-CASE-XLE-00321] c22 N70-34572
- NUCLEATE BOILING**
 Method for improving heat transfer characteristics in nucleate boiling process
 [NASA-CASE-XMS-04268] c33 N71-16277
- NUCLEOTIDES**
 Rapid assay technique for determination of flavin coenzymes using bacterial bioluminescent reaction
 [NASA-CASE-GSC-10565-1] c06 N69-33349
- NULL ZONES**
 Manual control mechanism for adjusting control rod to null position
 [NASA-CASE-XLA-01808] c15 N71-20740
- NUMERICAL CONTROL**
 Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
 [NASA-CASE-LAR-10204] c14 N71-27215
- NUMERICAL INTEGRATION**
 Apparatus for computing square roots
 [NASA-CASE-XGS-04768] c08 N71-19437
- NUXTATION**
 Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
 [NASA-CASE-XMF-00442] c31 N71-10747
- Nutation oscillation damper based on fluid radial flow through porous material placed parallel to axes of rotation
 [NASA-CASE-GSC-11205-1] c15 N71-31128
- NUIS (FASTENERS)**
 Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
 [NASA-CASE-XGS-01971] c15 N71-15922
- Split nut and bolt separation device
 [NASA-CASE-XNP-06914] c15 N71-21489
- Device for securing together structural members with axially stretched bolt and nut
 [NASA-CASE-GSC-11149-1] c15 N71-34422
- O RING SEALS**
 High pressure four-way valve with O ring adapted to pass across inlet port
 [NASA-CASE-XNP-00214] c15 N70-36908
- OILS**
 Oil trap located between diffusion pump and vacuum system to prevent backstreaming of oil molecules
 [NASA-CASE-GSC-10518] c15 N69-21855
- Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
 [NASA-CASE-XMF-01779] c12 N71-20815
- OMNIDIRECTIONAL ANTENNAS**
 Microwave omnidirectional antenna for use on spacecraft
 [NASA-CASE-XLA-J3114] c09 N71-22888
- Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
 [NASA-CASE-LAR-10545-1] c09 N72-21244
- ONBOARD EQUIPMENT**
 Survival couch for aircraft or spacecraft crews
 [NASA-CASE-XLA-00118] c05 N70-33285
- Cryogenic storage system for gases onboard spacecraft
 [NASA-CASE-XMS-04390] c31 N70-41871
- Flexible mount for scientific spacecraft experiments
 [NASA-CASE-MSC-12372-1] c31 N70-41959
- Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
 [NASA-CASE-XMF-02433] c14 N71-10616
- Design and construction of satellite appendage tie-down cord
 [NASA-CASE-XGS-02554] c31 N71-21064
- Satellite aided aircraft collision avoidance system effective for large number of aircraft
 [NASA-CASE-ERC-10090] c21 N71-24948
- Closed loop servosystem for variable speed tape recorders onboard spacecraft
 [NASA-CASE-NPO-10700] c07 N71-33613
- Collapsible couch system for manned space vehicles
 [NASA-CASE-MSC-13140] c05 N72-11085
- Monostable multivibrator for conserving power in spacecraft systems
 [NASA-CASE-GSC-10082-1] c10 N72-20221
- OPTICAL COMMUNICATION**
 Fabry-Perot interferometer retrodirective reflector modulator for optical communication
 [NASA-CASE-XGS-04480] c16 N69-27491
- Specifications and drawings for semipassive optical communication system
 [NASA-CASE-XLA-01090] c07 N71-12389
- Optical communication system with gas filled waveguide for laser beam transmission
 [NASA-CASE-HQN-01054-1] c16 N71-27183
- Development and characteristics of optical communications system based on modulation of light beams
 [NASA-CASE-XLA-01090] c16 N71-28963
- OPTICAL DATA PROCESSING**
 Optical data processing system using paraboloidal reflecting surfaces
 [NASA-CASE-GSC-11296-1] c23 N72-21662
- OPTICAL EMISSION SPECTROSCOPY**
 Maksutov spectrograph for low light level research
 [NASA-CASE-XLA-10402] c14 N71-29041
- OPTICAL EQUIPMENT**
 Optical system for increasing light beam intensity within solar simulators
 [NASA-CASE-NPO-11096] c11 N70-25959
- Detection instrument for light emitted from ATP biochemical reaction
 [NASA-CASE-XGS-05534] c23 N71-16355
- Optical characteristics measuring apparatus
 [NASA-CASE-XNP-08840] c23 N71-16365
- Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
 [NASA-CASE-XLA-01907] c14 N71-23268
- Design and development of optical interferometer with laser light source for application to schlieren systems
 [NASA-CASE-XLA-04295] c16 N71-24170
- Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
 [NASA-CASE-ERC-10001] c23 N71-24868
- Optical device containing rotatable prism and reflecting mirror for generating precise angles
 [NASA-CASE-XGS-04173] c19 N71-26674
- Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on curved photoreceptor
 [NASA-CASE-GSC-10700] c23 N71-30027
- Development and characteristics of spectroradiometer with wedge filters to eliminate adverse effect of pinholes in filters
 [NASA-CASE-HQN-10683] c14 N71-34389
- Optical vision testing unit for testing eyes and visual system of human subject
 [NASA-CASE-MSC-13601-1] c05 N72-11088
- Slotted fine-adjustment support for optical devices
 [NASA-CASE-MFS-20249] c15 N72-11386
- Development and chemical properties of composition for preventing fogging of optical surfaces
 [NASA-CASE-MSC-13530-1] c06 N72-15129

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- Development of light sensing system for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-15422
- Cyclic optical shutter for transmitting single radiation pulses
[NASA-CASE-NPO-10758] c14 N72-15429
- OPTICAL FILTERS**
- Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622
- Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568
- Family of physical correction filters for improving optical quality of image
[NASA-CASE-HQN-10542-1] c23 N72-21663
- OPTICAL MEASUREMENT**
- Passive optical wind and turbulence remote detection system
[NASA-CASE-XMF-14032] c20 N71-16340
- Ellipsoidal mirror reflector for measuring reflectance
[NASA-CASE-XGS-05291] c23 N71-16341
- Optical imaging system for increasing absorbing efficiency of light or radiant energy at light sensitive face of imaging detector
[NASA-CASE-ARC-10194-1] c23 N71-31142
- OPTICAL MEASURING INSTRUMENTS**
- Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-XGS-04879] c14 N71-20428
- Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673
- Optical system for selecting particular wavelength light beams from multiple wavelength light source
[NASA-CASE-ERC-10248] c14 N72-17323
- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-MFS-20642] c14 N72-21407
- OPTICAL PROPERTIES**
- Remote-reading torque meter for use where high horsepower are transmitted at high rotative speeds
[NASA-CASE-XLE-00503] c14 N70-34818
- Multi-state devices using bodies of cholesteric phase liquid crystalline material as memory elements
[NASA-CASE-ERC-10330] c08 N70-36002
- Ultra stable calibrated light source for use as standard
[NASA-CASE-MSC-12293-1] c14 N70-36029
- Quasi-optical microwave circuit with dielectric body for use with oversize waveguides
[NASA-CASE-ERC-10011] c07 N71-29065
- Design and development of light sensing device for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11201] c14 N72-15421
- Development of light sensing system for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-15422
- OPTICAL PUMPING**
- Optical pump and driver system for dye lasers using xenon flash lamp
[NASA-CASE-ERC-10283] c16 N70-34554
- OPTICAL PYROMETERS**
- Filter arrangement for controlling light intensity in motion picture camera used in optical pyrometry
[NASA-CASE-XLA-00062] c14 N70-33254
- OPTICAL RADAR**
- Acquisition and tracking system for optical radar
[NASA-CASE-MFS-2125] c16 N72-13437
- OPTICAL RANGE FINDERS**
- Electro-optical attitude sensing device for landing approach of flight vehicle
[NASA-CASE-XMS-01994-1] c14 N72-17326
- Optical range finder using reflective first surfaces mirror and transmitting beam splitter
[NASA-CASE-MSC-12105-1] c14 N72-21409
- OPTICAL REFLECTION**
- Gas laser with lasing medium for removing films deposited on terminating optics of cavity
[NASA-CASE-ERC-10210] c16 N70-41525
- Hybrid holographic system using reference, transmitted, and reflected beams simultaneously
[NASA-CASE-MFS-20074] c16 N71-15565
- Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674
- Illumination system design for use as sunlight simulator in space environment simulators with multiple light sources reflected to single virtual source
[NASA-CASE-HQN-10781] c23 N71-30292
- OPTICAL RESONANCE**
- Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-XGS-04879] c14 N71-20428
- OPTICAL SCANNERS**
- Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
- Optical apparatus for visual detection of roundness and regularity of cone surfaces
[NASA-CASE-XMF-00462] c14 N70-34298
- Electro-optical system with scan-in illuminator and scan-out photosensor for scanning variable transmittance objects
[NASA-CASE-NPO-11106] c14 N70-34697
- Multi-lobe scan horizon sensor
[NASA-CASE-XGS-00809] c21 N70-35427
- Binocular scanning instrument universally applicable to scanning and stereoscopic viewing
[NASA-CASE-NPO-11002] c14 N70-35433
- Spacecraft attitude sensing system design with narrow-field of view sensor rotating about spacecraft x-y plane
[NASA-CASE-GSC-10890-1] c21 N71-34589
- OPTICAL TRACKING**
- Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-XGS-01159] c21 N71-10678
- Optical tracker with pair of PM reticles having patterns 90 deg out of phase
[NASA-CASE-XGS-05715] c23 N71-16100
- Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627
- OPTIMIZATION**
- Power point tracker for maintaining optimal output voltage of power source
[NASA-CASE-GSC-10376-1] c14 N71-27407
- ORBITAL SPACE STATIONS**
- Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373
- Internal and external serpentine devices for performing physical operations around orbital space stations
[NASA-CASE-XMF-05344] c31 N71-16345
- Describing apparatus for manufacturing operations in low and zero gravity environments of orbital space flight
[NASA-CASE-MFS-20410] c15 N71-19214
- ORGANIC CHEMISTRY**
- Process for interfacial polymerization of pyromellitic dianhydride and tetraamino benzene
[NASA-CASE-XLA-03104] c06 N71-11235
- ORGANIC COMPOUNDS**
- Synthesis of high purity dianilinosilanes
[NASA-CASE-XMF-06409] c06 N71-23230
- Preparation of dicyanoacetylene and vinylidene copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500
- Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds
[NASA-CASE-NPO-10701] c06 N71-28620
- Formation of mechanically durable, chemically optically stable reflective coating from organic materials
[NASA-CASE-GSC-11214-1] c06 N72-10137
- ORGANOMETALLIC COMPOUNDS**
- Ammonium perchlorate composite propellant with organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14090
- Organometallic compounds of niobium and tantalum useful for film deposition
[NASA-CASE-XNP-04023] c06 N71-28808

ORGANOMETALLIC POLYMERS

Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363

ORIFICE FLOW

Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924

ORIFICES

Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736
Variable-orifice gas turbine system for fuel rate control in aircraft
[NASA-CASE-LEW-11187-1] c28 N72-10824

ORTHOGONAL MULTIPLEXING THEORY

Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917

ORTHOGONALITY

Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790

ORTHOTROPIC CYLINDERS

Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659

OSCILLATION DAMPERS

Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894
Stabilization system for gravity-oriented satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146
Nutation oscillation damper based on fluid radial flow through porous material placed parallel to axes of rotation
[NASA-CASE-GSC-11205-1] c15 N71-31128
Damper system for alleviating air flow shock loads on wind tunnel models
[NASA-CASE-XLA-09480] c11 N71-33612

OSCILLATORS

Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
Development and characteristics of oscillating static inverter
[NASA-CASE-XGS-05289] c09 N71-19470
Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-XMP-04367] c09 N71-23545
Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LEW-10345-1] c10 N71-25899
Wideband voltage controlled oscillator with high phase stability
[NASA-CASE-XLA-03893] c10 N71-27271
Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810
Square wave transistor oscillator for inverter
[NASA-CASE-NPO-10760] c09 N71-34215
Transistor amplifier and square wave oscillator for obtaining ac voltage from dc source
[NASA-CASE-NPO-11365] c09 N72-15204
Voltage controlled oscillator circuit employing two differential amplifiers

[NASA-CASE-MFS-21465]

c10 N72-20232

OSCILLOSCOPES

Color-coded area sensitive maps of photomultiplier tubes for oscilloscope or color TV display
[NASA-CASE-LAR-10320-1] c09 N7C-36057
Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
[NASA-CASE-NPO-10251] c10 N71-27365
Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N72-21423

OUTGASSING

Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365
Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582

OVENS

Oven for heat treating heat shields
[NASA-CASE-XMS-04318] c15 N69-27871
Temperature regulator for controlling temperature environment within oven
[NASA-CASE-NPO-11304] c14 N71-33106

OVERVOLTAGE

Spark gap type protective circuit for fast sensing and removal of overvoltage conditions
[NASA-CASE-XAC-08981] c09 N69-39897
Sensing circuit for instantaneous reaction to power overloads
[NASA-CASE-GSC-10667-1] c10 N71-33129

OXIDATION

Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040

OXIDATION RESISTANCE

Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
[NASA-CASE-XLE-02082] c17 N71-16026
Preparation of polyimides with high thermal and oxidative stability
[NASA-CASE-LEW-11325-1] c06 N72-10134

OXIDES

Utilization of lithium p-lithiophenoxide to prepare star polymers
[NASA-CASE-NPO-10999] c06 N72-15127

OXIDIZERS

Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NPO-10046] c28 N72-17843

OXIMETRY

Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185

OXYGEN

Analytical test apparatus and method for determining oxygen content in alkali liquid metal
[NASA-CASE-XLE-01997] c06 N71-23527
Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
Method and apparatus for obtaining oxygen from soils containing metal oxides
[NASA-CASE-MSC-12408-1] c13 N72-20355
Method for detecting oxygen in gas by thermoluminescence
[NASA-CASE-LAR-10668-1] c06 N72-21103

OXYGEN ANALYZERS

Method and apparatus for analyzing respiratory gas flow rate and inspiration-expiration frequencies in real time
[NASA-CASE-HSC-13436-1] c05 N72-20113

OXYGEN CONSUMPTION

Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments
[NASA-CASE-XPR-08403] c05 N71-11202

OXYGEN FLUORIDES

Oxygen difluoride in synthesis of fluoropolymers
[NASA-CASE-NPO-12061-1] c06 N72-21100

OXYGEN MASKS

Method and apparatus for analyzing respiratory gas

- flow rate and inspiration-expiration frequencies in real time
[NASA-CASE-MSC-13436-1] c05 N72-20113
- OXYGEN METABOLISM**
Oxygen metabolism monitor with carbon dioxide analyzer, used with space suit and life support system
[NASA-CASE-MPS-20092] c05 N70-20736
- P**
- P-N JUNCTIONS**
Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-C4980] c09 N69-27422
Method and apparatus for detecting surface ions on silicon p-n junction diodes and transistors
[NASA-CASE-ERC-10325] c15 N70-36058
Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-XGS-07801] c09 N71-12513
Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440
Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492
Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-XNP-01961] c26 N71-29156
Electromagnetic radiation measuring instrument utilizing ac p-n junction diode capacitance
[NASA-CASE-LEW-11159-1] c14 N71-31127
- P-TYPE SEMICONDUCTORS**
Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
- PACKAGES**
Impact testing machine for imparting large impact forces on high velocity packages
[NASA-CASE-XNP-C4817] c14 N71-23225
- PACKAGING**
Characteristics of device for folding thin flexible sheets into compact configuration
[NASA-CASE-XLA-00137] c15 N70-33180
Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
[NASA-CASE-XLA-00138] c31 N70-37981
Airtight housing for packaging electric equipment
[NASA-CASE-KSC-10031] c15 N72-15475
- PACKING DENSITY**
Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-C4816] c06 N69-39936
- PAINTS**
Intumescent paint containing sulfonic acid salt of nitrosubstituted aromatic amines and mercaptan polymers for thermal protection of substrates
[NASA-CASE-ARC-10325-1] c06 N70-41950
Nitroaniline sulfate, intumescent paints
[NASA-CASE-ARC-10099-1] c18 N71-15469
Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-XGS-04799] c18 N71-24183
White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184
Nonflammable coatings of synthetic mica and silicate gelant solution mixed with latex paint for use in liquid oxygen or high oxygen gaseous atmospheres
[NASA-CASE-MPS-20486] c18 N72-21557
- PALLADIUM**
Separating dissolved hydrogen from water by using palladium with palladium black
[NASA-CASE-MSC-13335-1] c06 N70-36121
- PALLADIUM ALLOYS**
Hydrogenation unit with reaction chamber of hydrogen-permeable palladium alloy
[NASA-CASE-NPO-11682] c15 N72-21474
- PALLADIUM COMPOUNDS**
Preventing pressure buildup in electrochemical cells by reacting palladium oxide with evolved hydrogen
[NASA-CASE-XGS-01419] c03 N70-41864
- PANELS**
Honeycomb core panels formed of minimal surface periodic tubule layers, suitable for walls, floors, and furniture construction
[NASA-CASE-ERC-10364] c18 N70-40061
Nut and bolt fastener permitting all-directional movement of skin sections with respect to supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799
Multilayer insulation panels for cryogenic liquid containers
[NASA-CASE-MPS-14023] c33 N71-25351
Method and apparatus for fabricating solar cell panels
[NASA-CASE-XNP-03413] c03 N71-26726
Method for making pressurized meteoroid penetration detector panels
[NASA-CASE-XLA-08916] c15 N71-29018
- PARABOLIC ANTENNAS**
Device for improving efficiency of parabolic horn antenna system for linearly polarized signals
[NASA-CASE-XNP-00611] c09 N70-35219
Drive system for parabolic tracking antenna with reversible motion and minimal backlash
[NASA-CASE-NPO-10173] c15 N71-24696
- PARABOLIC REFLECTORS**
Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-XNP-00540] c09 N70-35382
Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580
Self erecting parabolic reflector design for use in space
[NASA-CASE-XMS-03454] c09 N71-20658
- PARABOLOID MIRRORS**
Three mirror glancing incidence system for X ray telescope
[NASA-CASE-MPS-21372] c14 N72-20397
Optical data processing system using paraboloidal reflecting surfaces
[NASA-CASE-GSC-11296-1] c23 N72-21662
- PARACHUTE DESCENT**
Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
Piston in bore cutter for severing parachute control lines and sealing cable hole to prevent water leakage into load
[NASA-CASE-XMS-04072] c15 N70-42017
Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N72-11792
- PARACHUTE FABRICS**
Development and characteristics of parachute fabric for aerodynamic decelerator using lightweight, variable solidity, knitted material
[NASA-CASE-LAR-10776-1] c02 N72-21004
- PARAGLIDERS**
Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
- PARALLEL PLATES**
Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584
- PARAMETRIC AMPLIFIERS**
Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-15196
- PARAMINGS**
Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630
- PARTIAL PRESSURE**
Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741
- PARTICLE ACCELERATION**
Selector mechanism for mechanical separation and

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PERFORATED PLATES

- discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777
- Method and apparatus for use in forming highly collimated beam of microparticles with high charge to mass ratio and injecting beam into electrostatic accelerating tube
[NASA-CASE-XGS-06628] c24 N71-16213
- PARTICLE BEAMS**
Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
- PARTICLE COLLISIONS**
Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
- PARTICLE DENSITY (CONCENTRATION)**
Particle detector for measuring micrometeoroid velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332
- PARTICLE EMISSION**
Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
- Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
- PARTICLE ENERGY**
Particle detector for indicating incidence and energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322
- PARTICLE SIZE DISTRIBUTION**
Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936
- Apparatus for producing hydrocarbon slurry containing small particles of magnesium for use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382
- Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-03940] c18 N71-26153
- PARTICLES**
Development of device for separating, collecting, and viewing soil particles
[NASA-CASE-XNP-09770] c15 N71-20440
- Production of metal powder with controlled particle size
[NASA-CASE-XLE-06461-2] c17 N72-11433
- PASSAGEWAYS**
Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936
- PASSIVE SATELLITES**
Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309
- Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
- Forming inflatable panels erectable in space for passive communication satellite
[NASA-CASE-XLA-03497] c15 N71-23052
- PATENTS**
Electromechanical actuator and its use in rocket thrust control valve
[NASA-CASE-XNP-05975] c15 N69-23185
- Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
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- Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
- Fecal waste disposal container
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Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XHF-06589] c05 N71-23159
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[NASA-CASE-XLA-00203] c14 N70-34161
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Elastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
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[NASA-CASE-XLA-02132] c31 N71-10582
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[NASA-CASE-XLA-01339] c31 N71-15692
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[NASA-CASE-XLA-09881] c31 N71-16085
- Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
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[NASA-CASE-XGS-01983] c10 N70-41964
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[NASA-CASE-NPO-12107] c08 N71-27255
- High speed direct binary to binary coded decimal converter for use in PCM telemetry systems
[NASA-CASE-KSC-10326] c08 N72-21197
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[NASA-CASE-LAR-10031-1] c15 N70-20714
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[NASA-CASE-MFS-20774] c14 N71-34387
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[NASA-CASE-NPO-10765] c06 N72-20121
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[NASA-CASE-LAR-10318-1] c14 N72-20396

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[NASA-CASE-XGS-10010] c03 N72-15986
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[NASA-CASE-NPO-10401] c03 N72-20033
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[NASA-CASE-ERC-10285] c09 N70-36076
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[NASA-CASE-XMF-00701] c09 N70-40272
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[NASA-CASE-XGS-01590] c07 N71-12392
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[NASA-CASE-XMF-08665] c10 N71-19467
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[NASA-CASE-XMF-01892] c10 N71-22986
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[NASA-CASE-XNP-05382] c10 N71-23544
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[NASA-CASE-NPO-10302] c10 N71-26142
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[NASA-CASE-MSC-13201-1] c07 N71-28429
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[NASA-CASE-NPO-11129] c09 N70-35396
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[NASA-CASE-XGS-01590] c07 N71-12392
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[NASA-CASE-GSC-10021-1] c09 N71-24595
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- Vibrophonocardiograph comprising low weight and small volume piezoelectric microphone with amplifier having high input impedance for high sensitivity and low frequency response
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- PLANETARY SURFACES**
- Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
- PLASMA ACCELERATION**
- Increasing available power per unit area in ion rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
- PLASMA ACCELERATORS**
- Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
- Continuous operation, single phased, induction plasma accelerator producing supersonic speeds
[NASA-CASE-XLA-01354] c25 N70-36946
- Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
- Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693
- Converging coaxial plasma accelerator for generating dense high velocity plasma bursts
[NASA-CASE-ARC-10109] c25 N71-29181
- Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-XLA-00327] c25 N71-29184
- Generator and accelerating device for high density, hypervelocity plasmas
[NASA-CASE-MFS-20589] c25 N72-20689
- PLASMA CYLINDERS**
- Plasma-fluidic hybrid display system combining high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519
- PLASMA DENSITY**
- Apertured electrode focusing system for ion sources with nonuniform plasma density
[NASA-CASE-XMP-03332] c09 N71-10618
- PLASMA DIAGNOSTICS**
- Plasma probes having guard ring and primary sensor at same potential to prevent stray wall current collection in ionized gases
[NASA-CASE-XLE-00690] c25 N69-39884
- Apparatus for measuring conductivity and velocity of plasma with multiple sensing coils positioned in plasma
[NASA-CASE-XAC-05695] c25 N71-16073
- PLASMA DYNAMICS**
- Apparatus for measuring conductivity and velocity of plasma with multiple sensing coils positioned in plasma
[NASA-CASE-XAC-05695] c25 N71-16073
- PLASMA ENGINES**
- Nonconductive tube as feed system for plasma thruster
[NASA-CASE-XLE-02902] c25 N71-21694
- PLASMA GENERATORS**
- Apparatus for producing highly conductive, high temperature electron plasma with homogenous temperature and pressure distribution
[NASA-CASE-XLA-00147] c25 N70-34661
- Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
- Generator and accelerating device for high density, hypervelocity plasmas
[NASA-CASE-MFS-20589] c25 N72-20689
- PLASMA GUNS**
- Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610
- PLASMA LAYERS**
- Electrostatic modulator for communicating through plasma sheath formed around spacecraft during reentry
[NASA-CASE-XLA-01400] c07 N70-41331
- Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres
[NASA-CASE-XLA-01127] c07 N70-41372
- Reentry communication by injection of water droplets into plasma layer surrounding space vehicle
[NASA-CASE-XLA-01552] c07 N71-11284
- PLASMA POTENTIALS**
- Method and apparatus for measuring potentials in plasmas
[NASA-CASE-XLE-00821] c25 N71-15650
- PLASMA PROBES**
- Plasma probes having guard ring and primary sensor at same potential to prevent stray wall current collection in ionized gases

PLASMA RADIATION

SUBJECT INDEX

[NASA-CASE-XLE-00690] c25 N69-39884
 Small plasma probe using tungsten wire collector
 in tubular shield
 [NASA-CASE-XLE-02578] c25 N71-20747

PLASMA RADIATION
 Development of method for measuring electron
 density gradients of plasma sheath around space
 vehicle during atmospheric entry
 [NASA-CASE-XLA-06232] c25 N71-20563

PLASMA SHEATHS
 Space environment simulation system for measuring
 spacecraft electric field strength in plasma
 sheath
 [NASA-CASE-XLE-02038] c09 N71-16086
 Development of method for measuring electron
 density gradients of plasma sheath around space
 vehicle during atmospheric entry
 [NASA-CASE-XLA-06232] c25 N71-20563

PLASMA SPRAYING
 Flame or plasma spraying for molybdenum coating of
 carbon or graphite surfaces to prevent oxidative
 corrosion
 [NASA-CASE-XLA-00302] c15 N71-16077

PLASMAS (PHYSICS)
 Apparatus for measuring conductivity and velocity
 of plasma with multiple sensing coils positioned
 in plasma
 [NASA-CASE-XAC-05695] c25 N71-16073

PLASTIC COATINGS
 Process permitting application of synthetic resin
 coating to irregular-shaped objects at ambient
 temperature
 [NASA-CASE-XNP-06508] c18 N69-39895

PLASTIC DEFORMATION
 Development of process for analysis of strain
 field of structures subjected to large
 deformations involving low modulus substrate
 with thin coating
 [NASA-CASE-LAR-10765-1] c32 N71-35132

PLASTIC MEMORY
 Multi-state devices using bodies of cholesteric
 phase liquid crystalline material as memory
 elements
 [NASA-CASE-ERC-10330] c08 N70-36002

PLASTIC PROPERTIES
 Obtaining highly alloyed material by heating
 prealloyed powders to superplastic state and
 forming at low pressures
 [NASA-CASE-LEW-10805-1] c15 N70-41577

PLASTICS
 Hot forming of plastic sheets
 [NASA-CASE-XMS-05516] c15 N71-17803
 Technique for making foldable, inflatable, plastic
 honeycomb core panels for use in building and
 bridge structures, light and radio wave
 reflectors, and spacecraft
 [NASA-CASE-XLA-03492] c15 N71-22713
 Electrode sealing and insulation for fuel cells
 containing caustic liquid electrolytes using
 powdered plastic and metal
 [NASA-CASE-XMS-01625] c15 N71-23022
 Dielectric apparatus for heating, fusing, and
 hardening of organic matrix to form plastic
 material into shaped product
 [NASA-CASE-LAR-10121-1] c15 N71-26721
 Plastic sphere for radar tracking and calibration
 [NASA-CASE-XLA-11154] c07 N72-21117
 Apparatus and method for compression molding of
 thermosetting plastics
 [NASA-CASE-LAR-16489-1] c15 N72-21484

PLATES (STRUCTURAL MEMBERS)
 Foil seal between parts moving relative to each
 other
 [NASA-CASE-XLE-05130] c15 N69-21362

PLATING
 Selective plating of etched circuits without
 removing previous plating
 [NASA-CASE-XGS-03120] c15 N71-24047
 Metal plating process employing spraying of
 metallic powder/peening particle mixture
 [NASA-CASE-GSC-11163-1] c15 N72-20461

PLENUM CHAMBERS
 Platform with several ground effect pads and
 plenum chambers
 [NASA-CASE-MFS-14685] c31 N71-15689

PLOTTERS
 Plotter device for automatically drawing
 equipotential lines on sheet of resistance paper
 [NASA-CASE-NPO-11134] c09 N72-21246

PLOTTING

Instrument for measuring potentials on two
 dimensional electric field plot
 [NASA-CASE-XLA-08493] c10 N71-19421

PLUGS
 Rocket chamber leak test fixture using tubular
 plug
 [NASA-CASE-XPR-09479] c14 N69-27503
 Fatigue resistant shear pin with hollow shaft and
 two plugs
 [NASA-CASE-XLA-09122] c15 N69-27505
 Control of gas flow from pressurized vessel by
 thermal expansion of metal plug
 [NASA-CASE-NPO-10298] c12 N71-17661
 Heated porous plug microthruster for spacecraft
 reaction jet controlled systems such as fuel
 flow regulation, propellant disassociation, and
 heat transfer augmentation
 [NASA-CASE-GSC-10640-1] c28 N72-18766

PNEUMATIC CONTROL
 Pneumatic system for cyclic control of fluid flow
 in pneumatic device
 [NASA-CASE-XMS-04843] c03 N69-21469
 Pneumatic control of telescopic mirror support
 system
 [NASA-CASE-XLA-03271] c11 N69-24321
 Actuator using compressed gas as driving force to
 control valve handling large liquid flows
 [NASA-CASE-XHQ-01208] c15 N70-35409
 Pneumatic mechanism for releasing hook and loop
 fasteners between large rigid structures
 [NASA-CASE-XMS-10660-1] c15 N71-25975

PNEUMATIC EQUIPMENT
 Development and characteristics of high pressure
 control valve
 [NASA-CASE-MSC-11010] c15 N71-19485
 Pneumatic cantilever beams and platform for space
 erectable structure
 [NASA-CASE-XLA-01731] c32 N71-21045
 Fluid transferring system design for purging
 toxic, corrosive, or noxious fluids and fumes
 from materials handling equipment for cleansing
 and accident prevention
 [NASA-CASE-XMS-01905] c12 N71-21089
 Zero gravity apparatus utilizing pneumatic
 decelerating means to create payload subjected
 to zero gravity conditions by dropping its
 height
 [NASA-CASE-XHP-06515] c14 N71-23227
 Pneumatic servoamplifier for controlling flow
 regulation
 [NASA-CASE-MSC-12121-1] c15 N71-27147

POINT SOURCES
 Electronic background suppression field scanning
 sensor for detecting point source targets
 [NASA-CASE-XGS-05211] c07 N69-39980
 X ray collimating structure for focusing radiation
 directly onto detector
 [NASA-CASE-XHQ-04106] c14 N70-40240

POINTING CONTROL SYSTEMS
 Development of reflector system for application to
 line-of-sight pointing and tracking telescopes
 [NASA-CASE-NPO-10468] c23 N71-33229

POLAR ORBITS
 Spin phase synchronization of cartwheel satellite
 in polar orbit
 [NASA-CASE-XGS-05579] c31 N71-15676

POLARIMETERS
 Automatic polarimeter capable of measuring
 transient birefringence changes in electro-optic
 materials
 [NASA-CASE-XNP-08883] c23 N71-16101
 Interferometer-polarimeter for measuring intensity
 polarization of optical radiation
 [NASA-CASE-NPO-11239] c14 N71-33024

POLARITY
 Converting output of positive dc voltage source to
 negative dc voltage across load with common
 reference point
 [NASA-CASE-XHP-08217] c03 N71-23239
 Peak polarity selector for monitoring waveforms
 [NASA-CASE-PRC-10010] c10 N71-24862
 Precision full wave rectifier circuit for
 rectifying incoming electrical signals having
 positive or negative polarity with only positive
 output signals
 [NASA-CASE-ARC-10101-1] c09 N71-33109

POLARIZED ELECTROMAGNETIC RADIATION
 Device for improving efficiency of parabolic horn

- antenna system for linearly polarized signals
[NASA-CASE-XNP-00611] c09 N70-35219
- Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-XNP-00540] c09 N70-35382
- POLARIZED LIGHT**
Detecting molecular constituents in radiation transparent media by measuring intensity of light transmitted through cell while applying electrostatic or electromagnetic field
[NASA-CASE-ERC-10C21] c06 N71-28635
- POLARIZED RADIATION**
Interferometer-polarimeter for measuring intensity polarization of optical radiation
[NASA-CASE-NPO-11239] c14 N71-33024
- POLISHING**
Conforming polisher for aspheric surfaces of revolution with inflatable tube
[NASA-CASE-XGS-02884] c15 N71-22705
- POLYBUTADIENE**
Synthesis of polyfluorobutadiene by polymerization of perfluorobutadiene with diisopropyl peroxydicarbonate
[NASA-CASE-NPO-10863] c06 N70-11251
- Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10447] c06 N70-11252
- POLYCARBONATES**
Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190
- POLYESTERS**
Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
- POLYIMIDES**
Preparation of polyimides with high thermal and oxidative stability
[NASA-CASE-LEW-11325-1] c06 N72-10134
- Polyimide foams produced in presence of alkanolamine or siloxane-glycol polymer
[NASA-CASE-ARC-10464-1] c06 N72-21102
- POLYMER CHEMISTRY**
New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244
- Method for synthesizing polymerized isobutylene with functional groups at each end by contacting isobutylene with molecular sieve
[NASA-CASE-NPO-10893] c27 N70-11130
- Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-MFS-13994-1] c06 N71-11240
- Apparatus for determining volatile condensable material present in polymeric products
[NASA-CASE-XNP-09699] c06 N71-24607
- POLYMERIC FILMS**
High strength antistatic plastic film laminate for inhibiting buildup of electrostatic charges on plastic bodies
[NASA-CASE-MS-C-12255-1] c18 N70-20713
- Intumescent paint containing sulfonic acid salt of nitrosubstituted aromatic amines and mercaptan polymers for thermal protection of substrates
[NASA-CASE-ARC-10325-1] c06 N70-41950
- Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
[NASA-CASE-XNP-09763] c14 N71-20461
- Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975
- Heat sealable transparent plastic film for mounting solar cell array to flexible substrate
[NASA-CASE-LEW-11069-1] c03 N71-29048
- Transparent plastic film for attaching cover glasses to silicon solar cells
[NASA-CASE-LEW-11065-1] c03 N72-11064
- POLYMERIZATION**
Method for synthesizing polymerized isobutylene with functional groups at each end by contacting isobutylene with molecular sieve
[NASA-CASE-NPO-10893] c27 N70-11130
- Synthesis of polyfluorobutadiene by polymerization of perfluorobutadiene with diisopropyl peroxydicarbonate
[NASA-CASE-NPO-10863] c06 N70-11251
- Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10447] c06 N70-11252
- Process for interfacial polymerization of pyromellitic dianhydride and tetraamino benzene
[NASA-CASE-XLA-03104] c06 N71-11235
- Synthesis and chemical properties of imidazopyrrolone/imide copolymers
[NASA-CASE-XLA-08802] c06 N71-11238
- Direct synthesis of polymeric schiff bases from two amines and two aldehydes
[NASA-CASE-XMF-08655] c06 N71-11239
- Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XMF-08656] c06 N71-11242
- Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-XMF-08652] c06 N71-11243
- Preparation of elastomeric diamine silazane polymers
[NASA-CASE-XMF-04133] c06 N71-20717
- Polymerization of disilanols containing perfluoroalkyl groups for use as fuel tank sealants
[NASA-CASE-MFS-20979] c06 N72-15128
- POLYMERS**
Ionen membrane separator for batteries
[NASA-CASE-NPO-11091] c18 N70-34742
- Preparation of ordered poly/arylenesiloxane/polymers
[NASA-CASE-XMF-10753] c06 N71-11237
- Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
[NASA-CASE-XMP-03074] c06 N71-24740
- Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161
- Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds
[NASA-CASE-NPO-10701] c06 N71-28620
- Development of solid state polymer coating for obtaining thermal balance in spacecraft components
[NASA-CASE-XLA-01745] c33 N71-28903
- Utilization of lithium p-lithiophenoxide to prepare star polymers
[NASA-CASE-NPO-10999] c06 N72-15127
- POLYTETRAFLUOROETHYLENE**
Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients
[NASA-CASE-XLA-01262] c15 N71-21404
- POLYURETHANE FOAM**
Self-erectable space structures of flexible foam for application in planetary orbits
[NASA-CASE-XLA-00686] c31 N70-34135
- Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739
- Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ARC-10180-1] c28 N72-20767
- POLYURETHANE RESINS**
Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
[NASA-CASE-NPO-10768] c06 N71-27254
- Polyurethane resins derived from hydroxy terminated perfluoro ethers or diols
[NASA-CASE-NPO-10768-2] c06 N71-33516
- POROUS MATERIALS**
Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-LEW-10393-1] c17 N71-15468
- Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-XNP-04338] c17 N71-23046
- Lubrication for bearings by capillary action from oil reservoir of porous material
[NASA-CASE-XNP-03972] c15 N71-23048

Method and photodetector device for locating abnormal voids in low density materials
 [NASA-CASE-MFS-20G44] c14 N71-28993
 Production method for manufacturing porous tungsten bodies from tungsten powder particles
 [NASA-CASE-XNP-04339] c17 N71-29137
 Nutation oscillation damper based on fluid radial flow through porous material placed parallel to axes of rotation
 [NASA-CASE-GSC-11205-1] c15 N71-31128

POBOUS PLATES
 Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
 [NASA-CASE-XLE-00455] c28 N70-38197

PORTABLE EQUIPMENT
 Portable electron beam welding chamber
 [NASA-CASE-LEW-11531] c15 N71-14932
 Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
 [NASA-CASE-XMF-03212] c15 N71-22721
 Portable cutting machine for piping weld preparation
 [NASA-CASE-XKS-07953] c15 N71-26134
 Method and apparatus for precision sizing and joining of large diameter tubes by bulging or constricting overlapping ends
 [NASA-CASE-XMF-05114-2] c15 N71-26148
 Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
 [NASA-CASE-NPO-10467] c23 N71-26654
 Automatic controlled drive mechanism for portable boring bar
 [NASA-CASE-XLA-03661] c15 N71-33518
 Portable penetrometer for analyzing lunar soil characteristics
 [NASA-CASE-MFS-20774] c14 N71-34387
 Portable vacuum surface probe for sampling spacecraft surface for microorganisms
 [NASA-CASE-LAR-10623-1] c14 N72-21415

PORTS (OPENINGS)
 Sealing evacuation port and evacuating vacuum container such as space jackets
 [NASA-CASE-XMF-03290] c15 N71-23256

POSITION (LOCATION)
 Self-stabilized vernier theodolite for determining angular orientation of line of sight between target and inertial reference system on manned space vehicle
 [NASA-CASE-IAC-00460] c14 N70-40017
 Position locating system for remote aircraft using voice communication and digital signals
 [NASA-CASE-GSC-10087-2] c21 N71-13958
 Development of telemetry system for position location and data acquisition
 [NASA-CASE-GSC-10083-1] c30 N71-16090
 Automatic braking device for rapidly transferring humans or materials from elevated location
 [NASA-CASE-XKS-07814] c15 N71-27067
 System and method for position locating for air traffic control involving supersonic transports
 [NASA-CASE-GSC-10087-3] c07 N72-12080

POSITION INDICATORS
 Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
 [NASA-CASE-XGS-08266] c14 N69-27432
 Magnetic field measurements for aircraft position detection and landing aid
 [NASA-CASE-ARC-10179-1] c21 N70-12611
 Characteristics and performance of electrical system to determine angular rotation
 [NASA-CASE-XMF-00447] c14 N70-33179
 Radioactive source for encoding shaft position
 [NASA-CASE-GSC-10644-1] c14 N70-35583
 Magnetic element position sensing device, using misaligned electromagnets
 [NASA-CASE-XGS-07514] c23 N71-16099
 Describing angular position and velocity sensing apparatus
 [NASA-CASE-XGS-05680] c14 N71-17585
 Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
 [NASA-CASE-XGS-03230] c14 N71-23401
 Computer peripheral device with manual controls for cursor position definition

[NASA-CASE-NPO-11497] c08 N72-11208

POSITIONING
 Centering device with ultrafine adjustment for use with roundness measuring apparatus
 [NASA-CASE-XMF-00480] c14 N70-39898
 Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction
 [NASA-CASE-XMF-01452] c15 N70-41371
 Electro-optical/computer system for aligning large structural members and maintaining correct position
 [NASA-CASE-XNP-02029] c14 N70-41955
 Manual control mechanism for adjusting control rod to null position
 [NASA-CASE-XLA-01808] c15 N71-20740
 Adjustable support for leveling or positioning of movable objects
 [NASA-CASE-NPO-10721] c15 N72-15466

POSITIONING DEVICES (MACHINERY)
 Swivel support for gas bearing for position adjustment between ball and supporting cup
 [NASA-CASE-XMF-07808] c15 N71-23812
 Caterpillar micropositioner for positioning machine tools adjacent to workpiece
 [NASA-CASE-GSC-10780-1] c14 N72-16283
 Positioning mechanism for converting translatory motion into rotary motion
 [NASA-CASE-NPO-10679] c15 N72-21462

POSITIVE FEEDBACK
 Complementary regenerative transistorized switch circuit employing positive and negative feedback
 [NASA-CASE-XGS-02751] c09 N71-23015

POTABLE WATER
 Potable water reclamation from human wastes in zero-G environment
 [NASA-CASE-XLA-03213] c05 N71-11207
 Utilization of solar radiation by solar still for converting salt and brackish water into potable water
 [NASA-CASE-XMS-04533] c15 N71-23086
 Chlorine generator for purifying water in life support systems of manned spacecraft
 [NASA-CASE-XLA-08913] c14 N71-28933

POTASSIUM SILICATES
 Fireproof potassium silicate coating composition, insoluble in water after application
 [NASA-CASE-GSC-10072] c18 N71-14014

POTENTIOMETERS (INSTRUMENTS)
 Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
 [NASA-CASE-XFR-04104] c03 N70-42073
 Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
 [NASA-CASE-IAC-10019] c15 N71-23809
 Mechanical function generators with potentiometer as sensing element
 [NASA-CASE-XAC-00001] c15 N71-28952

POTTING COMPOUNDS
 Removable potting compound for instrument shock protection
 [NASA-CASE-XLA-00482] c15 N70-36409
 Flexible, repairable, pottable composition for encapsulating electric connectors
 [NASA-CASE-XGS-05180] c18 N71-25881
 Thermally conductive polymer for potting electrical components
 [NASA-CASE-GSC-11304-1] c06 N72-21105

POWDER METALLURGY
 Obtaining highly alloyed material by heating prealloyed powders to superplastic state and forming at low pressures
 [NASA-CASE-LEW-10805-1] c15 N70-41577
 Freeze casting of metal ceramic and refractory compound powders into plastic slips
 [NASA-CASE-XLE-00106] c15 N71-16076
 Production method for manufacturing porous tungsten bodies from tungsten powder particles
 [NASA-CASE-XNP-04339] c17 N71-29137
 Superalloy material from prealloyed powders
 [NASA-CASE-LEW-10805-2] c15 N72-21485

POWER AMPLIFIERS
 Characteristics of high power, low distortion, alternating current power amplifier
 [NASA-CASE-LAR-10218-1] c09 N70-34559
 Power supply with automatic power factor conversion system

SUBJECT INDEX

PRESSURE GAGES

- [NASA-CASE-XMS-02159] c10 N71-22961
Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331
High efficiency transformerless amplitude
modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
- POWER EFFICIENCY**
Low power drain transistor feedback circuit
[NASA-CASE-IGS-04999] c09 N69-24317
Excitation and detection circuitry for flux
responsive magnetic head
[NASA-CASE-XNP-04183] c09 N69-24329
Increasing available power per unit area in ion
rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
Absorbing gas reactivity control system for
minimizing power distribution and perturbation
in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597
- POWER GAIN**
Serrrodyne traveling wave tube reentrant amplifier
for synchronous communication satellites
operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088
- POWER LIMITERS**
Monostable multivibrator for conserving power in
spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221
- POWER LINES**
Patent data on terminal insert connector for flat
electric cables
[NASA-CASE-XMF-00324] c09 N70-34596
- POWER SERIES**
Describing circuit for obtaining sum of squares of
numbers
[NASA-CASE-XGS-04765] c08 N71-18693
- POWER SPECTRA**
Method and apparatus for high resolution power
spectrum analysis
[NASA-CASE-NPO-10748] c08 N72-20177
- POWER SUPPLIES**
Tape recorder designed for low power consumption
and resistance to operational failure under high
stress conditions
[NASA-CASE-XGS-08259] c14 N71-23698
Circuit configuration with parallel series
transformer circuits for providing power to dc
loads
[NASA-CASE-NPO-11078] c09 N72-15205
Current dependent variable inductance for input
filter chokes of ac or dc power supplies
[NASA-CASE-ERC-10139] c09 N72-17154
- POWER SUPPLY CIRCUITS**
Regulated dc to dc converter
[NASA-CASE-XGS-03429] c03 N69-21330
Power control switching circuit using low voltage
semiconductor controlled rectifiers for high
voltage isolation
[NASA-CASE-XNP-02713] c10 N69-39888
Pulse-forming circuit for fast sweep out of
charges stored in power transistors
[NASA-CASE-NPO-10674] c10 N70-22132
Increasing power conversion efficiency of
electronic amplifiers by power supply switching
[NASA-CASE-XMS-00945] c09 N71-10798
Electric power system utilizing thermionic plasma
diodes in parallel and heat pipes as cathodes
[NASA-CASE-XMF-05843] c03 N71-11055
Pulsed energy power system for application of
combustible gases to turbine controlling ac
voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
Data processor having multiple sections activated
at different times by selective power coupling
to sections
[NASA-CASE-XGS-04767] c08 N71-12494
Microwave power receiving antenna solving heat
dissipation problems by construction of elements
as heat pipe devices
[NASA-CASE-MFS-20333] c09 N71-13486
Design, development, and operating principles of
power supply with starting circuit which is
independent of voltage regulator
[NASA-CASE-XMS-01991] c09 N71-21449
Power supply with automatic power factor
conversion system
[NASA-CASE-XMS-02159] c10 N71-22961
Electric circuit for reversing direction of
current flow
- [NASA-CASE-XNP-00952] c10 N71-23271
Power supply with overload protection for series
stage transistor
[NASA-CASE-XMS-00913] c10 N71-23543
Automatic power supply circuit design for driving
inductive loads and minimizing power consumption
including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892
Unsaturating magnetic core transformer design with
warning signal for electrical power processing
equipment
[NASA-CASE-ERC-10125] c09 N71-24893
Device for monitoring voltage by generating signal
when voltages drop below predetermined value
[NASA-CASE-KSC-10020] c10 N71-27338
Power point tracker for maintaining optimal output
voltage of power source
[NASA-CASE-GSC-10376-1] c14 N71-27407
Microwave power divider for providing variable
output power to output waveguide in fixed
waveguide system
[NASA-CASE-NPO-11031] c07 N71-33606
Circuit for monitoring power supply by ripple
current indication
[NASA-CASE-KSC-10162] c09 N72-11225
- PRECESSION**
Dynamic precession damping of spin-stabilized
vehicles by using rate gyroscope and angular
accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
- PRECIPITATION HARDENING**
Grinding mixtures of coarse metal powders and
dispersoids to submicron size in gas-tight mill
pressurized with hydrogen halide for dispersion
hardened alloys
[NASA-CASE-LEW-10450-1] c15 N70-26818
- PRECISION**
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[NASA-CASE-MFS-14772] c15 N71-17692
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joining of large diameter tubes by bulging or
constricting overlapping ends
[NASA-CASE-XMF-05114-2] c15 N71-26148
- PREFLIGHT OPERATIONS**
Automatic balancing device for use on frictionless
supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
- PRELAUNCH TESTS**
Low loss parasitic probe antenna for prelaunch
tests of spacecraft antennas
[NASA-CASE-XKS-09348] c09 N71-13521
Digital computer system for automatic prelaunch
checkout of spacecraft
[NASA-CASE-XKS-08012-2] c31 N71-15566
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foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
- PRESSES**
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using simple press
[NASA-CASE-NPO-10811] c15 N71-34425
- PRESSURE CHAMBERS**
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wind tunnel
[NASA-CASE-XMF-00411] c11 N70-36913
- PRESSURE DISTRIBUTION**
Piston device for producing known constant
positive pressure within lungs by using thoracic
muscles
[NASA-CASE-XMS-01615] c05 N70-41329
Preventing pressure buildup in electrochemical
cells by reacting palladium oxide with evolved
hydrogen
[NASA-CASE-XGS-C1419] c03 N70-41864
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Differential pressure cell insensitive to changes
in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816
Blood pressure measuring system for separately
recording dc and ac pressure signals of
Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23317
Control system for pressure balance device used in
calibrating pressure gages
[NASA-CASE-XMF-04134] c14 N71-23755
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[NASA-CASE-XAC-04458] c14 N71-24232

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PRESSURE GRADIENTS

Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
[NASA-CASE-XMF-02822] c14 N70-41994

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[NASA-CASE-XAC-02981] c14 N71-21072
Design and development of pressure sensor for measuring differential pressures of few pounds per square inch
[NASA-CASE-XMF-01974] c14 N71-22752

Improved McLeod gage for pressure measurement
[NASA-CASE-XAC-04458] c14 N71-24232

Coherent light beam device and method for measuring gas density in vacuum chambers
[NASA-CASE-XER-11203] c14 N71-28994

Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327

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Device for suppressing pressure oscillations in fluid transmission lines
[NASA-CASE-MFS-10354] c12 N70-41976

PRESSURE REDUCTION

Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924

Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051

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[NASA-CASE-XNP-00450] c15 N70-38603

Pulmonary resuscitation method and apparatus with adjustable pressure regulator
[NASA-CASE-XMS-01115] c05 N70-39922

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[NASA-CASE-XNP-00710] c15 N71-10778

Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194

Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203

Antibacklash circuit for hydraulic drive system
[NASA-CASE-XNP-01020] c03 N71-12260

High impact pressure regulator having minimum number of lightweight movable elements
[NASA-CASE-NPO-10175] c14 N71-18625

Pressure regulator for space suit worn underwater to simulate space environment for testing and experimentation
[NASA-CASE-MFS-20332] c05 N72-20097

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[NASA-CASE-XNP-09752] c14 N69-21541

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[NASA-CASE-ARC-10263-1] c14 N70-20729

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[NASA-CASE-XLA-00481] c14 N70-36824

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[NASA-CASE-XLA-00128] c15 N70-37925

Dynamic sensor for gas pressure or density measurement
[NASA-CASE-XAC-02877] c14 N70-41681

Design and development of inertia diaphragm pressure transducer
[NASA-CASE-XAC-02981] c14 N71-21072

Design and development of pressure sensor for measuring differential pressures of few pounds per square inch
[NASA-CASE-XMF-01974] c14 N71-22752

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[NASA-CASE-XNP-01660] c14 N71-23036

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[NASA-CASE-XLA-05541] c12 N71-26387

Miniature electromechanical junction transducer operating on piezjunction effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334

Method for making pressurized meteoroid penetration detector panels
[NASA-CASE-XLA-08916] c15 N71-29018

Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327

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[NASA-CASE-NPO-10832] c14 N72-21405

Piezjunction electromechanical stress transducer
[NASA-CASE-ERC-10087-2] c14 N72-21430

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Helmet and torso tiedown mechanism for shortening pressure suits upon inflation
[NASA-CASE-XMS-00784] c05 N71-12335

Design and development of flexible joint for pressure suits
[NASA-CASE-XMS-09636] c05 N71-12344

Cord restraint system for pressure suit joints
[NASA-CASE-XMS-09635] c05 N71-24623

Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730

Fabrication of root cord restrained fabric suit sections from sheets of fabric
[NASA-CASE-MSC-12398] c05 N72-20098

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[NASA-CASE-LAR-10137-1] c09 N70-35597

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[NASA-CASE-XNP-01962] c32 N70-41370

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[NASA-CASE-XNP-00610] c28 N70-36910

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[NASA-CASE-XLE-04677] c15 N71-10577

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[NASA-CASE-NPO-10298] c12 N71-17661

Method and apparatus for inducing compressive stresses in pressure vessel to prevent stress corrosion
[NASA-CASE-XLA-07390] c15 N71-18616

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Deployable pressurized cell structures for micrometeoroid penetration detector
[NASA-CASE-LAR-10295-1] c15 N72-21472

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Measuring device for bearing preload in spacecraft ventilation fans
[NASA-CASE-MFS-20434] c11 N70-35536

Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings
[NASA-CASE-XNP-02888] c18 N71-21068

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[NASA-CASE-XMS-03537] c15 N69-21471

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Electrical feedthrough connection for printed circuit boards
[NASA-CASE-XMF-01483] c14 N69-27431

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[NASA-CASE-LEW-10965-1] c15 N70-20720

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[NASA-CASE-XMF-00369] c09 N70-36494

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[NASA-CASE-XNP-05082] c15 N70-41960

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[NASA-CASE-NPO-10034] c15 N71-17685

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 [NASA-CASE-MFS-20453] c15 N71-29133
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 layers for printed circuit board
 [NASA-CASE-MFS-20408] c18 N72-15543

PRINTOUTS
 Handling tool for printed circuit cards
 [NASA-CASE-MFS-20453] c15 N71-29133

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 Interferometric prism and control system for
 precisely determining direction to remote light
 source
 [NASA-CASE-ARC-10278-1] c14 N72-21434

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 with probe of one inserted in rocket engine
 nozzle of other spacecraft
 [NASA-CASE-MFS-11133] c31 N71-16222
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 analysis of droplet propagation in mixed-phase
 fluid stream
 [NASA-CASE-NPO-10985] c14 N72-15420
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 of electric contacts
 [NASA-CASE-MFS-20760] c14 N72-15431

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 tracking reticles
 [NASA-CASE-GSC-11188-1] c14 N71-28653
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 circuit components
 [NASA-CASE-XLA-07829] c15 N72-16329
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 tubes used in research and development programs
 [NASA-CASE-LAR-10203-1] c15 N72-16330
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 industrial grade synthetic diamonds
 [NASA-CASE-MFS-20698-2] c15 N72-21481

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 semiconductor devices permitting operations on
 both sides of film
 [NASA-CASE-ERC-10222] c09 N69-31339
 Apparatus for applying thin layer glass coatings
 to solar cells
 [NASA-CASE-NPO-10575] c15 N70-25621
 Standard coupling design for mass production
 [NASA-CASE-XMS-02532] c15 N70-41808
 Fabrication of curved reflector segments for solar
 mirror
 [NASA-CASE-XLE-08917] c15 N71-15597
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 composite lubricant for bearings or seals
 [NASA-CASE-XLE-08511-2] c18 N71-16105
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 brushes for electrical energy transfer
 [NASA-CASE-XMP-01016] c26 N71-17818
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 honeycomb core panels for use in building and
 bridge structures, light and radio wave
 reflectors, and spacecraft
 [NASA-CASE-XLA-03492] c15 N71-22713
 Multilayer porous refractory metal ionizer design
 with thick, porous, large-grain substrates and
 thin, porous micron-grain substrates
 [NASA-CASE-XNP-04338] c17 N71-23046
 Permanently magnetized ion engine casing
 construction for use in spacecraft propulsion
 systems
 [NASA-CASE-XNP-06942] c28 N71-23293
 Dry electrode design with wire sandwiched between
 two flexible conductive discs for monitoring
 physiological responses
 [NASA-CASE-FRC-10029] c09 N71-24618
 Processes for making metal sheets or plaques with
 parallel pores of uniform size
 [NASA-CASE-GSC-10984-1] c15 N71-34427
 Fabrication of body electrodes from silver-cement
 thin films
 [NASA-CASE-FRC-10029] c05 N72-13081

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 Image copier system for film editing and composite
 reproduction of multiple images
 [NASA-CASE-NPO-10196-2] c14 N70-20711
 Optical projector system for establishing optimum
 arrangement of instrument displays in aircraft,
 spacecraft, other vehicles, and industrial
 instrument consoles

[NASA-CASE-XNP-03853] c23 N71-21882

PROPAGATION MODES
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 amplitudes of two modes
 [NASA-CASE-XNP-03134] c07 N71-10676

PROPELLANT ADDITIVES
 Maximum density fuming nitric acid used as
 sterilizable oxidizer in bipropellants
 [NASA-CASE-NPO-10687] c27 N69-33347

PROPELLANT COMBUSTION
 Spherical solid propellant rocket engine having
 abrupt burnout
 [NASA-CASE-XHQ-01897] c28 N70-35381
 Rocket combustion chamber stability by controlling
 transverse instability during propellant
 combustion
 [NASA-CASE-XLE-04603] c33 N71-21507

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 Unit for generating thrust from catalytic
 decomposition of hydrogen peroxide, for high
 altitude aircraft or spacecraft reaction control
 [NASA-CASE-XMS-00583] c28 N70-38504

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 engines
 [NASA-CASE-XGS-03556] c27 N70-35534

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 Liquid rocket systems for propulsion and control
 of spacecraft
 [NASA-CASE-XNP-00610] c28 N70-36910
 Slosh damping method for liquid rocket propellant
 tanks
 [NASA-CASE-XMF-00658] c12 N70-38997
 Expulsion and measuring device for determining
 quantity of liquid in tank under conditions of
 weightlessness
 [NASA-CASE-XMS-01546] c14 N70-40233
 Collapsible auxiliary tank for restarting liquid
 propellant rocket motors under zero gravity
 [NASA-CASE-XNP-01390] c28 N70-41275
 Liquid propellant tank design with semitoroidal
 bulkhead
 [NASA-CASE-XMP-01899] c31 N70-41948
 Microleak detector mounted on weld seam of
 propellant tank of launch vehicle
 [NASA-CASE-XMF-02307] c14 N71-10779
 Fabrication of filament wound propellant tank for
 cryogenic storage
 [NASA-CASE-XLE-03803-2] c15 N71-17651
 Slosh and swirl alleviator for liquid propellant
 tanks during transport and flight
 [NASA-CASE-XLA-05749] c15 N71-19569
 Two phase fluid pressurization system for
 propellant tank
 [NASA-CASE-MS-12390] c27 N71-29155

PROPELLANT TRANSFER
 Two component valve assembly for cryogenic liquid
 transfer regulation
 [NASA-CASE-XLE-00397] c15 N70-36492
 Apparatus for cryogenic liquid storage with heat
 transfer reduction and for liquid transfer at
 zero gravity conditions
 [NASA-CASE-XLE-00345] c15 N70-38020
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 by application of liquid foam flow theory to
 injection orifice
 [NASA-CASE-XLE-00177] c28 N70-40367
 Method and feed system for separating and
 orienting liquid and vapor phases of liquid
 propellants in zero gravity environment
 [NASA-CASE-XLE-01182] c27 N71-15635
 Electron bombardment ion rocket engine with
 improved propellant introduction system
 [NASA-CASE-XLE-02066] c28 N71-15661
 Rocket combustion chamber stability by controlling
 transverse instability during propellant
 combustion
 [NASA-CASE-XLE-04603] c33 N71-21507
 Vapor-liquid separator design with vapor driven
 pump for separated liquid pumping for
 application in propellant transfer
 [NASA-CASE-XMP-04042] c15 N71-23023
 Filler valve design for supplying liquid
 propellants at high pressure to space vehicles
 [NASA-CASE-XNP-01747] c15 N71-23024
 Internal labyrinth and shield structure to improve
 electrical isolation of propellant feed source
 from ion thruster
 [NASA-CASE-LEW-10210-1] c28 N71-26781

- Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-XNP-01855] c15 N71-28937
- Geysering inhibitor using thin-wall tube inside long vertical pipe between liquid oxygen tank and main propulsion engines on space shuttle booster
[NASA-CASE-KSC-10615] c15 N72-15469
- PROPELLER BLADES**
Directed fluid stream for propeller blade loading control
[NASA-CASE-IAC-00139] c02 N70-34856
- PROPORTIONAL CONTROL**
Vortex amplifiers in fluidic proportional thruster system for vehicle attitude control
[NASA-CASE-ARC-10106-1] c28 N70-12624
- Proportional controller for regulating aircraft or spacecraft motion about three axes
[NASA-CASE-IAC-03392] c03 N70-41954
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Electrothermal rocket engine using resistance heated heat exchanger
[NASA-CASE-XLE-00267] c28 N70-33356
- Grain configuration for solid propellant rocket engines
[NASA-CASE-IGS-03556] c27 N70-35534
- Shrouded composite propulsion system configuration
[NASA-CASE-XLA-01043] c28 N71-10780
- Electrostatic microthruster propulsion system with annular slit colloid thruster
[NASA-CASE-GSC-10709-1] c28 N71-25213
- Method and apparatus for pressurizing propellant tanks used in propulsion motor feed system
[NASA-CASE-INP-00650] c27 N71-28929
- PROSTHETIC DEVICES**
Prosthetic device with sensing means for detecting tactile stimuli
[NASA-CASE-MPS-16570] c05 N72-20111
- PROTECTION**
Camera protecting device for use in photographing rocket engine nozzles or other engine components
[NASA-CASE-NPO-10174] c14 N71-18465
- PROTECTIVE CLOTHING**
Conditioning tanned sharkskin for use as abrasive resistant clothing
[NASA-CASE-XMS-09691-1] c18 N71-15545
- One piece human garment for use as contamination proof garment
[NASA-CASE-MSC-12206-1] c05 N71-17599
- Thermoregulating with cooling flow pipe network for humans
[NASA-CASE-XMS-10269] c05 N71-24147
- Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730
- Voice operated receiving and transmitting system for use in protective suits
[NASA-CASE-KSC-10164] c07 N71-33108
- Air conditioned undergarment for use in environmentally controlled suit in sterile chamber
[NASA-CASE-LAR-10076-1] c05 N72-20106
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[NASA-CASE-MPS-20011] c18 N69-33483
- Process permitting application of synthetic resin coating to irregular-shaped objects at ambient temperature
[NASA-CASE-XNP-06508] c18 N69-39895
- Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-IGS-04119] c18 N69-39979
- Application techniques for protecting materials during salt bath brazing
[NASA-CASE-XLE-00046] c15 N70-33311
- Protective coating for semiconductor materials
[NASA-CASE-ERC-10339] c18 N70-36075
- Removable potting compound for instrument shock protection
[NASA-CASE-XLA-00482] c15 N70-36409
- Passive thermal control coating on aluminum foil laminate for inflatable spacecraft surfaces
[NASA-CASE-XLA-01291] c33 N70-36617
- Using ethylene oxide in preparation of sterilized solid rocket propellants and encapsulating materials
[NASA-CASE-XNP-01749] c27 N70-41897
- Intumescent paint containing sulfonic acid salt of nitrosubstituted aromatic amines and mercaptan polymers for thermal protection of substrates
[NASA-CASE-ARC-10325-1] c06 N70-41950
- Fireproof potassium silicate coating composition, insoluble in water after application
[NASA-CASE-GSC-10072] c18 N71-14014
- Development of bacteriostatic conformal coating and methods of application
[NASA-CASE-GSC-10007] c18 N71-16046
- Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075
- Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077
- Development and characteristics of protective coatings for spacecraft
[NASA-CASE-XNP-02507] c31 N71-17679
- Development of thermal insulation system for wing and control surfaces of hypersonic aircraft and reentry vehicles
[NASA-CASE-XLA-00892] c33 N71-17897
- Bismuth and lead surface coatings for gas bearings in aerospace engineering
[NASA-CASE-IGS-02011] c15 N71-20739
- Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-IGS-04799] c18 N71-24183
- Method for treating metal surfaces to prevent secondary electron transmission
[NASA-CASE-XNP-09469] c24 N71-25555
- Development of solid state polymer coating for obtaining thermal balance in spacecraft components
[NASA-CASE-XLA-01745] c33 N71-28903
- Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
[NASA-CASE-XMP-05999] c15 N71-29032
- Chemical process for coating pigment particles to provide electron and hole recombination sites and prevent pigment degradation and discoloration by ultraviolet radiation
[NASA-CASE-NPO-11139] c06 N72-10136
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Load cell protection device using spring-loaded breakaway mechanism
[NASA-CASE-XMS-06782] c32 N71-15974
- Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085
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Measuring device for determining distance and orientation of surface with respect to spherical surface
[NASA-CASE-XLA-06683] c14 N70-25677
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System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
[NASA-CASE-NPO-10214] c10 N71-26577
- PSEUDORANDOM SEQUENCES**
Pseudonoise sequence generators with three-tap linear feedback shift registers
[NASA-CASE-NPO-11406] c08 N72-14221
- PULLEYS**
Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-XMS-04545] c15 N71-22878
- Tensile strength testing device having pulley guides for exerting multiple forces on test specimen
[NASA-CASE-XNP-05634] c15 N71-24834
- PULMONARY CIRCULATION**
Pulmonary resuscitation method and apparatus with adjustable pressure regulator
[NASA-CASE-XMS-01115] c05 N70-39922
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Piston device for producing known constant positive pressure within lungs by using thoracic

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[NASA-CASE-XMS-01615] c05 N70-41329
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Monitoring system for signal amplitude ranges over predetermined time interval
[NASA-CASE-XMS-04061-1] c09 N69-39885
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[NASA-CASE-XLA-00670] c08 N71-12501
Electrical testing apparatus for detecting amplitude and width of transient pulse
[NASA-CASE-XMF-06519] c09 N71-12519
- PULSE AMPLITUDE MODULATION**
Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-IMP-04367] c09 N71-23545
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Adaptive compression signal processor for PCM communication systems
[NASA-CASE-XLA-03076] c07 N71-11266
Bipolar phase detector and corrector for split phase PCM data signals
[NASA-CASE-XGS-01590] c07 N71-12392
System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-XGS-01021] c08 N71-21042
Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-XGS-01537] c07 N71-23405
Subcarrier frequency multiplexing to separate independent PCM data streams on common carrier by using digital circuits
[NASA-CASE-NPO-11338] c07 N71-33923
Two-carrier PCM communication system design with single transmitter for ranging
[NASA-CASE-NPO-11548] c07 N71-34161
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[NASA-CASE-NPO-11302] c07 N72-11160
Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154
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[NASA-CASE-MSC-13855-1] c07 N72-20157
- PULSE COMMUNICATION**
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[NASA-CASE-NPO-11161] c08 N70-22193
Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-XNP-00911] c08 N70-41961
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[NASA-CASE-NPO-11302] c07 N72-11160
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Overlapping beams of neodymium laser for detecting picosecond light pulses
[NASA-CASE-ERC-10227] c14 N70-12626
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[NASA-CASE-XNP-07040] c08 N71-12500
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[NASA-CASE-XMF-06519] c09 N71-12519
Design and development of variable pulse width multiplier
[NASA-CASE-XLA-02850] c09 N71-20447
Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
[NASA-CASE-MFS-10068] c10 N71-25139
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[NASA-CASE-ARC-10137-1] c09 N71-28468
- PULSE DURATION MODULATION**
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[NASA-CASE-YER-09213] c07 N71-12390
Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084
Electric motor control system with pulse width modulation for providing automatic null seeking servo
[NASA-CASE-XMF-05195] c10 N71-24861
- Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
[NASA-CASE-MSC-13492-1] c10 N71-28860
- PULSE FREQUENCY MODULATION**
Electric current measuring apparatus design including saturable core transformer and energy storage device to avoid magnetizing current errors from transformer output winding
[NASA-CASE-XGS-02439] c14 N71-19431
Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525
Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses
[NASA-CASE-MSC-12165-1] c07 N71-33696
- PULSE FREQUENCY MODULATION TELEMETRY**
Communication system for transmitting biomedical information obtained from patient in moving ambulance to hospital for diagnosis
[NASA-CASE-PRC-10031] c05 N70-20717
- PULSE GENERATORS**
Radioactive source for encoding shaft position
[NASA-CASE-GSC-10644-1] c14 N70-35583
High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518
Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
Electric circuit for producing high current pulse having fast rise and fall time
[NASA-CASE-XMS-04919] c09 N71-23270
Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-XNP-00745] c10 N71-28960
- PULSE MODULATION**
Analog signal to discrete time interval converter for pulse modulation
[NASA-CASE-ERC-10048] c09 N70-25866
- PULSE RATE**
Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- PULSED LASERS**
Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832
- PULSED RADIATION**
Cyclic optical shutter for transmitting single radiation pulses
[NASA-CASE-NPO-10758] c14 N72-15429
- PUMP SEALS**
Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- PUMPS**
Piezoelectric pump for supplying fluid at high frequencies to gyroscope fluid suspension system
[NASA-CASE-XNP-05429] c26 N71-21824
Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-XMF-04042] c15 N71-23023
Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
Development and characteristics of variable displacement fluid pump for transforming

PUNCHED CARDS

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hydraulic pressures
[NASA-CASE-MFS-20830] c15 N71-30028

Pumping and metering dual piston system and
monitor for reaction chamber constituents
[NASA-CASE-GSC-10218-1] c15 N72-21465

PUNCHED CARDS

Describing device for flagging punched business
cards
[NASA-CASE-XLA-02705] c08 N71-15908

Handing tool for printed circuit cards
[NASA-CASE-MFS-20453] c15 N71-29133

PUNCHES

Punch and die device for forming convolution
series in thin gage metal hemispheres
[NASA-CASE-XNP-05297] c15 N71-23811

PURGING

Carbon dioxide purge systems to prevent
condensation in spaces between cryogenic fuel
tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015

Developing high pressure gas purification and
filtration system for use in test operations of
space vehicles
[NASA-CASE-MFS-12806] c14 N71-17588

Fluid transferring system design for purging
toxic, corrosive, or noxious fluids and fumes
from materials handling equipment for cleansing
and accident prevention
[NASA-CASE-XMS-01905] c12 N71-21089

Device for back purging thrust engines
[NASA-CASE-XMS-04826] c28 N71-28849

PURIFICATION

Apparatus and method capable of receiving large
quantity of high pressure helium, removing
impurities, and discharging at received pressure
[NASA-CASE-XMP-06888] c15 N71-24044

Purification apparatus for vaporization and
fractional distillation of liquids
[NASA-CASE-XNP-08124] c15 N71-27184

PURITY

Synthesis of high purity dianilinosilanes
[NASA-CASE-XMP-06409] c06 N71-23230

PYROLYTIC GRAPHITE

Multislit film cooled pyrolytic graphite rocket
nozzle
[NASA-CASE-XNP-04389] c28 N71-20942

PYROLYTIC MATERIALS

Design, development, and characteristics of
ablation structures
[NASA-CASE-XMS-01816] c33 N71-15623

PYROMETERS

Sensor device with switches for measuring surface
recession of charring and noncharring ablators
[NASA-CASE-XLA-01781] c14 N69-39975

PYROTECHNICS

Energy source with tantalum capacitors in parallel
and miniature silver oxide button cells for
initiating pyrotechnic devices on spacecraft and
rocket vehicles
[NASA-CASE-LAR-10367-1] c03 N70-26817

Development and characteristics of squib actuated
explosive disconnect for release of spacecraft
from launch vehicle
[NASA-CASE-NPO-11330] c33 N71-35154

Q VALUES

Design of active RC network capable of operating
at high Q values with reduced sensitivity to
gain amplification and number of passive
components
[NASA-CASE-ARC-10042-2] c10 N72-11256

QUALITY CONTROL

Development of high performance infrared
photodetectors
[NASA-CASE-LAR-10728-1] c14 N72-21422

QUANTITATIVE ANALYSIS

Mixed liquid and vapor phase analyzer design with
thermocouples for relative heat transfer
measurement
[NASA-CASE-NPO-10691] c14 N71-26199

Quantitative liquid measurements in container by
resonant frequencies
[NASA-CASE-XNP-02500] c18 N71-27397

Bioluminescent reaction of adenosine triphosphate
with enzyme luciferase for quantitative analysis
of bacteria in urine samples
[NASA-CASE-GSC-11092-1] c04 N71-27991

QUARTZ

Ultraviolet filter of thorium fluoride and
cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332

QUARTZ LAMPS

High intensity heat and light unit containing
quartz lamp elements protectively positioned to
withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312

R

RACKS (FRAMES)

Variable angle tube holder permitting agar slants
at any angle from horizontal to vertical
[NASA-CASE-LAR-10507-1] c11 N70-21006

RADAR ANTENNAS

Interferometric tuning acquisition and tracking
radar antenna system
[NASA-CASE-XMS-09610] c07 N71-24625

RADAR EQUIPMENT

Gas bearings for movement of heavy loads in
horizontal plane
[NASA-CASE-WLP-10002-1] c15 N70-34555

Radar system utilizing emission and energy
propagation to measure target distance
[NASA-CASE-NPO-11426] c07 N71-33107

Spacecraft transponder and ground station radar
system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118

RADAR RANGE

Radar signal receiver arrangement for extending
range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911

RADAR RECEIVERS

Polarization diversity monopulse tracking receiver
design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

RADAR RECEPTION

Radar signal receiver arrangement for extending
range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911

RADAR REFLECTORS

Inflatable radar reflector unit - lightweight,
highly reflective to electromagnetic radiation,
and adaptable for erection and deployment with
minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063

RADAR TRACKING

Tracking antenna system with array for synchronous
satellite or ground based radar
[NASA-CASE-GSC-10553-1] c07 N71-19854

Polarization diversity monopulse tracking receiver
design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864

Monopulse tracking system with antenna array of
three radiators for deriving azimuth and
elevation indications
[NASA-CASE-XGS-01155] c10 N71-21483

Plastic sphere for radar tracking and calibration
[NASA-CASE-XLA-11154] c07 N72-21117

RADIAL FLOW

Radial heat flux transformer for use in heating
and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948

RADIANCE

Method and apparatus for measuring shock layer
radiation distribution about high velocity
objects
[NASA-CASE-XAC-02970] c14 N69-39896

Interferometer-polarimeter for measuring intensity
polarization of optical radiation
[NASA-CASE-NPO-11239] c14 N71-33024

RADIANT COOLING

Direct radiation cooling of linear beam collector
tubes
[NASA-CASE-XNP-09227] c15 N69-24319

High thermal emittance black surface coatings and
process for applying to metal and metal alloy
surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875

RADIANT FLUX DENSITY

High intensity radiant energy pulse source for
calibrating heat transfer gages with
thermoluminescent shutter activation
[NASA-CASE-ARC-10178-1] c09 N72-17152

RADIANT HEATING

High intensity heat and light unit containing
quartz lamp elements protectively positioned to

SUBJECT INDEX

RADIATION TOLERANCE

- Withstand severe environmental stress
[NASA-CASE-XLA-00141] c09 N70-33312
- High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
- Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812
- Unfired ceramic insulation for protection from radiant heating environments
[NASA-CASE-MFS-14253] c33 N71-24858
- RADIATION**
Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N71-34388
- RADIATION COUNTERS**
Particle detector for indicating incidence and energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322
- Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
- Apparatus for analysis of positive ions for determining absolute values of ion charge, charge and energy, and charge and mass
[NASA-CASE-ARC-10C17-1] c14 N70-34558
- Solid state device for mapping flux and power in nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808
- Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
- Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
- Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
- Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
- RADIATION DAMAGE**
Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
- Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- RADIATION DETECTORS**
Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-MSC-12280] c27 N71-16348
- Detection instrument for light emitted from ATP biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
- Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040
- Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
- Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
- Detecting molecular constituents in radiation transparent media by measuring intensity of light transmitted through cell while applying electrostatic or electromagnetic field
[NASA-CASE-ERC-10021] c06 N71-28635
- Radiation source tracker comprised of sectored matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N72-20395
- RADIATION DISTRIBUTION**
Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675
- RADIATION DOSAGE**
Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- RADIATION EFFECTS**
Method for temperature compensating semiconductor gages by exposure to high energy radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892
- RADIATION MEASURING INSTRUMENTS**
Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432
- Infrared scanning system for maintaining spacecraft orientation with earth reference
[NASA-CASE-XLA-00120] c21 N70-33181
- Multiple wavelength radiation measuring instrument for determining hot body or gas temperature
[NASA-CASE-XLE-00011] c14 N70-41946
- Development of method for improving signal to noise ratio and accuracy of Wheatstone bridge type radiation measuring instrument
[NASA-CASE-XLA-02810] c14 N71-25901
- Electromagnetic radiation measuring instrument utilizing ac p-n junction diode capacitance
[NASA-CASE-LEW-11159-1] c14 N71-31127
- Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N71-34388
- Phototransistor with base collector junction diode for integration into photosensor arrays
[NASA-CASE-MFS-20407] c09 N72-11229
- RADIATION PROTECTION**
Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-XNP-01310] c33 N71-28852
- Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440
- RADIATION SHIELDING**
Encapsulated heater forming hollow body for cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
- Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
[NASA-CASE-XLA-07424] c14 N71-18482
- Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-MSC-12168-1] c09 N71-18600
- Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781
- Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893
- RADIATION SOURCES**
Collimator for examining spatial location of distant sources of radiation and for imaging by projection
[NASA-CASE-MFS-20546-2] c14 N70-35586
- Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-XMF-03934] c09 N71-22985
- Nonconsumable metal electric arc electrodes for producing solar simulator radiation source
[NASA-CASE-LEW-11162-1] c09 N71-34210
- Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-MFS-20095] c24 N72-11595
- Radiation source tracker comprised of sectored matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N72-20395
- RADIATION SPECTRA**
Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
- RADIATION TOLERANCE**
Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
- Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607

- Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-XGS-07801] c09 N71-12513
- RADIATIVE HEAT TRANSFER**
Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459
Heat transfer device with restraint mechanism for supporting wick against wall of shell
[NASA-CASE-NPO-11120] c33 N70-41524
Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035
Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641
Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081
- RADIATORS**
Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046
- RADIO ANTENNAS**
Low loss parasitic probe antenna for prelaunch tests of spacecraft antennas
[NASA-CASE-XKS-09348] c09 N71-13521
VHF/UHF parasitic probe antenna for spacecraft communication
[NASA-CASE-XKS-09340] c07 N71-24614
Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
[NASA-CASE-HQN-00937] c07 N71-28979
- RADIO ASTRONOMY**
Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723
- RADIO FREQUENCIES**
Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323
Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330
Radio frequency filter device
[NASA-CASE-XLA-02609] c09 N70-35191
Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-IMP-09422] c07 N71-19436
Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-IMP-08665] c10 N71-19467
System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174
Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
[NASA-CASE-XGS-01418] c09 N71-23573
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-XNP-09830] c14 N71-26266
High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
Radio-frequency-source resistance measuring instruments of varied design
[NASA-CASE-NPO-10734] c14 N72-10378
- RADIO FREQUENCY INTERFERENCE**
Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
[NASA-CASE-XER-11019] c09 N71-23598
- RADIO FREQUENCY SHIELDING**
Process for making RF shielded cable connector assemblies and structures formed in connection with process
[NASA-CASE-GSC-11215-1] c09 N72-10192
Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
- RADIO RECEIVERS**
Radio receiver with array of independently steerable antennas for deep space communication
[NASA-CASE-XLA-00901] c07 N71-10775
Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-XGS-00740] c07 N71-23098
- RADIO RELAY SYSTEMS**
Satellite radio communication system with remote steerable antenna
[NASA-CASE-XNP-02389] c07 N71-28900
- RADIO SIGNALS**
Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309
Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723
- RADIO STARS**
System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174
- RADIO TELEMETRY**
Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-XGS-01812] c07 N71-23001
- RADIO TRANSMITTERS**
Two-carrier PCM communication system design with single transmitter for ranging
[NASA-CASE-NPO-11548] c07 N71-34161
- RADIO WAVES**
Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
- RADIOACTIVE ISOTOPIES**
Radioactive isotope capsule container design for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c33 N71-35153
- RADIOACTIVE MATERIALS**
Radioactive source for encoding shaft position
[NASA-CASE-GSC-10644-1] c14 N70-35583
- RADIOGRAPHY**
Nondestructive radiographic tests of resistance welds
[NASA-CASE-XNP-02588] c15 N71-18613
- RADIOMETERS**
Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-XLA-04556] c14 N69-27484
Multichannel radiometric sensor for warning aircraft pilots of clear air turbulence
[NASA-CASE-ERC-10081] c14 N70-20710
Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26475
Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27323
Temperature measurement system of radiometer type
[NASA-CASE-NFS-20781] c14 N72-21429
- RADIOTELEPHONES**
Communication system for transmitting biomedical information obtained from patient in moving ambulance to hospital for diagnosis
[NASA-CASE-FRC-10031] c05 N70-20717
- RAIN**
Precipitation detector and mechanism for stopping and restarting machinery at initiation and cessation of rain
[NASA-CASE-XLA-02619] c10 N71-26334
- RAMJET ENGINES**
Telescoping-spike supersonic nozzle for turbojet or ramjet engines
[NASA-CASE-XLE-00005] c28 N70-39899
- RANDOM LOADS**
Fatigue testing device applying random discrete load levels to test specimen and applicable to aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003
- RANDOM NOISE**
Circuits for amplitude limiting of random noise inputs
[NASA-CASE-NPO-10169] c10 N71-24844
Digitally controlled random noise vibration testing
[NASA-CASE-NPO-11612] c11 N72-20251

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RECTIFIERS

RANGE FINDERS
 Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
 [NASA-CASE-XNP-01501] c21 N70-41930
 Binary coded sequential acquisition ranging system for very distant objects
 [NASA-CASE-NPO-11194] c08 N71-33869

RANGEFINDING
 Equipment for testing of ground station ranging equipment and spacecraft transponders
 [NASA-CASE-XMS-05454-1] c07 N71-12391
 Spacecraft ranging system
 [NASA-CASE-NPO-10066] c09 N71-18598
 Radar system utilizing emission and energy propagation to measure target distance
 [NASA-CASE-NPO-11426] c07 N71-33107
 Loop transponder for regenerating code of mu-type ranging system
 [NASA-CASE-NPO-11707] c07 N72-20161
 Orbital and entry tracking accessory mounted on global map to provide range requirements for reentry vehicles to any landing site
 [NASA-CASE-LAR-10626-1] c14 N72-21416

RARE EARTH COMPOUNDS
 Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
 [NASA-CASE-XGS-03505] c03 N71-10608

RAREFIED GASES
 Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
 [NASA-CASE-XLA-00327] c25 N71-29184

RATES (PER TIME)
 Apparatus and digital technique for coding rate data
 [NASA-CASE-LAR-10128-1] c08 N72-15177

RC CIRCUITS
 RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
 [NASA-CASE-XNP-00906] c09 N70-41655
 Device utilizing RC rate generators for continuous slow speed measurement
 [NASA-CASE-XMF-02966] c10 N71-24863
 Digital data handling circuits for pulse amplifiers
 [NASA-CASE-XNP-01068] c10 N71-28739
 Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
 [NASA-CASE-ARC-10042-2] c10 N72-11256
 Active RC filter networks and amplifiers for deep space magnetic field measurement
 [NASA-CASE-XAC-05462-2] c10 N72-17171
 RC networks with voltage amplifier, RC input circuit, and positive feedback
 [NASA-CASE-ARC-10020] c10 N72-17172
 Active filter circuit comprising passive RC network and dc voltage or operational amplifier
 [NASA-CASE-XAC-05462] c09 N72-20209
 Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
 [NASA-CASE-ARC-10192] c09 N72-21245

REACTION CONTROL
 Development of voice operated controller for controlling reaction jets of spacecraft
 [NASA-CASE-XLA-04063] c31 N71-33160

REACTION WHEELS
 Satellite stabilization reaction wheel scanner
 [NASA-CASE-XGS-02629] c14 N71-21082
 Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
 [NASA-CASE-GSC-10555-1] c21 N71-27324

REACTIVITY
 Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
 [NASA-CASE-XLE-04599] c22 N72-20597

REACTOR CORES
 Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
 [NASA-CASE-XLE-00724] c14 N70-34669
 Solid state device for mapping flux and power in nuclear reactor cores
 [NASA-CASE-XLE-00301] c14 N70-36808
 Fuel system for ion exchange thermal nuclear reactor

[NASA-CASE-LEW-11645-1] c22 N72-20602

REACTOR TECHNOLOGY
 Nuclear reactor control rod assembly with improved driving mechanism
 [NASA-CASE-XLE-00298] c22 N70-34501

READOUT
 Flow angle sensor and remote readout system for use with cryogenic fluids
 [NASA-CASE-XLE-04503] c14 N71-24864
 System for checking status of several double-throw switches by readout indications
 [NASA-CASE-XLA-08799] c10 N71-27272

REAL TIME OPERATION
 Method and apparatus for analyzing respiratory gas flow rate and inspiration-expiration frequencies in real time
 [NASA-CASE-MSC-13436-1] c05 N72-20113

RECEIVERS
 Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
 [NASA-CASE-MSC-12259-1] c07 N70-12616
 Multichannel telemetry system for high-rate and low-rate data communication
 [NASA-CASE-NPO-11572] c07 N71-34159
 Automatic carrier acquisition system for phase locked loop receiver
 [NASA-CASE-NPO-11628] c07 N72-20156
 Very low frequency phase tracking receiver system with time keyed mode of operation
 [NASA-CASE-NPO-11600] c07 N72-20159
 Phased locked loop for receiver in telemetry system with suppressed carrier
 [NASA-CASE-NPO-11593] c07 N72-20162

RECIPROCATION
 Variable direction force coupler for transmitting reciprocating force along curved path
 [NASA-CASE-MFS-20317] c15 N72-20456

RECONSTRUCTION
 Method and means for recording and reconstructing holograms without use of reference beam
 [NASA-CASE-ERC-10020] c16 N71-26154
 Digital to analog converter for reconstructing a sampled analog by interpolations between sample points
 [NASA-CASE-MSC-12458-1] c08 N72-11209

RECORDING
 Passive force transducer for measuring, magnifying, and recording maximum load on given specimen
 [NASA-CASE-LAR-10496-1] c14 N71-28654

RECORDING INSTRUMENTS
 Weighing and recording device for obtaining precise automatic record of small changes in force
 [NASA-CASE-XLA-02605] c14 N71-10773
 Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
 [NASA-CASE-XMS-06061] c05 N71-23317
 Helical recorder for multiple channel recording
 [NASA-CASE-GSC-10614-1] c09 N72-11224
 Apparatus for recording camera aperture and focus setting on film
 [NASA-CASE-MSC-12363-1] c14 N72-11373

RECOVERABLE LAUNCH VEHICLES
 Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
 [NASA-CASE-XMF-00389] c31 N70-34176

RECOVERABLE SPACECRAFT
 Describing assembly for opening stabilizing and decelerating flaps of flight capsules used in space research
 [NASA-CASE-XMF-03169] c31 N71-15675

RECOVERY PARACHUTES
 Parachute system for lowering manned spacecraft from post-reentry to ocean landing
 [NASA-CASE-XLA-00195] c02 N70-38009
 Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
 [NASA-CASE-LAR-10549-1] c31 N72-11792

RECTIFIERS
 Lithium drifted silicon radiation detector with gold rectifying contacts
 [NASA-CASE-XLE-10529] c14 N69-23191
 Power control switching circuit using low voltage semiconductor controlled rectifiers for high voltage isolation

REDUCED GRAVITY

[NASA-CASE-XNP-02713] c10 N69-39888
 High reliability, low input voltage converter with synchronous rectifying transistors for dc to ac to dc conversion
 [NASA-CASE-GSC-11126-1] c09 N71-28419
 Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
 [NASA-CASE-ARC-10 101-1] c09 N71-33109

REDUCED GRAVITY
 Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
 [NASA-CASE-XLE-02624] c12 N69-39988
 Apparatus for measuring human body mass in zero or reduced gravity environment
 [NASA-CASE-XMS-03371] c05 N70-42000
 Cable suspension and inclined walkway system for simulating reduced or zero gravity environments
 [NASA-CASE-XLA-01787] c11 N71-16028

REDUNDANT COMPONENTS
 Redundant memory for enhanced reliability of digital data processing system
 [NASA-CASE-GSC-10564] c10 N71-29135

REENTRY COMMUNICATION
 Electrostatic modulator for communicating through plasma sheath formed around spacecraft during reentry
 [NASA-CASE-XLA-01400] c07 N70-41331
 Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres
 [NASA-CASE-XLA-01127] c07 N70-41372
 Reentry communication by injection of water droplets into plasma layer surrounding space vehicle
 [NASA-CASE-XLA-01552] c07 N71-11284

REENTRY SHIELDING
 Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
 [NASA-CASE-XMS-02677] c31 N70-42075
 Method and apparatus for fabrication of heat insulating and ablative reentry structure
 [NASA-CASE-XMS-02009] c33 N71-20834
 Radioactive isotope capsule container design for atmospheric reentry protection and heat transmission to spacecraft
 [NASA-CASE-LEW-11227-1] c33 N71-35153
 Ablative heat shield for protection from aerodynamic heating of reentry spacecraft
 [NASA-CASE-MSC-12143-1] c33 N72-17947

REENTRY TRAJECTORIES
 Aerodynamic configuration of reentry vehicle heat shield to provide longitudinal and directional stability at hypersonic velocities
 [NASA-CASE-XMS-04142] c31 N70-41631

REENTRY VEHICLES
 Leading edge design for hypersonic reentry vehicles
 [NASA-CASE-XLA-00165] c31 N70-33242
 Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
 [NASA-CASE-XLA-00241] c31 N70-37986
 Telespectrograph for analyzing upper atmosphere by tracking bodies reentering atmosphere at high velocities
 [NASA-CASE-XLA-03273] c14 N71-18699
 Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres
 [NASA-CASE-XLA-01791] c14 N71-22991
 Design of ring wing vehicle of high drag-to-weight ratio to withstand reentry stress into low density atmosphere
 [NASA-CASE-XLA-04901] c31 N71-24315
 Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
 [NASA-CASE-LAR-10549-1] c31 N72-11792

REFERENCE SYSTEMS
 Automatic frequency control device for providing frequency reference for voltage controlled oscillator
 [NASA-CASE-KSC-10393] c09 N72-21247

REFINING
 Helium refining by superfluidity
 [NASA-CASE-XNP-00733] c06 N70-34946

REFLECTANCE
 Star image motion compensator using rotating

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mirror for reflectance into telescope
 [NASA-CASE-LAR-10523-1] c14 N70-35412
 Optical characteristics measuring apparatus
 [NASA-CASE-XNP-08840] c23 N71-16365
 Device for determining acceleration of gravity by interferometric measurement of travel of falling body
 [NASA-CASE-XNP-05844] c14 N71-17587
 Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
 [NASA-CASE-ERC-10001] c23 N71-24868

REFLECTED WAVES
 Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
 [NASA-CASE-MFS-20243] c23 N72-15622

REFLECTION
 Process for production of nonreflective star tracking reticles
 [NASA-CASE-GSC-11188-1] c14 N71-28653
 Formation of mechanically durable, chemically optically stable reflective coating from organic materials
 [NASA-CASE-GSC-11214-1] c06 N72-10137
 Vacuum preparation of zinc titanate pigment resistant to loss of reflective properties
 [NASA-CASE-MFS-13532] c18 N72-17532

REFLECTOMETERS
 Ellipsoidal mirror reflector for measuring reflectance
 [NASA-CASE-IGS-05291] c23 N71-16341

REFLECTORS
 Conical reflector antenna with phase sensing monopulse operation
 [NASA-CASE-NPO-10303] c07 N70-36055
 Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
 [NASA-CASE-XLA-00138] c31 N70-37981
 Antenna design with self erecting mesh reflector
 [NASA-CASE-IGS-09190] c31 N71-16102
 Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
 [NASA-CASE-IGS-08269] c23 N71-26206
 Furlable reflector design with frusto-conical, singly-curved, reflective surface and point source feed for use with high-gain spacecraft antennas
 [NASA-CASE-NPO-11361] c07 N72-10152
 Collapsible support for antenna reflector for use on space vehicles
 [NASA-CASE-NPO-11751] c07 N72-20153
 Microwave antennas employing conical reflector
 [NASA-CASE-NPO-11661] c07 N72-20158
 Alignment equipment using laser with gravitationally sensitive cavity reflector
 [NASA-CASE-ARC-10444-1] c16 N72-20476

REFRACTORY MATERIALS
 THERMOELECTRIC GENERATOR USING HIGH TEMPERATURE thermoelectric material in thermal series with low temperature thermoelectric material
 [NASA-CASE-NPO-10753] c03 N70-10898
 Vacuum deposition of transparent luminescent film of ZnO on transparent refractory substrate, for high resolution flying spot scanners
 [NASA-CASE-FRC-10019] c15 N70-22137
 Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
 [NASA-CASE-XLE-00335] c14 N70-35368
 Method for producing refractory molybdenum disilicides
 [NASA-CASE-XMS-00370] c17 N71-20941
 Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings
 [NASA-CASE-XNP-02888] c18 N71-21068
 Hydrostatic extrusion of refractory materials using simple press
 [NASA-CASE-NPO-10811] c15 N71-34425
 Semiconductor device manufacture using refractory dielectrics as diffusant masks and interconnection insulating materials
 [NASA-CASE-XER-08476-1] c26 N72-17820
 Process for making semiconductor devices with refractory dielectrics as diffusant masks
 [NASA-CASE-XER-08476-2] c26 N72-21800

REFRACTORY METALS
 Refractory filament series circuitry for radiant

- heater
[NASA-CASE-XLE-00387] c33 N70-34812
Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-LEW-10393-1] c17 N71-15468
Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-XNP-04338] c17 N71-23046
Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-0394C] c18 N71-26153
Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
- REFRIGERATING MACHINERY**
Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
[NASA-CASE-NPO-10309] c15 N69-23190
Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025
Dual solid cryogenics for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
- REFRIGERATORS**
Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-XNP-00920] c15 N71-15906
Series-connected heat exchangers for multi-stage helium refrigerator with valved by-pass circuit for fast decontamination
[NASA-CASE-NPO-10634] c23 N72-11567
- REGENERATION (ENGINEERING)**
Switching circuit with regeneratively connected transistors eliminating power consumption when not in use
[NASA-CASE-XNP-02654] c10 N70-42032
Direct current electromotive system for regenerative braking of electric motor
[NASA-CASE-XMF-01096] c10 N71-16030
- REGENERATIVE COOLING**
Metal ribbon wrapped outer wall for regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411
Fabrication method for lightweight regeneratively cooled combustion chamber of channel construction
[NASA-CASE-XLE-00150] c28 N70-41818
Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992
Regenerative cooling system for rocket combustion chamber using coolant tubes in convergent-divergent nozzle
[NASA-CASE-XLE-04857] c28 N71-23968
Thermocouple for measuring wall temperature in thin walls of rocket engine cooling passages
[NASA-CASE-XLE-05230-2] c14 N72-11374
- REGENERATIVE FUEL CELLS**
Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
- REGENERATORS**
Loop transponder for regenerating code of mu-type ranging system
[NASA-CASE-NPO-11707] c07 N72-20161
- REGISTERS (COMPUTERS)**
Data processor with plural register stages for selectively interconnecting with each other to effect multiplicity of operations
[NASA-CASE-GSC-10186] c08 N71-33110
Flexible computer-accessed telemetry using sequence control, auxiliary memory, and system control registers for sensors and digital data source sampling
[NASA-CASE-NPO-11358] c07 N71-34160
- REINFORCED PLASTICS**
Bonding reinforced FEB Teflon to steels
[NASA-CASE-MFS-20482] c15 N70-26806
Process for developing filament reinforced plastic tubes used in research and development programs
[NASA-CASE-LAR-10203-1] c15 N72-16330
- REINFORCEMENT (STRUCTURES)**
Reinforcing beam system for highly flexible diaphragms in valves or pressure switches
[NASA-CASE-XNP-01962] c32 N70-41370
- REINFORCING FIBERS**
High strength reinforced metallic composites for applications over wide temperature range
[NASA-CASE-XLE-02428] c17 N70-33288
Method for producing fiber reinforced metallic composites with high strength and elasticity over wide temperature range
[NASA-CASE-XLE-00231] c17 N70-38198
Description of method for producing metallic composites reinforced with ceramic and refractory hard metals that are fibered in place
[NASA-CASE-XLE-03925] c18 N71-22894
Production and application of sprayable fiber reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100
- RELAXATION OSCILLATORS**
Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
- RELAY SATELLITES**
Earth satellite relay station for frequency multiplexed voice transmission
[NASA-CASE-GSC-10118-1] c07 N71-24621
- RELEASING**
Delayed simultaneous release mechanism for spacecraft foldable appendages
[NASA-CASE-GSC-10814-1] c03 N70-34672
Chemical system for releasing barium in vapor phase to create artificial clouds in upper atmosphere and interplanetary space for geophysical studies
[NASA-CASE-LAR-10670-1] c06 N70-36004
Bolt-latch mechanism for releasing despinn weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
Design and development of release mechanism for spacecraft components, releasable despinn weights, and extensible gravity booms
[NASA-CASE-XGS-08718] c15 N71-24600
Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
- RELIABILITY ENGINEERING**
Improving load capacity and fatigue life of rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052
Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-XMF-04966] c14 N71-17658
Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
Reliability of electrical connectors after heat sterilization
[NASA-CASE-NPO-10694] c09 N72-20200
- RELIEF VALVES**
Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924
Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
- REMOTE CONTROL**
Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490
Power controlled bimetallic electromechanical actuator for accurate, timely, and reliable response to remote control signal

REMOTE HANDLING

[NASA-CASE-XNP-09776] c09 N69-39929
Remote control system using modulated continuous wave He-Ne laser

[NASA-CASE-LAR-10311-1] c16 N70-35542
Controlled caging and uncaging mechanism for remote instrument control

[NASA-CASE-GSC-11063-1] c03 N70-35584
Two component valve assembly for cryogenic liquid transfer regulation

[NASA-CASE-XLE-00397] c15 N70-36492
Remotely actuated quick disconnect mechanism for umbilical cables

[NASA-CASE-XLA-00711] c03 N71-12258
Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle

[NASA-CASE-XLA-01396] c03 N71-12259
Remote control device operated by movement of finger tips for manual control of spacecraft attitude

[NASA-CASE-XAC-02405] c09 N71-16089
Satellite radio communication system with remote steerable antenna

[NASA-CASE-XNP-02389] c07 N71-28900
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking

[NASA-CASE-NPO-11087] c23 N71-29125
Design and development of manipulator for handling objects in zero gravity environment inside and outside orbiting space vehicle

[NASA-CASE-MPS-14405] c15 N72-15474

REMOTE HANDLING
Remote handling device for mixing or analyzing dangerous chemicals

[NASA-CASE-LAB-10634-1] c15 N72-21476

REMOTE SENSORS
Multichannel radiometric sensor for warning aircraft pilots of clear air turbulence

[NASA-CASE-ERC-10081] c14 N70-20710
Passive optical wind and turbulence remote detection system

[NASA-CASE-XMF-14032] c20 N71-16340
Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers

[NASA-CASE-XLE-00787] c14 N71-21090
Flow angle sensor and remote readout system for use with cryogenic fluids

[NASA-CASE-XLE-04503] c14 N71-24864
Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals

[NASA-CASE-NPO-10143] c10 N71-26326

REMOVAL
Catalyst bed element removing tool

[NASA-CASE-XFR-00811] c15 N70-36901

REPEATERS
Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station

[NASA-CASE-GSC-10373-1] c07 N71-19773

REPLACING
Indexing mechanism for cathode array substitution in electron beam tube

[NASA-CASE-NPO-10625] c09 N71-26182

REPRODUCTION (COPYING)
Image copier system for film editing and composite reproduction of multiple images

[NASA-CASE-NPO-10196-2] c14 N70-20711

RESCUE OPERATIONS
Backpack carrier with retractable legs suitable for lunar exploration and convertible to rescue vehicle

[NASA-CASE-LAR-10056] c05 N71-12351
Development and characteristics of rescue litter with inflatable flotation device for water rescue application

[NASA-CASE-XMS-04170] c05 N71-22748

RESEARCH AND DEVELOPMENT
Process for developing filament reinforced plastic tubes used in research and development programs

[NASA-CASE-LAR-10203-1] c15 N72-16330

RESEARCH VEHICLES
Lunar landing flight research vehicle

[NASA-CASE-XFR-00929] c31 N70-34966
Velocity limiting safety system for motor driven research vehicle

[NASA-CASE-XLA-07473] c15 N71-24895

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RESIDUAL STRESS
Miniature solid state, direction sensitive, stress transducer design with bonded semiconductor piezoresistive element for sensing residual stresses

[NASA-CASE-XNP-02983] c14 N71-21091

RESILIENCE
Compressible elastomeric material with predetermined modulus of elasticity and controlled resiliency

[NASA-CASE-NPO-10853] c18 N70-34685
Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers

[NASA-CASE-XLA-08254] c14 N71-26161

RESIN BONDING
Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients

[NASA-CASE-XLA-01262] c15 N71-21464

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Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control

[NASA-CASE-ARC-10098-1] c06 N71-24739

RESISTANCE HEATING
Resistance soldering apparatus for connecting multiple electric leads to multiple terminal block

[NASA-CASE-GSC-10913-1] c15 N70-22206
High resistance cross flow heat exchangers for electrothermal rocket engines

[NASA-CASE-XLE-01783] c28 N70-34175

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Conversion system for increasing resolution of analog to digital converters

[NASA-CASE-XAC-00404] c08 N70-40125
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis

[NASA-CASE-XGS-08269] c23 N71-26206

RESONANT FREQUENCIES
Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement

[NASA-CASE-XAC-02807] c09 N71-23021
Quantitative liquid measurements in container by resonant frequencies

[NASA-CASE-XNP-02500] c18 N71-27397

RESONATORS
High Q bandpass resonators suitable for operation in microwave frequency range

[NASA-CASE-GSC-10990-1] c09 N71-28470

RESPIRATION
Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments

[NASA-CASE-XFR-08403] c05 N71-11202

RESPIRATORS
Transducer for monitoring oxygen flow in respirator

[NASA-CASE-FRC-10012] c14 N72-17329

RESPIRATORY RATE
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[NASA-CASE-FRC-10022] c12 N71-26546
Method and apparatus for analyzing respiratory gas flow rate and inspiration-expiration frequencies in real time

[NASA-CASE-MSC-13436-1] c05 N72-20113

RESPONSES
System for monitoring condition-responsive devices by using frequency division multiplex technique

[NASA-CASE-KSC-10521-1] c07 N72-21160

RESTARTABLE ROCKET ENGINES
Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity

[NASA-CASE-XNP-01390] c28 N70-41275
Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants

[NASA-CASE-XLE-00685] c28 N70-41992

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[NASA-CASE-XMS-01115] c05 N70-39922
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 [NASA-CASE-XLE-05913] c33 N71-14032
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 [NASA-CASE-XGS-05715] c23 N71-16100
 Process for production of nonreflective star tracking reticles
 [NASA-CASE-GSC-11188-1] c14 N71-28653
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 Retractable runway lights
 [NASA-CASE-XLA-00119] c11 N70-33329
 Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
 [NASA-CASE-XMP-07587] c15 N71-18701
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 Visual target luminaires for retrofire attitude control
 [NASA-CASE-XMS-12158-1] c31 N69-27499
 Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
 [NASA-CASE-XMS-03792] c14 N70-41812
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 Servo system for retroreflector of Michelson interferometer
 [NASA-CASE-NPO-10300] c14 N71-17662
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 Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
 [NASA-CASE-XNP-00234] c28 N70-38645
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 Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
 [NASA-CASE-XMP-01973] c31 N70-41588
 Space shuttle system with two reusable stages launched in piggyback fashion
 [NASA-CASE-MSC-12433-1] c31 N71-31547
 Space shuttle system for orbital payload delivery and recovery of reusable unmanned spacecraft
 [NASA-CASE-MSC-12391-1] c30 N72-13829
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 [NASA-CASE-MFS-21527] c31 N72-15781
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 Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
 [NASA-CASE-XLE-00170] c15 N70-36412
 Reversible current directing circuitry for reversible motor control
 [NASA-CASE-XLA-09371] c10 N71-18724
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 [NASA-CASE-XMS-09310] c15 N71-22706
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 [NASA-CASE-MFS-20509] c11 N72-17183
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 [NASA-CASE-XLE-00164] c15 N70-36411
 Device for bending metal ribbon or wire
 [NASA-CASE-XLA-05966] c15 N72-12408
RIBS (SUPPORTS)
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 [NASA-CASE-XLA-06095] c01 N69-39981
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 Freeze drying rice with two freeze-thaw cycles
 [NASA-CASE-MSC-13540-1] c05 N70-39923
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 Low weight, high strength, rigid honeycomb core structures with minimal surface tubule sections
 [NASA-CASE-ERC-10363] c18 N70-40071
 Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
 [NASA-CASE-XMS-10660-1] c15 N71-25975
 Storage stable, thermally activated foaming compositions for erecting and rigidizing mechanisms of thin sheet solar collectors
 [NASA-CASE-LAR-10373-1] c18 N71-26155
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 [NASA-CASE-XNP-08907] c23 N71-29123
RIGID WINGS
 Deployment system for flexible wing with rigid superstructure
 [NASA-CASE-XLA-01220] c02 N70-41863
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 Design of transistorized ring counter circuit with special steering and triggering circuits
 [NASA-CASE-IGS-03095] c09 N69-27463
RING STRUCTURES
 Reversible ring counter using cascaded single silicon controlled rectifier stages
 [NASA-CASE-IGS-01473] c09 N71-10673
 Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
 [NASA-CASE-XMF-10040] c15 N71-22877
 Electron microscope and method of making annular objective aperture
 [NASA-CASE-ARC-10448-1] c14 N72-21421
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 [NASA-CASE-XLA-04901] c31 N71-24315
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 Circuit for monitoring power supply by ripple current indication
 [NASA-CASE-KSC-10162] c09 N72-11225
RIVETS
 Electrical connection for printed circuits on common board, using bellows principle in rivet
 [NASA-CASE-XNP-05082] c15 N70-41960
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 [NASA-CASE-XLE-00409] c28 N71-15658
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 [NASA-CASE-XLA-05369] c31 N71-15687
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 [NASA-CASE-XNP-09744] c27 N71-16392
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[NASA-CASE-XLA-00256] c31 N71-15663
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[NASA-CASE-XLA-00256] c31 N71-15663
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[NASA-CASE-XLA-02651] c28 N70-41967
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[NASA-CASE-XLE-01640] c31 N71-15637
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[NASA-CASE-NPO-10687] c27 N69-33347
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[NASA-CASE-NPO-12015] c27 N71-33856
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[NASA-CASE-XLE-01902] c28 N71-10574
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[NASA-CASE-XNP-07478] c14 N69-21923
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- Measuring roll alignment of test body with respect to reference body
[NASA-CASE-GSC-10514-1] c14 N72-20379
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[NASA-CASE-LEW-10856-1] c15 N70-26816
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[NASA-CASE-XLA-02809] c15 N71-22982
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[NASA-CASE-XLE-02999] c15 N71-16052
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[NASA-CASE-XNP-01307] c21 N70-41856
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[NASA-CASE-XNP-06508] c18 N69-39895
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[NASA-CASE-XMP-01598] c21 N71-15583
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[NASA-CASE-XLA-00013] c15 N71-29136
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[NASA-CASE-LAR-10557] c02 N72-11018
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[NASA-CASE-XGS-02401] c14 N69-27485
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[NASA-CASE-MFS-11279] c16 N71-20400
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[NASA-CASE-NPO-11418] c14 N72-20393
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[NASA-CASE-XGS-08266] c14 N69-27432
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[NASA-CASE-XMS-04300] c09 N71-19479
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[NASA-CASE-XGS-05290] c09 N71-25999
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[NASA-CASE-XMS-01906] c31 N70-41373
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[NASA-CASE-XLA-03127] c11 N71-10776
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[NASA-CASE-NPO-11002] c14 N70-35433
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[NASA-CASE-GSC-10062] c14 N71-15605
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[NASA-CASE-XLA-00793] c21 N71-22880
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[NASA-CASE-XGS-04173] c19 N71-26674
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[NASA-CASE-XLE-05130-2] c15 N71-19570
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[NASA-CASE-LEW-10326-2] c15 N71-28679
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[NASA-CASE-XLA-00013] c15 N71-29136
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[NASA-CASE-LAR-10620-1] c09 N72-11230
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[NASA-CASE-XLA-02809] c15 N71-22982
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[NASA-CASE-NPO-10679] c15 N72-21462
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[NASA-CASE-XLE-00155] c28 N71-29154
Transonic propulsion fan for turbofan engine with rotor blade spacing designed to minimize noise emission
[NASA-CASE-LEW-11402-1] c28 N72-20770
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[NASA-CASE-XLA-00495] c14 N70-41332
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[NASA-CASE-MFS-20075] c09 N71-26133
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[NASA-CASE-MPS-20809] c23 N72-10587
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[NASA-CASE-MFS-16570] c05 N72-20111
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[NASA-CASE-XLE-00208] c28 N70-34294
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[NASA-CASE-XLA-08645] c15 N69-21465
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[NASA-CASE-XNP-00425] c11 N70-38202
- Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
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[NASA-CASE-XLE-00586] c15 N71-15968
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[NASA-CASE-XLA-00415] c15 N71-16079
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[NASA-CASE-XMS-13052] c14 N71-20427
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[NASA-CASE-XMP-04042] c15 N71-23023
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[NASA-CASE-LAR-10194-1] c12 N72-11293
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[NASA-CASE-NPO-10351] c08 N71-12503

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Modular type MOD 2 sequential function generator for multibit binary sequence
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Binary coded sequential acquisition ranging system for very distant objects
[NASA-CASE-NPO-11194] c08 N71-33869

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[NASA-CASE-GSC-11214-1] c06 N72-10137

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[NASA-CASE-LAR-10503-1] c09 N72-21248

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Pneumatic servoamplifier for controlling flow regulation
[NASA-CASE-MSC-12121-1] c15 N71-27147

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[NASA-CASE-XGS-05582] c07 N69-27460

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[NASA-CASE-XAC-03392] c03 N70-41954

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[NASA-CASE-XMS-04300] c09 N71-19479

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[NASA-CASE-XLA-08530] c32 N71-25360

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[NASA-CASE-ARC-10131-1] c15 N71-27754

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[NASA-CASE-NPO-10300] c14 N71-17662

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[NASA-CASE-XAC-00601] c15 N71-28952

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[NASA-CASE-NPO-10700] c07 N71-33613

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Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-MFS-13046] c07 N71-19433

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[NASA-CASE-XMF-05195] c10 N71-24861

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Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505

Radioactive source for encoding shaft position
[NASA-CASE-GSC-10644-1] c14 N70-35583

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[NASA-CASE-XNP-00416] c15 N70-36947

Air brake device for absorbing and measuring power from rotating shafts
[NASA-CASE-XLE-00720] c14 N70-40201

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[NASA-CASE-XFR-04104] c03 N70-42073

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[NASA-CASE-MFS-12805] c15 N71-17805

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[NASA-CASE-NPO-10646] c15 N71-28467

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[NASA-CASE-LEW-11152-1] c15 N72-15473

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[NASA-CASE-XLA-00189] c33 N70-36846

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[NASA-CASE-XLA-04804] c31 N71-23068

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[NASA-CASE-XLA-00304] c27 N70-34783

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[NASA-CASE-XMS-06876] c15 N71-21536

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[NASA-CASE-LAR-10121-1] c15 N71-26721

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[NASA-CASE-XMS-09691-1] c18 N71-15545

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[NASA-CASE-XLE-01481] c14 N71-10781

SHEAR FLOW
Shear modulated fluid amplifier of high pressure hydraulic vortex amplifier type
[NASA-CASE-MFS-10412] c12 N71-17578

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Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584

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Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505

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Sheathed thermocouple for use in extremely high temperature environments
[NASA-CASE-LEW-10854-1] c14 N71-28651

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Channel-type shell construction for rocket engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860

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[NASA-CASE-XNP-01855] c15 N71-28937

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Feedback shift register with states decomposed into cycles of equal length
[NASA-CASE-NPO-11082] c08 N70-22205

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[NASA-CASE-XNP-00432] c08 N70-35423

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[NASA-CASE-NPO-10351] c08 N71-12503

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[NASA-CASE-XNP-01753] c08 N71-22897

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[NASA-CASE-NPO-11406] c08 N72-14221

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[NASA-CASE-NPO-11868] c10 N72-20236

Commutator for steering precisely controlled bidirectional currents through numerous loads by use of magnetic core shift registers
[NASA-CASE-NPO-10743] c08 N72-21199

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[NASA-CASE-XMF-03856] c31 N70-34159

Energy dissipating shock absorbing system for land payload recovery or vehicle braking
[NASA-CASE-XLA-00754] c15 N70-34850

Shock absorbing couch for body support under high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152

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[NASA-CASE-MSC-12279-1] c15 N70-35679

Landing pad assembly for aerospace vehicles
[NASA-CASE-XMF-02853] c31 N70-36654

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[NASA-CASE-XNP-02108] c31 N70-36845

SHOCK LOADS

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Shock absorber for landing gear of lunar or planetary landing modules
[NASA-CASE-XMP-01045] c15 N70-40354

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[NASA-CASE-MSC-11253] c05 N71-12343

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[NASA-CASE-XMS-03722] c15 N71-21530

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[NASA-CASE-XLA-01530] c14 N71-23092

Shock absorber for supporting bearings subjected to omnidirectional shock loading in high gravity environments
[NASA-CASE-NPO-10626] c15 N72-15465

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[NASA-CASE-HSC-12279] c15 N72-17450

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[NASA-CASE-NPO-10671] c15 N72-20443

SHOCK LOADS

Damper system for alleviating air flow shock loads on wind tunnel models
[NASA-CASE-XLA-09480] c11 N71-33612

Shock absorber for supporting bearings subjected to omnidirectional shock loading in high gravity environments
[NASA-CASE-NPO-10626] c15 N72-15465

SHOCK RESISTANCE

Removable potting compound for instrument shock protection
[NASA-CASE-XLA-00482] c15 N70-36409

SHOCK TUBES

Knife structure for controlling rupture of shock tube diaphragms
[NASA-CASE-XAC-00731] c11 N71-15960

Design, development, and operation of collapsible piston for maintaining constant pressures within a shock tube
[NASA-CASE-MSC-13789-1] c11 N72-11271

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Absorptive, nonreflecting barrier mounted between closely spaced jet engines on supersonic aircraft, for preventing shock wave interference
[NASA-CASE-XLA-02865] c28 N71-15563

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[NASA-CASE-XAC-02970] c14 N69-39896

SHOCK WAVE PROFILES

Method and apparatus for measuring shock layer radiation distribution about high velocity objects
[NASA-CASE-XAC-02970] c14 N69-39896

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Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
[NASA-CASE-XLE-04946] c17 N71-24911

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[NASA-CASE-LEW-11188-1] c02 N71-34017

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[NASA-CASE-MPS-20861] c18 N71-34500

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[NASA-CASE-XLA-08491] c05 N69-21380

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[NASA-CASE-XGS-04808] c03 N69-25146

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[NASA-CASE-XLE-01015] c03 N69-39898

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[NASA-CASE-XLA-06713] c14 N71-28991

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[NASA-CASE-LEW-11224-1] c02 N72-10033

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[NASA-CASE-XLA-01043] c28 N71-10780

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[NASA-CASE-NPO-10758] c14 N72-15429

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[NASA-CASE-XNP-02723] c07 N70-41680

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Multiple mode horn antenna with radiation pattern of equal beamwidths and suppressed sidelobes
[NASA-CASE-XNP-01057] c07 N71-15907

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Processes for making metal sheets or plaques with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c15 N71-34427

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[NASA-CASE-IGS-03502] c10 N71-20852

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Monitoring system for signal amplitude ranges over predetermined time interval
[NASA-CASE-XMS-04061-1] c09 N69-39885

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[NASA-CASE-KSC-10385] c08 N70-20719

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[NASA-CASE-GSC-10554-1] c08 N71-29033

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[NASA-CASE-MSC-12428-1] c10 N72-11259

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Position locating system for remote aircraft using voice communication and digital signals
[NASA-CASE-GSC-10087-2] c21 N71-13958

Saturable magnetic core and signal detection for indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747

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Roughness detector for recording surface pattern of irregularities
[NASA-CASE-XLA-00203] c14 N70-34161

Electrical testing apparatus for detecting amplitude and width of transient pulse
[NASA-CASE-XMP-06519] c09 N71-12519

System for monitoring presence of neutrals in streams of ions - ion engine control
[NASA-CASE-XNP-02592] c24 N71-20518

Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-ERC-10041] c08 N71-29138

SIGNAL ENCODING

Adaptive compression signal processor for PCM communication systems
[NASA-CASE-XLA-03076] c07 N71-11266

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Plural recorder system which limits signal recording to signals of sufficient interest
[NASA-CASE-XMS-06949] c09 N69-21467

Alternating current signal generator providing plurality of amplitude modulated output signals
[NASA-CASE-XNP-05612] c09 N69-21468

Circuitry for generating sync signals in FM communication systems including video information
[NASA-CASE-XNP-10830] c07 N71-11281

Apparatus for generating microwave signals at progressively related phase angles for driving antenna array
[NASA-CASE-ERC-10046] c10 N71-18722

System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174

Band controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255

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- Signaling summary alarm circuit with semiconductor switch for faulty contact indications
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[NASA-CASE-KSC-10020] c10 N71-27338
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[NASA-CASE-NPO-11064] c07 N72-11150
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[NASA-CASE-LAR-10620-1] c09 N72-11230
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[NASA-CASE-NPO-11147] c14 N72-15417
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[NASA-CASE-XLE-03155-2] c09 N72-20205
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[NASA-CASE-XGS-C1110] c07 N69-24334
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[NASA-CASE-XLA-02609] c09 N70-35191
- Adaptive compression signal processor for PCM communication systems
[NASA-CASE-XLA-03076] c07 N71-11266
- Conversion system for transforming slow scan rate of Apollo TV camera on moon to fast scan of commercial TV
[NASA-CASE-XHS-07168] c07 N71-11300
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[NASA-CASE-XNP-08274] c10 N71-13537
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[NASA-CASE-XNP-00746] c07 N71-21476
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[NASA-CASE-XGS-02610] c14 N71-23174
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[NASA-CASE-XAC-10607] c10 N71-23669
- Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622
- Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
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[NASA-CASE-GSC-10299-1] c09 N71-24804
- Apparatus for filtering input signals
[NASA-CASE-NPO-10198] c09 N71-24806
- Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865
- Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
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[NASA-CASE-NPO-10302] c10 N71-26142
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[NASA-CASE-XNP-C9830] c14 N71-26266
- Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-ERC-10041] c08 N71-29138
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[NASA-CASE-XLA-07788] c09 N71-29139
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[NASA-CASE-ARC-10269-1] c10 N72-16172
- Processing system for semiperiodic electrical signals to produce real time contoured display
[NASA-CASE-MSC-13407-1] c10 N72-20225
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[NASA-CASE-MFS-20658] c14 N72-20407
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[NASA-CASE-ERC-10112] c07 N72-21119
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[NASA-CASE-XNP-00748] c07 N70-36911
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[NASA-CASE-XNP-10843] c07 N71-11267
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[NASA-CASE-XGS-01222] c10 N71-20841
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[NASA-CASE-XGS-03502] c10 N71-20852
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[NASA-CASE-NPO-10118] c07 N71-24741
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[NASA-CASE-MSC-12205-1] c07 N71-27056
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[NASA-CASE-XNP-10843] c07 N71-11267
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[NASA-CASE-XGS-05441] c10 N71-22962
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[NASA-CASE-ERC-10041] c08 N71-29138
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- Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616
- Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911
- Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-XMF-00701] c09 N70-40272
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[NASA-CASE-XNP-05254] c07 N71-20791
- Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-XMF-04367] c09 N71-23545
- Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-15196
- Superconductive resonant cavity for communication signal modulation and reproduction with better signal to noise ratio
[NASA-CASE-MSC-12259-2] c07 N72-20167
- Circuit for determining signal to noise ratio for input with noise components and given frequency range
[NASA-CASE-GSC-11239-1] c10 N72-20233
- Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119
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- Synchronizing apparatus for multi-access satellite time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974
- Electro-mechanical circuit for converting floating intelligence signal to common electrically grounded intelligence recorder
[NASA-CASE-XAC-00086] c09 N70-33182
- Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XMP-01160] c07 N71-11298

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- Bipolar phase detector and corrector for split phase PCM data signals
[NASA-CASE-XGS-01590] c07 N71-12392
- Automatic estimation of signal to noise ratio and other parameters in signal communication systems
[NASA-CASE-XNP-05254] c07 N71-20791
- Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
[NASA-CASE-XNP-01306] c07 N71-20814
- Adaptive notch filter, using modulation techniques for reversed phase noise signal
[NASA-CASE-XMF-01892] c10 N71-22986
- Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
- Development of equipment for locating electrically nonlinear objects and determining distance to object by transmitting FM signal
[NASA-CASE-KSC-10108] c14 N72-15426
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- Electronic signal-handling circuit with constant input impedance
[NASA-CASE-ARC-10348-1] c10 N72-10205
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- Preparation of elastomeric diamine silazane polymers
[NASA-CASE-YMF-04133] c06 N71-20717
- Synthesis of high purity dianilinosilanes
[NASA-CASE-YMF-06409] c06 N71-23230
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[NASA-CASE-YMF-08674] c06 N71-28807
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- Method of preparing stable nonpolarizable silicon dioxide layers on silicon using phosphosilicate glass as getter material for fabricating long life semiconductor devices
[NASA-CASE-ERC-10071] c06 N70-11167
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[NASA-CASE-XGS-04119] c18 N69-39979
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[NASA-CASE-LAR-10385-1] c14 N70-35544
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[NASA-CASE-XLE-00808] c24 N71-10560
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[NASA-CASE-XLE-10715] c26 N71-23292
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[NASA-CASE-XLE-08569] c03 N71-23449
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[NASA-CASE-ERC-10120] c26 N69-33482
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[NASA-CASE-XLA-C0158] c26 N70-36805
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[NASA-CASE-XLA-Q2057] c26 N70-40015
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[NASA-CASE-XLE-Q2792] c26 N71-10607
- Process for preparing disilanolols with in-chain perfluoroalkyl groups
[NASA-CASE-HFS-20979-2] c06 N72-21101
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[NASA-CASE-XGS-04808] c03 N69-25146
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[NASA-CASE-XLA-08507] c09 N69-39984
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[NASA-CASE-XGS-01473] c09 N71-10673
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[NASA-CASE-XLA-07497] c09 N71-12514
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[NASA-CASE-XNP-00920] c15 N71-15906
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[NASA-CASE-XMS-04312] c07 N71-22984
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[NASA-CASE-ERC-10120] c26 N69-33482
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[NASA-CASE-ERC-10073] c06 N70-12627
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[NASA-CASE-ERC-10325] c15 N70-36058
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[NASA-CASE-XGS-07801] c09 N71-12513
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[NASA-CASE-XLE-10529] c14 N69-23191
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[NASA-CASE-XMS-01177] c05 N71-19440
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[NASA-CASE-MSC-12230-1] c15 N70-35640
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[NASA-CASE-XLA-00284] c15 N71-16075
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[NASA-CASE-MPS-13994-1] c06 N71-11240
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[NASA-CASE-YMF-02584] c06 N71-20905
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[NASA-CASE-PRC-10029] c05 N72-13081
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[NASA-CASE-NPO-11157] c15 N70-22275
- SILVER CHLORIDES**
- Electrochemically reversible silver-silver chloride electrode for detecting bioelectric potential differences generated by human muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925

- Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
- SILVER COMPOUNDS**
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[NASA-CASE-MSC-10960-1] c03 N71-24718
- SILVER ZINC BATTERIES**
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[NASA-CASE-NPO-11157] c15 N70-22275
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[NASA-CASE-XGS-01674] c03 N71-29129
- SIMULATION**
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[NASA-CASE-MFS-2962C] c11 N71-34242
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[NASA-CASE-MFS-12750] c27 N71-16223
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[NASA-CASE-IKS-10804] c05 N71-24606
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[NASA-CASE-NPO-10251] c10 N71-27365
- SINE SERIES**
Service life of electromechanical device for generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
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[NASA-CASE-LAR-10310-1] c10 N72-21275
- SINE WAVES**
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[NASA-CASE-NPO-10251] c10 N71-27365
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[NASA-CASE-NPO-11133] c10 N72-20223
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[NASA-CASE-ERC-10222] c09 N69-31339
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[NASA-CASE-XLA-08645] c15 N69-21465
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[NASA-CASE-LEW-10393-1] c17 N71-15468
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[NASA-CASE-XLE-06461-2] c17 N72-11433
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[NASA-CASE-LAR-10913] c14 N72-16282
- SIZE SEPARATION**
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[NASA-CASE-XMP-05114-2] c15 N71-26148
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[NASA-CASE-XNP-09770-3] c11 N71-27036
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[NASA-CASE-XMP-05114] c15 N71-17650
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[NASA-CASE-XNP-09770-2] c15 N70-35588
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[NASA-CASE-XLE-00953] c15 N71-15966
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[NASA-CASE-XNP-09453] c08 N71-19420
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[NASA-CASE-XLA-01804] c02 N70-34160
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[NASA-CASE-YMS-09691-1] c18 N71-15545
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[NASA-CASE-XLA-01027] c31 N71-24035
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[NASA-CASE-MFS-20619] c28 N72-11708
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[NASA-CASE-MSC-13282-1] c05 N71-24729
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[NASA-CASE-XMP-10040] c15 N71-22877
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[NASA-CASE-XLA-02704] c11 N69-21540
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[NASA-CASE-XMP-04238] c09 N69-39734
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[NASA-CASE-XMP-01049] c15 N71-23049
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Freeze casting of metal ceramic and refractory compound powders into plastic slips
[NASA-CASE-XLE-00106] c15 N71-16076
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[NASA-CASE-XNP-00476] c15 N70-38620
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[NASA-CASE-LAR-10249-1] c02 N71-26110
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[NASA-CASE-MFS-20249] c15 N72-11386
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SOFT LANDING

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[NASA-CASE-XLA-09881] c31 N71-16085
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[NASA-CASE-NPO-03856] c31 N70-34159
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[NASA-CASE-ERC-10276] c14 N70-26820
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[NASA-CASE-XGS-04531] c03 N69-24267
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[NASA-CASE-XLA-06183] c14 N70-40239
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[NASA-CASE-XNP-02982] c31 N70-41855
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[NASA-CASE-NPO-10883] c31 N70-42330
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[NASA-CASE-XMS-01554] c10 N71-10578
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[NASA-CASE-XLE-02792] c26 N71-10607
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[NASA-CASE-NPO-10109] c03 N71-11049
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[NASA-CASE-XNP-06506] c03 N71-11050
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[NASA-CASE-XGS-01475] c03 N71-11058
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[NASA-CASE-NPO-10821] c03 N71-19545
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[NASA-CASE-NPO-10188] c03 N71-20273
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[NASA-CASE-XLE-04787] c03 N71-20492
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[NASA-CASE-XNP-00826] c03 N71-20895
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[NASA-CASE-XNP-01960] c09 N71-23027
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[NASA-CASE-XLE-04535] c03 N71-23354
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[NASA-CASE-XNP-03413] c03 N71-26726
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[NASA-CASE-GSC-10945-1] c21 N71-28460
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[NASA-CASE-ARC-10050] c03 N71-33409
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[NASA-CASE-XGS-04047-2] c03 N72-11062
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[NASA-CASE-LEW-11065-1] c03 N72-11064
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[NASA-CASE-GSC-10669-1] c03 N72-20031
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[NASA-CASE-NPO-10401] c03 N72-20033
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[NASA-CASE-NPO-11771] c03 N72-20038
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[NASA-CASE-XGS-01395] c03 N69-21539
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[NASA-CASE-XLE-01716] c09 N70-40234
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[NASA-CASE-NPO-10188] c03 N71-20273
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[NASA-CASE-LAR-10373-1] c18 N71-26155
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[NASA-CASE-ARC-10050] c03 N71-33409
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[NASA-CASE-XNP-04111] c14 N71-15622
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[NASA-CASE-XNP-01328] c26 N71-18064
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[NASA-CASE-XNP-00708] c14 N70-35394

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Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MSC-10966] c14 N71-19568

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Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675
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[NASA-CASE-XNP-05535] c14 N71-23040
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[NASA-CASE-XMS-04533] c15 N71-23086

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[NASA-CASE-NFS-20011] c18 N69-33483

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[NASA-CASE-XGS-02610] c14 N71-23174

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[NASA-CASE-XLA-04622] c03 N70-41580
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[NASA-CASE-NPO-10109] c03 N71-11049
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[NASA-CASE-XLE-08917] c15 N71-15597
Thermal pump-compressor for converting solar energy
[NASA-CASE-XLA-00377] c33 N71-17610
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[NASA-CASE-XLE-08917-2] c15 N71-24836

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Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395
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[NASA-CASE-NPO-11672] c21 N70-35437
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[NASA-CASE-XGS-01159] c21 N71-10678
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[NASA-CASE-XLA-01584] c14 N71-23269
Solar energy powered heliotrope with passive stored energy operation for orienting solar array towards sun
[NASA-CASE-GSC-10945-1] c21 N71-28460

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[NASA-CASE-NPO-11096] c11 N70-25959
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[NASA-CASE-XNP-04111] c14 N71-15622
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[NASA-CASE-LEW-11162-1] c09 N71-34210

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Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214

SOLDERING

Resistance soldering apparatus for connecting multiple electric leads to multiple terminal block
[NASA-CASE-GSC-10913-1] c15 N70-22206
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such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688
Metal soldering with hydrazine monoperfluoro alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078
Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903

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Solder coating process for printed copper circuit protection
[NASA-CASE-XMF-01599] c09 N71-20705

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[NASA-CASE-XMS-04890-1] c15 N70-22192
Automatic recording McLeod gage with three electrodes and solenoid valve connection
[NASA-CASE-XLE-03280] c14 N71-23093
Solenoid valve including guide for armature and valve member
[NASA-CASE-GSC-10607-1] c15 N72-20442

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Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
[NASA-CASE-XNP-01951] c09 N70-41929
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[NASA-CASE-NPO-10716] c09 N71-24892

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Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400
Solid lubricant applied to porous roller bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLE-09527] c15 N71-17688
Preparation of inorganic solid film lubricants with long wear life and stability in aerospace environments
[NASA-CASE-XMF-03988] c15 N71-21403
Development of rolling element bearing for operation in ultrahigh vacuum environment
[NASA-CASE-XLE-09527-2] c15 N71-26189

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Solid propellant ignition with hypergolic fluid injected to predetermined portions of propellant
[NASA-CASE-XLE-00207] c28 N70-33375
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[NASA-CASE-XLE-01988] c27 N71-15634

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[NASA-CASE-XLA-00105] c28 N70-33331
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SOLID PROPELLANTS

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- Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
- Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268

SPACECRAFT LANDING

SUBJECT INDEX

- Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
- Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion
[NASA-CASE-HQN-10439] c21 N72-21624
- SPACECRAFT LANDING**
- Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861
- Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
- Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XMS-03792] c14 N70-41812
- SPACECRAFT LAUNCHING**
- Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694
- Development and characteristics of squib actuated explosive disconnect for release of spacecraft from launch vehicle
[NASA-CASE-NPO-11330] c33 N71-35154
- SPACECRAFT MODELS**
- Space environment simulation system for measuring spacecraft electric field strength in plasma sheath
[NASA-CASE-XLE-02038] c09 N71-16086
- SPACECRAFT MODULES**
- Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373
- Multi-mission space vehicle module stage design
[NASA-CASE-XMF-01543] c31 N71-17730
- Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module
[NASA-CASE-MSC-13047-1] c31 N71-25434
- SPACECRAFT POSITION INDICATORS**
- Spacecraft attitude sensing system design with narrow-field of view sensor rotating about spacecraft x-y plane
[NASA-CASE-GSC-10890-1] c21 N71-34589
- Determination of relative angular position of spacecraft and radiating celestial body
[NASA-CASE-GSC-11444-1] c14 N72-21418
- SPACECRAFT POWER SUPPLIES**
- Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
- Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XMF-00517] c03 N70-34157
- Lightweight, rugged, inexpensive satellite battery for producing electrical power from ionosphere using electrodes with different contact potentials
[NASA-CASE-XGS-01593] c03 N70-35408
- Design and development of electric generator for space power system
[NASA-CASE-XLE-04250] c09 N71-20446
- Stacked solar cell panels for providing spacecraft with electric power
[NASA-CASE-NPO-11771] c03 N72-20038
- Monostable multivibrator for conserving power in spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221
- SPACECRAFT PROPULSION**
- Colloidal particle generator for electrostatic engine for propelling space vehicles
[NASA-CASE-XLE-00817] c28 N70-33265
- Spacecraft trajectory correction propulsion system
[NASA-CASE-XNP-01104] c28 N70-39931
- Permanently magnetized ion engine casing construction for use in spacecraft propulsion systems
[NASA-CASE-XNP-06942] c28 N71-23293
- Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160
- SPACECRAFT RECOVERY**
- Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XMF-00641] c31 N70-36410
- Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630
- SPACECRAFT REENTRY**
- Manned space capsule configuration for orbital flight and atmospheric reentry
[NASA-CASE-XLA-00149] c31 N70-37938
- Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006
- SPACECRAFT SHIELDING**
- Development and characteristics of protective coatings for spacecraft
[NASA-CASE-XNP-02507] c31 N71-17679
- Double-wall isothermal cylinder containing heat transfer fluid thermal reservoir as spacecraft insulation cover
[NASA-CASE-MPS-20355] c33 N71-25353
- Binder stabilized zinc oxide pigmented coating for spacecraft thermal control
[NASA-CASE-XMF-07770-2] c18 N71-26772
- SPACECRAFT STABILITY**
- Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
- SPACECRAFT STRUCTURES**
- Delayed simultaneous release mechanism for spacecraft foldable appendages
[NASA-CASE-GSC-10814-1] c03 N70-34672
- Collapsible, space erectable loop antenna system for space vehicle
[NASA-CASE-XMF-00437] c07 N70-40202
- Electro-optical system for maintaining two-axis alignment during milling operations on large tank-sections
[NASA-CASE-XMF-00908] c14 N70-40238
- Development of spacecraft radiator cover
[NASA-CASE-MSC-12049] c31 N71-16080
- Design and construction of satellite appendage tie-down cord
[NASA-CASE-XGS-02554] c31 N71-21064
- Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890
- Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936
- SPACECRAFT TELEVISION**
- Electrically operated rotary shutter for television camera aboard spacecraft
[NASA-CASE-XNP-00637] c14 N70-40273
- Conversion system for transforming slow scan rate of Apollo TV camera on moon to fast scan of commercial TV
[NASA-CASE-XMS-07168] c07 N71-11300
- SPACECRAFT TRACKING**
- Spacecraft ranging system
[NASA-CASE-NPO-10066] c09 N71-18598
- Elimination of tracking occultation problems occurring during continuous monitoring of interplanetary missions by using Earth orbiting communications satellite
[NASA-CASE-XAC-06029-1] c31 N71-24813
- Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MPS-14017] c14 N71-26627
- Orbital and entry tracking accessory mounted on global map to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c14 N72-21416
- SPACECREWS**
- Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851
- SPARK GAPS**
- Spark gap type protective circuit for fast sensing and removal of overvoltage conditions
[NASA-CASE-XAC-08981] c09 N69-39897
- Mechanism for measuring nanosecond time differences between luminous events using streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
- SPARK IGNITION**
- High temperature spark plug for igniting liquid

- rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925
- SPARK PLUGS**
High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925
- SPATIAL DISTRIBUTION**
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
- SPATIAL FILTERING**
Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-MSC-12448-1] c14 N72-20394
- SPECTROMETERS**
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-XNP-04161] c14 N71-15599
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-XNP-09830] c14 N71-26266
Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
- SPECTROPHOTOMETERS**
Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-XGS-01231] c14 N70-41676
- SPECTRORADIOMETERS**
Development and characteristics of spectroradiometer with wedge filters to eliminate adverse effect of pinholes in filters
[NASA-CASE-HQN-10683] c14 N71-34389
- SPECTROSCOPIC ANALYSIS**
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
- SPECTRUM ANALYSIS**
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-XNP-04161] c14 N71-15599
Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
[NASA-CASE-XMP-02039] c15 N71-15871
Method and apparatus for high resolution power spectrum analysis
[NASA-CASE-NPO-10748] c08 N72-20177
- SPEED CONTROL**
System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-XMP-06892] c09 N71-24805
Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244
- SPEED REGULATORS**
Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-MFS-14610] c09 N71-28886
- SPHERES**
Measuring device for determining distance and orientation of surface with respect to spherical surface
[NASA-CASE-XLA-06683] c14 N70-25677
Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621
Plastic sphere for radar tracking and calibration
[NASA-CASE-XLA-11154] c07 N72-21117
- SPHERICAL SHELLS**
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542
- SPHERICAL TANKS**
Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
- SPIKE NOZZLES**
Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes
[NASA-CASE-XGS-01143] c31 N71-15647
- SPIN REDUCTION**
Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
- SPIN STABILIZATION**
Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40616
Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XMF-00442] c31 N71-10747
- SPIN STABILIZATION**
Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943
Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
Spin phase synchronization of cartwheel satellite in polar orbit
[NASA-CASE-XGS-05579] c31 N71-15676
High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
- SPIRAL WRAPPING**
Adjustable spiral wire winding device
[NASA-CASE-XMS-02383] c15 N71-15918
- SPIROMETERS**
Compact bellows spirometer for high speed and high altitude space travel
[NASA-CASE-XAR-01547] c05 N69-21473
- SPLINTS**
Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMF-06589] c05 N71-23159
- SPORES**
Lyophilized spore dispenser for production of finely divided monoparticulate cloud of bacterial spores
[NASA-CASE-LAR-10544-1] c15 N72-21477
- SPOT WELDS**
Controlled arc spot welding method
[NASA-CASE-XMF-00392] c15 N70-34814
Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-MFS-13046] c07 N71-19433
- SPRAYED COATINGS**
Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610
Production and application of sprayable fiber reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100
Metal plating process employing spraying of metallic powder/peening particle mixture
[NASA-CASE-GSC-11163-1] c15 N72-20461
- SPRAYERS**
External device for liquid spray cooling of gas turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Adhesive spray process for attaching biomedical skin electrodes
[NASA-CASE-XFR-07658-1] c05 N71-26293
Apparatus for liquid spray cooling of turbine blades
[NASA-CASE-XLE-00027] c33 N71-29152
- SPRAYING**
Aircraft wheel spray drag alleviator for dual tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
- SPREADING**
Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XMF-02107] c15 N71-10809
- SPRINGS (ELASTIC)**
Belleville spring assembly with elastic guides

- having low hysteresis
[NASA-CASE-XNP-09452] c15 N69-27504
- Measuring device for bearing preload in spacecraft ventilation fans
[NASA-CASE-MFS-20434] c11 N70-35536
- Multiple Belleville spring assembly with even load distribution
[NASA-CASE-XNP-00840] c15 N70-38225
- Switching mechanism with energy stored in coil spring
[NASA-CASE-XGS-00473] c03 N70-38713
- Load cell protection device using spring-loaded breakaway mechanism
[NASA-CASE-XMS-06782] c32 N71-15974
- Vibration isolation system, using coaxial helical compression springs
[NASA-CASE-NPO-11012] c15 N72-11391
- SPUTTERING**
- Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482
- Vacuum deposition heater for depositing thin film of evaporative material on substrate surface
[NASA-CASE-NPO-11009] c15 N70-22292
- Ion plating and radio frequency sputtering method for plating adherent alloy films on objects with complex geometries
[NASA-CASE-LEW-10920-1] c17 N71-31130
- SQUARE WAVES**
- High speed phase detector design indicating phase relationship between two square wave input signals
[NASA-CASE-XNP-01306-2] c09 N71-24596
- Square wave transistor oscillator for inverter
[NASA-CASE-NPO-10760] c09 N71-34215
- Transistor amplifier and square wave oscillator for obtaining ac voltage from dc source
[NASA-CASE-NPO-11365] c09 N72-15204
- SQUARES (MATHEMATICS)**
- Apparatus for computing square roots
[NASA-CASE-XGS-04768] c08 N71-19437
- SQUIBS**
- Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-XGS-01971] c15 N71-15922
- STABILITY**
- Formation of mechanically durable, chemically optically stable reflective coating from organic materials
[NASA-CASE-GSC-11214-1] c06 N72-10137
- STABILITY TESTS**
- Adjustable force probe for determining stability of electric contacts
[NASA-CASE-MFS-20760] c14 N72-15431
- STABILIZATION**
- Magnetic arc stabilization in xenon compact arc lamps by means of longitudinal magnetic fields
[NASA-CASE-NPO-10887] c09 N71-34209
- System for controlling torque buildup in suspension of gondola connected to balloon via parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N72-11041
- STABILIZED PLATFORMS**
- Self-stabilized vernier theodolite for determining angular orientation of line of sight between target and inertial reference system on manned space vehicle
[NASA-CASE-XAC-00460] c14 N70-40017
- Hydraulic drive mechanism for leveling isolation platforms
[NASA-CASE-XMS-03252] c15 N71-10658
- STABILIZERS**
- Cable stabilizer for open shaft, cable operated elevators
[NASA-CASE-KSC-10513] c15 N70-41956
- Design and development of satellite despin device
[NASA-CASE-XMP-08523] c31 N71-20396
- STABILIZERS (FLUID DYNAMICS)**
- Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XMP-00641] c31 N70-36410
- Mechanical stabilization system for VTOL aircraft
[NASA-CASE-XLA-06339] c02 N71-13422
- Attitude stabilizer for nonguided missile or vehicle with respect to trajectory
[NASA-CASE-ARC-10134] c30 N72-17873
- Inflatable stabilizing system for use on life rafts
[NASA-CASE-MSC-12393-1] c02 N72-20016
- Dual fuselage aircraft design with yawable wing and horizontal stabilizer
[NASA-CASE-ARC-10470-1] c02 N72-21010
- STABLE OSCILLATIONS**
- Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
- STAGE SEPARATION**
- Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490
- Piezoelectric means for missile stage separation indication and stage initiation
[NASA-CASE-XLA-00791] c03 N70-39930
- Space vehicle stage coupling and quick release separation mechanism
[NASA-CASE-XLA-01441] c15 N70-41679
- Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10562
- Payload/spent rocket engine case separation system
[NASA-CASE-XLA-05369] c31 N71-15687
- Separation mechanism for use between stages of multistage rocket vehicles
[NASA-CASE-XLA-00188] c15 N71-22874
- Development of remotely controlled shaped charge for lateral displacement of rocket stages after separation
[NASA-CASE-XLA-04804] c31 N71-23008
- Electrical circuit selection device for simulating stage separation of flight vehicle
[NASA-CASE-XKS-04631] c10 N71-23663
- STAGNATION PRESSURE**
- Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFB-02007] c12 N71-24692
- STAGNATION TEMPERATURE**
- Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156
- STAINLESS STEELS**
- Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
- Ultrasonic scanning system for in-place inspection of brazed steel tube joints
[NASA-CASE-MFS-20767] c15 N72-21482
- STAR TRACKERS**
- Star image motion compensator using rotating mirror for reflectance into telescope
[NASA-CASE-LAR-10523-1] c14 N70-35412
- Self-stabilized vernier theodolite for determining angular orientation of line of sight between target and inertial reference system on manned space vehicle
[NASA-CASE-XAC-00460] c14 N70-40017
- Star sensor system for roll attitude control of spacecraft
[NASA-CASE-XNP-01307] c21 N70-41856
- Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-XGS-01159] c21 N71-10678
- Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771
- Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
- Process for production of nonreflective star tracking reticles
[NASA-CASE-GSC-11188-1] c14 N71-28653
- Relay controlled voltage switching unit for scanning circuitry of star tracker
[NASA-CASE-NPO-11253] c09 N72-17157
- STARK EFFECT**
- Laser modulation by Stark effect in gases
[NASA-CASE-ERC-10335] c16 N70-36054
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- Starting circuit design for initiating and maintaining arcs in vapor lamps
[NASA-CASE-XNP-01058] c09 N71-12540

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Kinetic and static friction force measurement
between magnetic tape and magnetic head surfaces
[NASA-CASE-IXP-08680] c14 N71-22995

STATIC INVERTERS

Describing static inverter with single or multiple
phase output
[NASA-CASE-IXF-00663] c08 N71-18752
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static inverter
[NASA-CASE-IGS-05289] c09 N71-19470

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Measuring shear-creep compliance of solid and
liquid materials used in spacecraft components
[NASA-CASE-IXE-01481] c14 N71-10781
Apparatus for measuring load on cable under static
or dynamic conditions comprising pulleys
pivoting structure against restraint of tension
strap
[NASA-CASE-IXS-04545] c15 N71-22878

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pressures
[NASA-CASE-XLA-00481] c14 N70-36824
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[NASA-CASE-XLA-00128] c15 N70-37925

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[NASA-CASE-XLA-03132] c31 N71-22969

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[NASA-CASE-MFS-20642] c14 N72-21407

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[NASA-CASE-XLE-00785] c33 N71-16104

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progressively related phase angles for driving
antenna array
[NASA-CASE-ERC-10046] c10 N71-18722
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steerable antenna
[NASA-CASE-IXP-02389] c07 N71-28900

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effect payload orientation as multistage rocket
stage or reduce velocity as retrorocket
[NASA-CASE-IXP-00234] c28 N70-38645

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Development of star intensity measuring system
which minimizes effects of outside interference
[NASA-CASE-IXP-06510] c14 N71-23797

STELLAR SPECTRA

Development of star intensity measuring system
which minimizes effects of outside interference
[NASA-CASE-IXP-06510] c14 N71-23797

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microscope for viewing specimen at various
magnifications
[NASA-CASE-LAR-10176-1] c14 N72-20380

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projected through common lens system to single
TV picture view through binocular image
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[NASA-CASE-ARC-10160-1] c07 N70-20722

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solid rocket propellants and encapsulating
materials
[NASA-CASE-IXP-01749] c27 N70-41897
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process for sterile preservation of instruments
and solid propellants
[NASA-CASE-IXP-09763] c14 N71-20461
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sterilization of surfaces without deleterious
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[NASA-CASE-NPO-11213] c15 N71-33492

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sterilization
[NASA-CASE-NPO-10694] c09 N72-20200

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Repetitively pulsed wavelength selective carbon

dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832

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test tubes simultaneously
[NASA-CASE-XAC-06956] c15 N71-21177

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Design and development of fluid sample collector
[NASA-CASE-IXS-06767-1] c14 N71-20435

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secondary electrochemical cells
[NASA-CASE-IGS-02631] c03 N71-23006
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cells
[NASA-CASE-IXP-04758] c03 N71-24605
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of silver zinc batteries by using divalent
silver oxide capacity of cell to charge anodes
to monovalent silver state
[NASA-CASE-IGS-01674] c03 N71-29129
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[NASA-CASE-NPO-11021] c03 N72-20032

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mechanisms of thin sheet solar collectors
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mechanical strain on it
[NASA-CASE-XLA-00492] c14 N70-34799
Strain gage accelerometer for angular acceleration
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Self-balancing strain gage transducer with bridge
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Semiconductor p-n junction on needle apex to
provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422
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bridge systems with transformers, for voltage
spike control
[NASA-CASE-FRC-10036] c09 N70-22164
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[NASA-CASE-XLE-00023] c15 N70-33330
Force measuring instrument for structural members,
particularly fastening bolts or studs
[NASA-CASE-IXF-00456] c14 N70-34705
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strain in thermally strained specimens
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with device measuring gravitational fields
[NASA-CASE-IXP-08274] c10 N71-13537
Water cooled gage for strain measurements in high
temperature environments
[NASA-CASE-IXP-09205] c14 N71-17657
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increments of strain on elastomers
[NASA-CASE-IXF-04680] c15 N71-19489
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thermally and mechanically induced stresses
[NASA-CASE-IGS-04478] c14 N71-24233
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[NASA-CASE-NPO-10143] c10 N71-26326
- System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
[NASA-CASE-NPO-10214] c10 N71-26577
- Synchronism of received pulse code modulation communication signal
[NASA-CASE-NPO-11362] c07 N72-11160
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- Development of phase demodulation system with two phase locked loops
[NASA-CASE-XNP-00777] c10 N71-19469
- Phase locked phase modulation system with voltage controlled oscillator for final phase linearity
[NASA-CASE-XNP-05382] c10 N71-23544
- Automatic frequency control device for providing frequency reference for voltage controlled oscillator
[NASA-CASE-KSC-10393] c09 N72-21247
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- Development and characteristics of burst synchronization detection system
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- Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773
- Design and development of synchronous servo loop control system
[NASA-CASE-XNP-03744] c10 N71-20448
- Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
- Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865
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[NASA-CASE-GSC-10065-1] c10 N71-27136
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- Position locating system for remote aircraft using voice communication and digital signals
[NASA-CASE-GSC-10087-2] c21 N71-13958
- Serrodyne traveling wave tube reentrant amplifier for synchronous communication satellites operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088
- Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
- Tracking antenna system with array for synchronous satellite or ground based radar
[NASA-CASE-GSC-10553-1] c07 N71-19854
- Control device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-10066
- Satellite network synchronization system with multiple access to multiplex repeater
[NASA-CASE-GSC-10390-1] c07 N72-11149
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[NASA-CASE-XMF-08651] c06 N71-11236
- Preparation of ordered poly/arylenesiloxane/polymers
[NASA-CASE-XMF-10753] c06 N71-11237
- Synthesis and chemical properties of imidazopyrrolone/imide copolymers
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[NASA-CASE-XGS-02317] c09 N71-23525
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[NASA-CASE-NPO-10123] c15 N71-24835
- Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
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[NASA-CASE-XNP-06508] c18 N69-39895
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[NASA-CASE-XGS-08259] c14 N71-23698
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[NASA-CASE-XNP-07481] c25 N69-21929
- Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039
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[NASA-CASE-XNP-06506] c03 N71-11050
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[NASA-CASE-XMS-04935] c05 N71-11190
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[NASA-CASE-NPO-10539] c07 N71-11285
- Method and apparatus for measuring potentials in plasmas
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[NASA-CASE-XMS-10984-1] c10 N71-19417
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[NASA-CASE-XGS-02612] c08 N71-19435
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[NASA-CASE-XMS-09571] c05 N71-19439
- Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440
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[NASA-CASE-XLA-03660] c15 N71-21060
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[NASA-CASE-XMF-03212] c15 N71-22721
- Rotary spindle lathe attachments for machining geometrical cones
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[NASA-CASE-XMF-01083] c15 N71-22723
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TAPE RECORDERS

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 [NASA-CASE-XGS-01223] c07 N71-19609
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 [NASA-CASE-XGS-00373] c23 N71-15978
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 [NASA-CASE-XNP-09453] c08 N71-19420
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 [NASA-CASE-XNP-03744] c10 N71-20448
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 [NASA-CASE-XNP-02778] c08 N71-22710
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 [NASA-CASE-XGS-08259] c14 N71-23698
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 [NASA-CASE-ARC-10003-1] c09 N71-25866
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 [NASA-CASE-NPO-10700] c07 N71-33613
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 [NASA-CASE-XLE-00409] c28 N71-15658
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 [NASA-CASE-XNP-10830] c07 N71-11281
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 [NASA-CASE-NPO-10851] c07 N71-24613
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 [NASA-CASE-NPO-10595] c10 N71-25917
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[NASA-CASE-XNP-09225] c09 N69-24333
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 [NASA-CASE-NPO-11016] c08 N70-35351
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 [NASA-CASE-GSC-10083-1] c30 N71-16090
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 [NASA-CASE-XLA-03273] c14 N71-18699
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 [NASA-CASE-XGS-02317] c09 N71-23525
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 [NASA-CASE-GSC-10131-1] c07 N71-24624
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 [NASA-CASE-NPO-10649] c07 N71-24840
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 [NASA-CASE-NPO-10214] c10 N71-26577
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 [NASA-CASE-ARC-10105] c09 N72-17153
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 [NASA-CASE-NPO-10468] c23 N71-33229
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 [NASA-CASE-MFS-15162] c14 N72-13362
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 [NASA-CASE-NPO-11201] c14 N72-15421
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 [NASA-CASE-GSC-11487-1] c14 N72-20404

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 [NASA-CASE-XNP-01472] c14 N70-41807
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 [NASA-CASE-XNP-06092] c07 N71-24612
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[NASA-CASE-XGS-02319] c14 N71-22965
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[NASA-CASE-MFS-20011] c18 N69-33483
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[NASA-CASE-NPO-10747] c03 N70-25867
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[NASA-CASE-XNP-00463] c33 N70-36847
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[NASA-CASE-XLA-00349] c33 N70-37979
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[NASA-CASE-XNP-00920] c15 N71-15906
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[NASA-CASE-NPO-10138] c33 N71-16357
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[NASA-CASE-XNP-09775] c09 N71-20445
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[NASA-CASE-XLA-01243] c33 N71-22792
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[NASA-CASE-XLA-07728] c33 N71-22890
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[NASA-CASE-XNP-02792] c14 N71-28958
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[NASA-CASE-XLE-00703] c15 N71-15967
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[NASA-CASE-MFS-14259] c15 N71-19213
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- Thin film capacitive bolometer and capacitance temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232
- Electrical connections for thin film hybrid microcircuits
[NASA-CASE-XMS-02182] c10 N71-28783
- Thin film, light detecting photovoltaic cell fabricated by metal vapor deposition on quartz
[NASA-CASE-NPO-11432] c14 N71-33322
- Development and characteristics of apparatus for depositing thin metallic films on nonmetallic materials
[NASA-CASE-LAR-10541-1] c17 N71-34456
- Development of process for analysis of strain field of structures subjected to large deformations involving low modulus substrate with thin coating
[NASA-CASE-LAR-10765-1] c32 N71-35132
- Thin film analyzer utilizing holographic techniques
[NASA-CASE-MFS-20823] c16 N72-10431
- Thin metallic film and substrate-stretching mechanism for visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-11653
- Fabrication of body electrodes from silver-cement thin films
[NASA-CASE-FRC-10029] c05 N72-13081
- Transparent switching circuit
[NASA-CASE-MSC-13746-1] c10 N72-20240
- Dual wavelength system for monitoring film deposition
[NASA-CASE-MFS-20675] c26 N72-20736
- THIN WALLED SHELLS**
- Thin walled pressure test vessel using low-melting alloy-filled joint to attach shell to heads
[NASA-CASE-XLE-04677] c15 N71-10577
- THIN WALLS**
- Channel-type shell construction for rocket engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860
- Sealed separable connection for thin wall metal tube
[NASA-CASE-NPO-10064] c15 N71-17693
- Elastic mandrel fabrication of thin bottom walls with cavities for temperature measurement
[NASA-CASE-LAR-10318-1] c14 N72-20396
- THORIUM FLUORIDES**
- Ultraviolet filter of thorium fluoride and cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332
- THEADS**
- Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-XMF-04966] c14 N71-17658
- Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-XFR-05302] c15 N71-23254
- THRESHOLD GATES**
- Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171
- Technique for stabilizing gate threshold potential of MOS field effect device subjected to radiation
[NASA-CASE-GSC-11425-1] c24 N72-20637
- THRESHOLD LOGIC**
- Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514
- THROTTLING**
- Development and characteristics of rocket throttling system of bipropellant liquid propellant rocket engine
[NASA-CASE-LEW-10374-1] c28 N71-31103
- THRUST**
- Turbofans under wings to provide lift and thrust for STOL aircraft
[NASA-CASE-LEW-11224-1] c02 N72-10033
- THRUST AUGMENTATION**
- Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374
- Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081
- THRUST CHAMBERS**
- Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XFR-09479] c14 N69-27503
- Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-XMF-00580] c11 N70-35383
- Large area-ratio nozzles for rocket motor thrust chambers
[NASA-CASE-XLE-00145] c28 N70-36806
- Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
- Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659
- Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736
- Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NPO-10046] c28 N72-17843
- Thermal flux transfer system for maintaining thrust chamber of operative reaction motor at given temperatures
[NASA-CASE-NPO-12070] c28 N72-20771
- THRUST CONTROL**
- Electromechanical actuator and its use in rocket thrust control valve
[NASA-CASE-XNP-05975] c15 N69-23185
- Solid propellant rocket vehicle thrust control method and apparatus
[NASA-CASE-XNP-00217] c28 N70-38181
- Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
- Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-XMF-06926] c28 N71-22983
- Low mass ionizing device for use in electric thrust spacecraft engines
[NASA-CASE-XNP-01954] c28 N71-28850
- Development and characteristics of rocket throttling system of bipropellant liquid propellant rocket engine
[NASA-CASE-LEW-10374-1] c28 N71-31103
- Heated porous plug microthrustor for spacecraft reaction jet controlled systems such as fuel flow regulation, propellant disassociation, and

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- heat transfer augmentation
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Dynamometer measuring microforce thrust produced by ion engine
[NASA-CASE-XLE-00702] c14 N70-40203
Development of thrust dynamometer for measuring performance of jet and rocket engines
[NASA-CASE-XLE-05260] c14 N71-20429
Development of temperature compensated thrust measuring gage for measuring forces as function of time in environment with varying temperature
[NASA-CASE-XGS-02319] c14 N71-22965
Micro-pound extended range thrust stand for small rocket engines
[NASA-CASE-GSC-10710-1] c28 N71-27094
- THRUST VECTOR CONTROL**
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[NASA-CASE-ARC-10106-1] c28 N70-12624
Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
Variable thrust control apparatus for regulating roll, pitch, and yaw movements of spacecraft
[NASA-CASE-MS-C-13397-1] c21 N70-36003
High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
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[NASA-CASE-LEW-10689-1] c28 N71-26173
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[NASA-CASE-MFS-20831] c28 N71-29153
- THRUST-WEIGHT RATIO**
Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-XNP-03198] c30 N70-40353
- TIME CONSTANT**
Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-XGS-01983] c10 N70-41964
- TIME DISCRIMINATION**
Extra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit
[NASA-CASE-XGS-00381] c09 N70-34819
- TIME DIVISION MULTIPLEXING**
Synchronizing apparatus for multi-access satellite time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974
Time division multiplexer with magnetic latching relays
[NASA-CASE-XNP-00431] c09 N70-38998
Data processor having multiple sections activated at different times by selective power coupling to sections
[NASA-CASE-XGS-04767] c08 N71-12494
Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773
Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622
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[NASA-CASE-GSC-10131-1] c07 N71-24624
- TIME FUNCTIONS**
Cathode ray oscilloscope for analyzing electrical waveforms representing amplitude distribution of time function
[NASA-CASE-XNP-01383] c09 N71-10659
- TIME LAG**
Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930
Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
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[NASA-CASE-NPO-11203] c10 N72-20224
- TIME MEASURING INSTRUMENTS**
Mechanism for measuring nanosecond time differences between luminous events using streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
- TIME OF FLIGHT SPECTROMETERS**
Design and characteristics of time of flight mass spectrometer to measure or analyze gases at low pressures and time of flight of single gas molecule
[NASA-CASE-XNP-01056] c14 N71-23041
Cosmic dust analyzer using ion time of flight techniques to determine constituency of hypervelocity particles such as micrometeoroids
[NASA-CASE-MS-C-13802-1] c30 N72-20805
- TIME SERIES ANALYSIS**
Device for performing statistical time-series analysis of complex electrical signal waveforms
[NASA-CASE-MS-C-12428-1] c10 N72-11259
- TIME SHARING**
Integrated time shared instrumentation display for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507
- TIME SIGNALS**
Monitoring system for signal amplitude ranges over predetermined time interval
[NASA-CASE-XMS-04061-1] c09 N69-39885
Analog signal to discrete time interval converter for pulse modulation
[NASA-CASE-ERC-10048] c09 N70-25866
Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099
Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals
[NASA-CASE-NPO-10143] c10 N71-26326
Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- TIMING DEVICES**
Design and development of synchronous servo loop control system
[NASA-CASE-XNP-03744] c10 N71-20448
Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099
Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
High speed photo-optical time recorder for indicating time at exposure of each frame of high speed movie camera film
[NASA-CASE-KSC-10294] c14 N72-18411
- TIRES**
Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles
[NASA-CASE-XLA-01926] c14 N71-15620
Resilient wheel design with woven wire tire and abrasive treads for lunar surface vehicles
[NASA-CASE-MFS-13929] c15 N71-27091
- TITANATES**
Vacuum preparation of zinc titanate pigment resistant to loss of reflective properties
[NASA-CASE-MFS-13532] c18 N72-17532
- TITANIUM**
Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
Chemical spot test for identification of titanium and titanium alloys for aerospace use
[NASA-CASE-LAR-10539-1] c17 N71-34457
- TITANIUM ALLOYS**
Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393

TOLERANCES (MECHANICS)

Chemical spot test for identification of titanium and titanium alloys for aerospace use
[NASA-CASE-LAR-10539-1] c17 N71-34457

TOLERANCES (MECHANICS)
Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-XNP-02278] c15 N71-28951

TOOLS
Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XMF-02107] c15 N71-10809
Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571
Hand tool for forming dimples and nipples on end portion of tubes
[NASA-CASE-XMS-06876] c15 N71-21536
Tool for mounting and removing studs with adhesive coated head portion
[NASA-CASE-MFS-20299] c15 N72-11392

TORCHES
Computer controlled apparatus for maintaining welding torch angle and velocity during seam tracking
[NASA-CASE-XMP-03287] c15 N71-15607
Development of electric weeding torch with casing on one end to form inert gas shield
[NASA-CASE-XMF-02330] c15 N71-23798

TOROIDS
Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
[NASA-CASE-XGS-01881] c09 N70-40123

TORQUE
Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744
System for controlling torque buildup in suspension of gondola connected to balloon via parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N72-11041

TORQUEMETERS
Coupling arrangement for isolating torque loads from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N70-26810
Remote-reading torquemeter for use where high horsepowers are transmitted at high rotative speeds
[NASA-CASE-XLE-00503] c14 N70-34818
Torquemeter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field
[NASA-CASE-XGS-01013] c14 N71-23725

TOUCH
Aesthesiometer for detecting and measuring cutaneous sensory perception
[NASA-CASE-MSC-13609] c05 N72-15095
Prosthetic device with sensing means for detecting tactile stimuli
[NASA-CASE-MFS-16570] c05 N72-20111
Mechanically operated hand which can depress trigger using touch control device
[NASA-CASE-MFS-20413] c15 N72-21463

TOWERS
Aerial capsule emergency separation device using jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343

TOXICITY AND SAFETY HAZARD
Remote handling device for mixing or analyzing dangerous chemicals
[NASA-CASE-LAR-10634-1] c15 N72-21476

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System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study
[NASA-CASE-XAC-05333] c11 N71-22875

TRACE CONTAMINANTS
Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773

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TRACE ELEMENTS
Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863

TRACKING (POSITION)
Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
Telespectrograph for analyzing upper atmosphere by tracking bodies reentering atmosphere at high velocities
[NASA-CASE-XLA-03273] c14 N71-18699
Solar energy powered heliotrope with passive stored energy operation for orienting solar array towards sun
[NASA-CASE-GSC-10945-1] c21 N71-28460
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125

TRACKING FILTERS
System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543

TRACKING RADAR
Electronic and mechanical scanning control system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
Phase locked loop with sideband rejecting properties in continuous wave tracking radar
[NASA-CASE-XNP-02723] c07 N70-41680
Interferometric tuning acquisition and tracking radar antenna system
[NASA-CASE-XMS-09610] c07 N71-24625
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

TRACKING STATIONS
Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175

TRAILING-EDGE FLAPS
Double hinged flap for boundary layer control over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016

TRAINING SIMULATORS
Low and zero gravity simulator for astronaut training
[NASA-CASE-MFS-10555] c11 N71-19494
Apparatus for training astronaut crews to perform on simulated lunar surface under conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474

TRAJECTORY ANALYSIS
Table structure and rotating magnet system simulating gravitational forces on spacecraft and displaying trajectories between Earth, Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394
Planetary atmospheric investigation using split trajectory dual flyby mode
[NASA-CASE-XAC-08494] c30 N71-15990

TRAJECTORY CONTROL
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[NASA-CASE-XNP-01104] c28 N70-39931
Development of technique for control of free flight rocket vehicles
[NASA-CASE-XLA-00937] c31 N71-17691
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[NASA-CASE-ARC-10134] c30 N72-17873

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Fabrication of pressure-telemetry transducers
[NASA-CASE-XNP-09752] c14 N69-21541
Pulsed excitation voltage circuit for strain gage bridge systems with transformers, for voltage spike control
[NASA-CASE-FRC-10036] c09 N70-22164
Bootstrap unloading circuits for sampling transducer voltage sources without drawing current
[NASA-CASE-XNP-09768] c09 N71-12516
Transducer for measuring deflections from vibrating structures
[NASA-CASE-XLA-03135] c32 N71-16428
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TRANSMITTER RECEIVERS

[NASA-CASE-XLA-08646] c14 N71-17586
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 micrometeorite transducers
 [NASA-CASE-XGS-03304] c09 N71-22988
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 calibrating displacement transducer for
 measuring magnitude and frequency of
 displacement of bodies
 [NASA-CASE-XLA-00781] c09 N71-22999
 Passive force transducer for measuring,
 magnifying, and recording maximum load on given
 specimen
 [NASA-CASE-LAR-10496-1] c14 N71-28654
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 continuously monitor specimen sample
 [NASA-CASE-XLA-10322] c15 N72-17452
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 [NASA-CASE-XLA-11189] c10 N72-20222
 Intruder detection system with signal transmission
 in response to transducer
 [NASA-CASE-ARC-10097-2] c07 N72-21161
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 [NASA-CASE-NUC-10107-1] c09 N72-21254
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 with four-terminal circulating diode bridge
 [NASA-CASE-ARC-10364-1] c10 N72-21276

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 Liquid transfer device for use in zero gravity
 environment
 [NASA-CASE-KSC-10626] c15 N72-20468

TRANSFORMERS
 Impedance transformation device for signal mixing
 [NASA-CASE-XGS-01110] c07 N69-24334
 Pulsed excitation voltage circuit for strain gage
 bridge systems with transformers, for voltage
 spike control
 [NASA-CASE-FRC-10036] c09 N70-22164
 High impedance alternating current sensing
 transformer device between two bolometers for
 measuring insertion loss of test component
 [NASA-CASE-XNP-01193] c10 N71-16057
 Magnetic current regulator for saturable core
 transformer
 [NASA-CASE-ERC-10075] c09 N71-24800
 Unsaturating magnetic core transformer design with
 warning signal for electrical power processing
 equipment
 [NASA-CASE-ERC-10125] c09 N71-24893
 Development and characteristics of electronically
 resettable fuse with saturable core current
 sensing transformer having two outside legs and
 center leg
 [NASA-CASE-XGS-11177] c09 N71-27001
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 regulator for connection in series with
 alternating current source and load using three
 leg, two-window transformer
 [NASA-CASE-ERC-10113] c09 N71-27053
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 transformer circuits for providing power to dc
 loads
 [NASA-CASE-NPO-11078] c09 N72-15205
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 and cooling processes
 [NASA-CASE-NPO-10828] c33 N72-17948

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 Controllable load insensitive power converter of
 ac or dc currents
 [NASA-CASE-ERC-10268] c09 N70-35582

TRANSISTOR AMPLIFIERS
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 transistor amplifiers
 [NASA-CASE-MSC-12033-1] c09 N71-13531
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 for obtaining ac voltage from dc source
 [NASA-CASE-NPO-11365] c09 N72-15204

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 [NASA-CASE-XGS-04999] c09 N69-24317
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 special steering and triggering circuits
 [NASA-CASE-XGS-03095] c09 N69-27463
 Pulse-forming circuit for fast sweep out of
 charges stored in power transistors
 [NASA-CASE-NPO-10674] c10 N70-22132
 Transistorized current-limiting voltage regulator
 for use between unregulated voltage source and
 load
 [NASA-CASE-MSC-11824-1] c09 N70-35574

RC transistor circuit to indicate each pulse of
 pulse train and occurrence of nth pulse
 [NASA-CASE-XNP-00906] c09 N70-41655
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 transistor timing circuit having capacitor and
 zener diode feedback loops
 [NASA-CASE-XMS-01315] c09 N70-41675
 Switching circuit with regeneratively connected
 transistors eliminating power consumption when
 not in use
 [NASA-CASE-XNP-02654] c10 N70-42032
 High voltage transistor circuit
 [NASA-CASE-XNP-06937] c09 N71-19516
 Complementary regenerative transistorized switch
 circuit employing positive and negative feedback
 [NASA-CASE-XGS-02751] c09 N71-23015
 Active tuned circuit fabricated by microelectronic
 techniques with tuning capability for operation
 at frequencies near transitional frequency of
 transistors employed
 [NASA-CASE-GSC-11340-1] c10 N71-24902
 Inverter drive circuit for semiconductor switch
 [NASA-CASE-LEW-10233] c10 N71-27126
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 slope voltage sweep
 [NASA-CASE-XMS-03542] c09 N71-28926
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 with high noise immunity
 [NASA-CASE-NPO-10199] c09 N72-17156

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 Tunnel diodes and transistor combination for fast
 response switching circuits
 [NASA-CASE-GSC-10878-1] c10 N70-22186
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 stage transistor
 [NASA-CASE-XMS-00913] c10 N71-23543
 Solid state circuit for switching alternating
 current input signal as function of direct
 current gating transistor
 [NASA-CASE-XNP-06505] c10 N71-24799
 Broadband distribution amplifier with
 complementary pair transistor output stages
 [NASA-CASE-NPO-10003] c10 N71-26415
 High reliability, low input voltage converter with
 synchronous rectifying transistors for dc to ac
 to dc conversion
 [NASA-CASE-GSC-11126-1] c09 N71-28419
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 monolithic integrated circuit
 [NASA-CASE-ARC-10330-1] c09 N71-34214
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 [NASA-CASE-NPO-10760] c09 N71-34215
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 signal by generating visual signal of
 proportional intensity
 [NASA-CASE-KSC-10565] c09 N72-15199

TRANSLATIONAL MOTION
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 [NASA-CASE-XAC-00399] c11 N70-34815
 Development and characteristics of translating
 horizontal tail assembly for supersonic aircraft
 [NASA-CASE-XLA-08801-1] c02 N71-11043
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 bearings separated by spherical bearings and
 permitting rotational and translational movement
 [NASA-CASE-XLA-02869] c15 N71-22982
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 motion into rotary motion
 [NASA-CASE-NPO-10679] c15 N72-21462

TRANSMISSION LINES
 Hardline monitoring system for monitoring
 plurality of transmission lines to determine
 predetermined tolerance characteristics
 [NASA-CASE-KSC-10385] c08 N70-20719
 Portable equipment for validating C band launch
 pad antennas and transmission lines used for
 spacecraft checkout
 [NASA-CASE-IKS-10543] c07 N71-26292
 Collapsible antenna boom and coaxial transmission
 line having inflatable inner tube
 [NASA-CASE-MPS-20068] c07 N71-27191
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 electrical lines including coupling and varactor
 diode circuits
 [NASA-CASE-MSC-13201-1] c07 N71-28429

TRANSMITTER RECEIVERS
 Low weight, integrated thermoelectric
 generator/antenna combination for spacecraft

TRANSMITTERS

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- [NASA-CASE-XER-09521] c09 N72-12136
Transmitter receiver system for measuring millivolt electrical signals with high common mode potential
- [NASA-CASE-XLE-03155-2] c09 N72-20205
- TRANSMITTERS**
Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
- [NASA-CASE-NPO-10649] c07 N71-24840
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- [NASA-CASE-MFS-16609] c14 N72-21431
- TRANSONIC SPEED**
Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
- [NASA-CASE-XLA-01486] c01 N71-23497
- TRANSONIC WIND TUNNELS**
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- [NASA-CASE-MFS-20509] c11 N72-17183
- TRANSPARENCY**
Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
- [NASA-CASE-XMS-04935] c05 N71-11190
Detecting molecular constituents in radiation transparent media by measuring intensity of light transmitted through cell while applying electrostatic or electromagnetic field
- [NASA-CASE-ERC-10021] c06 N71-28635
- TRANSPONDERS**
Equipment for testing of ground station ranging equipment and spacecraft transponders
- [NASA-CASE-XMS-05454-1] c07 N71-12391
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- [NASA-CASE-NPO-11707] c07 N72-20161
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 Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
 [NASA-CASE-XLA-0C487] c14 N70-40157
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 Vertically descending flight vehicle landing gear for rough terrain
 [NASA-CASE-XMF-01174] c02 N70-41589
VERTICAL TAKEOFF AIRCRAFT
 Mechanical stabilization system for VTOL aircraft
 [NASA-CASE-XLA-06339] c02 N71-13422
 Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
 [NASA-CASE-XAC-08972] c02 N71-20570
VERY HIGH FREQUENCIES
 VHF/UHF parasitic probe antenna for spacecraft communication
 [NASA-CASE-KKS-09340] c07 N71-24614
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 Very low frequency phase tracking receiver system with time keyed mode of operation
 [NASA-CASE-NPO-11600] c07 N72-20159
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 Lightweight life preserver without fastening devices
 [NASA-CASE-XMS-00864] c05 N70-36493
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 Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
 [NASA-CASE-GSC-10306-1] c15 N71-24694
 Vibration control of flexible bodies in steady accelerating environment
 [NASA-CASE-LAR-10106-1] c15 N71-27169
VIBRATION DAMPING
 Mercury filled pendulum damper for controlling bending vibration induced by wind effects
 [NASA-CASE-LAR-10274-1] c14 N71-17626
 Digital filter for reducing jitter in digital control systems
 [NASA-CASE-NPO-11088] c08 N71-29034
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 [NASA-CASE-XLE-00155] c28 N71-29154
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 Electromagnetic energy detection by thermal sensor with vibrating electrode
 [NASA-CASE-XAC-10768] c09 N71-18830
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 Shock and vibration damping device using temperature sensitive solid amorphous polymers
 [NASA-CASE-XAC-11225] c14 N69-27486
 Miniature vibration isolator utilizing elastic tubing material
 [NASA-CASE-XLA-01019] c15 N70-40156
 Vibration damping system operating in low vacuum environment for spacecraft mechanisms
 [NASA-CASE-XMS-01620] c23 N71-15673
 Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
 [NASA-CASE-MSC-10959] c15 N71-26243
 Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
 [NASA-CASE-LAR-10083-1] c15 N71-27006
 Vibration isolation system, using coaxial helical compression springs
 [NASA-CASE-NPO-11012] c15 N72-11391
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 Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
 [NASA-CASE-XMF-02433] c14 N71-10616
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 [NASA-CASE-LAR-10310-1] c10 N72-21275
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 [NASA-CASE-GSC-11302-1] c14 N72-21435
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 [NASA-CASE-NPO-10556] c14 N71-27185
 Annular unit with blind cavities for vibration test support
 [NASA-CASE-MFS-20523] c14 N72-15425
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 [NASA-CASE-NPO-11612] c11 N72-20251
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 [NASA-CASE-MFS-20242] c14 N72-20405
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 [NASA-CASE-GSC-11302-1] c14 N72-21435
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 [NASA-CASE-LAR-1C083-1] c15 N71-27006
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 [NASA-CASE-XNP-10830] c07 N71-11281
 Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
 [NASA-CASE-XNP-02791] c07 N71-23026
 Teletypewriter video communication system and apparatus
 [NASA-CASE-XNP-06611] c07 N71-26102

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TV camera output signal control system for digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807
Electronic video editor for switching input signals to common output channel
[NASA-CASE-KSC-10003] c10 N70-41966
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[NASA-CASE-ARC-10003-1] c09 N71-25866
Restoration and improvement of demodulated facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081

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[NASA-CASE-NPO-10140] c07 N71-24742
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[NASA-CASE-KSC-10002] c10 N71-25865
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[NASA-CASE-XNP-06611] c07 N71-26102
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[NASA-CASE-NPO-10343] c07 N71-27341
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[NASA-CASE-NPO-10199] c09 N72-17156

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Operation of vidicon tube for scanning spatial charge density pattern
[NASA-CASE-XNP-06028] c09 N71-23189
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[NASA-CASE-XNP-09770-3] c11 N71-27036

VINYL POLYMERS

Method of producing output voltage from photovoltaic cell using poly-N-vinyl carbazole complexed with iodine
[NASA-CASE-NPO-10373] c03 N71-18698

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Preparation of dicyanoacetylene and vinylidene copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500

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Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161
Development and characteristics of parallel plate viscometer for determination of absolute viscosity of liquids and viscoelastic materials
[NASA-CASE-NPO-11387] c14 N71-34383

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Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584
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[NASA-CASE-NPO-11387] c14 N71-34383

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Low density and low viscosity magnetic propellant for use under zero gravity conditions
[NASA-CASE-XLE-01512] c12 N70-40124

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[NASA-CASE-XAC-11225] c14 N69-27486
Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894
Mercury filled pendulum damper for controlling bending vibration induced by wind effects
[NASA-CASE-LAR-10274-1] c14 N71-17626

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Controlled visibility device for simulating poor visibility conditions in training pilots in instrument landing and flight procedures
[NASA-CASE-XPR-04147] c11 N71-10748
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[NASA-CASE-MSC-13530-1] c06 N72-15129

VISORS

Development and chemical properties of composition for preventing fogging of optical surfaces
[NASA-CASE-MSC-13530-1] c06 N72-15129

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Visual target luminaires for retrofire attitude control
[NASA-CASE-XMS-12158-1] c31 N69-27499

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Optical vision testing unit for testing eyes and visual system of human subject
[NASA-CASE-MSC-13601-1] c05 N72-11088

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[NASA-CASE-XLE-02998] c14 N70-42074

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[NASA-CASE-KSC-10565] c09 N72-15199

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[NASA-CASE-GSC-10565-1] c06 N69-33349

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[NASA-CASE-GSC-10087-2] c21 N71-13958
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[NASA-CASE-GSC-10118-1] c07 N71-24621
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[NASA-CASE-KSC-10164] c07 N71-33108

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[NASA-CASE-XNP-09699] c06 N71-24607

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[NASA-CASE-XMS-01554] c10 N71-10578

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[NASA-CASE-XMS-00945] c09 N71-10798
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[NASA-CASE-XNP-09768] c09 N71-12516
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[NASA-CASE-ARC-10020] c10 N72-17172
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[NASA-CASE-NPO-11018] c08 N72-21200

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[NASA-CASE-MSC-13112] c03 N71-11057
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[NASA-CASE-XNP-02713] c10 N69-39888
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[NASA-CASE-XMS-05562-1] c09 N69-39986
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[NASA-CASE-XMS-04215-1] c09 N69-39987

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[NASA-CASE-NPO-11129] c09 N70-35396
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[NASA-CASE-MSC-11824-1] c09 N70-35574
- Design, development, and operating principles of power supply with starting circuit which is independent of voltage regulator
[NASA-CASE-XMS-01991] c09 N71-21449
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[NASA-CASE-XLE-02008] c09 N71-21583
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[NASA-CASE-XMS-00913] c10 N71-23543
- Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
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[NASA-CASE-GSC-10735-1] c10 N71-26085
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[NASA-CASE-XMS-06497] c14 N71-26244
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[NASA-CASE-GSC-10376-1] c14 N71-27407
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[NASA-CASE-MFS-15063] c14 N70-35520
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[NASA-CASE-ERC-10125] c09 N71-24893
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[NASA-CASE-XMP-03968] c14 N71-27186
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[NASA-CASE-GSC-11095-1] c14 N72-10375
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[NASA-CASE-NPO-11307] c10 N72-11258
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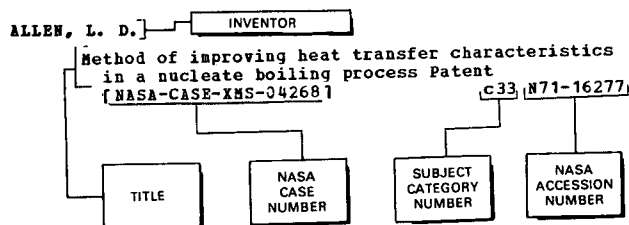
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- ALLEN, L. D.** [NASA-CASE-NPO-11330] c33 N71-35154
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ALLEN, W. W. Analog-to-digital converter analyzing system
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 [NASA-CASE-NPO-10560] c08 N70-36074
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 [NASA-CASE-ERC-10150] c14 N71-28992
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ANDERSON, K. F.
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ANDERSON, TAGE O.
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ANDERSON, W. J.
High speed rolling element bearing Patent
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ANDERSON, W. W., JR.
Compensating radiometer
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ANDREWS, E. H., JR.
Method of obtaining permanent record of surface
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ANDREWS, T. W.
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ANGELE, W.
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APPBL, H. A.
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APPLER, R. L.
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[NASA-CASE-XGS-04173] c19 N71-26674

ARCAND, G. M.
Method for determining the state of charge of
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[NASA-CASE-XNP-01464] c03 N71-10728

ARIAS, A.
Dispersion hardened alloys Patent Application
[NASA-CASE-LEW-10450-1] c15 N70-26818
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[NASA-CASE-XLE-01300] c15 N70-41993
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ARMS, J. T.
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ARMSTRONG, H. T.
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ARNDT, G. D.
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ARRANCE, F. C.
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ASHBROOK, R. L.
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[NASA-CASE-LEW-10805-1] c15 N70-41577
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ASTHEIMER, R. W.
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ATKISSON, R. A.
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[NASA-CASE-XLE-00143] c14 N70-36618

AUBLE, C. H.
Instrument for the quantitative measurement of
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[NASA-CASE-XLE-00011] c14 N70-41946

AUER, S. O.
Cosmic dust impact location detector Patent
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AYVAZIAN, R. A.
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BABB, B. D.
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BABECKI, A. J.
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 [NASA-CASE-GSC-11163-1] c15 N72-20461

BACCCHI, R.
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BACHLE, W. H.
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BADIN, F. E.
 Space simulation and radiative property testing system and method Patent
 [NASA-CASE-MFS-20096] c14 N71-30026

BAEHR, E. F.
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BAER, DAVID A.
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 [NASA-CASE-GSC-11211-1] c03 N72-10066

BAGANOFF, D.
 Means for controlling rupture of shock tube diaphragms Patent
 [NASA-CASE-XAC-00731] c11 N71-15960

BAGEY, J. P.
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BAHMAN, H.
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BAHM, E. J.
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 [NASA-CASE-NPO-10700] c07 N71-33613

BAILEY, F. J., JR.
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BAILEY, G. A.
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BAILEY, J. W.
 Bi-polar phase detector and corrector for split phase PCM data signals Patent
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 Radio frequency coaxial high pass filter Patent
 [NASA-CASE-XGS-01418] c09 N71-23573

BAILEY, M. C.
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 [NASA-CASE-LAR-10545-1] c09 N72-21244

BAILEY, R. L.
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 [NASA-CASE-NPO-10174] c14 N71-18465

BAKER, B. E.
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BAKER, C. D.
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BAKER, E. H.
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BAKSTON, B.
 Apparatus for the determination of the existence or non-existence of a bonding between two members Patent
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BALDWIN, L. V.
 Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent
 [NASA-CASE-XLE-00243] c14 N70-38602
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 Alpha source shaft position encoder Patent Application
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BARNISKIS, W. A.
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 [NASA-CASE-XMS-04215-1] c09 N69-39987

BARRETT, T. W.
 Personal propulsion unit Patent
 [NASA-CASE-MFS-20130] c28 N71-27585

BARRINGTON, A. B.
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 [NASA-CASE-XPR-09519] c14 N71-18483

BARRINGTON, A. E.
 Leak detector wherein a probe is monitored with ultraviolet radiation Patent
 [NASA-CASE-ERC-10034] c15 N71-24896

Field ionization electrodes Patent
[NASA-CASE-ERC-10013] c09 N71-26678

Ion microprobe mass spectrometer for analyzing
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[NASA-CASE-ERC-10014] c14 N71-28863

Device for measuring light scattering wherein the
measuring beam is successively reflected between
a pair of parallel reflectors Patent
[NASA-CASE-XER-11203] c14 N71-28994

BARTHOLOME, D. E.
Space suit pressure stabilizer Patent
[NASA-CASE-XLA-05332] c05 N71-11194

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[NASA-CASE-LAR-10007-1] c05 N71-11195

BASIULIS, A.
Method and apparatus for distillation of liquids
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[NASA-CASE-XNP-08124] c15 N71-27184

Method for distillation of liquids
[NASA-CASE-XNP-08124-2] c06 N72-13102

Radial heat flux transformer
[NASA-CASE-NPO-10028] c33 N72-17948

BASS, A. H.
Ultraviolet resonance lamp Patent
[NASA-CASE-ARC-10030] c09 N71-12521

BASTIEN, G. J.
Fluid flow restrictor Patent
[NASA-CASE-NPO-10117] c15 N71-15608

BATES, H. E.
Segmenting lead telluride-silicon germanium
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[NASA-CASE-XGS-05718] c26 N71-16037

BATSCH, F. F.
Attitude control for spacecraft Patent
[NASA-CASE-XNP-00294] c21 N70-36938

Slit regulated gas journal bearing Patent
[NASA-CASE-XNP-00476] c15 N70-38620

BATTE, W. G.
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[NASA-CASE-XLA-07732] c08 N71-18751

BATTERSON, S. A.
Runway light Patent
[NASA-CASE-XLA-00119] c11 N70-33329

BATTS, C. N.
Contour surveying system Patent
[NASA-CASE-XLA-08646] c14 N71-17586

BAUCOM, R. H.
Extensometer frame
[NASA-CASE-XLA-10322] c15 N72-17452

BAUERNSCHUB, J. P., JR.
Folding boom assembly Patent
[NASA-CASE-XGS-00938] c32 N70-41367

Nonmagnetic, explosive actuated indexing device
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[NASA-CASE-XGS-02422] c15 N71-21529

BAUGHMAN, J. R.
Observation window for a gas confining chamber
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[NASA-CASE-NPO-10890] c11 N71-33868

Droplet monitoring probe
[NASA-CASE-NPO-10985] c14 N72-15420

BAUMAN, A. J.
Solder flux which leaves corrosion-resistant
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Fluid impervious barrier including liquid metal
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BAXTER, R. D.
Heat flux measuring system Patent
[NASA-CASE-XFR-03802] c33 N71-23085

BEAM, R. A.
Optical projector system Patent
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BEASLEY, W. D.
Continuously operating induction plasma
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[NASA-CASE-XLA-01354] c25 N70-36946

BEATTY, R. W.
Improved compact precision rotary vane attenuator
[NASA-CASE-NPO-11418] c14 N72-20393

BEAUREGARD, W. W.
Water separating system Patent
[NASA-CASE-XMS-13052] c14 N71-20427

BECK, A. F.
Small plasma probe Patent
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BECK, T. R.
Method of inhibiting stress corrosion cracks in
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[NASA-CASE-NPO-10271] c17 N71-16393

BECKER, R. A.
Photoelectric energy spectrometer Patent
[NASA-CASE-XNP-04161] c14 N71-15599

BECKERLE, L. D.
Heat shield oven
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BECKMAN, P.
Probes having ring and primary sensor at same
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BECKWITH, R. H.
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BEEN, J. F.
Method and apparatus for measuring electromagnetic
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[NASA-CASE-LEW-11159-1] c14 N71-31127

BEHM, J. W.
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BEHRNDT, K. H.
A method for fabricating adherent thick layers of
high-conductance metals on oxide surfaces Patent
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BELANGER, R. J.
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BELIN, H. W., JR.
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BELW, R. R.
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[NASA-CASE-MFS-20433] c15 N71-34423

Docking structure for spacecraft
[NASA-CASE-MFS-20863] c31 N71-35082

BELL, D., III
Heated element fluid flow sensor Patent
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BELL, V. L., JR.
Process for interfacial polymerization of
pyromellitic dianhydride and 1,2,4,
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[NASA-CASE-XLA-03104] c06 N71-11235

Imidazopyrrolone/imide copolymers Patent
[NASA-CASE-XLA-08802] c06 N71-11238

Dosimeter for high levels of absorbed radiation
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[NASA-CASE-XLA-03645] c14 N71-20430

BEMENT, L. J.
Linear explosive comparison
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BENEDICT, R. D.
Transient augmentation circuit for pulse
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[NASA-CASE-XNP-01068] c10 N71-28739

BENGTSON, R. D.
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BENWIGHT, J. D.
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Method and apparatus for precision sizing and
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[NASA-CASE-XMF-05114-2] c15 N71-26148

BERG, O. E.
Dust particle injector for hypervelocity
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[NASA-CASE-XGS-06628] c24 N71-16213

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INVENTOR INDEX

BOND, W. W.

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BERNARDIN, R. M.
Measuring device Patent
[NASA-CASE-XMS-01546] c14 N70-40233

BERNATOWICZ, D. T.
Improved cover for solar cell
[NASA-CASE-LEW-11003-1] c03 N70-35541
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[NASA-CASE-LEW-11069-1] c03 N71-29048

BERNSEN, B.
Electrical apparatus for detection of thermal
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[NASA-CASE-XMF-03968] c14 N71-27186

BERRY, E. H.
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[NASA-CASE-XMF-08217] c03 N71-23239

BESWICK, A. G.
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BEUYUKIAN, C. S.
Tube dimpling tool Patent
[NASA-CASE-XMS-06876] c15 N71-21536

BEYLIR, C. M.
Pressure seal Patent
[NASA-CASE-NPO-10796] c15 N71-27068

BIBBO, C.
Flexible seal for valves Patent
[NASA-CASE-XLE-00101] c15 N70-33376

BIRNIEK, T.
Metal containing polymers from cyclic tetrameric
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[NASA-CASE-HQN-10364] c06 N71-27363

BILDERBACK, R. R.
Amplitude modulated laser transmitter Patent
[NASA-CASE-XMS-04269] c16 N71-22895

BILES, J. E., JR.
High impact pressure regulator Patent
[NASA-CASE-NPO-10175] c14 N71-18625

BILLINGS, C. R.
Emergency escape system Patent
[NASA-CASE-XKS-07814] c15 N71-27067

BILLINGSLEY, F. C.
Image copier Patent Application
[NASA-CASE-NPO-10196-2] c14 N70-20711
Electro-optical scanning apparatus Patent
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[NASA-CASE-NPO-11106] c14 N70-34697

BILLMAN, K. W.
Method and apparatus for wavelength tuning of
liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
Method and apparatus for the detection of
picosecond light pulses by two-photon planar
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[NASA-CASE-ERC-10227] c14 N70-12626
Alignment apparatus using a laser having a
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[NASA-CASE-ARC-10444-1] c16 N72-20476

BINCKLEY, W. G.
Voltage regulator with plural parallel power
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BIRCHENOUGH, A. G.
Switching regulator
[NASA-CASE-LEW-11005-1] c09 N72-21243

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Jet shoes
[NASA-CASE-XLA-08491] c05 N69-21380

BISHOP, O. L.
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[NASA-CASE-XMS-05303] c07 N69-27462

BISHOP, R. E.
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[NASA-CASE-XNP-02029] c14 N70-41955

BLACK, I. A.
Apparatus for measuring thermal conductivity
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[NASA-CASE-XGS-01052] c14 N71-15992

BLACK, J. H.
Full-wave modulator-demodulator-amplifier
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[NASA-CASE-PRC-10072-1] c09 N72-15206

BLACK, S. H.
Automatic gain control system
[NASA-CASE-XMS-05307] c09 N69-24330

BLACK, W. W.
Triaxial antenna Patent
[NASA-CASE-XGS-02290] c07 N71-28809

BLACKSTOCK, T. A.
Ferry system Patent Application
[NASA-CASE-LAR-10574-1] c11 N70-41958

BLAIR, G. R.
Inorganic thermal control pigment Patent
[NASA-CASE-XNP-02139] c18 N71-24184

BLAISE, H. T.
Air cushion lift pad Patent
[NASA-CASE-MFS-14685] c31 N71-15689
Methods and apparatus employing vibratory energy
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[NASA-CASE-MFS-20586] c15 N71-17686

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[NASA-CASE-XLA-00149] c31 N70-37938
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[NASA-CASE-XLA-01332] c31 N71-15664
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[NASA-CASE-XLA-04804] c31 N71-23008

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BLAND, C.
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[NASA-CASE-GSC-10007] c18 N71-16046

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[NASA-CASE-XLA-00118] c05 N70-33285

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BLAZE, C. J.
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Method for determining presence of OH in magnesium
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[NASA-CASE-XMF-01045] c15 N70-40354
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[NASA-CASE-XMF-01899] c31 N70-41948
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[NASA-CASE-XMF-05941] c31 N71-23912

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BOEDY, D. D.
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BOLT, C. A., JR.
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BONO, P.
 Recoverable single stage spacecraft booster Patent
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 [NASA-CASE-XLA-00415] c15 N71-16079
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 [NASA-CASE-LAR-10195-1] c15 N72-21488

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 [NASA-CASE-XNP-09228] c09 N69-27500

BOBELLI, M. T.
 Adaptive tracking notch filter system Patent
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BOROSON, H. B.
 Wide range linear fluxgate magnetometer Patent
 [NASA-CASE-XGS-01587] c14 N71-15962

BOSCO, G. B., JR.
 Rotating shaft seal Patent
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BOURKE, D. G.
 Data compression system with a minimum time delay
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 [NASA-CASE-XNP-08832] c08 N71-12506

BOWER, K. F.
 Digital analog converter Patent Application
 [NASA-CASE-KSC-10397] c08 N70-35566

BOYLE, J. C.
 Balance torque meter Patent
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 Adjustable attitude guide device Patent
 [NASA-CASE-XLA-07911] c15 N71-15571
 Canister closing device Patent
 [NASA-CASE-XLA-01446] c15 N71-21528

BOZAJIAN, J. M.
 Thermal switch Patent
 [NASA-CASE-XNP-00463] c33 N70-36847

BRADLEY, R. B.
 Emergency earth orbital escape device Patent
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 [NASA-CASE-MSC-13281-1] c31 N70-25650
 Celestial orbit delivery and recovery system with
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 [NASA-CASE-MSC-12391-1] c30 N72-13829
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 [NASA-CASE-MSC-13281] c31 N72-18859

BRADY, J. C.
 Surface roughness detector Patent
 [NASA-CASE-XLA-00203] c14 N70-34161

BRANSTETTER, J. R.
 Black-body furnace Patent
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BRASCHWITZ, J. M.
 External liquid-spray cooling of turbine blades
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 [NASA-CASE-XLE-00037] c28 N70-33372

BRAWNER, E. L.
 Color perception tester
 [NASA-CASE-KSC-10278] c05 N72-16015

BREED, L. W.
 Preparation of ordered poly /arylenesiloxane/
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 [NASA-CASE-XMF-10753] c06 N71-11237
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BREEZE, R. K.
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 [NASA-CASE-XFR-08403] c05 N71-11202

BREJCHA, A. G., JR.
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BRETT, P. R.
 Oxygen production method and apparatus
 [NASA-CASE-MSC-12332-1] c15 N72-15476

BREY, H.
 Frequency division multiplex technique
 [NASA-CASE-KSC-10521-1] c07 N72-21160

BRICKER, R. W.
 Mass measuring system Patent
 [NASA-CASE-XMS-03371] c05 N70-42000

BRINICH, P. F.
 Electrothermal rockets having improved heat
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 [NASA-CASE-XLE-01783] c28 N70-34175

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 Plating nickel on aluminum castings Patent
 [NASA-CASE-XNP-04148] c17 N71-24830

BRISSEWEN, R. F.
 Cable arrangement for rigid tethering Patent
 [NASA-CASE-XLA-02332] c32 N71-17609

BRODER, J. D.
 Method of making electrical contact on silicon
 solar cell and resultant product Patent
 [NASA-CASE-XLE-04787] c03 N71-20492
 Silicon solar cell array Patent Application
 [NASA-CASE-LEW-11069-1] c03 N71-29048
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 [NASA-CASE-LEW-11065-1] c03 N72-11064

BRODERICK, J. C.
 Solid state television camera system Patent
 [NASA-CASE-XMF-06092] c07 N71-24612

BRODERICK, R. F.
 Signal ratio system utilizing voltage controlled
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 [NASA-CASE-XMF-04367] c09 N71-23545
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BROGAN, W. T.
 Process for making epitaxial germanium films
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BROKL, S. S.
 Numerical computer peripheral interactive device
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 Phase-locked loop with sideband rejecting
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 [NASA-CASE-XNP-02723] c07 N70-41680

BROWN, G. A.
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 [NASA-CASE-MSC-13604-1] c05 N72-15097

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BROWN, R. L.
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 Optical imaging system Patent Application
 [NASA-CASE-ARC-10194-1] c23 N71-31142

BROWN, W. E., III
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BUCHANAN, H. I. Hypersonic test facility Patent [NASA-CASE-XLA-00378] c11 N71-15925

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BUCHHELE, D. R. Optical torqueometer Patent [NASA-CASE-XLE-00503] c14 N70-34818

BUCHHOLD, T. A. Superconductive accelerometer Patent [NASA-CASE-XNP-01099] c14 N71-15969

BUCHMILLER, L. D. Folded traveling wave maser structure Patent [NASA-CASE-XNP-05219] c16 N71-15550

BUCKLEY, D. H. Gas lubricant compositions Patent [NASA-CASE-XLE-00353] c18 N70-39897

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BULLINGER, H. B. Photoetching of metal-oxide layers [NASA-CASE-ERC-10108] c06 N72-21094

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BURCHER, E. E. A laser remote control system Patent Application [NASA-CASE-LAR-10311-1] c16 N70-35542

Transmitting and reflecting diffusers Patent Application [NASA-CASE-LAR-10385-1] c14 N70-35544

BURGESS, F. A. Measuring device Patent [NASA-CASE-XMS-01546] c14 N70-40233

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BURKE, J. R. Optical spin compensator [NASA-CASE-XGS-02401] c14 N69-27485

BURKHART, J. A. Magneto plasma dynamic arc thruster [NASA-CASE-LEW-11180-1] c25 N72-20691

BURKLEY, R. A. Panelized high performance multilayer insulation Patent [NASA-CASE-MPS-14023] c33 N71-25351

BURNHAM, D. C. Method and apparatus for wavelength tuning of liquid lasers [NASA-CASE-ERC-10187] c16 N69-31343

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BURNS, E. A. Ablative resin Patent [NASA-CASE-XLE-05913] c33 N71-14032

BURNS, F. P. Biomedical radiation detecting probe Patent [NASA-CASE-XMS-01177] c05 N71-19440

BURNS, R. H. High pulse rate high resolution optical radar system Patent Application [NASA-CASE-NPO-11426] c07 N71-33107

BURNS, R. K. A protected isotope heat source [NASA-CASE-LEW-11227-1] c33 N71-35153

BURROUS, C. H. A temperature compensated light source using a light emitting diode [NASA-CASE-ABC-10467-1] c09 N72-21249

BURROWS, D. L. Insulating structure Patent [NASA-CASE-XNP-00341] c15 N70-33323

BURTON, D. B. Garments for controlling the temperature of the body Patent [NASA-CASE-XMS-10269] c05 N71-24147

BURTON, W. A. Endless tape cartridge Patent [NASA-CASE-XGS-00769] c14 N70-41647

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BOSEMANN, A. Plasma accelerator Patent [NASA-CASE-XLA-00675] c25 N70-33267

BUTLER, D. H. Radio frequency filter device Patent Application [NASA-CASE-XLA-02609] c09 N70-35191

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BUTMAN, S. Multichannel telemetry system [NASA-CASE-NPO-11572] c07 N71-34159

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BUZZARD, R. J. Radial heat flux transformer [NASA-CASE-NPO-10828] c33 N72-17948

BYERS, D. C. Electrostatic thruster with improved insulators Patent [NASA-CASE-XLE-01902] c28 N71-10574

BYNUM, B. G. Response analyzers for sensors Patent [NASA-CASE-MFS-11204] c14 N71-29134

Ergometer [NASA-CASE-MFS-21109] c05 N72-20112

BYRD, A. W. Heat pipe thermionic diode power system Patent [NASA-CASE-XMF-05843] c03 N71-11055

Power system with heat pipe liquid coolant lines Patent [NASA-CASE-MFS-14114-2] c09 N71-24807

Isothermal cover with thermal reservoirs Patent [NASA-CASE-MFS-20355] c33 N71-25353

Power system with heat pipe liquid coolant lines Patent [NASA-CASE-MFS-14114] c33 N71-27862

BYRD, J. D.
Elastomeric silazane polymers and process for preparing the same Patent
[NASA-CASE-XMF-04133] c06 N71-20717

BYRD, M. R.
Thermally conductive polymers
[NASA-CASE-GSC-11304-1] c06 N72-21105

BYRNE, F.
BCD to decimal decoder Patent
[NASA-CASE-YKS-06167] c08 N71-24890
Video sync processor Patent
[NASA-CASE-KSC-10C02] c10 N71-25865
Automatic frequency control loop including synchronous switching circuits
[NASA-CASE-KSC-10393] c09 N72-21247

BYRBE, R. C.
Solar energy powered heliotrope Patent Application
[NASA-CASE-GSC-10945-1] c21 N71-28460

C

CABLE, C. W.
Solar cell assembly test method
[NASA-CASE-NPO-10401] c03 N72-20033

CACOSSA, R. A.
Method of detecting impending saturation of magnetic cores
[NASA-CASE-ERC-10089] c23 N72-17747

CAHILL, M. E.
Positive locking check valve Patent
[NASA-CASE-XMS-09310] c15 N71-22706

CALANDRO, J. M.
Resilient wheel Patent
[NASA-CASE-MFS-13929] c15 N71-27091

CALLAHAN, D. E.
Solid state television camera system Patent
[NASA-CASE-XMF-06092] c07 N71-24612

CALVERT, H. F.
Modification and improvements to cooled blades Patent
[NASA-CASE-XLE-00092] c15 N70-33264

CAMACHO, S. L.
Protective circuit of the spark gap type
[NASA-CASE-XAC-08981] c09 N69-39897

CAMP, D. W.
Anemometer with braking mechanism Patent
[NASA-CASE-XMF-05224] c14 N71-23726
Maxometers, peak wind speed anemometers
[NASA-CASE-MFS-20916] c14 N72-20392

CAMP, E. L.
Automatic signal range selector for metering devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

CAMPBELL, B. A.
Epoxy-aziridine polymer product Patent
[NASA-CASE-NPO-10701] c06 N71-28620

CAMPBELL, C. C., JR.
Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812

CAMPBELL, D. E.
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773

CAMPBELL, F. D.
Radiant source tracker independent of non-constant irradiance
[NASA-CASE-NPO-11686] c14 N72-20395

CAMPBELL, G. E.
Self recording portable soil penetrometer
[NASA-CASE-MFS-20774] c14 N71-34387

CAMPBELL, G. W.
Method and system for respiration analysis Patent
[NASA-CASE-XPR-08403] c05 N71-11202

CAMPBELL, J. G.
Multislot film cooled pyrolytic graphite rocket nozzle Patent
[NASA-CASE-XNP-04389] c28 N71-20942
Tube sealing device Patent
[NASA-CASE-NPO-10431] c15 N71-29132

CAMPBELL, R. A.
Redundant hydraulic control system for actuators
[NASA-CASE-MFS-20944] c15 N71-34426

CANCRO, C. A.
Low power drain semi-conductor circuit
[NASA-CASE-XGS-04999] c09 N69-24317
Fast response low power drain switching circuits Patent Application

[NASA-CASE-GSC-10878-1] c10 N70-22186
Wide range data compression system Patent
[NASA-CASE-XGS-02612] c08 N71-19435
Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent
[NASA-CASE-XGS-03632] c09 N71-23311

CANNING, T. R.
Shock-layer radiation measurement
[NASA-CASE-XAC-02970] c14 N69-39896
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CANTOR, C.
Attitude control system Patent
[NASA-CASE-XGS-04393] c21 N71-14159
Amplifier clamping circuit for horizon scanner Patent
[NASA-CASE-XGS-01784] c10 N71-20782
Roll alignment detector
[NASA-CASE-GSC-10514-1] c14 N72-20379

CANVEL, H.
Video communication system and apparatus Patent
[NASA-CASE-XNP-06611] c07 N71-26102

CAPLETTE, R. K.
Current steering commutator
[NASA-CASE-NPO-10743] c08 N72-21199

CAPPS, J. E.
Two-step rocket engine bipropellant valve Patent
[NASA-CASE-XMS-04890-1] c15 N70-22192

CAREN, R. P.
Dual solid cryogenics for spacecraft refrigeration Patent
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CARL, C.
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CARL, G. R.
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[NASA-CASE-LAR-10076-1] c05 N72-20106

CARLISLE, T. E.
Method and apparatus for controllably heating fluid Patent
[NASA-CASE-XMF-04237] c33 N71-16278

CARLSON, A. W.
Pulse-width modulation multiplier Patent
[NASA-CASE-YER-09213] c07 N71-12390

CARLSON, H. W.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

CARLSON, J. A.
Composition and method for electroforming aluminum substrates
[NASA-CASE-NPO-12090] c15 N72-11396

CARLSON, W. C. A.
Electric arc device for heating gases Patent
[NASA-CASE-XAC-00319] c25 N70-41628

CARMIN, DOBBIE L., JR.
Anti-fog composition
[NASA-CASE-MSC-13530-1] c06 N72-15129

CARMODY, R. J.
Hand cutter and sealer for fusible fabrics
[NASA-CASE-XMF-09386] c15 N69-21854
Honeycomb panel and method of making same Patent
[NASA-CASE-XMF-01402] c18 N71-21651

CARON, P. E.
Function generator Patent Application
[NASA-CASE-ERC-10267] c09 N70-36018
Phase control circuits using frequency multiplication for phased array antennas Patent Application
[NASA-CASE-ERC-10285] c09 N70-36076

CARPENTER, L. E.
System for communicating biomedical information by means of unmodified conventional voice communication systems Patent Application
[NASA-CASE-FRC-10031] c05 N70-20717

CARPINI, T. D.
A flow velocity and direction instrument
[NASA-CASE-LAR-10855-1] c14 N72-21417

CARR, W. F.
Split nut separation system Patent
[NASA-CASE-XNP-06914] c15 N71-21489

CARROLL, W. F.
Stabilized zinc oxide coating compositions Patent
[NASA-CASE-XMF-07770-2] c18 N71-26772

CARSON, J. W.
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CROWNING, D.

CARSON, P. R.
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[NASA-CASE-ERC-10C46] c10 N71-18722

CARSON, W. N., JR.
Didymium hydrate additive to nickel hydroxide electrodes Patent
[NASA-CASE-XGS-03505] c03 N71-10608

CARTER, A. F.
Plasma accelerator Patent
[NASA-CASE-XLA-00675] c25 N70-33267
Method and apparatus for producing a plasma Patent
[NASA-CASE-XLA-00147] c25 N70-34661

CARTER, W. K.
Emergency earth orbital escape device Patent Application
[NASA-CASE-MSC-13281-1] c31 N70-25650
Emergency earth orbital escape device
[NASA-CASE-MSC-13281] c31 N72-18859

CARUSO, A. J.
Sorption vacuum trap Patent
[NASA-CASE-XER-09519] c14 N71-18483

CASEY, L. O.
Electrical load protection device Patent
[NASA-CASE-MSC-12135-1] c09 N71-12526

CASHION, K. D.
Solar optical telescope dome control system Patent
[NASA-CASE-MSC-10966] c14 N71-19568
Radiation detector readout system Patent
[NASA-CASE-XMS-03478] c14 N71-21040

CATLAW, T. G.
High contrast cathode ray tube
[NASA-CASE-ERC-10468] c09 N72-20206

CAUDILL, L.
Azimuth bearing system and method
[NASA-CASE-GSC-11262-1] c16 N72-21503

CECCON, H. L.
Optical pump and driver system for lasers Patent Application
[NASA-CASE-ERC-10283] c16 N70-34554

CEPOLLINA, F. J.
Strain gauge measuring techniques Patent
[NASA-CASE-XGS-04478] c14 N71-24233

CHAFFEE, N. H.
Oxygen production method and apparatus
[NASA-CASE-MSC-12332-1] c15 N72-15476

CHAMBERLAIN, F. R.
Optical scanning apparatus Patent Application
[NASA-CASE-NPO-11002] c14 N70-35433

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Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812
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[NASA-CASE-XMS-04072] c15 N70-42017
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[NASA-CASE-MSC-12049] c31 N71-16080
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[NASA-CASE-MSC-12052-1] c15 N71-24599

CHANDLER, W. A.
Cryogenic storage system Patent
[NASA-CASE-XMS-04390] c31 N70-41871

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Switching circuit Patent
[NASA-CASE-INP-06505] c10 N71-24799
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[NASA-CASE-NPO-10556] c14 N71-27185
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[NASA-CASE-NPO-11213] c15 N71-33492
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[NASA-CASE-NPO-11456] c08 N71-34189
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[NASA-CASE-NPO-11612] c11 N72-20251

CHAPMAN, R. M.
Inflation system for balloon type satellites Patent
[NASA-CASE-XGS-03351] c31 N71-16081

CHAPPELLE, E.
Bacterial adenosine triphosphate as a measure of urinary tract infection
[NASA-CASE-GSC-11092-2] c04 N72-11074

CHAPPELLE, E. W.
Use of the enzyme hexokinase for the reduction of inherent light levels
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[NASA-CASE-GSC-10565-1] c06 N69-33349
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[NASA-CASE-XGS-05534] c23 N71-16355
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[NASA-CASE-XGS-05532] c06 N71-17705
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[NASA-CASE-GSC-11092-1] c04 N71-27991
Automatic instrument for chemical processing to detect microorganisms in biological samples by measuring light reactions Patent Application
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Automatic instrument for chemical processing to detect microorganisms in biological samples by measuring light reactions
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CHARLTON, K. W.
Pneumatic system for controlling and actuating pneumatic cyclic devices
[NASA-CASE-XMS-04843] c03 N69-21469

CHARNOSKY, A. J.
Tool attachment for spreading loose elements away from work Patent
[NASA-CASE-XMP-02107] c15 N71-10809

CHEW, W. S.
Wind tunnel microphone structure Patent
[NASA-CASE-XNP-00250] c11 N71-28779

CHENG, D. Y.
Converging barrel plasma accelerator Patent
[NASA-CASE-ARC-10109] c25 N71-29181

CHEBDAK, A. S.
Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

CHI, K.-C.
High pulse rate high resolution optical radar system Patent Application
[NASA-CASE-NPO-11426] c07 N71-33107

CHIAO, R. Y.
Optical frequency waveguide Patent
[NASA-CASE-HQN-10541] c07 N71-26291

CHILDRESS, J. D.
Methods of operating a magnetic core memory Patent Application
[NASA-CASE-ERC-10166] c08 N70-22136
Method for the repair and maintenance of dental enamel
[NASA-CASE-ERC-10338] c04 N70-36053

CHILDS, J. H.
High-vacuum condenser tank for ion rocket tests Patent
[NASA-CASE-XLE-00168] c11 N70-33278
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CHILEWSKI, J. J.
Ignition system for monopropellant combustion devices Patent
[NASA-CASE-XNP-00249] c28 N70-38249

CHILTON, R. G.
Space capsule Patent
[NASA-CASE-XLA-00149] c31 N70-37938
Space capsule Patent
[NASA-CASE-XLA-01332] c31 N71-15664

CHIMENTI, E. T.
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[NASA-CASE-MSC-12332-1] c15 N72-15476

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Laser machining apparatus Patent
[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical frequency waveguide and transmission system Patent
[NASA-CASE-HQN-01054-1] c16 N71-27183

CHISEL, D. M.
Fluidic proportional thruster system Patent Application
[NASA-CASE-ARC-10106-1] c28 N70-12624

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Flipflop interrogator and bi-polar current driver Patent
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Emergency earth orbital escape device Patent Application
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[NASA-CASE-MSC-13281] c31 N72-18859

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Electric battery and method for operating same
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[NASA-CASE-XGS-01674] c03 N71-29129

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Resuscitation apparatus Patent
[NASA-CASE-XMS-01115] c05 N70-39922

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Zero gravity apparatus Patent
[NASA-CASE-XMF-06515] c14 N71-23227

CIEPLUCH, C. C.
Apparatus for igniting solid propellants Patent
[NASA-CASE-XLE-00207] c28 N70-33375
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[NASA-CASE-XLE-01988] c27 N71-15634

CISSELL, R. E.
Threadless fastener apparatus Patent
[NASA-CASE-XFR-05302] c15 N71-23254

CLAPP, W. H.
Increasing efficiency of switching type regulator
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[NASA-CASE-XMS-09352] c09 N71-23316

CLARK, F. L.
Hypersonic test facility Patent
[NASA-CASE-XLA-00378] c11 N71-15925
Hypersonic test facility Patent
[NASA-CASE-XLA-05378] c11 N71-21475

CLARK, H. K.
Thermal pump-compressor for space use Patent
[NASA-CASE-XLA-00377] c33 N71-17610

CLARK, J. H.
Automated fluid chemical analyzer Patent
[NASA-CASE-XNP-09451] c06 N71-26754

CLARK, R. L.
Deposition apparatus
[NASA-CASE-LAR-10541-1] c17 N71-34456

CLARK, R. T.
Horn feed having overlapping apertures Patent
[NASA-CASE-GSC-10452] c07 N71-12396

CLATTERBUCK, C. H.
Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
Process for making RF shielded cable connector
assemblies and the products formed thereby
[NASA-CASE-GSC-11215-1] c09 N72-10192

CLAUSS, R. C.
Transmission line thermal short Patent
[NASA-CASE-XNP-09775] c09 N71-20445
Circulator having quarter wavelength resonant post
and parametric amplifier circuits utilizing the
same Patent
[NASA-CASE-XNP-02140] c09 N71-23097
High-gain, broadband traveling wave maser Patent
[NASA-CASE-NPO-10548] c16 N71-24831
Improved maser for frequencies in the 7-20 GHz
range Patent Application
[NASA-CASE-NPO-11437] c16 N71-33023

CLAY, F. P., JR.
Ionization vacuum gauge with all but the end of
the ion collector shielded Patent
[NASA-CASE-XLA-07424] c14 N71-18482

CLEMHES, G. W., JR.
Deep space monitor communication satellite system
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[NASA-CASE-XAC-06029-1] c31 N71-24813

CLEMENT, W. G.
Friction measuring apparatus Patent
[NASA-CASE-XNP-08680] c14 N71-22995

CLEMMONS, D. L., JR.
Thermal control of space vehicles Patent
[NASA-CASE-XLA-01291] c33 N70-36617

CLEVELAND, E. F.
Current-limiting voltage regulator Patent
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[NASA-CASE-MSC-11824-1] c09 N70-35574

CLICKNER, R. E., JR.
Umbilical disconnect Patent
[NASA-CASE-XLA-00711] c03 N71-12258

CLIFF, R. A.
Data processor having multiple sections activated
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to the sections Patent
[NASA-CASE-XGS-04767] c08 N71-12494
Ripple add and ripple subtract binary counters
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[NASA-CASE-XGS-04766] c08 N71-18602
Apparatus for computing square roots Patent
[NASA-CASE-XGS-04768] c08 N71-19437

Digitally controlled frequency synthesizer Patent
[NASA-CASE-XGS-02317] c09 N71-23525

CLOTFELTER, W. H.
Apparatus for the determination of the existence
or non-existence of a bonding between two
members Patent
[NASA-CASE-MFS-13686] c15 N71-18132

CLOUGH, L. G.
Driving lamps by induction
[NASA-CASE-MFS-21214] c09 N72-21252

COBIN, J. C.
Latching mechanism Patent
[NASA-CASE-MSC-15474-1] c15 N71-26162

COCCA, F. J.
Method and apparatus for detecting surface ions on
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Application
[NASA-CASE-ERC-10325] c15 N70-36058

COE, H. H.
High speed rolling element bearing Patent
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[NASA-CASE-LEW-10856-1] c15 N70-26816

COHEN, D.
Fluid sample collector Patent
[NASA-CASE-XMS-06767-1] c14 N71-20435

COHEN, E. A.
Audio frequency marker system
[NASA-CASE-NPO-11147] c14 N72-15417

COHEN, H. F.
Digital modulator and demodulator Patent
[NASA-CASE-ERC-10041] c08 N71-29138

COHEN, R. A.
A method for selective gold diffusion of
monolithic silicon devices and/or circuits
Patent application
[NASA-CASE-ERC-10072] c09 N70-11148
A method for preparing stable nonpolarizable
silicon dioxide layers on silicon Patent
application
[NASA-CASE-ERC-10071] c06 N70-11167
Method and apparatus for stable silicon dioxide
layers on silicon grown in silicon nitride
ambient Patent Application
[NASA-CASE-ERC-10073] c06 N70-12627

COHN, E. H.
Method and means for charging a storage battery
[NASA-CASE-HQN-10697] c03 N72-20037

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Acoustical transducer calibrating system and
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COKEE, L. R.
Quick disconnect latch and handle combination
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[NASA-CASE-MFS-11132] c15 N71-17649

COLBURN, H. E.
Automatic instrument for chemical processing to
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[NASA-CASE-GSC-11169-1] c04 N71-27992
Automatic instrument for chemical processing to
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[NASA-CASE-GSC-11169-2] c05 N71-34079

COLE, P. T.
Low friction magnetic recording tape Patent
[NASA-CASE-XGS-00373] c23 N71-15978
System for recording and reproducing pulse code
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[NASA-CASE-XGS-01021] c08 N71-21042
Friction measuring apparatus Patent
[NASA-CASE-INP-08680] c14 N71-22995
Helical recorder arrangement for multiple channel
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[NASA-CASE-GSC-10614-1] c09 N72-11224

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Composite superconductors
[NASA-CASE-LEW-11015-1] c26 N72-20730

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Garments for controlling the temperature of the
body Patent
[NASA-CASE-XMS-10269] c05 N71-24147

COLLINS, D. F., JR.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465

COLLINS, E. R., JR.
Impact energy absorbing system utilizing
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[NASA-CASE-NPO-10671] c15 N72-20443

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CROFT, R. H.

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Recovery of potable water from human wastes in below-G conditions Patent
[NASA-CASE-XLA-03213] c05 N71-11207

COLLINS, W. A.
Flight control system Patent Application
[NASA-CASE-MSC-13397-1] c21 N70-36003

CONANT, J. E.
Television simulation for aircraft and space flight Patent
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Personal propulsion unit Patent
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Omnidirectional microwave spacecraft antenna
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Isolation coupling arrangement for a torque
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Method of producing alternating ether siloxane
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Display research collision warning system
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Life support system
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D

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Synthesis of polymeric schiff bases by schiff-base
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DAMERON, C. E.
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DARCEY, R. J.
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[NASA-CASE-MFS-12915] c11 N71-17600
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Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360

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[NASA-CASE-XLE-04599] c22 N72-20597

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Burn rate testing apparatus Patent Application
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Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent
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GALLO, A. J.
 Rapid sync acquisition system Patent
 [NASA-CASE-NPO-10214] c10 N71-26577

GARBA, J. A.
 Pressure seal Patent
 [NASA-CASE-NPO-10796] c15 N71-27068

GARDNER, D. E.
 Wire grid forming apparatus Patent
 [NASA-CASE-XLE-00023] c15 N70-33330

GARDNER, J. H.
 Technique of elbow bending small jacketed transfer
 lines Patent
 [NASA-CASE-XNP-10475] c15 N71-24679

GARDNER, H. S.
 Differential pressure cell Patent
 [NASA-CASE-XAC-00042] c14 N70-34816

GARFEIN, A.
 Electricity measurement devices employing liquid
 crystalline materials Patent Application
 [NASA-CASE-ERC-10275] c26 N70-40022

Pressure sensitive transducers Patent
 [NASA-CASE-ERC-10087] c14 N71-27334

Pressure sensitive transducer
 [NASA-CASE-ERC-10087-2] c14 N72-21430

GARRIRE, E. M.
 Optical frequency waveguide Patent
 [NASA-CASE-HQN-10541] c07 N71-26291

Laser machining apparatus Patent
 [NASA-CASE-HQN-10541-2] c15 N71-27135

Optical frequency waveguide and transmission
 system Patent
 [NASA-CASE-HQN-01054-1] c16 N71-27183

GARNER, H. D.
 Jet shoes
 [NASA-CASE-XLA-08491] c05 N69-21380

Dynamic precession damper for spin stabilized
 vehicles Patent
 [NASA-CASE-XLA-01989] c21 N70-34295

Attitude orientation of spin-stabilized space
 vehicles Patent
 [NASA-CASE-XLA-00281] c21 N70-36943

GARBAHAN, H. M.
 Solid state pulse generator with constant output
 width, for variable input width, in nanosecond
 range Patent
 [NASA-CASE-XGS-03427] c10 N71-23029

Resetable monostable pulse generator Patent
 [NASA-CASE-GSC-11139] c09 N71-27016

GARREN, J. F., JR.
 Mechanical stability augmentation system Patent
 [NASA-CASE-XLA-06339] c02 N71-13422

GARWOOD, D. C.
 Ionization vacuum gauge Patent
 [NASA-CASE-XNP-00646] c14 N70-35666

GASTON, D. H.
 Masking device Patent
 [NASA-CASE-XNP-02092] c15 N70-42033

GASTON, R. P., JR.
 Landing gear Patent
 [NASA-CASE-XMP-01174] c02 N70-41589

GATES, D. W.
 Stabilized zinc oxide coating compositions Patent
 [NASA-CASE-XMP-07770-2] c18 N71-26772

Synthesis of zinc titanate pigment and coatings
 containing the same
 [NASA-CASE-MFS-13532] c18 N72-17532

GATES, J. D.
 Self-erecting reflector Patent
 [NASA-CASE-XGS-09190] c31 N71-16102

GATES, L. E., JR.
 Method for fiberizing ceramic materials Patent
 [NASA-CASE-XNP-00597] c18 N71-23088

GATLIN, J. A.
 Cartwheel satellite synchronization system Patent
 [NASA-CASE-XGS-05579] c31 N71-15676

Gravity gradient attitude control system Patent
 [NASA-CASE-GSC-10555-1] c21 N71-27324

Sampled data controller Patent
 [NASA-CASE-GSC-10554-1] c08 N71-29033

GATTI, A.
 Catalyst for growth of boron carbide single
 crystal whiskers
 [NASA-CASE-XHQ-03903] c15 N69-21922

GAUSE, R. L.
 Restraint system for ergometer
 [NASA-CASE-MFS-21046] c05 N71-34080

Ergometer
[NASA-CASE-MFS-21109] c05 N72-20112

GAVIRA, HORACIO EDUARDO
Fail-safe multiple transformer circuit
configuration
[NASA-CASE-NPO-11078] c09 N72-15205

GDULA, W. G.
Recovery of radiation damaged solar cells through
thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062

GEE, S. W.
Terminal guidance system
[NASA-CASE-FRC-10049-1] c21 N72-21632

GEHRING, W. E.
Apparatus for purging systems handling toxic,
corrosive, noxious and other fluids Patent
[NASA-CASE-XMS-01905] c12 N71-21089

GEIER, D. J.
Shock absorbing support and restraint means Patent
[NASA-CASE-XMS-01240] c05 N70-35152

GEIPEL, D. H.
Omnidirectional acceleration device Patent
[NASA-CASE-HQN-10780] c14 N71-30265

GRISMAN, J. H.
Methods of operating a magnetic core memory Patent
Application
[NASA-CASE-ERC-10166] c08 N70-22136

GELLES, E.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857

GENTER, R. E.
Electronically resettable fuse Patent
[NASA-CASE-XGS-11177] c09 N71-27001

GERINGGER, H. J.
Induction furnace with perforated tungsten foil
shielding Patent
[NASA-CASE-XLE-04026] c14 N71-23267

GERMANN, E. F., JR.
Radiation direction detector including means for
compensating for photocell aging Patent
[NASA-CASE-XLA-00183] c14 N70-40239

GERTSMA, L. W.
Foldable conduit Patent
[NASA-CASE-XLE-00620] c32 N70-41579

GETCHELL, D. E.
Pressure garment joint Patent
[NASA-CASE-XMS-09636] c05 N71-12344

GETTELMAN, C. C.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c09 N71-34210

GIACCONI, R.
X-ray reflection collimator adapted to focus
X-radiation directly on a detector Patent
[NASA-CASE-XHQ-04106] c14 N70-40240

GIANDOMENICO, A.
Millimeter wave radiometer for radio astronomy
Patent
[NASA-CASE-XNP-09832] c30 N71-23723

GIBSON, E. K., JR.
Oxygen production method and apparatus
[NASA-CASE-MSC-12332-1] c15 N72-15476

GIBSON, F. W.
A pressure operated electrical switch Patent
Application
[NASA-CASE-LAR-10137-1] c09 N70-35597

Contour surveying system Patent
[NASA-CASE-XLA-08646] c14 N71-17586

GILBERT, G. J.
Apparatus for ballasting high frequency
transistors
[NASA-CASE-XGS-05003] c09 N69-24318

GILCHRIST, C. E.
Signal-to-noise ratio estimating by taking ratio
of mean and standard deviation of integrated
signal samples Patent
[NASA-CASE-XNP-05254] c07 N71-20791

GILES, R. M. F.
Dye penetrant for surfaces subsequently contacted
by liquid oxygen Patent
[NASA-CASE-XMF-02221] c18 N71-27170

GILKISON, C. A.
Linear accelerator frequency control system Patent
[NASA-CASE-XGS-05441] c10 N71-22962

GILL, W. L.
Burn rate testing apparatus Patent Application
[NASA-CASE-XMS-09690-1] c33 N70-12625

GILLERMAN, J. B.
Water management system and an electrolytic cell
therefor Patent
[NASA-CASE-MSC-10960-1] c03 N71-24718

GILLESPIE, W., JR.
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181

Passive communication satellite Patent
[NASA-CASE-XLA-00210] c30 N70-40309

Alleviation of divergence during rocket launch
Patent
[NASA-CASE-XLA-00256] c31 N71-15663

Method of making an inflatable panel Patent
[NASA-CASE-XLA-03497] c15 N71-23052

GILLEY, P. J.
Material testing system
[NASA-CASE-MFS-20673] c14 N72-15432

GILLMORE, W. F.
Method and apparatus for high resolution spectral
analysis
[NASA-CASE-NPO-10748] c08 N72-20177

GILREATH, H. C.
Omnidirectional microwave spacecraft antenna
Patent
[NASA-CASE-XLA-03114] c09 N71-22888

GIN, W.
Apparatus and method for control of a solid fueled
rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

GIOVANNETTI, A., JR.
High-temperature, high-pressure spherical segment
valve Patent
[NASA-CASE-XAC-00074] c15 N70-34817

GIRALA, A. S.
Open type urine receptacle Patent Application
[NASA-CASE-MSC-12324-1] c05 N70-41980

GLASER, P. E.
Apparatus for measuring thermal conductivity
Patent
[NASA-CASE-XGS-01052] c14 N71-15992

GLASSEY, E. A.
Line following servosystem Patent
[NASA-CASE-XAC-00001] c15 N71-28952

GLAWE, G. E.
Enthalpy and stagnation temperature determination
of a high temperature laminar flow gas stream
Patent
[NASA-CASE-XLE-00266] c14 N70-34156

Sensing probe
[NASA-CASE-LEW-10281-1] c14 N72-17327

GLEKAS, I. P.
Compact solar still Patent
[NASA-CASE-XMS-04533] c15 N71-23086

GLENN, D. C.
Method of lubricating rolling element bearings
Patent
[NASA-CASE-XLE-09527] c15 N71-17688

Rolling element bearings Patent
[NASA-CASE-XLE-09527-2] c15 N71-26189

GLOBUS, R. H.
Process of forming particles in a cryogenic path
Patent
[NASA-CASE-NPO-10250] c23 N71-16212

GLOMB, W. L.
Time division radio relay synchronizing system
using different sync code words for in sync and
out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773

Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473

GOERING, R. S.
Open tube guideway for high speed air cushioned
vehicles
[NASA-CASE-LAR-10256-1] c11 N72-20253

GOLD, H. C.
Gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N72-10824

GOLDBERG, G. I.
Reaction wheel scanner Patent
[NASA-CASE-XGS-02629] c14 N71-21082

GOLDBERG, J.
Automatic fault correction system for parallel
signal channels Patent
[NASA-CASE-XNP-03263] c09 N71-18843

GOLDEN, D. P., JR.
Contourograph system for monitoring
electrocardiograms
[NASA-CASE-MSC-13407-1] c10 N72-20225

GOLDMAN, G. C.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c09 N71-34210

GOLDSCHMIED, P. R.
Shear modulated fluid amplifier Patent
[NASA-CASE-MFS-10412] c12 N71-17578

GOLDSMITH, J. V.
Cover plate for solar cell panels Patent
Application
[NASA-CASE-NPO-10747] c03 N70-25867
Solar battery with interconnecting means for
plural cells Patent
[NASA-CASE-XNP-06506] c03 N71-11050

GOLDSTEIN, A. W.
Supersonic fan blading
[NASA-CASE-LEW-11402-1] c28 N72-20770

GOLDSTEIN, R. H.
Correlation function apparatus Patent
[NASA-CASE-XNP-00746] c07 N71-21476
Method and apparatus for synchronizing a single
channel digital communications system
[NASA-CASE-NPO-11302] c07 N72-11160
Method and apparatus for mapping planets
[NASA-CASE-NPO-11001] c07 N72-21118

GOLDSTEIN, RICHARD H.
Binary coded sequential acquisition ranging system
[NASA-CASE-NPO-11194] c08 N71-33869

GOODRICH, J. A.
Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928

GOODWIN, R. A.
Spectroscope equipment using a slender cylindrical
reflector as a substitute for a slit Patent
[NASA-CASE-XGS-08269] c23 N71-26206

GORDON, W. A.
Arc electrode of graphite with ball tip Patent
[NASA-CASE-XLE-04788] c09 N71-22987

GORSTEIN, H.
Radiant energy sensor Patent Application
[NASA-CASE-ERC-10174] c21 N70-35861

GOSS, W. C.
High pulse rate high resolution optical radar
system Patent Application
[NASA-CASE-NPO-11426] c07 N71-33107

GOUDY, J. R.
Capacitor power pak Patent Application
[NASA-CASE-LAR-10367-1] c03 N70-26817

GOULD, C. W.
Printed circuit board with bellows rivet
connection Patent
[NASA-CASE-XNP-05082] c15 N70-41960

GOULD, J. E.
Static inverters which sum a plurality of waves
Patent
[NASA-CASE-XMP-00663] c08 N71-18752
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

GOULD, W. I., JR.
Millimeter wave antenna system Patent Application
[NASA-CASE-GSC-10949-1] c07 N71-28965

GRAAB, J. W.
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

GRAPSTEIN, D.
Fluidic-thermochromic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603

GRAHAM, O. L.
Color television system
[NASA-CASE-MSC-12146-1] c07 N72-17109

GRAHAM, R. W.
Liquid storage tank venting device for zero
gravity environment Patent
[NASA-CASE-XLE-01449] c15 N70-41646

GRAN, A. A.
Venting device for pressurized space suit helmet
Patent
[NASA-CASE-XMS-09652-1] c05 N71-26333

GRANATA, R. L.
Sidereal frequency generator Patent
[NASA-CASE-XGS-02610] c14 N71-23174

GRANT, D. J.
Passively regulated water electrolysis rocket
engine Patent
[NASA-CASE-XGS-08729] c28 N71-14044
Precision thrust gage Patent
[NASA-CASE-XGS-02319] c14 N71-22965
Fluid flow meter with comparator reference means
Patent
[NASA-CASE-XGS-01331] c14 N71-22996

GRANT, H. H.
Attitude sensor
[NASA-CASE-GSC-10890-1] c21 N71-34589

GRANTHAM, W. L.
Means for measuring the electron density gradients
of the plasma sheath formed around a space
vehicle Patent
[NASA-CASE-XLA-06232] c25 N71-20563
Antenna design for surface wave suppression Patent
[NASA-CASE-XLA-10772] c07 N71-28986

GRAY, C. E.
Optical characteristics measuring apparatus Patent
[NASA-CASE-XNP-08840] c23 N71-16365

GRAY, V. H.
Ablative system Patent Application
[NASA-CASE-LEW-10359-1] c33 N70-35687
Boiler for generating high quality vapor Patent
[NASA-CASE-XLE-00785] c33 N71-16104
Space vehicle with artificial gravity and
earth-like environment
[NASA-CASE-LEW-11101-1] c31 N72-11793

GRAYSON, J. H.
Voltage-current characteristic simulator Patent
[NASA-CASE-XMS-01554] c10 N71-10578

GREBE, V. J.
Inductive liquid level detection system Patent
[NASA-CASE-XLE-01609] c14 N71-10500

GREEN, E. D.
Linear sawtooth voltage-wave generator employing
transistor timing circuit having capacitor-zener
diode combination feedback Patent
[NASA-CASE-XMS-01315] c09 N70-41675

GREEN, R. G.
Traversing probe Patent
[NASA-CASE-XPR-02007] c12 N71-24692
Layout tool Patent
[NASA-CASE-PRC-10005] c15 N71-26145
Method and apparatus for attaching physiological
monitoring electrodes Patent
[NASA-CASE-XPR-07658-1] c05 N71-26293

GREEN, R. B.
Serial digital decoder Patent
[NASA-CASE-NPO-10150] c08 N71-24650
Method and apparatus for synchronizing a single
channel digital communications system
[NASA-CASE-NPO-11302] c07 N72-11160

GREEN, W. L.
Mass measuring system Patent
[NASA-CASE-XMS-03371] c05 N70-42006

GREENBERG, J.
Combined electrolysis device and fuel cell and
method of operation Patent
[NASA-CASE-XLE-01645] c03 N71-20904
Heat activated cell with alkali anode and alkali
salt electrolyte Patent
[NASA-CASE-LEW-11358] c03 N71-26084
Heat activated cell Patent
[NASA-CASE-LEW-11359] c03 N71-28579
Method of making emf cell
[NASA-CASE-LEW-11359-2] c03 N72-20034

GREENWOOD, T. L.
Seismic displacement transducer Patent
[NASA-CASE-XMF-00479] c14 N70-34794
Condition and condition duration indicator Patent
[NASA-CASE-XMF-01097] c10 N71-16058

GREGORY, J. W.
Rocket motor system Patent
[NASA-CASE-XLE-00323] c28 N70-38505
Combustion chamber Patent
[NASA-CASE-XLE-04857] c28 N71-23968
Rocket thrust throttling system Patent
Application
[NASA-CASE-LEW-10374-1] c28 N71-31103

GRIEVE, S. H.
Apparatus for testing wiring harness by vibration
generating means
[NASA-CASE-MSC-15158-1] c14 N72-17325

GRIFFIN, F. D.
Device for determining the accuracy of the flare
on a flared tube
[NASA-CASE-XKS-03495] c14 N69-39785
Optical monitor panel Patent
[NASA-CASE-XKS-03509] c14 N71-23175

GRIFFIN, W. S.
Fluid jet amplifier
[NASA-CASE-XLE-03512] c12 N69-21466
Fluid jet amplifier Patent
[NASA-CASE-XLE-09341] c12 N71-28741

GRIFFITH, G. E.
High intensity heat and light unit Patent
[NASA-CASE-XLA-00141] c09 N70-33312

GRISAFFE, S. J.
Method of making a diffusion bonded refractory coating Patent
[NASA-CASE-XLE-01604-2] c15 N71-15610
Nickel aluminide coated low alloy stainless steel
[NASA-CASE-LEW-11267-1] c17 N72-15519

GROBMAN, J.
Electric propulsion engine test chamber Patent
[NASA-CASE-XLE-00252] c11 N70-34844

GROOM, N. J.
Electromagnetic mirror drive system
[NASA-CASE-XLA-03724] c14 N69-27461
Variable pulse width multiplier Patent
[NASA-CASE-XLA-02850] c09 N71-20447

GROSE, W. L.
Combustion detector
[NASA-CASE-LAR-10739-1] c14 N72-21424

GROSS, C.
Method of temperature compensating semiconductor strain gages Patent
[NASA-CASE-XLA-04555-1] c14 N71-25892
Infrared detectors
[NASA-CASE-LAR-10728-1] c14 N72-21422

GROTH, W. G.
Optical inspection apparatus Patent
[NASA-CASE-XMF-00462] c14 N70-34298

GRUBBS, T. H.
Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812
Line cutter Patent
[NASA-CASE-XMS-04072] c15 N70-42017
Tension measurement device Patent
[NASA-CASE-XMS-04545] c15 N71-22878
Winch having cable position and load indicators
Patent
[NASA-CASE-MSC-12052-1] c15 N71-24599

GRUBER, C. L.
Method and apparatus for optical modulating a light signal Patent
[NASA-CASE-GSC-10216-1] c23 N71-26722

GUILLOTTE, R. J.
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181

GUISINGER, J. E.
Pulsed power transistor circuit with stored charges sweep means Patent Application
[NASA-CASE-NPO-10674] c10 N70-22132
Starting circuit for vapor lamps and the like Patent
[NASA-CASE-XNP-01058] c09 N71-12540
Variable frequency nuclear magnetic resonance spectrometer Patent
[NASA-CASE-XNP-09830] c14 N71-26266
High voltage transistor amplifier with constant current load
[NASA-CASE-NPO-11023] c09 N72-17155

GUNGLE, R. L.
Self-sealing, unbonded, rocket motor nozzle closure Patent
[NASA-CASE-XLA-02651] c28 N70-41967

GUNTER, W. D., JR.
Optical imaging system Patent Application
[NASA-CASE-ARC-10194-1] c23 N71-31142

GURTNER, C. A.
Ablation sensor
[NASA-CASE-XLA-01781] c14 N69-39975
Pressurized cell micrometeoroid detector Patent
[NASA-CASE-XLA-00936] c14 N71-14996
Dual measurement ablation sensor
[NASA-CASE-LAR-10105-1] c33 N72-11830

GUSTAFSON, G. L.
Apparatus for measuring thermal conductivity Patent
[NASA-CASE-XGS-01052] c14 N71-15992

GUY, J. T., SR.
Disk pack cleaning table Patent Application
[NASA-CASE-LAR-10590-1] c15 N70-26819

GYORGAK, C. A.
Process for applying a protective coating for salt bath brazing Patent
[NASA-CASE-XLE-00046] c15 N70-33311
Protective device for machine and metalworking tools Patent
[NASA-CASE-XLE-01092] c15 N71-22797
Extrusion die for refractory metals Patent
[NASA-CASE-XLE-06773] c15 N71-23817

HABBAL, W. A.
High speed movie data acquisition system Patent Application
[NASA-CASE-NPO-10745] c08 N70-20727
Analog signal integration and reconstruction system Patent
[NASA-CASE-NPO-10344] c10 N71-26544

HABRA, J. H.
Multiple varactor frequency doubler Patent
[NASA-CASE-XMF-04958-1] c10 N71-26414

HADEK, V.
Apparatus and method for measuring the Seebeck coefficient and resistivity of materials
[NASA-CASE-NPO-11749] c14 N72-20398

HADLAND, W. O.
Control device Patent
[NASA-CASE-XAC-10019] c15 N71-23809
Two degree inverted flexure
[NASA-CASE-ARC-10345-1] c32 N72-20905

HAEBNER, C. L.
Peen plating
[NASA-CASE-GSC-11163-1] c15 N72-20461

HAGIHARA, F. S.
Frequency to analog converter Patent
[NASA-CASE-XNP-07040] c08 N71-12500

HAGWOOD, G. J.
Vibration mode synthesizer
[NASA-CASE-LAR-10310-1] c10 N72-21275

HAINES, R. F.
Visual examination apparatus
[NASA-CASE-ARC-10329-1] c05 N72-21079

HALEY, F. C.
Cavity radiometer Patent
[NASA-CASE-XNP-08961] c14 N71-24809

HALL, D. F.
Apparatus for measuring electric field strength on the surface of a model vehicle Patent
[NASA-CASE-XLE-02038] c09 N71-16086

HALL, E. D.
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent
[NASA-CASE-XGS-08269] c23 N71-26206

HALL, E. H.
Method for determining presence of OH in magnesium oxide
[NASA-CASE-NPO-10774] c06 N72-17095

HALL, J. B., JR.
Surface roughness detector Patent
[NASA-CASE-XLA-00203] c14 N70-34161
The liquid waste feed system Patent
[NASA-CASE-LAR-10365-1] c05 N70-35619

HALL, J. F., JR.
Illumination system including a virtual light source Patent
[NASA-CASE-HQN-10781] c23 N71-30292

HALL, J. H.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c09 N71-34210

HALLBERG, P. C.
Turn on transient limiter Patent
[NASA-CASE-GSC-10413] c10 N71-26531

HALLOCK, J. W.
A holographic image enhancement technique Patent application
[NASA-CASE-ERC-10135] c14 N70-11245
Multiple hologram recording and readout system Patent
[NASA-CASE-ERC-10151] c16 N71-29131

HALPERT, G.
Frangible electrochemical cell
[NASA-CASE-XGS-10010] c03 N72-15986

HANMACK, J. B.
Space capsule Patent
[NASA-CASE-XLA-00149] c31 N70-37938
Space capsule Patent
[NASA-CASE-XLA-01332] c31 N71-15664

HAMMOND, A. D.
Variable sweep aircraft Patent
[NASA-CASE-XLA-03659] c02 N71-11041

HANCHEY, K. K.
Device for preventing high voltage arcing in electron beam welding Patent
[NASA-CASE-XHP-08522] c15 N71-19486

HANKINSON, T. W. E.
Fatigue-resistant shear pin
[NASA-CASE-XLA-09122] c15 N69-27505

HANNA, M. P.
Dual polarity full wave dc motor drive Patent
[NASA-CASE-XNP-07477] c09 N71-26092

HANSEN, I. G.
Flow angle sensor and read out system Patent
[NASA-CASE-XLE-04503] c14 N71-24864

HANSEN, P. W.
Lift balancing device
[NASA-CASE-LAR-10348-1] c11 N72-15241

HANSEN, S.
Thrust dynamometer Patent
[NASA-CASE-XLE-00702] c14 N70-40203
Method of making screen by casting Patent
[NASA-CASE-XLE-00953] c15 N71-15966
Fluid flow control valve Patent
[NASA-CASE-XLE-00703] c15 N71-15967
Thrust dynamometer Patent
[NASA-CASE-XLE-05260] c14 N71-20429

HANSON, M. P.
Turbo-machine blade vibration damper Patent
[NASA-CASE-XLE-00155] c28 N71-29154

HANSON, R. N.
Tensile strength testing device Patent
[NASA-CASE-XNP-05634] c15 N71-24834
Hydroforming techniques using epoxy molds Patent
[NASA-CASE-XLE-05641-1] c15 N71-26346

HANST, P. L.
Repetitively pulsed, wavelength selective laser
Patent
[NASA-CASE-ERC-10178] c16 N71-24832

HAG, K. E.
A method for the deposition of beta-silicon
carbide by isoeptitaxy
[NASA-CASE-ERC-10120] c26 N69-33482
A method for fabricating adherent thick layers of
high-conductance metals on oxide surfaces Patent
Application
[NASA-CASE-XER-11018] c15 N70-22246

HARALSON, H. H.
Ultrasonic scanning system for in place inspection
of brazed tube joints
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Hand-held self-maneuvering unit Patent
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 [NASA-CASE-XLE-10337] c15 N71-24046

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KALKBRENNER, R. W.
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Compression test assembly to prevent buckling of
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Force measuring instrument Patent
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Ion thruster cathode
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KELLER, O. F.
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Preparation of high purity copper fluoride [NASA-CASE-LEW-10794-1] c06 N72-17093

KING, R. W.
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KISZKO, W.
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KITTS, W. T.
Cryogenic connector for vacuum use Patent [NASA-CASE-XGS-02441] c15 N70-41629

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KLEIN, H. G.
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KLEIN, H. G.
Electrolytically regenerative hydrogen-oxygen fuel cell Patent [NASA-CASE-XLE-04526] c03 N71-11052

KLEINBERG, L. L.
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KLEINROCK, L.
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 [NASA-CASE-NPO-10769] c08 N72-11171

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KLINE, A. J., JR.
 Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent
 [NASA-CASE-XMP-08665] c10 N71-19467

KLISCH, J. A.
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 [NASA-CASE-GSC-11095-1] c14 N72-10375

KLOC, I.
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 [NASA-CASE-NPO-11103] c14 N72-21406

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 Ion thruster Patent Application
 [NASA-CASE-LEW-10770-1] c28 N70-26815

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 [NASA-CASE-XAC-04886-1] c14 N71-20439
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 [NASA-CASE-XAC-04885] c14 N71-23790

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 Expulsion bladder-equipped storage tank structure Patent
 [NASA-CASE-XNP-00612] c11 N70-38182

KOCZELA, L. J.
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 [NASA-CASE-MSC-13932-1] c08 N72-21206

KODIS, R. D.
 Clear air turbulence detector Patent Application
 [NASA-CASE-ERC-10081] c14 N70-20710

KOLBLY, R. B.
 High power microwave power divider Patent
 [NASA-CASE-NPO-11031] c07 N71-33606
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 [NASA-CASE-NPO-11064] c07 N72-11150

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 Radiator deployment actuator Patent
 [NASA-CASE-MSC-11817-1] c15 N71-26611

KOPELSON, S.
 Rate augmented digital to analog converter Patent
 [NASA-CASE-XLA-C7828] c08 N71-27057

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KOPIA, L. P.
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 [NASA-CASE-LAR-10385-1] c14 N70-35544

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 [NASA-CASE-MSC-12398] c05 N72-20098

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 [NASA-CASE-XLA-00141] c09 N70-33312

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 Self-erecting reflector Patent
 [NASA-CASE-XGS-09190] c31 N71-16102
 Tracking antenna system Patent
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Antenna array at focal plane of reflector with coupling network for beam switching Patent
 [NASA-CASE-GSC-10220-1] c07 N71-27233

KOSCHMEIDER, L. A.
 Bi-polar phase detector and corrector for split phase PCM data signals Patent
 [NASA-CASE-XGS-01590] c07 N71-12392

KOSHAHL, H. G.
 Linear magnetic brake with two windings Patent
 [NASA-CASE-XLE-05079] c15 N71-17652
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 [NASA-CASE-LEW-11192-1] c09 N72-15197

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 Extravehicular tunnel suit system Patent
 [NASA-CASE-HSC-12243-1] c05 N71-24728

KOVELL, S. P.
 Method for etching copper Patent
 [NASA-CASE-XGS-06306] c17 N71-16044

KOZIOL, J. S., JR.
 Aircraft control system Patent Application
 [NASA-CASE-ERC-10439] c02 N70-36052

KRAMER, F.
 Device for suppressing sound and heat produced by high-velocity exhaust jets Patent
 [NASA-CASE-XMP-01813] c28 N70-41582

KRAMER, M.
 Electronic amplifier with power supply switching Patent
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 [NASA-CASE-XMS-02159] c10 N71-22961

KRAUSE, F. R.
 Passive optical wind and turbulence detection system Patent
 [NASA-CASE-XMP-14032] c20 N71-16340

KRAUSE, I. A.
 Satellite interlace synchronization system
 [NASA-CASE-GSC-10390-1] c07 N72-11149

KRAUSE, L. N.
 Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent
 [NASA-CASE-XLE-00266] c14 N70-34156
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 [NASA-CASE-LEW-10281-1] c14 N72-17327

KRAUSE, S. J.
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 [NASA-CASE-NPO-10194] c03 N71-20407

KRAWCZONEK, W. M.
 Isolated amplifier for measuring millivolt electrical signals with reference to a high common mode potential
 [NASA-CASE-XLE-03155-2] c09 N72-20205

KREISMAN, W. S.
 Inflation system for balloon type satellites Patent
 [NASA-CASE-XGS-03351] c31 N71-16081

KREEVE, W. F.
 High-voltage cable Patent
 [NASA-CASE-XNP-00738] c09 N70-38201

KROPP, C. J.
 Determination of spot weld quality Patent
 [NASA-CASE-XNP-02588] c15 N71-18613

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KRUPNICK, A. C.
 Inorganic thermal control coatings
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 [NASA-CASE-XMF-03873] c06 N69-39733
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KUBICA, A. J.
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 [NASA-CASE-XMS-00583] c28 N70-38504

KUBICZ, A. P.
 Signal path series step biased multidevice high efficiency amplifier Patent
 [NASA-CASE-GSC-10668-1] c07 N71-28430
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 [NASA-CASE-GSC-10667-1] c10 N71-33129

KUBIK, C. F.
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 [NASA-CASE-XNP-01310] c33 N71-28852

KUBIK, J. S.
 Device for preventing high voltage arcing in electron beam welding Patent
 [NASA-CASE-XMP-08522] c15 N71-19486

KUBOKAWA, C. C.
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KUHNS, P. W.
 Generator for a space power system Patent
 [NASA-CASE-XLE-04250] c09 N71-20446

KUPPERIAN, J. E., JR.
 Low friction magnetic recording tape Patent
 [NASA-CASE-XGS-00373] c23 N71-15978

KURTZ, R. L.
 Hybrid holographic system using reflected and transmitted object beams simultaneously Patent
 [NASA-CASE-MFS-20074] c16 N71-15565

Multiple image storing system for high speed projectile holography
 [NASA-CASE-MFS-20596] c14 N72-17324

KURZHALS, P. R.
 Spacecraft experiment pointing and attitude control system Patent
 [NASA-CASE-XLA-05464] c21 N71-14132

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 [NASA-CASE-XLA-02551] c21 N71-21708

L

LA RUSSA, F. J.
 Array phasing device Patent
 [NASA-CASE-ERC-10046] c10 N71-18722

LA VIGNA, T. A.
 Buck boost voltage regulation circuit Patent
 [NASA-CASE-GSC-10735-1] c10 N71-26085

LACKNER, H. G.
 Method and apparatus of simulating zero gravity conditions Patent
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 Bonding of reinforced Teflon to metals Patent Application
 [NASA-CASE-MFS-20482] c15 N70-26806

Graphite-reinforced aluminum composite and method of preparing the same
 [NASA-CASE-MFS-21077] c18 N71-34502

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 Electromechanical actuator
 [NASA-CASE-XNP-05975] c15 N69-23185

LAMB, R. E.
 Hypersonic reentry vehicle Patent
 [NASA-CASE-XMS-04142] c31 N70-41631

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 Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent
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LANDAUER, F. P.
 Means for generating a sync signal in an FM communication system Patent
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LANDEL, R. F.
 Method and a system for controlling vapor content of a gas Patent Application
 [NASA-CASE-NPO-10633] c03 N70-35641

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 [NASA-CASE-LAR-10513-1] c07 N70-42162

LANDMAN, A.
 Laser modulation by stark effect in gases Patent Application
 [NASA-CASE-ERC-10335] c16 N70-36054

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 Wide range dynamic pressure Patent Application
 [NASA-CASE-ARC-10263-1] c14 N70-20729

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 Micrometeoroid velocity measuring device Patent
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 [NASA-CASE-XLA-00941] c14 N71-23240

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[NASA-CASE-XLA-00137] c15 N70-33180

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 Venting device for pressurized space suit helmet Patent
 [NASA-CASE-XMS-09652-1] c05 N71-26333

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 Continuous detonation reaction engine Patent
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 Photographic camera system Patent Application
 [NASA-CASE-MSC-13322-1] c14 N70-39900

LANTZ, E.
 Gaseous control system for nuclear reactors
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 Simulated fuel assembly Patent
 [NASA-CASE-XLE-00724] c14 N70-34669

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 Conforming polisher for aspheric surface of revolution Patent
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 Coaxial injector for reaction motors Patent Application
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 Small rocket engine Patent
 [NASA-CASE-XLE-00685] c28 N70-41992

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 [NASA-CASE-XNP-00294] c21 N70-36938

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 [NASA-CASE-MFS-21214] c09 N72-21252

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 [NASA-CASE-XMF-01543] c31 N71-17730

LAUGHLIN, C. R., JR.
 Traffic control system and method Patent Application
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 [NASA-CASE-XGS-01222] c10 N71-20841

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LAVIGNE, R. C.
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LAWHITE, E.
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 Variable frequency oscillator with temperature compensation Patent
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 Communications link for computers Patent Application

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LEE, C. E.
Triangometric vehicle guidance assembly which aligns the three perpendicular axes of two three-axes systems Patent
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LEE, D. A.
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LEE, J. S.
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LEE, M. C.
Dual resonant cavity absorption cell Patent
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LEE, R. D.
Metallic intrusion detector system Patent Application
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Telemetry actuated switch
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LEE, S. Y.
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[NASA-CASE-HQN-10542-1] c23 N72-21663

LEES, W. L.
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[NASA-CASE-ERC-10013] c09 N71-26678

LEFFKE, W. O.
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LEIBECKI, HAROLD F.
Electrically conductive polyfluorinated ethylene
[NASA-CASE-XLE-06774-2] c06 N72-20131

LEIGH, C. H.
Analytical device for gases Patent Application
[NASA-CASE-ERC-10021] c06 N71-28635

LEISS, A.
Air frame drag balance Patent
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LEHSON, P. H.
Broadband modified turnstile antenna Patent
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Alignment apparatus using a laser having a gravitationally sensitive cavity reflector
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LESKO, J. G., JR.
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LESNIEWSKI, R. J.
Digital data processor wherein operations are conditionally performed in response to the state of indicators within the processor Patent Application
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Variable digital processor including a register for shifting and rotating bits in either direction Patent
[NASA-CASE-GSC-10186] c08 N71-33110

LESSLEY, R. L.
Rotating shaft seal Patent
[NASA-CASE-INP-02862-1] c15 N71-26294

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[NASA-CASE-XPR-00929] c31 N70-34966

LEVINE, M. W.
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency
[NASA-CASE-HQN-10654-1] c16 N72-21502

LEVINSON, M.
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[NASA-CASE-XGS-02884] c15 N71-22705

LEVY, G. S.
Multi-feed cone Cassegrain antenna Patent
[NASA-CASE-NPO-10539] c07 N71-11285

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Thin film light detector Patent Application
[NASA-CASE-NPO-11432] c14 N71-33322
High voltage transistor amplifier with constant current load
[NASA-CASE-NPO-11023] c09 N72-17155

LEWIS, B. W.
Barium release system Patent Application
[NASA-CASE-LAR-10670-1] c06 N70-36004
Process for applying black coating to metals Patent
[NASA-CASE-XLA-06199] c15 N71-24875

LEWIS, C. E., JR.
System for communicating biomedical information by means of unmodified conventional voice communication systems Patent Application
[NASA-CASE-FRC-10031] c05 N70-20717

LEWIS, D. J.
Mandrel for shaping solid propellant rocket fuel into a motor casing Patent
[NASA-CASE-XLA-00304] c27 N70-34783

LEWIS, R.
High temperature ferromagnetic cobalt-base alloy Patent
[NASA-CASE-XLE-03629] c17 N71-23248

LEWIS, T. L.
Acoustical transducer calibrating system and apparatus
[NASA-CASE-FRC-10060] c14 N72-15427

LIBBEY, C. E.
Flexible wing deployment device Patent
[NASA-CASE-XLA-01220] c02 N70-41863

LIBBY, J. H.
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819
Reversible ring counter employing cascaded single SCR stages Patent
[NASA-CASE-XGS-01473] c09 N71-10673

LIBBY, W. F.
Continuous plasma light source
[NASA-CASE-INP-04167-3] c25 N72-21693

LIBEROTTI, J.
Valving device for automatic refilling in cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453

LIEBERMAN, S.
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[NASA-CASE-HFS-20523] c14 N72-15425

LIGHTSEY, G. E.
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LIH, L. Y. Signal processing apparatus for multiplex transmission Patent
 [NASA-CASE-NPO-10388] c07 N71-24622

LINDBERG, J. G. Method and apparatus for varying thermal conductivity Patent
 [NASA-CASE-INP-05524] c33 N71-24876

LINDERFELT, H. R. An airlock
 [NASA-CASE-MFS-20922] c31 N72-20840

LINDGREEN, J. R. Tungsten seal coat Patent
 [NASA-CASE-INP-03704] c15 N71-17695

LINDSEY, J. F., III Flexible blade antenna Patent
 [NASA-CASE-MSC-12101] c09 N71-18720

LINDSEY, W. C. Data aided carrier tracking loops Patent
 Application
 [NASA-CASE-NPO-11282] c10 N71-33105
 Transition tracking bit synchronization system
 [NASA-CASE-NPO-10844] c07 N72-20140

LINDSEY, W. F. Stereo photomicrography system
 [NASA-CASE-LAR-10176-1] c14 N72-20380

LING, S. C. Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent
 [NASA-CASE-XGS-01881] c09 N70-40123

LINGLE, J. T. Frequency control network for a current feedback oscillator Patent
 [NASA-CASE-GSC-10041-1] c10 N71-19418
 Static inverter Patent
 [NASA-CASE-XGS-05289] c09 N71-19470

LIPKE, D. W. Doppler frequency spread correction device for multiplex transmissions
 [NASA-CASE-XGS-02749] c07 N69-39978

LIPOMA, P. C. Television signal scan rate conversion system Patent
 [NASA-CASE-XMS-07168] c07 N71-11300
 Burst synchronization detection system Patent
 [NASA-CASE-XMS-05605-1] c10 N71-19468

LIPPITT, H. W., JR. Electrode for biological recording
 [NASA-CASE-XMS-02872] c05 N69-21925
 Improved method for curing single component silicone rubber /RTV/ and similar materials
 [NASA-CASE-MSC-12230-1] c15 N70-35640
 Instrument for use in performing a controlled Valsalva maneuver Patent
 [NASA-CASE-XMS-01615] c05 N70-41329

LISAGOR, W. B. Controlled glass bead peening Patent
 [NASA-CASE-XLA-07390] c15 N71-18616

LISOVICZ, E. J. High contrast cathode ray tube
 [NASA-CASE-ERC-10468] c09 N72-20206

LIST, W. F. Solid state television camera system Patent
 [NASA-CASE-IMP-06092] c07 N71-24612
 Phototransistor imaging system
 [NASA-CASE-MFS-20809] c23 N72-10587

LISTER, J. L. Thermally conductive polymers
 [NASA-CASE-GSC-11304-1] c06 N72-21105

LITANT, I. Apparatus and method for separating a semiconductor wafer Patent
 [NASA-CASE-ERC-10138] c26 N71-14354
 Method for detecting leaks in hermetically sealed containers Patent
 [NASA-CASE-ERC-10045] c15 N71-24910

LITTLE, E. E. Pressure-tight seal for super alloy
 [NASA-CASE-LAR-10170-1] c15 N72-21471

LITTLEJOHN, D. P. High power-high voltage waterload Patent
 [NASA-CASE-INP-05381] c09 N71-20842

LIU, F. F. Respiratory analysis system
 [NASA-CASE-MSC-13436-1] c05 N72-20113

LLOYD, W. B. Bearing and gimbal lock mechanism and spiral flex

LOCH, F. J. Frequency modulation demodulator threshold extension device Patent
 [NASA-CASE-MSC-12165-1] c07 N71-33696

LOCKARD, H. L. Leak detector Patent
 [NASA-CASE-LAR-10323-1] c12 N71-17573

LOCKWOOD, V. E. Landing arrangement for aerial vehicles Patent
 [NASA-CASE-XLA-00142] c02 N70-33286
 Landing arrangement for aerial vehicle Patent
 [NASA-CASE-XLA-00806] c02 N70-34858
 Landing arrangement for aerospace vehicle Patent
 [NASA-CASE-XLA-00805] c31 N70-38010

LOFTIN, L. K., JR. Wind tunnel airstream oscillating apparatus Patent
 [NASA-CASE-XLA-00112] c11 N70-33287

LOHE, J. J. Variable stiffness polymeric damper
 [NASA-CASE-XAC-11225] c14 N69-27486

LOKERSON, D. C. Voltage to frequency converter Patent
 [NASA-CASE-GSC-10022-1] c10 N71-25882

LONBORG, J. O. Attitude control for spacecraft Patent
 [NASA-CASE-INP-02982] c31 N70-41855

LONG, H. R. Precipitation detector Patent
 [NASA-CASE-XLA-02619] c10 N71-26334

LONG, J. A. Accumulator Patent Application
 [NASA-CASE-MFS-10354] c12 N70-41976

LONG, R. A. High temperature compositions Patent
 [NASA-CASE-XMS-00370] c17 N71-20941

LONGYEAR, W. D. Omnidirectional acceleration device Patent
 [NASA-CASE-HQN-10780] c14 N71-30265

LOOK, G. F. Foam generator Patent
 [NASA-CASE-XLA-00838] c03 N70-36778

LOOP, R. W. Absolute focus lock for microscopes Patent
 Application
 [NASA-CASE-LAR-10184-1] c14 N70-35598

LOPEZ, A. E. Three-axis finger tip controller for switches Patent
 [NASA-CASE-XAC-02405] c09 N71-16089

LORD, HARRY C., III Analysis of hydrogen-deuterium mixtures
 [NASA-CASE-NPO-11322] c06 N72-13101

LORELL, K. E. High temperature lens construction Patent
 [NASA-CASE-INP-04111] c14 N71-15622

LOTHSCHUETZ, F. I. Stretcher Patent
 [NASA-CASE-IMP-06589] c05 N71-23159

LOUGHEAD, A. G. Linear differential pressure sensor Patent
 [NASA-CASE-IMP-01974] c14 N71-22752

LOUNSBERRY, E. D. Jet shoes
 [NASA-CASE-XLA-08491] c05 N69-21380

LOVELOCK, JAMES E. Atmospheric sampling devices
 [NASA-CASE-NPO-11373] c13 N72-13306

LOVINGER, D. W. Voice operated controller Patent
 [NASA-CASE-XLA-04063] c31 N71-33160

LOW, C. A., JR. Electrostatic propulsion system with a direct nuclear electrogenerator Patent
 [NASA-CASE-XLE-00818] c22 N70-34248

LOWE, E. G. Continuous turning slip ring assembly Patent
 [NASA-CASE-IMP-01049] c15 N71-23049

LOWEN, I. B. Spacecraft attitude detection system by stellar reference Patent
 [NASA-CASE-XGS-03431] c21 N71-15642
 Roll alignment detector
 [NASA-CASE-GSC-10514-1] c14 N72-20379

LOWRY, J. G. Jet aircraft configuration Patent
 [NASA-CASE-XLA-00087] c02 N70-33332

Variable-span aircraft Patent
[NASA-CASE-XLA-00166] c02 N70-34178

LOY, C. A.
Tank construction for space vehicles Patent
[NASA-CASE-XMP-01899] c31 N70-41948

LOYD, C.
System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent
[NASA-CASE-XMP-06892] c09 N71-24805

RC rate generator for slow speed measurement Patent
[NASA-CASE-XMP-02966] c10 N71-24863

LUBOWITZ, H. E.
Ablative resin Patent
[NASA-CASE-XLE-05913] c33 N71-14032

LUCERO, D. P.
Method for detecting hydrogen gas
[NASA-CASE-XMP-03873] c06 N69-39733

LUDEWIG, A. C.
Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent
[NASA-CASE-XNP-03134] c07 N71-10676

Singly curved reflector for use in high gain antennas
[NASA-CASE-NPO-11361] c07 N72-10152

LUDEWIG, L. P.
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[NASA-CASE-XLE-05130] c15 N69-21362

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[NASA-CASE-XLE-05130-2] c15 N71-19570

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[NASA-CASE-LEW-10326-2] c15 N71-28679

LOEBBERS, S. S.
Thermionic tantalum emitter doped with oxygen Patent Application
[NASA-CASE-NPO-11138] c03 N70-34646

Thermionic diode switch Patent
[NASA-CASE-NPO-10404] c03 N71-12255

LUI, K.
Composition and method for electroforming aluminum substrates
[NASA-CASE-NPO-12090] c15 N72-11396

LUIDENS, R. W.
Multiple fan integrated propulsion wing system
[NASA-CASE-LEW-11224-1] c02 N72-10033

LUND, W. C.
Heated porous plug microthrustor
[NASA-CASE-GSC-10640-1] c28 N72-18766

LUNDQUIST, J. R.
Preparation of high purity copper fluoride
[NASA-CASE-LEW-10794-1] c06 N72-17093

LUSHBAUGH, W. A.
Data compression system
[NASA-CASE-XNP-09785] c08 N69-21928

Data compressor Patent
[NASA-CASE-XNP-04067] c08 N71-22707

Error correcting method and apparatus Patent
[NASA-CASE-XNP-02748] c08 N71-22749

Comparator for the comparison of two binary numbers Patent
[NASA-CASE-XNP-04819] c08 N71-23295

Parallel generation of the check bits of a PN sequence Patent
[NASA-CASE-XNP-04623] c10 N71-26103

Versatile arithmetic unit for high speed sequential decoder
[NASA-CASE-NPO-11371] c08 N71-34187

LUTES, G. F., JR.
Broadband stable power multiplier Patent
[NASA-CASE-XNP-10854] c10 N71-26331

Cascaded complementary pair broadband transistor amplifiers Patent
[NASA-CASE-NPO-10003] c10 N71-26415

Low phase noise digital frequency divider
[NASA-CASE-NPO-11569] c10 N72-20231

LUTZ, E. B.
Operational integrator Patent
[NASA-CASE-NPO-10230] c09 N71-12520

LYNCH, T. L.
Pulsed excitation voltage circuit for transducers Patent Application
[NASA-CASE-FRC-10036] c09 N70-22164

LYON, W. E.
Optical range finder having nonoverlapping complete images
[NASA-CASE-HSC-12105-1] c14 N72-21409

M

MACCONOCHIE, I. O.
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MACFADDEN, J. A.
Rotating mandrel for assembly of inflatable devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687

MACGLASHAN, W. F., JR.
Belleville spring assembly with elastic guides
[NASA-CASE-XNP-09452] c15 N69-27504

Method of treating metallic surfaces Patent Application
[NASA-CASE-NPO-10779] c15 N70-34641

High pressure four-way valve Patent
[NASA-CASE-XNP-00214] c15 N70-36908

Multiple Belleville spring assembly Patent
[NASA-CASE-XNP-00840] c15 N70-38225

Pressure regulating system Patent
[NASA-CASE-XNP-00450] c15 N70-38603

Ejection unit Patent
[NASA-CASE-XNP-00676] c15 N70-38996

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[NASA-CASE-XNP-01962] c32 N70-41370

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[NASA-CASE-XNP-00732] c28 N70-41447

Antiflutter ball check valve Patent
[NASA-CASE-XNP-01152] c15 N70-41811

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[NASA-CASE-XNP-01747] c15 N71-23024

MACKAY, C. A.
Quick disconnect latch and handle combination Patent
[NASA-CASE-MFS-11132] c15 N71-17649

MACLEOD, H. H.
Bacterial contamination monitor Patent Application
[NASA-CASE-GSC-10879-1] c14 N70-22274

MACOMBER, J. W.
Nuclear reactor control rod assembly with improved driving mechanism Patent
[NASA-CASE-XLE-00298] c22 N70-34501

MACVEIGH, G. E.
Analog spatial maneuver computer
[NASA-CASE-GSC-10880-1] c08 N72-11172

MADDOX, J. W.
Air bearing Patent Application
[NASA-CASE-WLP-10002-1] c15 N70-34555

Air bearing
[NASA-CASE-WLP-10002] c15 N72-17451

MADEY, J. M.
Satellite appendage tie down cord Patent
[NASA-CASE-XGS-02554] c31 N71-21064

Redundant actuating mechanism Patent
[NASA-CASE-XGS-08718] c15 N71-24600

MADISON, I. B.
Aerodynamic spike nozzle Patent
[NASA-CASE-XGS-01143] c31 N71-15647

MAHAN, J. C.
Device for preventing high voltage arcing in electron beam welding Patent
[NASA-CASE-XMP-08522] c15 N71-19486

MAIDEN, D. L.
A flow velocity and direction instrument
[NASA-CASE-LAR-10855-1] c14 N72-21417

MAILLOUX, R. J.
A circularly polarized antenna
[NASA-CASE-ERC-10214] c09 N70-20738

Phase control circuits using frequency multiplication for phased array antennas Patent Application
[NASA-CASE-ERC-10285] c09 N70-36076

Array phasing device Patent
[NASA-CASE-ERC-10046] c10 N71-18722

MAJOR, C. J.
Mixture separation cell Patent
[NASA-CASE-XMS-02952] c18 N71-20742

MALLING, L. R.
Digital television camera control system Patent
[NASA-CASE-XNP-01472] c14 N70-41807

Reduced bandwidth video communication system utilizing sampling techniques Patent
[NASA-CASE-XNP-02791] c07 N71-23026

MALMBERG, J. H.
Waveform simulator Patent

[NASA-CASE-NPO-10251] c10 N71-27365
MALONE, LEE B., JR.
 Emergency lunar communications system
 [NASA-CASE-MFS-21042] c07 N72-20163

MARATT, S. L.
 Audio frequency marker system
 [NASA-CASE-NPO-11147] c14 N72-15417

MARDEL, C. H.
 Azimuth laying system Patent
 [NASA-CASE-XMF-01669] c21 N71-23289

MARDELKORN, J.
 Method of making a silicon semiconductor device
 Patent
 [NASA-CASE-XLE-02792] c26 N71-10607
 Method of making electrical contact on silicon
 solar cell and resultant product Patent
 [NASA-CASE-XLE-04787] c03 N71-20492
 Gd or Sm doped silicon semiconductor composition
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 [NASA-CASE-XLE-10715] c26 N71-23292
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 [NASA-CASE-XLE-08569] c03 N71-23449
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 [NASA-CASE-XLE-02798] c26 N71-23654
 Method of attaching a cover glass to a silicon
 solar cell Patent
 [NASA-CASE-XLE-08569-2] c03 N71-24681

MARRING, C. R., JR.
 Controlled glass bead peening Patent
 [NASA-CASE-XLA-07390] c15 N71-18616

MAROLI, R.
 Aircraft crash locator apparatus
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MANTLER, R. L.
 Rocket propellant injector Patent
 [NASA-CASE-XLE-00103] c28 N70-33241

MANUS, E. A.
 Thin film microwave iris Patent Application
 [NASA-CASE-LAR-10511-1] c09 N70-35416
 Active microwave irises and windows
 Patent Application
 [NASA-CASE-LAR-10513-1] c07 N70-42162

MAPLE, W. E.
 Analytical test apparatus and method for
 determining oxide content of alkali metal Patent
 [NASA-CASE-XLE-01997] c06 N71-23527

MAPLES, H. E.
 Light intensity modulator controller Patent
 [NASA-CASE-XMS-04300] c09 N71-19479

MARAK, R. J.
 Improved life raft stabilizer
 [NASA-CASE-MSC-12393-1] c02 N72-20016

MARANTZ, H.
 Laser modulation by stark effect in gases Patent
 Application
 [NASA-CASE-ERC-10335] c16 N70-36054

MARGOSIAN, P. M.
 Electrostatic thruster with improved insulators
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 [NASA-CASE-XLE-C1902] c28 N71-10574
 Single grid accelerator system
 [NASA-CASE-XLE-10453-2] c28 N72-21821

MARGRAF, H. J.
 High pressure four-way valve Patent
 [NASA-CASE-XNP-00214] c15 N70-36908

MARKLEY, R. A.
 Self-adjusting multisegment, deployable, natural
 circulation radiator Patent
 [NASA-CASE-XHQ-03673] c33 N71-29046

MARLOW, M. O.
 Method of making a cermet Patent
 [NASA-CASE-LEW-10219-1] c18 N71-28729

MAROPIS, N.
 Methods and apparatus employing vibratory energy
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 [NASA-CASE-MFS-20586] c15 N71-17686

MARRKLE, R. A.
 Process for preparation of dianilinosilanes Patent
 [NASA-CASE-XMF-06409] c06 N71-23230

MARROWI, M. A., JR.
 Pressure garment joint Patent
 [NASA-CASE-XMS-09636] c05 N71-12344
 Omnidirectional joint Patent
 [NASA-CASE-XMS-09635] c05 N71-24623
 Foreshortened convolute section for a pressurized
 suit Patent
 [NASA-CASE-XMS-09637-1] c05 N71-24730

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 section
 [NASA-CASE-MSC-12398] c05 N72-20098

MARSH, H. E., JR.
 Trifunctional alcohol
 [NASA-CASE-NPO-10714] c06 N69-31244
 Novel polycarboxylic prepolymeric materials and
 polymers thereof Patent
 [NASA-CASE-NPO-10596] c06 N71-25929

MARSHALL, J. H.
 Baseline stabilization system for ionization
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 [NASA-CASE-XNP-03128] c10 N70-41991

MARSHALL, T. N., JR.
 Nuclear mass flowmeter
 [NASA-CASE-MFS-20485] c14 N72-11365

MARSIK, S. J.
 Selective nickel deposition Patent Application
 [NASA-CASE-LEW-10965-1] c15 N70-20720

MARTIN, J. W.
 Dynamic Doppler simulator Patent
 [NASA-CASE-XMS-05454-1] c07 N71-12391

MARTIN, H. C.
 Segmented back-up bar Patent
 [NASA-CASE-XMF-00640] c15 N70-39924
 Portable alignment tool Patent
 [NASA-CASE-XMF-01452] c15 N70-41371

MARTIN, R. B.
 Color perception tester
 [NASA-CASE-KSC-10278] c05 N72-16015

MARTIN, W. L.
 Communications link for computers Patent
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 [NASA-CASE-NPO-11161] c08 N70-22193
 Phase-locked loop with sideband rejecting
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 Method of resolving clock synchronization error
 and means therefor Patent
 [NASA-CASE-XNP-08875] c10 N71-23099

MARTIN, WARREN L.
 Binary coded sequential acquisition ranging system
 [NASA-CASE-NPO-11194] c08 N71-33869

MARTINAGE, L. H.
 Power supply Patent
 [NASA-CASE-XMS-02159] c10 N71-22961

MARTINECK, H. G.
 Electrical connector for flat cables Patent
 [NASA-CASE-XMF-00324] c09 N70-34596
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 [NASA-CASE-XMF-00369] c09 N70-36494
 Method of making a molded connector Patent
 [NASA-CASE-XMF-03498] c15 N71-15986
 Electrical connector
 [NASA-CASE-MFS-20757] c09 N71-34211

MARTUCCI, V. J.
 Tuning arrangement for an electron discharge
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 [NASA-CASE-XNP-09771] c09 N71-24841

MARTZ, E. L.
 Externally pressurized fluid bearing Patent
 [NASA-CASE-XMF-00515] c15 N70-34664

MASCY, A. C.
 Deep space monitor communication satellite system
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 [NASA-CASE-XAC-06029-1] c31 N71-24813

MASEK, T. D.
 Electron bombardment ion engine Patent
 [NASA-CASE-XNP-04124] c28 N71-21822
 Feed system for an ion thruster
 [NASA-CASE-NPO-10737] c28 N72-11709

MASERJIAN, J.
 Temperature sensitive capacitor device
 [NASA-CASE-XNP-09750] c14 N69-39937
 Thin film capacitive bolometer and temperature
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 [NASA-CASE-NPO-10607] c09 N71-27232
 Thin film light detector Patent Application
 [NASA-CASE-NPO-11432] c14 N71-33322

MASON, R. J.
 Collapsible reflector Patent
 [NASA-CASE-XMS-03454] c09 N71-20658

MASON, R. M.
 Radial module space station Patent
 [NASA-CASE-XMS-C1906] c31 N70-41373

MATTAUCH, R. J.
 Infrared detectors
 [NASA-CASE-LAR-10728-1] c14 N72-21422

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Lightweight, variable solidity knitted parachute fabric
[NASA-CASE-LAR-10776-1] c02 N72-21004

MAULDIN, D. G.
Contourograph system for monitoring electrocardiograms
[NASA-CASE-MSC-13407-1] c10 N72-20225

MAXWELL, M. S.
Spacecraft attitude detection system by stellar reference Patent
[NASA-CASE-XGS-G3431] c21 N71-15642
Programmable telemetry system Patent
[NASA-CASE-GSC-10 131-1] c07 N71-24624

MAXWELL, H. W.
Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323

MAXWELL, R. F., JR.
Electronic background suppression method and apparatus for a field scanning sensor
[NASA-CASE-XGS-05211] c07 N69-39980

MAXWELL, W. A.
Process of casting heavy slips Patent
[NASA-CASE-XLE-00106] c15 N71-16076

MAY, C. E.
Selective nickel deposition Patent Application
[NASA-CASE-LEW-10965-1] c15 N70-20720

MAY, C. J.
Capacitor power pak Patent Application
[NASA-CASE-LAR-10367-1] c03 N70-26817

MAYALL, S. D.
Frictionless universal joint Patent
[NASA-CASE-NPO-1C 646] c15 N71-28467

MAYNARD, O. E.
Radial module space station Patent
[NASA-CASE-XMS-01906] c31 N70-41373

MAYO, E. E.
Hypersonic reentry vehicle Patent
[NASA-CASE-XMS-04142] c31 N70-41631

MAYO, J. W.
Connector - Electrical
[NASA-CASE-XLA-01288] c09 N69-21470
Tubular coupling having frangible connecting means
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[NASA-CASE-XLA-0C791] c03 N70-39930
Detector panels-micrometeoroid impact Patent
[NASA-CASE-XLA-05906] c31 N71-16221

MAYO, R. F.
Electric-arc heater Patent
[NASA-CASE-XLA-00330] c33 N70-34540

MAZEE, L.
Analog-to-digital conversion system Patent
[NASA-CASE-XAC-00404] c08 N70-40125

MCAFEE, D. F.
Bi-polar phase detector and corrector for split phase PCM data signals Patent
[NASA-CASE-XGS-01590] c07 N71-12392
Radio frequency coaxial high pass filter Patent
[NASA-CASE-XGS-01418] c09 N71-23573

MCBRAYER, R. O.
Soft frame adjustable eyeglasses Patent
[NASA-CASE-XMS-06064] c05 N71-23096

MCBRYAR
Ion-exchange membrane with platinum electrode assembly Patent
[NASA-CASE-XMS-02063] c03 N71-29044

MCBRYAR, H.
Oxygen production method and apparatus
[NASA-CASE-MSC-12332-1] c15 N72-15476

MCCAIG, J. C.
Electric arc welding Patent
[NASA-CASE-XMF-00392] c15 N70-34814

MCCAMPBELL, W. H.
Electric arc welding Patent
[NASA-CASE-XMF-00392] c15 N70-34814
Weld control system using thermocouple wire Patent
[NASA-CASE-MFS-06074] c15 N71-20393
RC rate generator for slow speed measurement Patent
[NASA-CASE-XMF-02966] c10 N71-24863
A dc motor speed control system Patent
[NASA-CASE-MFS-14610] c09 N71-28886

MCCANN, D. H.
Phototransistor
[NASA-CASE-MFS-20407] c09 N72-11229

MCCANN, R. J.
Device for handling heavy loads
[NASA-CASE-XNP-04969] c11 N69-27466

MCCARTY, J. L.
Lunar penetrometer Patent
[NASA-CASE-XLA-00934] c14 N71-22765

MCCAUL, P. P.
Sidereal frequency generator Patent
[NASA-CASE-XGS-02610] c14 N71-23174

MCCONNELL, J. C.
Method of plating copper on aluminum Patent
[NASA-CASE-XLA-08966-1] c17 N71-25903

MCCORNBICK, W.
Single action separation mechanism Patent
[NASA-CASE-XLA-00188] c15 N71-22874

MCCORNBICK, C. T., JR.
Automatic signal range selector for metering devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

MCCRAW, D. L.
Emergency escape system Patent
[NASA-CASE-MSC-12086-1] c05 N71-12345

MCCREA, P. E.
Indexing microwave switch Patent
[NASA-CASE-XNP-06507] c09 N71-23548

MCCREARY, R. A.
Parallel motion suspension device Patent
[NASA-CASE-XNP-01567] c15 N70-41310

MCCUSKER, T. J.
Foldable solar concentrator Patent
[NASA-CASE-XLA-04622] c03 N70-41580

MCDANIELS, D. L.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288
Method of making fiber reinforced metallic composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198
Reinforced metallic composites Patent
[NASA-CASE-XLE-00228] c17 N70-38490

MCDARIS, R. A.
Emergency escape system Patent
[NASA-CASE-YKS-07814] c15 N71-27067

MCDERMOND, D. K.
Synchronous counter Patent
[NASA-CASE-XGS-02440] c08 N71-19432

MCDEVITT, F. R.
Laser coolant and ultraviolet filter
[NASA-CASE-MFS-20180] c16 N72-12440

MCDONALD, R. T.
System for communicating biomedical information by means of unmodified conventional voice communication systems Patent Application
[NASA-CASE-FRC-10031] c05 N70-20717
Gas low pressure low flow rate metering system Patent
[NASA-CASE-FRC-10022] c12 N71-26546
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[NASA-CASE-FRC-10012] c14 N72-17329

MCDUGAL, A. R.
Force-balanced, throttle valve Patent
[NASA-CASE-NPO-10808] c15 N71-27432
Rotary actuator
[NASA-CASE-NPO-10680] c31 N71-35080
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[NASA-CASE-NPO-11330] c33 N71-35154

MCDUGAL, ALLAN R.
Quick disconnect coupling
[NASA-CASE-NPO-11202] c15 N72-15467

MCGHEE, J. R.
Frangible tube energy dissipation Patent
[NASA-CASE-XLA-00754] c15 N70-34850
Omnidirectional multiple impact landing system Patent
[NASA-CASE-XLA-09881] c31 N71-16085

MCGOUGH, J. T.
Emergency escape system Patent
[NASA-CASE-YKS-07814] c15 N71-27067

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[NASA-CASE-XMF-07587] c15 N71-18701

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Canister closing device Patent
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[NASA-CASE-XLA-01494] c15 N71-24164

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MILLER, C. E.

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 Diatomic infrared gasdynamic laser
 [NASA-CASE-ARC-10370-1] c16 N72-10432

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 Swirling flow nozzle Patent
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MCKINNEY, R. L.
 Self-calibrating displacement transducer Patent
 [NASA-CASE-XLA-00781] c09 N71-22999

MCKINNON, R. A.
 External liquid-spray cooling of turbine blades
 Patent
 [NASA-CASE-XLE-00037] c28 N70-33372

MCLAIN, J. H.
 Air bearing Patent
 [NASA-CASE-XMP-01887] c15 N71-10617

MCLAUCHLAN, J. M.
 Digital sun sensor Patent Application
 [NASA-CASE-NPO-11072] c21 N70-35437
 Horizon sensor with a plurality of fixedly
 positioned radiation compensated radiation
 sensitive detectors Patent
 [NASA-CASE-XNP-06957] c14 N71-21088
 Light position locating system Patent
 [NASA-CASE-XNP-01059] c23 N71-21821

MCLEAN, P. E.
 Supersonic aircraft Patent
 [NASA-CASE-XLA-04451] c02 N71-12243

MCLYMAN, W. T.
 Push-pull transistor amplifier
 [NASA-CASE-NPO-11365] c09 N72-15204

MCLYMAN, WILLIAM T.
 Inverter
 [NASA-CASE-NPO-10760] c09 N71-34215

MCHASTER, L. R.
 Meteoroid detector
 [NASA-CASE-LAR-10483-1] c14 N72-11371

MCNUTT, W. C.
 Dual latching solenoid valve Patent
 [NASA-CASE-XMS-05890] c09 N71-23191

MCRONALD, A. G.
 Thin-film gauge Patent Application
 [NASA-CASE-NPO-10617] c14 N70-12618

MCWILLIAMS, I. G.
 Radiant energy sensor Patent Application
 [NASA-CASE-ERC-10174] c21 N70-35861
 Compact spectroradiometer
 [NASA-CASE-HQN-10683] c14 N71-34389

MEAD, D. C.
 Variable frequency oscillator with temperature
 compensation Patent
 [NASA-CASE-XNP-03916] c09 N71-28810

MEALY, G. E.
 Electrostatic thruster with improved insulators
 Patent
 [NASA-CASE-XLE-01902] c28 N71-10574
 High voltage divider system Patent
 [NASA-CASE-XLE-02008] c09 N71-21583

MEIDINGER, G. L.
 Liquid nitrogen /LN2/ level-control system Patent
 Application
 [NASA-CASE-XLA-09714] c03 N70-35700

MEINTEL, A. J., JR.
 Combined optical attitude and altitude indicating
 instrument Patent
 [NASA-CASE-XLA-01907] c14 N71-23268

MEISENHOLDER, G. W.
 Photosensitive device to detect bearing deviation
 Patent
 [NASA-CASE-XNP-00438] c21 N70-35089
 Roll attitude star sensor system Patent
 [NASA-CASE-XNP-01307] c21 N70-41856

MELAMED, L.
 Liquid crystalline memory devices Patent
 Application
 [NASA-CASE-ERC-10330] c08 N70-36002
 Angular velocity and acceleration measuring
 apparatus Patent Application
 [NASA-CASE-ERC-10292] c14 N70-36079

MELPI, L. T., JR.
 Gas analyzer for bi-gaseous mixtures Patent
 [NASA-CASE-XLA-01131] c14 N71-10774
 Ionization vacuum gauge with all but the end of
 the ion collector shielded Patent
 [NASA-CASE-XLA-07424] c14 N71-18482

MENEFFEE, E. O.
 Three-axis controller Patent
 [NASA-CASE-XAC-01404] c05 N70-41581

Proportional controller Patent
 [NASA-CASE-XAC-03392] c03 N70-41954

MENGES, M. J.
 Precipitation detector Patent
 [NASA-CASE-XLA-02619] c10 N71-26334
 Dielectric molding apparatus Patent
 [NASA-CASE-LAR-10121-1] c15 N71-26721

MERLEN, M. M.
 Horizon sensor with a plurality of fixedly
 positioned radiation compensated radiation
 sensitive detectors Patent
 [NASA-CASE-XNP-06957] c14 N71-21088

MERRICK, V. K.
 Stabilization of gravity oriented satellites
 Patent
 [NASA-CASE-XAC-01591] c31 N71-17729

MESZAROS, G.
 Recovery of radiation damaged solar cells through
 thermal annealing
 [NASA-CASE-XGS-04047-2] c03 N72-11062

METCALFE, A. G.
 Silicide coatings for refractory metals Patent
 [NASA-CASE-XLE-10910] c18 N71-29040

METZLER, A. J.
 Black-body furnace Patent
 [NASA-CASE-XLE-01399] c33 N71-15625

MEYER, A. J.
 Oxygen production method and apparatus
 [NASA-CASE-MSC-12332-1] c15 N72-15476

MEYER, A. J., JR.
 Modification and improvements to cooled blades
 Patent
 [NASA-CASE-XLE-00092] c15 N70-33264
 Aerial capsule emergency separation device Patent
 [NASA-CASE-XLA-00115] c03 N70-33343
 Space capsule Patent
 [NASA-CASE-XLA-00149] c31 N70-37938
 Vehicle parachute and equipment jettison system
 Patent
 [NASA-CASE-XLA-00195] c02 N70-38009
 Ablation structures Patent
 [NASA-CASE-XMS-01816] c33 N71-15623
 Space capsule Patent
 [NASA-CASE-XLA-01332] c31 N71-15664

MEYER, J. A.
 Altitude sensing device
 [NASA-CASE-XMS-01994-1] c14 N72-17326

MEYER, J. F.
 Time-division multiplexer Patent
 [NASA-CASE-XNP-00431] c09 N70-38998

MEYER, K. A.
 High-temperature, high-pressure spherical segment
 valve Patent
 [NASA-CASE-IAC-00074] c15 N70-34817

MICHAEL, J. E.
 Connector - Electrical
 [NASA-CASE-XLA-01288] c09 N69-21470
 Missile stage separation indicator and stage
 initiator Patent
 [NASA-CASE-XLA-00791] c03 N70-39930

MICHEL, E. E.
 Convoluting device for forming convolutions and
 the like Patent
 [NASA-CASE-XNP-05297] c15 N71-23811

MICKELSEN, W. R.
 High-vacuum condenser tank for ion rocket tests
 Patent
 [NASA-CASE-XLE-00168] c11 N70-33278
 Electrostatic propulsion system with a direct
 nuclear electrogenerator Patent
 [NASA-CASE-XLE-00818] c22 N70-34248

MIDDLETON, R. L.
 Cryogenic thermal insulation Patent
 [NASA-CASE-XMP-05046] c33 N71-28892

MIDDLETON, W. D.
 Supersonic aircraft Patent
 [NASA-CASE-XLA-04451] c02 N71-12243

MIERTSCHIN, J. L.
 Radio frequency filter device Patent Application
 [NASA-CASE-XLA-02609] c09 N70-35191

MIKSZAN, D. P.
 Frequency shift keying apparatus Patent
 [NASA-CASE-XGS-01537] c07 N71-23405

MILDICE, J. W.
 Light radiation direction indicator with a baffle
 of two parallel grids
 [NASA-CASE-XNP-03930] c14 N69-24331

MILLER, C. E.
 Densitometer Patent

[NASA-CASE-XLE-00688]	c14 N70-41330	[NASA-CASE-NPO-11091]	c18 N70-34742
MILLER, C. G.		MOECKEL, W. E.	
Magnetic arc stabilization in compact arc lamps		Electro-thermal rocket Patent	
[NASA-CASE-NPO-10887]	c09 N71-34209	[NASA-CASE-XLE-00267]	c28 N70-33356
MILLER, D. A.		MORDE, L. W.	
Improved dialyzer		Digital control and information system Patent	
[NASA-CASE-HQN-10741]	c05 N72-20114	Application	
MILLER, D. P.		[NASA-CASE-NPO-11016]	c08 N70-35351
Controllers Patent		Wide range analog-to-digital converter with a	
[NASA-CASE-XMS-07487]	c15 N71-23255	variable gain amplifier	
MILLER, H. B.		[NASA-CASE-NPO-11018]	c08 N72-21200
Compensating radiometer		MORSE, W. K.	
[NASA-CASE-XLA-04556]	c14 N69-27484	Self-cycling fluid heater	
Spherical measurement device Patent		[NASA-CASE-MSC-15567-1]	c33 N72-15893
[NASA-CASE-XLA-06683]	c14 N70-25677	MOPFITT, F. L.	
Heat sensing instrument Patent		Image magnification adapter for cameras Patent	
[NASA-CASE-XLA-01551]	c14 N71-22989	[NASA-CASE-XMF-03844-1]	c14 N71-26474
MILLER, H. S.		MOPFORD, L. G., JR.	
Image copier Patent Application		Radiometric temperature reference Patent	
[NASA-CASE-NPO-10196-2]	c14 N70-20711	[NASA-CASE-MSC-13276-1]	c14 N71-27058
MILLER, J. A., JR.		Multifunction audio digitizer	
Polymerization method Patent application		[NASA-CASE-MSC-13855-1]	c07 N72-20157
[NASA-CASE-NPO-10893]	c27 N70-11130	MONTEITH, J. H.	
MILLER, J. C.		A flow velocity and direction instrument	
Apparatus for detecting the amount of material in		[NASA-CASE-LAR-10855-1]	c14 N72-21417
a resonant cavity container Patent		MONTGOMERY, L. C.	
[NASA-CASE-XNP-02500]	c18 N71-27397	Process for preparing sterile solid propellants	
MILLER, J. E.		Patent	
Satellite interlace synchronization system		[NASA-CASE-XNP-01749]	c27 N70-41897
[NASA-CASE-GSC-10390-1]	c07 N72-11149	Processing for producing a sterilized instrument	
MILLER, J. L.		Patent	
Boring bar drive mechanism Patent		[NASA-CASE-XNP-09763]	c14 N71-20461
[NASA-CASE-XLA-03661]	c15 N71-33518	MOORE, C. D.	
MILLER, P. C.		Waveform simulator Patent	
Low temperature aluminum alloy Patent		[NASA-CASE-NPO-10251]	c10 N71-27365
[NASA-CASE-XMP-02786]	c17 N71-20743	MOORE, H. D.	
MILLIGAN, G. C.		Reversible ring counter employing cascaded single	
Digital memory sense amplifying means Patent		SCR stages Patent	
[NASA-CASE-XNP-01012]	c08 N71-28925	[NASA-CASE-XGS-01473]	c09 N71-10673
MILLIKEN, D. E.		MOORE, B. L.	
Film feed camera having a detent means Patent		Trigonometric vehicle guidance assembly which	
[NASA-CASE-LAR-10686]	c14 N71-28935	aligns the three perpendicular axes of two	
MILLIKEN, J. F.		three-axes systems Patent	
Linear differential pressure sensor Patent		[NASA-CASE-XMP-00684]	c21 N71-21688
[NASA-CASE-XMP-01974]	c14 N71-22752	Rotary actuator	
MILLS, H. K.		[NASA-CASE-NPO-10680]	c31 N71-35080
Tracking antenna system Patent		MOORE, T. J.	
[NASA-CASE-GSC-10553-1]	c07 N71-19854	Welding blades to rotors	
Antenna array at focal plane of reflector with		[NASA-CASE-LEW-10533-1]	c15 N71-34424
coupling network for beam switching Patent		Production of hollow components for rolling	
[NASA-CASE-GSC-10220-1]	c07 N71-27233	element bearings by diffusion welding	
MILLS, S. E.		[NASA-CASE-LEW-11026-1]	c15 N72-15472
Transient-compensated SCR inverter		MOORE, W. A.	
[NASA-CASE-XLA-08507]	c09 N69-39984	Journal bearings	
MILLY, J. J.		[NASA-CASE-LEW-11076-1]	c15 N72-21473
Satellite despin device Patent		MORANDO, J. A.	
[NASA-CASE-XMF-08523]	c31 N71-20396	Hydraulic transformer Patent	
MINKIN, H. L.		[NASA-CASE-MFS-20830]	c15 N71-36028
Liquid flow sight assembly Patent		MORDECAI, T. T.	
[NASA-CASE-XLE-02998]	c14 N70-42074	Method of recording a gas flow pattern Patent	
MIBOTT, P. O.		[NASA-CASE-XMP-01779]	c12 N71-26815
Retrodirective optical system		MORECROFT, J. H.	
[NASA-CASE-XGS-04480]	c16 N69-27491	Incremental motion drive system Patent	
Retrodirective modulator Patent		[NASA-CASE-XNP-08897]	c15 N71-17694
[NASA-CASE-GSC-10062]	c14 N71-15605	MORELLI, F. A.	
MITCHELL, D. K.		Process for preparing sterile solid propellants	
Borescope with variable angle scope		Patent	
[NASA-CASE-MFS-15162]	c14 N72-13362	[NASA-CASE-XNP-01749]	c27 N70-41897
MITCHELL, F. R.		Processing for producing a sterilized instrument	
Attitude control for spacecraft Patent		Patent	
[NASA-CASE-XNP-00294]	c21 N70-36938	[NASA-CASE-XNP-09763]	c14 N71-20461
MITCHELL, G. A.		MORGAN, W. C.	
Airflow control system for supersonic inlets		Thin-walled pressure vessel Patent	
[NASA-CASE-LEW-11188-1]	c02 N71-34017	[NASA-CASE-XLE-04677]	c15 N71-10577
MITCHELL, N. M.		MORISSETTE, S.	
Method and apparatus for detection and location of		Junction range finder	
microleaks Patent		[NASA-CASE-KSC-10108]	c14 N72-15426
[NASA-CASE-XMF-02307]	c14 N71-10779	MORRELL, G.	
MITCHELL, V. M.		Method for continuous variation of propellant flow	
Digital cardiometer system Patent		and thrust in propulsive devices Patent	
[NASA-CASE-XMS-02399]	c05 N71-22896	[NASA-CASE-XLE-00177]	c28 N70-40367
MITCHUM, L. L., JR.		MORRIS, D. E.	
Collapsible loop antenna for space vehicle Patent		Polymerizable disilanol having in-chain	
[NASA-CASE-XMF-00437]	c07 N70-40202	perfluoroalkyl groups	
MITXSON, J. S.		[NASA-CASE-MFS-20979-2]	c06 N72-21101
Ring wing tension vehicle Patent		MORRIS, DONALD E.	
[NASA-CASE-XLA-04901]	c31 N71-24315	Polymerizable disilanol having in-chain	
MOACANIN, J.		perfluoroalkyl groups	
Ionene membrane separator Patent Application		[NASA-CASE-MFS-20979]	c06 N72-15128

MORRIS, J. P.
 Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases
 [NASA-CASE-XLE-00690] c25 N69-39884

MORRIS, J. R.
 Difference circuit Patent
 [NASA-CASE-XNP-08274] c10 N71-13537

MORRISON, HARRY D.
 Anti-fog composition
 [NASA-CASE-MSC-13530-1] c06 N72-15129

MORRISON, S. R.
 Stabilization of pigments
 [NASA-CASE-NPO-11139] c06 N72-10136

MORSE, C. P.
 Method and device for cooling Patent
 [NASA-CASE-HQN-00938] c33 N71-29053

MORTENSEN, LELAND O.
 An impact monitoring apparatus
 [NASA-CASE-MSC] c14 N72-15418

MOSER, B. G.
 Method and a system for controlling vapor content of a gas Patent Application
 [NASA-CASE-NPO-10633] c03 N70-35641

Zeta potential flowmeter Patent
 [NASA-CASE-XNP-06509] c14 N71-23226

MOSER, J. C.
 Electronic checkout system for space vehicles Patent
 [NASA-CASE-XKS-08012-2] c31 N71-15566

MOSIER, B.
 Pressed disc type sensing electrodes with ion-screening means Patent
 [NASA-CASE-XMS-04212-1] c05 N71-12346

Plated electrodes Patent
 [NASA-CASE-XMS-04213-1] c09 N71-26602

MOSIER, J. R.
 Decontamination of petroleum products Patent
 [NASA-CASE-XNP-03835] c06 N71-23499

MOUNTVALA, A. J.
 Lightweight refractory insulation and method of preparing the same Patent
 [NASA-CASE-XMP-05279] c18 N71-16124

MOYER, X. W.
 Delayed simultaneous release mechanism Patent Application
 [NASA-CASE-GSC-10814-1] c03 N70-34672

Redundant actuating mechanism Patent
 [NASA-CASE-XGS-08718] c15 N71-24600

MUGLER, S. W.
 Precipitation detector Patent
 [NASA-CASE-XLA-02619] c10 N71-26334

MULBERR, J. B., JR.
 Recorder using selective noise filter
 [NASA-CASE-ERC-10112] c07 N72-21119

MULLEN, D. L.
 Matched thermistors for microwave power meters Patent
 [NASA-CASE-NPO-10348] c10 N71-12554

Broadband microwave waveguide window Patent
 [NASA-CASE-XNP-08880] c09 N71-24808

MULLEN, L. O.
 Electrical insulating-layer process Patent Application
 [NASA-CASE-LEW-10489-1] c15 N70-22134

MUNOZ, R. M.
 High efficiency multivibrator Patent
 [NASA-CASE-XAC-00942] c10 N71-16042

Nonlinear analog-to-digital converter Patent
 [NASA-CASE-XAC-04031] c08 N71-18594

Demodulation system Patent
 [NASA-CASE-XAC-04030] c10 N71-19472

Phase quadrature-plural channel data transmission system Patent
 [NASA-CASE-XAC-06302] c08 N71-19763

MURACA, R. F.
 Apparatus for testing polymeric materials Patent
 [NASA-CASE-XNP-09699] c06 N71-24667

Procedure and apparatus for determination of water in nitrogen tetroxide
 [NASA-CASE-NPO-10234] c06 N72-17094

MURCH, R. M.
 Metal containing polymers from cyclic tetrameric phenylphosphonitridilamides Patent
 [NASA-CASE-HQN-10364] c06 N71-27363

MURPHY, D. W.
 Frangible link Patent Application
 [NASA-CASE-MSC-11849-1] c15 N70-25675

MURPHY, P. L.
 Bimetallic power controlled actuator
 [NASA-CASE-XNP-09776] c09 N69-39929

MURPHY, W. J.
 Barium release system Patent Application
 [NASA-CASE-LAR-10670-1] c06 N70-36004

MURTY, M. V. R. K.
 Concave grating spectrometer Patent
 [NASA-CASE-XGS-01036] c14 N70-46003

MUSICK, R. O.
 Two-axis controller Patent
 [NASA-CASE-XPR-04104] c03 N70-42073

MUSSETT, E. W.
 Device for separating occupant from an ejection seat Patent
 [NASA-CASE-XMS-04625] c05 N71-20718

MYERS, D. A.
 Portable environmental control system Patent
 [NASA-CASE-XMS-09632-1] c05 N71-11203

MYERS, W. N.
 Duct coupling for single-handed operation Patent
 [NASA-CASE-MFS-20395] c15 N71-24903

N

NAESETH, R. L.
 Aeroflexible structures
 [NASA-CASE-XLA-06095] c01 N69-39981

NAIDITCH, S.
 Method of producing crystalline materials
 [NASA-CASE-NPO-10440] c15 N72-21466

NAIMER, J.
 Anti-static film laminate Patent Application
 [NASA-CASE-MSC-12255-1] c18 N70-20713

NAKADA, M. P.
 Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent
 [NASA-CASE-XNP-01056] c14 N71-23041

NAKAMURA, H. H.
 Lightweight refractory insulation and method of preparing the same Patent
 [NASA-CASE-XMP-05279] c18 N71-16124

NAKANISHI, S.
 Ion thruster cathode Patent Application
 [NASA-CASE-LEW-10814-1] c28 N70-35422

Plasma device feed system Patent
 [NASA-CASE-XLE-02902] c25 N71-21694

Ion thruster accelerator system Patent
 [NASA-CASE-LEW-10406-1] c28 N71-26642

Propellant feed isolator Patent
 [NASA-CASE-LEW-10210-1] c28 N71-26781

Single grid accelerator system
 [NASA-CASE-XLE-10453-2] c28 N72-21821

NANCE, H. M.
 A dc motor speed control system Patent
 [NASA-CASE-MFS-14610] c09 N71-28886

NAPLES, J. F.
 Method for forming plastic materials Patent
 [NASA-CASE-XMS-05516] c15 N71-17803

NASON, G. H.
 Flexible blade antenna Patent
 [NASA-CASE-MSC-12101] c09 N71-18720

NASUTI, A. J.
 Test fixture for pellet-like electrical elements
 [NASA-CASE-XNP-06032] c09 N69-21926

Support structure for irradiated elements Patent
 [NASA-CASE-XNP-06031] c15 N71-15606

NAUMANN, E. C.
 Fatigue testing device Patent
 [NASA-CASE-XLA-02131] c32 N70-42063

Automatic fatigue test temperature programmer Patent
 [NASA-CASE-XLA-02059] c33 N71-24276

Arbitrarily shaped model survey system Patent
 [NASA-CASE-LAR-10098] c32 N71-26681

Vibration mode synthesizer
 [NASA-CASE-LAR-10310-1] c10 N72-21275

NAUMANN, R. J.
 Liquid aerosol dispenser
 [NASA-CASE-MFS-20829] c12 N72-21310

NEAL, P. F.
 Emergency escape system Patent
 [NASA-CASE-XKS-07814] c15 N71-27067

NEALY, J. E.
 Combustion detector
 [NASA-CASE-LAR-10739-1] c14 N72-21424

NELSON, B.
 Deflective rod switch with elastic support and

sealing means Patent
[NASA-CASE-XNP-09808] c09 N71-12518

NELSON, B. W.
Optical machine tool alignment indicator Patent
[NASA-CASE-XAC-09489-1] c15 N71-26673

NELSON, C. A.
Flipflop interrogator and bi-polar current driver
Patent
[NASA-CASE-XGS-C3058] c10 N71-19547

NELSON, C. H.
Ablation sensor
[NASA-CASE-XLA-01781] c14 N69-39975
Reentry communication by material addition Patent
[NASA-CASE-XLA-01552] c07 N71-11284

NELSON, D. E.
Convoluting device for forming convolutions and
the like Patent
[NASA-CASE-XNP-05297] c15 N71-23811

NELSON, E. P.
Safety-type locking pin
[NASA-CASE-MFS-18495] c15 N72-11385

NELSON, H. H.
Telemetry word forming unit
[NASA-CASE-XNP-09225] c09 N69-24333

NELSON, W. J.
Slosh alleviator Patent
[NASA-CASE-XLA-05749] c15 N71-19569

NEWCOMB, A. L., JR.
Electromagnetic mirror drive system
[NASA-CASE-XLA-03724] c14 N69-27461
Ac power amplifier Patent Application
[NASA-CASE-LAR-10248-1] c09 N70-34559
Variable duration pulse integrator Patent
[NASA-CASE-XLA-01219] c10 N71-23084
Variable width pulse integrator Patent
[NASA-CASE-XLA-03356] c10 N71-23315

NEWCOMB, J. F.
Null device for hand controller Patent
[NASA-CASE-XLA-01808] c15 N71-20740

NEWCOMB, W. L.
Quick release separation mechanism Patent
[NASA-CASE-XLA-01441] c15 N70-41679

NEWCOMBE, C. A.
Method for making a heat insulating and ablative
structure
[NASA-CASE-XMS-01108] c15 N69-24322

NEWMAN, D. F.
Test stand system for vacuum chambers
[NASA-CASE-MFS-21362] c11 N72-20252

NEWMAN, J. B.
Catalyst bed removing tool Patent
[NASA-CASE-IPR-00811] c15 N70-36901

NEWMAN, J. M.
New polymers of perfluorobutadiene and method of
manufacture Patent application
[NASA-CASE-NPO-10863] c06 N70-11251

NEWMAN, JAMES M.
New polymers of perfluorobutadiene and method of
manufacture
[NASA-CASE-NPO-10863-2] c06 N72-20127

NICHOIS, G. B.
Apparatus for phase stability determination Patent
[NASA-CASE-XGS-01118] c10 N71-23662

NICHOLS, G. B.
Apparatus for controlling the velocity of an
electromechanical drive for interferometers and
the like Patent
[NASA-CASE-XGS-03532] c14 N71-17627

NICHOLS, J. J.
Force measuring instrument Patent
[NASA-CASE-XMF-00456] c14 N70-34705

NICHOLS, H. B.
Nacelle afterbody for jet engines Patent
[NASA-CASE-XLA-10450] c28 N71-21493

NICKLAS, J. C.
Attitude control for spacecraft Patent
[NASA-CASE-XNP-02982] c31 N70-41855
Solar vane actuator Patent
[NASA-CASE-XNP-05535] c14 N71-23040

NIEDRA, J. M.
Pulse coupling circuit Patent application
[NASA-CASE-LEW-10433-1] c09 N70-11243

NIEDZWIECKI, R. W.
Swirl can primary combustion
[NASA-CASE-LEW-11326-1] c28 N72-15714

NIELSON, T. L.
Technique of elbow bending small jacketed transfer
lines Patent
[NASA-CASE-XNP-10475] c15 N71-24679

NISSIN, E.
Suppression of flutter
[NASA-CASE-LAR-10682-1] c02 N72-21009

NITTA, H.
High-temperature, high-pressure spherical segment
valve Patent
[NASA-CASE-XAC-00074] c15 N70-34817

NIXON, D. L.
Parabolic reflector horn feed with spillover
correction Patent
[NASA-CASE-XNP-00540] c09 N70-35382
Indexing microwave switch Patent
[NASA-CASE-XNP-06507] c09 N71-23548
Improved compact precision rotary vane attenuator
[NASA-CASE-NPO-11418] c14 N72-20393

NOBLE, R. M.
Solenoid construction Patent
[NASA-CASE-XNP-01951] c09 N70-41929

NOLA, P. J.
Positive dc to positive dc converter Patent
[NASA-CASE-XMF-14301] c09 N71-23188
Positive dc to negative dc converter Patent
[NASA-CASE-XMF-08217] c03 N71-23239
Transistor servo system including a unique
differential amplifier circuit Patent
[NASA-CASE-XMF-05195] c10 N71-24861
Brushless direct current tachometer Patent
[NASA-CASE-MFS-20385] c09 N71-24904
Voltage controlled oscillator circuit
[NASA-CASE-MFS-21465] c10 N72-20232

NORD, D. B.
Method of joining aluminum to stainless steel
Patent
[NASA-CASE-MFS-07369] c15 N71-20443

NORDEW, B. M.
Hybrid holographic system using reflected and
transmitted object beams simultaneously Patent
[NASA-CASE-MFS-20074] c16 N71-15565
Holographic thin film analyzer
[NASA-CASE-MFS-20823] c16 N72-10431

NOREEN, S. J.
Spherical shield Patent
[NASA-CASE-XNP-01855] c15 N71-28937

NORGREN, C. T.
Colloid propulsion method and apparatus Patent
[NASA-CASE-XLE-00817] c28 N70-33265
Gas turbine combustor Patent
[NASA-CASE-LEW-10286-1] c28 N71-28915

NORK, C. L.
Sight switch using an infrared source and sensor
Patent
[NASA-CASE-XMF-03934] c09 N71-22985

NORMAN, R. M.
Vibration isolation system using compression
springs
[NASA-CASE-NPO-11012] c15 N72-11391
Expandable support means
[NASA-CASE-NPO-11059] c15 N72-17454

NORTON, R. H.
Thruster maintenance system Patent
[NASA-CASE-MFS-20325] c28 N71-27095
Self recording portable soil penetrometer
[NASA-CASE-MFS-20774] c14 N71-34387

NORWOOD, J., JR.
Magnetically controlled plasma accelerator Patent
[NASA-CASE-XLA-00327] c25 N71-29184

NOVOTNY, J. E.
Ultrastable calibrated light source Patent
Application
[NASA-CASE-MSC-12293-1] c14 N70-36029

NUSBAUM, W. J.
Apparatus for absorbing and measuring power Patent
[NASA-CASE-XLE-00720] c14 N70-40201

OAKLEY, E. C.
RF source resistance meters
[NASA-CASE-NPO-10734] c14 N72-10378

OBERSCHMIDT, H.
Flow test device
[NASA-CASE-XMS-04917] c14 N69-24257

OCOMBOR, J. W.
Fastener stretcher
[NASA-CASE-GSC-11149-1] c15 N71-34422

ODELL, H. G.
Dual latching solenoid valve Patent
[NASA-CASE-XMS-05890] c09 N71-23191

O'DONNELL, P. H.
 Corrosion resistant beryllium Patent
 [NASA-CASE-LEW-10327] c17 N71-33408

O'DONNELL, T. J.
 Spherically-shaped rocket motor Patent
 [NASA-CASE-IHQ-01897] c28 N70-35381

OERTEL, G. K.
 Fast opening diaphragm Patent
 [NASA-CASE-XLA-03660] c15 N71-21060
 Measurement of time differences between luminous
 events Patent
 [NASA-CASE-XLA-01987] c23 N71-23976

OFFIK, W. G.
 Emergency escape system Patent
 [NASA-CASE-IKS-02342] c05 N71-11199

OGDEN, H. F.
 Aerodynamic measuring device Patent
 [NASA-CASE-XLA-00481] c14 N70-36824
 Check valve assembly for a probe Patent
 [NASA-CASE-XLA-00128] c15 N70-37925

OGDEN, H. R.
 Low temperature aluminum alloy Patent
 [NASA-CASE-IHP-02786] c17 N71-20743

OGLE, J. S.
 Whole body measurement system
 [NASA-CASE-MSC-13972-1] c05 N72-20105

OKANE, J. E.
 Pressure suit tie-down mechanism Patent
 [NASA-CASE-IHS-00784] c05 N71-12335

OKEAN, H. C.
 High-Q bandpass resonators utilizing bandstop
 resonator pairs Patent Application
 [NASA-CASE-GSC-10990-1] c09 N71-28470

OKERPE, W. J.
 Head-up attitude display Patent Application
 [NASA-CASE-ERC-10392] c21 N70-35429

OLDRIEVE, R. E.
 Reinforced metallic composites Patent
 [NASA-CASE-XLE-02428] c17 N70-33288
 Method of making fiber reinforced metallic
 composites Patent
 [NASA-CASE-XLE-00231] c17 N70-38198

OLIVER, R. E.
 Multiple reflection conical microwave antenna
 [NASA-CASE-NPO-11661] c07 N72-20158

OLIVER, R. L.
 Method and apparatus for applying cover slides
 Patent Application
 [NASA-CASE-NPO-10575] c15 N70-25621

OLLING, E. H.
 Radial module space station Patent
 [NASA-CASE-IHS-01906] c31 N70-41373

OLSASKY, M. J.
 Laser camera and diffusion filter therefore Patent
 [NASA-CASE-NPO-10417] c16 N71-33410

OLSEN, W. A.
 Hot wire liquid level detector for cryogenic
 fluids Patent
 [NASA-CASE-XLE-00454] c23 N71-17802

OLSEN, W. A., JR.
 Reduced gravity liquid configuration simulator
 [NASA-CASE-XLE-02624] c12 N69-39988

OLSON, W. T.
 Inlet deflector for jet engines Patent
 [NASA-CASE-XLE-00388] c28 N70-34788

OLTMANS, D. A.
 Matched thermistors for microwave power meters
 Patent
 [NASA-CASE-NPO-10348] c10 N71-12554

ONEILL, R. W.
 Monostable multivibrator with complementary NOR
 gates Patent
 [NASA-CASE-MSC-13492-1] c10 N71-28860

OREILLY, W. J.
 Portable environmental control system Patent
 [NASA-CASE-IHS-09632-1] c05 N71-11203

OREN, V. C.
 Pastener stretcher
 [NASA-CASE-GSC-11149-1] c15 N71-34422

ORILLION, A. G.
 Personal propulsion unit Patent
 [NASA-CASE-MPS-20130] c28 N71-27585

ORLIK, F. W.
 Pressure seal Patent
 [NASA-CASE-NPO-10796] c15 N71-27068

ORNER, J. W.
 Method and apparatus for detecting gross leaks
 Patent
 [NASA-CASE-ERC-10033] c14 N71-26672

OROURKE, T. E., JR.
 Sealing member and combination thereof and method
 of producing said sealing member Patent
 [NASA-CASE-XMS-01625] c15 N71-23022

ORTH, H. W.
 Process for producing dispersion strengthened
 nickel with aluminum Patent
 [NASA-CASE-XLE-06969] c17 N71-24142

OSTROFF, A. J.
 Star image motion compensator Patent Application
 [NASA-CASE-LAR-10523-1] c14 N70-35412

OSULLIVAN, W. J., JR.
 Method and apparatus for shock protection Patent
 [NASA-CASE-XLA-00482] c15 N70-36409
 Self supporting space vehicle Patent
 [NASA-CASE-XLA-00117] c31 N71-17680
 Thermal control wall panel Patent
 [NASA-CASE-XLA-01243] c33 N71-22792
 Thermal control panel Patent
 [NASA-CASE-XLA-07728] c33 N71-22890

OTHMAN, T. E.
 Safety-type locking pin
 [NASA-CASE-MPS-18495] c15 N72-11385

OTOSHI, T. Y.
 Improved compact precision rotary vane attenuator
 [NASA-CASE-NPO-11418] c14 N72-26393

OTTO, G.
 Synthesis of superconducting compounds by
 explosive compaction of powders
 [NASA-CASE-MPS-20861] c18 N71-34500

P

PACKARD, R. D.
 Semiconductor surface protection material Patent
 Application
 [NASA-CASE-ERC-10339] c18 N70-36075

PADILLA, J. R.
 Constant current source Patent Application
 [NASA-CASE-NPO-10733] c09 N70-35631

PAIK, S. F.
 Paraelectric microwave noise generator Patent
 [NASA-CASE-XER-11019] c09 N71-23598

PAIK, W. W.
 Apparatus for recovering matter adhered to a host
 surface Patent Application
 [NASA-CASE-NPO-11213] c15 N71-33492

PALANDATI, C. F., JR.
 Prevention of pressure build-up in electrochemical
 cells Patent
 [NASA-CASE-IGS-01419] c03 N70-41864

PALMER, E. I.
 Apparatus for testing a pressure responsive
 instrument Patent
 [NASA-CASE-IHP-04134] c14 N71-23755

PAN, F. H.
 A dc-coupled noninverting one-shot Patent
 [NASA-CASE-IHP-09450] c10 N71-18723

PAOLINI, J. J.
 Full flow with shut off and selective drainage
 control valve Patent application
 [NASA-CASE-ERC-10208] c15 N70-10867

PAPELL, S. S.
 Low viscosity magnetic fluid obtained by the
 colloidal suspension of magnetic particles
 Patent
 [NASA-CASE-XLE-01512] c12 N70-40124
 Liquid storage tank venting device for zero
 gravity environment Patent
 [NASA-CASE-XLE-01449] c15 N70-41646
 Capacitor and method of making same Patent
 [NASA-CASE-LEW-10364-1] c09 N71-13522
 Fluid dispensing apparatus and method Patent
 [NASA-CASE-XLE-01182] c27 N71-15635

PARK, J. J.
 Method of making tubes Patent
 [NASA-CASE-XGS-04175] c15 N71-18579

PARKER, G. L.
 Optical scanning apparatus Patent Application
 [NASA-CASE-NPO-11002] c14 N70-35433
 Elimination of frequency shift in a multiplex
 communication system Patent
 [NASA-CASE-IHP-01306] c07 N71-20814
 High speed phase detector Patent
 [NASA-CASE-IHP-01306-2] c09 N71-24596

PARKER, J. A.
 Modified polyisocyanurate polymer foam Patent
 Application
 [NASA-CASE-ARC-10280-1] c18 N70-34695

Intumescent paints Patent [NASA-CASE-ARC-10099-1]	c18 N71-15469	[NASA-CASE-XGS-00458]	c09 N70-38604
Modified polyurethane foams for fuel-fire Patent [NASA-CASE-ARC-10098-1]	c06 N71-24739	Variable frequency magnetic multivibrator Patent [NASA-CASE-XGS-00131]	c09 N70-38995
Intumescent composition, foamed product prepared therewith, and process for making same [NASA-CASE-ARC-10304-1]	c18 N71-34501	PAVLICS, F. Resilient wheel Patent [NASA-CASE-MFS-13929]	c15 N71-27091
Flexible fire retardant foam [NASA-CASE-ARC-10180-1]	c28 N72-20767	PAWLIK, E. V. Plasma device feed system Patent [NASA-CASE-XLE-02902]	c25 N71-21694
PARKER, L. C. Safe-arm initiator Patent [NASA-CASE-LAR-10372]	c09 N71-18599	Ion thruster with a combination keeper electrode and electron baffle [NASA-CASE-NPO-11880]	c28 N72-20766
PARKER, O. J. Despin weight release Patent [NASA-CASE-XLA-00679]	c15 N70-38601	PECKHAM, V. A., JR. Sample collecting impact bit Patent [NASA-CASE-INP-01412]	c15 N70-42034
Spacecraft separation system for spinning vehicles and/or payloads Patent [NASA-CASE-XLA-02132]	c31 N71-10582	PEELGREEN, M. L. Shell side liquid metal boiler [NASA-CASE-NPO-10831]	c33 N72-20915
Flared tube strainer [NASA-CASE-XLA-05056]	c15 N72-11389	PEER, C. R. Connector strips-positive, negative and T tabs [NASA-CASE-XGS-01395]	c03 N69-21539
PARKER, R. J. Method of improving the reliability of a rolling element system Patent [NASA-CASE-XLE-02999]	c15 N71-16052	PELLERIN, C. J., JR. Two axis fluxgate magnetometer Patent [NASA-CASE-GSC-10441-1]	c14 N71-27325
Low mass rolling elements for bearings [NASA-CASE-LEW-11087-1]	c15 N72-20464	PENQUE, H. J. Varactor high level mixer [NASA-CASE-XGS-02171]	c09 N69-24324
PARNLEY, R. T. Aerodynamic protection for space flight vehicles Patent [NASA-CASE-XNP-02507]	c31 N71-17679	PEOPLES, J. A. Multiway vortex valve system Patent [NASA-CASE-XMP-04709]	c15 N71-15609
PARSONS, W. E. Hardline monitoring system Patent Application [NASA-CASE-KSC-10385]	c08 N70-20719	PERKINS, G. S. Detenting servomotor Patent [NASA-CASE-XNP-06936]	c15 N71-24695
Electronic checkout system for space vehicles Patent [NASA-CASE-YKS-08012-2]	c31 N71-15566	PERKINS, GERALD S. Linear actuator [NASA-CASE-NPO-11222]	c15 N72-15468
PARTSCH, V. H. Purge device for thrust engines Patent [NASA-CASE-XMS-04826]	c28 N71-28849	PERKINS, P. J., JR. Cryogenic insulation system Patent [NASA-CASE-XLE-04222]	c23 N71-22881
PASCIUTTI, E. R. Protection for energy conversion systems [NASA-CASE-XGS-04808]	c03 N69-25146	Insulation system Patent [NASA-CASE-XLE-02647]	c18 N71-23658
Inverter with means for base current shaping for sweeping charge carriers from base region Patent [NASA-CASE-XGS-06226]	c10 N71-25950	PERLMAN, M. Feedback shift register with states decomposed into cycles of equal length Patent Application [NASA-CASE-NPO-11082]	c08 N70-22205
PASCIUTTI, EDWARD R. A dc to ac converter having transistor synchronous rectifiers [NASA-CASE-GSC-11126-1]	c09 N71-28419	Digital function generator Patent Application [NASA-CASE-NPO-11104]	c08 N70-25930
PASIERB, E. F. GaAs solar detector using manganese as a doping agent Patent [NASA-CASE-XNP-01328]	c26 N71-18064	Linear three-tap feedback shift register Patent [NASA-CASE-NPO-10351]	c08 N71-12503
PASSMAN, H. H. Heat conductive resiliently compressible structure for space electronics package modules Patent [NASA-CASE-MSC-12389]	c33 N71-29052	Binary sequence detector Patent [NASA-CASE-XNP-05415]	c08 N71-12505
PATE, W. E. Color perception tester [NASA-CASE-KSC-10278]	c05 N72-16015	Pseudonoise sequence generators with three tap linear feedback shift registers [NASA-CASE-NPO-11406]	c08 N72-14221
PATON, W. J. Flammability test chamber Patent [NASA-CASE-KSC-10126]	c11 N71-24985	The m-ary linear feedback shift register with binary logic [NASA-CASE-NPO-11868]	c10 N72-20236
PATTEN, C. W. Method and apparatus for attaching physiological monitoring electrodes Patent [NASA-CASE-XPR-07658-1]	c05 N71-26293	PERLMUTTER, H. Device for directionally controlling electromagnetic radiation Patent [NASA-CASE-XLE-01716]	c09 N70-40234
PATTERSON, W. J. Synthesis of siloxane-containing epoxy polymers Patent [NASA-CASE-MFS-13994-1]	c06 N71-11240	PERRY, G. D. Zero gravity apparatus Patent [NASA-CASE-XMP-06515]	c14 N71-23227
Polymerizable disilanols having in-chain perfluoroalkyl groups [NASA-CASE-MFS-20979-2]	c06 N72-21101	PESEK, C. T. Clamping assembly for inertial components Patent [NASA-CASE-XMS-02184]	c15 N71-20813
PATTERSON, WILLIAM J. Polymerizable disilanols having in-chain perfluoroalkyl groups [NASA-CASE-MFS-20979]	c06 N72-15128	PESMAN, G. J. Shock absorbing support and restraint means Patent [NASA-CASE-XMS-01240]	c05 N70-35152
PAULI, P. A. Attitude controls for VTOL aircraft Patent [NASA-CASE-XAC-08972]	c02 N71-20570	PETERS, R. W. Two component bearing Patent [NASA-CASE-XLA-00013]	c15 N71-29136
PAULKOVICH, J. Apparatus for measuring current flow Patent [NASA-CASE-XGS-02439]	c14 N71-19431	PETERSEN, H. W. Adjustable mount for a trihedral mirror Patent [NASA-CASE-XNP-08907]	c23 N71-29123
Coulometer and third electrode battery charging circuit Patent [NASA-CASE-GSC-10487-1]	c03 N71-24719	PETERSON, E. W. Canopus detector including automotive gain control of photomultiplier tube Patent [NASA-CASE-XNP-03914]	c21 N71-10771
PAULL, S. Variable frequency magnetic multivibrator Patent		PETERSON, N. E., JR. Shrink-fit gas valve Patent [NASA-CASE-XGS-00587]	c15 N70-35087
		PETERSON, P. D. Portable environmental control system Patent [NASA-CASE-XMS-09632-1]	c05 N71-11203
		PETERSON, S. T. Meteoroid detector [NASA-CASE-LAR-10483-1]	c14 N72-11371

PETERSON, V. S.
Flow angle sensor and read out system Patent
[NASA-CASE-XLE-04503] c14 N71-24864

PETERSON, W. A.
Folded traveling wave maser structure Patent
[NASA-CASE-XNP-05219] c16 N71-15550
Superconducting magnet Patent
[NASA-CASE-XNP-06503] c23 N71-29049

PETERSON, W. D.
Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent
[NASA-CASE-XMF-08665] c10 N71-19467

PETRASEK, D. W.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288
Method of making fiber reinforced metallic composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198
Reinforced metallic composites Patent
[NASA-CASE-XLE-00228] c17 N70-38490

PETRICK, E. H.
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent
[NASA-CASE-XMF-00923] c28 N70-36802

PETYNIA, W. W.
Space and atmospheric reentry vehicle Patent
[NASA-CASE-XGS-00260] c31 N70-37924

PEZDIRTZ, G. F.
Method and apparatus for shock protection Patent
[NASA-CASE-XLA-00482] c15 N70-36409
Imidazopyrrolone/imide copolymers Patent
[NASA-CASE-XLA-08802] c06 N71-11238
Dosimeter for high levels of absorbed radiation Patent
[NASA-CASE-XLA-03645] c14 N71-20430
Solid state thermal control polymer coating Patent
[NASA-CASE-XLA-01745] c33 N71-28903

PFAPP, H.
Swivel support for gas bearings Patent
[NASA-CASE-XMF-07808] c15 N71-23812

PFIFFNER, H. J.
Bootstrap unloader Patent
[NASA-CASE-XNP-09768] c09 N71-12516

PFLEGER, R. O.
Spherical shield Patent
[NASA-CASE-XNP-01855] c15 N71-28937

PHILIPP, W. H.
Selective nickel deposition Patent Application
[NASA-CASE-LEW-10965-1] c15 N70-20720

PHILLIPS, A. R.
Technique of duplicating fragile core
[NASA-CASE-XLA-07829] c15 N72-16329

PHILLIPS, B. L. S.
File card marker Patent
[NASA-CASE-XLA-02705] c08 N71-15908

PHILLIPS, W. H.
Variable-geometry winged reentry vehicle Patent
[NASA-CASE-XLA-00241] c31 N70-37986
Station keeping of a gravity gradient stabilized satellite Patent
[NASA-CASE-XLA-03132] c31 N71-22969

PHILLIPS, W. H.
Shell side liquid metal boiler
[NASA-CASE-NPO-10831] c33 N72-20915

PHLIEGER, G. A., JR.
Separation simulator Patent
[NASA-CASE-XKS-04631] c10 N71-23663
Internal work light Patent
[NASA-CASE-XKS-05932] c09 N71-26787
Pressurized lighting system
[NASA-CASE-KSC-10644-1] c09 N72-21250

PHLIEGER, GRAYDON A., JR.
Universal environment package (UN-E-PAC)
[NASA-CASE-KSC-10031] c15 N72-15475

PIASECKI, L. R.
Apparatus and method for control of a solid fueled rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

PICCILOLO, G. L.
Bioluminescent assay technique for flavin coenzymes
[NASA-CASE-GSC-10565-1] c06 N69-33349
Bacterial adenosine triphosphate as a measure of urinary tract infection Patent Application
[NASA-CASE-GSC-11092-1] c04 N71-27991
Automatic instrument for chemical processing to detect microorganisms in biological samples by measuring light reactions Patent Application
[NASA-CASE-GSC-11169-1] c04 N71-27992
Automatic instrument for chemical processing to detect microorganisms in biological samples by measuring light reactions
[NASA-CASE-GSC-11169-2] c05 N71-34079
Bacterial adenosine triphosphate as a measure of urinary tract infection
[NASA-CASE-GSC-11092-2] c04 N72-11074

PIERCE, R. M.
Propellant grain for rocket motors Patent
[NASA-CASE-XGS-03556] c27 N70-35534

PINCKNEY, K. E.
System for monitoring the presence of neutrals in a stream of ions Patent
[NASA-CASE-XNP-02592] c24 N71-20518

PINCUS, B. R.
Scanning aspect sensor employing an apertured disc and a commutator
[NASA-CASE-XGS-08266] c14 N69-27432

PINKEL, I. I.
Reduced gravity liquid configuration simulator
[NASA-CASE-XLE-02624] c12 N69-39988

PIPPEN, D. L.
High voltage pulse generator Patent
[NASA-CASE-MSC-12178-1] c09 N71-13518

PITELLI, E. E.
Transverse piezoresistance and pinch effect electromechanical transducers Patent
[NASA-CASE-ERC-10088] c26 N71-25490

PITTS, P. L.
Electronic strain level counter
[NASA-CASE-LAR-10756-1] c32 N72-11803

PITTS, W. C.
Two force component measuring device Patent
[NASA-CASE-XAC-04886-1] c14 N71-20439

PLAKAS, C. J.
Firefly pump-metering system
[NASA-CASE-GSC-10218-1] c15 N72-21465

PLAMONDON, J. A., JR.
Conically shaped cavity radiometer with a dual purpose cone winding Patent
[NASA-CASE-XNP-09701] c14 N71-26475

PLANOWSKI, S. C.
Traversing probe Patent
[NASA-CASE-XPR-02007] c12 N71-24692

PLATT, P. K.
Cryogenic connector for vacuum use Patent
[NASA-CASE-XGS-02441] c15 N70-41629

PLAZEK, D. J.
Instrument for measuring torsional creep and recovery Patent
[NASA-CASE-XLE-01481] c14 N71-10781

PLEASANTS, J. E.
Inflatable support structure Patent
[NASA-CASE-XLA-01731] c32 N71-21045
Vortex breech high pressure gas generator
[NASA-CASE-LAR-10549-1] c31 N72-11792

PLITT, K. F.
Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320

POESCHEL, R. L.
Ion thruster Patent Application
[NASA-CASE-LEW-10770-1] c28 N70-26815

POHL, H. O.
Two-step rocket engine bipropellant valve Patent
[NASA-CASE-XMS-04890-1] c15 N70-22192

POLHABUS, E. C.
Variable sweep wing configuration Patent
[NASA-CASE-XLA-00230] c02 N70-33255
Variable sweep aircraft wing Patent
[NASA-CASE-XLA-00350] c02 N70-38011
Variable sweep aircraft Patent
[NASA-CASE-XLA-03659] c02 N71-11041

POLLACK, I.
Etching of aluminum for bonding Patent
[NASA-CASE-XMF-02303] c17 N71-23828
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent
[NASA-CASE-XMF-02221] c18 N71-27170

POLLACK, J. L.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c09 N71-34210

POLLARD, E. A.
Rescue litter flotation assembly Patent
[NASA-CASE-XMS-04170] c05 N71-22748

POLLOCK, G. E.
Gas chromatograph injection system
[NASA-CASE-ARC-10344-1] c14 N72-21433

POPE, A. M.
Zero gravity separator Patent
[NASA-CASE-XLE-00586] c15 N71-15968

POPICK, H.
Laser apparatus for removing material from
rotating objects Patent
[NASA-CASE-MFS-11279] c16 N71-20400

POPMA, D. C.
Recovery of potable water from human wastes in
below-G conditions Patent
[NASA-CASE-XLA-03213] c05 N71-11207

PORADER, J. C.
Process for conditioning tanned sharkskin and
articles made therefrom Patent
[NASA-CASE-XMS-09691-1] c18 N71-15545

PORTER, R. N.
Liquid rocket system Patent
[NASA-CASE-XNP-00610] c28 N70-36910
Zero gravity starting means for liquid propellant
motors Patent
[NASA-CASE-XNP-01390] c28 N70-41275
Force-balanced, throttle valve Patent
[NASA-CASE-NPO-10808] c15 N71-27432

POSCHENRIEDER, W. P.
Analytical photoionization mass spectrometer with
an argon gas filter between the light source and
monochromator Patent
[NASA-CASE-LAR-10180-1] c06 N71-13461

POSNER, E. C.
Phase-locked loop with sideband rejecting
properties Patent
[NASA-CASE-XNP-02723] c07 N70-41680
Data compressor Patent
[NASA-CASE-XNP-04067] c08 N71-22707
Method and apparatus for synchronizing a single
channel digital communications system
[NASA-CASE-NPO-11302] c07 N72-11160

POTEATE, W. B.
Multiparameter vision tester apparatus
[NASA-CASE-MSC-13601-1] c05 N72-11088

POTTER, A. E., JR.
Multispectral imaging system
[NASA-CASE-MSC-12404-1] c23 N72-11569

POTTER, N. H.
Method and apparatus for battery charge control
Patent
[NASA-CASE-XGS-05432] c03 N71-19438

POTTER, P. D.
Cassegrainian antenna subreflector flange for
suppressing ground noise Patent
[NASA-CASE-XNP-00683] c09 N70-35425
Dual mode horn antenna Patent
[NASA-CASE-XNP-01057] c07 N71-15907

POUCHOT, W. D.
Self-adjusting multisegment, deployable, natural
circulation radiator Patent
[NASA-CASE-XHQ-03673] c33 N71-29046

POVINELLI, L. A.
Burning rate control of solid propellants Patent
[NASA-CASE-XLE-03494] c27 N71-21819

POWELL, C. A., JR.
Instrument for measuring the dynamic behavior of
liquids Patent
[NASA-CASE-XLA-05541] c12 N71-26387

POWER, J. L.
An ion exchange nuclear reactor
[NASA-CASE-LEW-11645-1] c22 N72-20602
Method and apparatus for controlling thermal
nuclear reactors
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Electronic checkout system for space vehicles
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Satellite communication system Patent
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Gravity gradient attitude control system Patent
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PRICE, S. B.
Surface roughness detector Patent
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Remote controlled tubular disconnect Patent
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Relief container
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PROFFIT, R. L.
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PROK, G. H.
Apparatus for making a metal slurry product Patent
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PRYOR, D. E.
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PUCILLO, G. L.
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[NASA-CASE-XER-09521] c09 N72-12136

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Q

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QUATTRONE, P. D.
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Improved maser for frequencies in the 7-20 GHz
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R

RADNOSKY, M. I.
Life raft Patent
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[NASA-CASE-XMS-01240] c05 N70-35152
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[NASA-CASE-XMS-00893] c07 N70-40063
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[NASA-CASE-MSC-12393-1] c02 N72-20016

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Steerable solid propellant rocket motor Patent

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RHO, J. H.

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RAIMEY, R. W.
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RAINWATER, L. L.
Collapsible antenna boom and transmission line
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[NASA-CASE-MFS-20068] c07 N71-27191

RAMEY, R. L.
Depositing semiconductor films utilizing a thermal gradient
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Thin film microwave iris Patent Application
[NASA-CASE-LAR-10511-1] c09 N70-35416
Active microwave irises and windows Patent Application
[NASA-CASE-LAR-10513-1] c07 N70-42162

RAMME, F. B.
Flexible conductive disc electrode Patent
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[NASA-CASE-FRC-10038] c15 N72-20444

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Method of making dry electrodes
[NASA-CASE-FRC-10029] c05 N72-13081

RANDALL, J. C.
Attitude control for spacecraft Patent
[NASA-CASE-XNP-02982] c31 N70-41855

RANEY, J. P.
Buoyant anti-slosh system Patent
[NASA-CASE-XLA-04605] c32 N71-16106

RAPOZA, E. J.
Reversible current control apparatus Patent
[NASA-CASE-XLA-09371] c10 N71-18724

RASMUSSEN, H. P.
Transparent switchboard
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RASQUIN, J. R.
Metabolism monitor for space activity Patent Application
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Angular measurement system Patent
[NASA-CASE-XMF-00447] c14 N70-33179
Electro-optical alignment control system Patent
[NASA-CASE-XMF-00908] c14 N70-40238
Laser coolant and ultraviolet filter
[NASA-CASE-MFS-20180] c16 N72-12440
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[NASA-CASE-MFS-20698] c15 N72-20446
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[NASA-CASE-MFS-20698-2] c15 N72-21481

RAVAS, R. J.
Transistor drive regulator Patent
[NASA-CASE-LEW-10233] c10 N71-27126

RAYLE, W. D.
Electric propulsion engine test chamber Patent
[NASA-CASE-XLE-00252] c11 N70-34844

READ, F. G.
Backpack carrier Patent
[NASA-CASE-LAR-10056] c05 N71-12351

READ, W. S.
Silent emergency alarm system for schools and the like
[NASA-CASE-NPO-11307] c10 N72-11258

READER, A. F.
Method and apparatus for making curved reflectors Patent
[NASA-CASE-XLE-08917] c15 N71-15597
Apparatus for making curved reflectors Patent
[NASA-CASE-XLE-08917-2] c15 N71-24836

READER, P. D.
Ion thruster cathode
[NASA-CASE-XLE-07087] c06 N69-39889
Electrostatic ion engine having a permanent magnetic circuit Patent
[NASA-CASE-XLE-01124] c28 N71-14043
Electrostatic ion rocket engine Patent
[NASA-CASE-XLE-02066] c28 N71-15661

RECHTER, H. L.
Lightweight refractory insulation and method of preparing the same Patent
[NASA-CASE-XMF-05279] c18 N71-16124

REDDING, A. H.
Self-adjusting multisegment, deployable, natural circulation radiator Patent
[NASA-CASE-XHQ-03673] c33 N71-29046

REDMON, J. W.
Air bearing assembly for curved surfaces
[NASA-CASE-MFS-20423] c15 N72-11388

REECE, O. Y.
Low temperature flexure fatigue cryostat Patent
[NASA-CASE-XMF-02964] c14 N71-17659
Horizontal cryostat for fatigue testing Patent
[NASA-CASE-XMF-10968] c14 N71-24234
Synthesis of superconducting compounds by explosive compaction of powders
[NASA-CASE-MFS-20861] c18 N71-34500

REED, A. E.
High power-high voltage waterload Patent
[NASA-CASE-XNP-05381] c09 N71-20842

REED, J. H., JR.
Instrument for use in performing a controlled Valsalva maneuver Patent
[NASA-CASE-XMS-01615] c05 N70-41329

REED, L.
Method of forming ceramic to metal seal Patent
[NASA-CASE-XNP-01263-2] c15 N71-26312

REED, W. H., III
Test unit free-flight suspension system Patent
[NASA-CASE-XLA-00939] c11 N71-15926
Viscous-pendulum-damper Patent
[NASA-CASE-XLA-02079] c12 N71-16894
Viscous pendulum damper Patent
[NASA-CASE-LAR-10274-1] c14 N71-17626
Suspended mass impact damper Patent
[NASA-CASE-LAR-10193-1] c15 N71-27146

REHAGE, J. R.
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent
[NASA-CASE-XMF-00906] c09 N70-41655

REID, H. J. E., JR.
Dynamic precession damper for spin stabilized vehicles Patent
[NASA-CASE-XLA-01989] c21 N70-34295
Attitude orientation of spin-stabilized space vehicles Patent
[NASA-CASE-XLA-00281] c21 N70-36943

REID, H., JR.
Pulse width inverter Patent
[NASA-CASE-MFS-10068] c10 N71-25139
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[NASA-CASE-MFS-21465] c10 N72-20232

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Digital frequency discriminator Patent
[NASA-CASE-MFS-14322] c08 N71-18692

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Gas purged dry box glove Patent
[NASA-CASE-XLE-02531] c05 N71-23080

REINHOLD, H. W.
Circuit breaker utilizing magnetic latching relays Patent
[NASA-CASE-MSC-11277] c09 N71-29008

REINITZ, K.
Extended area semiconductor radiation detectors and a novel readout arrangement Patent
[NASA-CASE-XGS-03230] c14 N71-23401

REIBBAUM, A.
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent
[NASA-CASE-NPO-10373] c03 N71-18698
Dicyanoacetylene polymers Patent
[NASA-CASE-XNP-03250] c06 N71-23500

REMPPEL, E. C.
Optically pumped resonance magnetometer for determining vectoral components in a spatial coordinate system Patent
[NASA-CASE-XGS-04879] c14 N71-20428

REMPFER, P. S.
Aircraft control system Patent Application
[NASA-CASE-ERC-10439] c02 N70-36052

REPAR, J.
Rubber composition for use with hydrazine Patent Application
[NASA-CASE-NPO-11433] c18 N71-31140

REYNOLDS, J. H.
Device and method for determining X-ray reflection efficiency of optical surfaces
[NASA-CASE-MFS-20243] c23 N72-15622

REYNOLDS, W. E.
Circuit breaker utilizing magnetic latching relays Patent
[NASA-CASE-MSC-11277] c09 N71-29008

RHO, J. H.
Automated fluid chemical analyzer Patent
[NASA-CASE-XNP-09451] c06 N71-26754

RHODES, L. L.
Latching mechanism Patent
[NASA-CASE-MSC-15474-1] c15 N71-26162

RIAZ, H.
Constant frequency output two stage induction
machine systems Patent
[NASA-CASE-ERC-10065] c09 N71-27364

RIBARICH, J. J.
Guidance and maneuver analyzer Patent
[NASA-CASE-INP-09572] c14 N71-15621

RICCITIELLO, S. E.
Modified polyisocyanurate polymer foam Patent
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Modified polyurethane foams for fuel-fire Patent
[NASA-CASE-ARC-10098-1] c06 N71-24739
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therewith, and process for making same
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[NASA-CASE-ARC-10180-1] c28 N72-20767

RICE, R. F.
Data compression system
[NASA-CASE-NPO-11243] c07 N72-20154

RICE, R. E.
Cryogenic storage system Patent
[NASA-CASE-XMS-04390] c31 N70-41871

RICE, R. W.
Method of hydrostatically extruding refractory
materials
[NASA-CASE-NPO-10811] c15 N71-34425
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[NASA-CASE-NPO-10812] c15 N71-34428

RICH, E.
Bacterial contamination monitor Patent
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[NASA-CASE-GSC-10879-1] c14 N70-22274

RICHARD, C. E.
Low cycle fatigue testing machine
[NASA-CASE-LAR-10270-1] c32 N72-15874

RICHARD, R. E.
Angular accelerometer Patent
[NASA-CASE-XMS-05936] c14 N70-41682

RICHARDS, L. O.
Hardline monitoring system Patent Application
[NASA-CASE-KSC-10385] c08 N70-20719

RICHARDS, W. E.
Method and apparatus for optical modulating a
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RICHARDSON, ROBERT W.
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RICHLEY, E. A.
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[NASA-CASE-XLE-00342] c28 N70-37980

RICHMOND, J. C.
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[NASA-CASE-XGS-05291] c23 N71-16341

RICHTER, C. G.
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RICHTER, H. L.
Reversible motion drive system Patent
[NASA-CASE-NPO-10173] c15 N71-24696

RIEBE, J. H.
Landing arrangement for aerial vehicles Patent
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[NASA-CASE-XLA-00087] c02 N70-33332
Landing arrangement for aerial vehicle Patent
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Landing arrangement for aerospace vehicle Patent
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Force-balanced, throttle valve Patent
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RILEY, J. F.
Compact solar still Patent
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Nickel-base alloy Patent
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Tumbler system to provide random motion
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RINDNER, W.
Electricity measurement devices employing liquid
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[NASA-CASE-ERC-10275] c26 N70-40022
Voltage tunable Gunn-type microwave generator
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Transverse piezoresistance and pinch effect
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[NASA-CASE-ERC-10088] c26 N71-25490
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[NASA-CASE-ERC-10087] c14 N71-27334
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[NASA-CASE-ERC-10087-2] c14 N72-21430

RINGELMAN, J. F.
Regulated power supply Patent
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Screen particle separator Patent Application
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Material handling device Patent
[NASA-CASE-INP-09770-3] c11 N71-27036

RITCHE, D. W.
Solar battery with interconnecting means for
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RITCHE, V. S.
Aerodynamic measuring device Patent
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Attitude control system for sounding rockets
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ROBERTS, D. E.
Apparatus for testing wiring harness by vibration
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ROBERTS, D. L.
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Silent emergency alarm system for schools and the
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[NASA-CASE-ERC-10439] c02 N70-36052

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Two-axis controller Patent
[NASA-CASE-XPR-04104] c03 N70-42073

ROBILLARD, G.
Apparatus and method for control of a solid fueled
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ROBINS, A. W.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

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Heat flux sensor assembly
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ROBINSON, H.
Solid state chemical source for ammonia beam maser
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ROCHOW, S. E.
Hydroxy terminated perfluoro ethers Patent
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[NASA-CASE-NPO-10768-2] c06 N71-33516
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[NASA-CASE-NPO-10765] c06 N72-20121

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[NASA-CASE-INP-00826] c03 N71-20895

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ROGALLO, F. M.
Aeroflexible structures
[NASA-CASE-XLA-06095] c01 N69-39981
Jet aircraft configuration Patent
[NASA-CASE-XLA-00087] c02 N70-33332
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[NASA-CASE-XLA-06958] c02 N71-11038

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Propeller blade loading control Patent
[NASA-CASE-XAC-00139] c02 N70-34856
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[NASA-CASE-XAC-00472] c15 N70-40180
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[NASA-CASE-XAC-00648] c14 N70-40400
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[NASA-CASE-XAC-01101] c14 N70-41957

ROGERS, F. O.
Synthesis of zinc titanate pigment and coatings
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[NASA-CASE-MPS-13532] c18 N72-17532

ROLF, E.
Laser Doppler system for measuring three
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ROLIK, G. P.
Cover plate for solar cell panels Patent
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ROLLER, R. F.
Demodulator for carrier transducers
[NASA-CASE-NUC-10107-1] c09 N72-21254

ROM, P. E.
Gaseous nuclear rocket Patent
[NASA-CASE-XLE-00321] c22 N70-34572
Gas core nuclear reactor Patent
[NASA-CASE-LEW-10250-1] c22 N71-28759

ROMAN, J. A.
Biomedical electrode arrangement Patent
[NASA-CASE-XFR-10856] c05 N71-11189
Method and apparatus for attaching physiological
monitoring electrodes Patent
[NASA-CASE-XFR-07658-1] c05 N71-26293
Gas low pressure low flow rate metering system
Patent
[NASA-CASE-FRC-10022] c12 N71-26546
Respiration monitor
[NASA-CASE-FRC-10012] c14 N72-17329

ROMANCZYK, K. C.
Fringe counter for interferometers Patent
[NASA-CASE-LAR-10204] c14 N71-27215

ROMMEL, M. A.
Hydrogen leak detection device Patent
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Intermittent type silica gel adsorption
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[NASA-CASE-XNP-03920] c15 N71-15906

RONEY, B. W.
Evacuation valve
[NASA-CASE-LAR-10061-1] c15 N71-34421

ROOT, G. L.
Improved valve seat Patent Application
[NASA-CASE-NPO-10606] c15 N70-25622

ROSALES, L. A.
Control valve and co-axial variable injector
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[NASA-CASE-XNP-09702] c15 N71-17654
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[NASA-CASE-XNP-09698] c15 N71-18580

ROSEN, H. A.
Varactor high level mixer
[NASA-CASE-XGS-02171] c09 N69-24324
Apparatus for changing the orientation and
velocity of a spinning body traversing a path
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[NASA-CASE-HQN-00936] c31 N71-29050

ROSEN, L.
Focused image holography with extended sources
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[NASA-CASE-ERC-10019] c16 N71-15551
Recording and reconstructing focused image
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[NASA-CASE-ERC-10017] c16 N71-15567
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[NASA-CASE-ERC-10020] c16 N71-26154

ROSENBAUM, B. J.
Flow test device
[NASA-CASE-XMS-04917] c14 N69-24257

ROSENBLUM, L.
Split welding chamber Patent
[NASA-CASE-LEW-11531] c15 N71-14932
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

ROSHIN, A. D.
Zero gravity separator Patent
[NASA-CASE-XLE-00586] c15 N71-15968

ROSHIN, S.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857
Improved Ritchey-Chretien telescope
[NASA-CASE-GSC-11487-1] c14 N72-20404

ROSINSKI, W. K.
Adjustable force probe
[NASA-CASE-MPS-20760] c14 N72-15431

ROSITANO, S. A.
Ultra-flexible biomedical electrodes and wires
Patent Application
[NASA-CASE-ARC-10268-1] c09 N70-12620
Visual examination apparatus
[NASA-CASE-ARC-10329-1] c05 N72-21079

ROSSER, R. W.
Polyimide foam for thermal insulation and fire
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[NASA-CASE-ARC-10464-1] c06 N72-21102

ROSSI, B. B.
X-ray reflection collimator adapted to focus
X-radiation directly on a detector Patent
[NASA-CASE-XHQ-04106] c14 N70-40240

ROSSOW, V. J.
Apparatus for measuring conductivity and velocity
of plasma utilizing a plurality of sensing coils
positioned in the plasma Patent
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ROTH, H.
Voltage tunable Gunn-type microwave generator
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[NASA-CASE-XER-07894] c09 N71-18721

ROTHMAN, A.
Supporting and protecting device Patent
[NASA-CASE-XMF-00580] c11 N70-35383

ROUDEBUSH, W. H.
Gas turbine combustor Patent
[NASA-CASE-LEW-10286-1] c28 N71-28915

ROUZER, L. E.
Segmented superconducting magnet for a broadband
traveling wave maser Patent
[NASA-CASE-XGS-10518] c16 N71-28554

BOWLAND, C. W.
Apparatus for ejection of an instrument cover
[NASA-CASE-XMF-04132] c15 N69-27502
A laser remote control system Patent Application
[NASA-CASE-LAR-10311-1] c16 N70-35542

ROY, W.
Cosmic dust analyzer
[NASA-CASE-MSC-13802-1] c30 N72-20805

ROY, U.
Synthesis of superconducting compounds by
explosive compaction of powders
[NASA-CASE-MPS-20861] c18 N71-34500

RUBERT, K. F.
Method of obtaining permanent record of surface
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[NASA-CASE-XLA-01353] c14 N70-41366
Quick release connector Patent
[NASA-CASE-XLA-01141] c15 N71-13789

RUBIN, B.
Method for the repair and maintenance of dental
enamel
[NASA-CASE-ERC-10338] c04 N70-36053

RUBIN, D.
Electricity measurement devices employing liquid
crystalline materials Patent Application
[NASA-CASE-ERC-10275] c26 N70-40622

RUBIN, D. C.
Liquid crystalline memory devices Patent
Application
[NASA-CASE-ERC-10330] c08 N70-36002

RUDDOCK, K. A.
Optically pumped resonance magnetometer for
determining vectorial components in a spatial
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[NASA-CASE-XGS-04879] c14 N71-20428

RUHNKE, L. H.
Determining distance to lightning strokes from a single station
[NASA-CASE-KSC-10698-1] c07 N72-21159

RUMMLER, D. R.
Low-mass truss structure Patent Application
[NASA-CASE-LAR-10546-1] c11 N70-35638
Automatic force measuring system Patent
[NASA-CASE-XLA-02605] c14 N71-10773

RUPNIK, D. R.
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High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level
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RUSSELL, W. E.
Method and apparatus for making curved reflectors Patent
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RUST, R.
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S

SABAROFF, S.
Broadband frequency discriminator Patent
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SABOL, A. P.
Crossed-field MHD plasma generator/accelerator Patent
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Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent
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SAHINKAYA, Y.
Optimal control system for an electric motor driven vehicle
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SALHINS, S.
Radiation direction detector including means for compensating for photocell aging Patent
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Spacecraft separation system for spinning vehicles and/or payloads Patent
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SALTZMAN, E. J.
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SALVINSKI, R. J.
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SANFIELD, R.
Inflatable tether Patent
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SAMONSKI, P. H., JR.
Liquid-gas separator for zero gravity environment Patent
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SANSON, J. A. R.
Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent
[NASA-CASE-LAR-10180-1] c06 N71-13461

SANSON, R.
Sealed cabinetry Patent
[NASA-CASE-MSC-12168-1] c09 N71-18600

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Means and method of measuring viscoelastic strain Patent
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Miniature stress transducer Patent
[NASA-CASE-XNP-02983] c14 N71-21091

SANDBORN, V. A.
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent
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Apparatus for increasing ion engine beam density Patent
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SANDER, R. C.
Transient video signal recording with expanded playback Patent
[NASA-CASE-ARC-10003-1] c09 N71-25866

SANDERS, A. P.
Oxygen production method and apparatus
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SANDERS, B. W.
Airflow control system for supersonic inlets
[NASA-CASE-LEW-11188-1] c02 N71-34017

SANDROCK, G. D.
High temperature cobalt-base alloy Patent
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Fabrication of single-crystal film semiconductor devices
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SAUER, L. S.
Hybrid lubrication system and bearing Patent
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SAUER, T. H.
Parallel-plate viscometer with double-diaphragm suspension
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SAUNDERS, N. T.
Method of producing porous tungsten ionizers for ion rocket engines Patent
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SAUTER, R. J.
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[NASA-CASE-MSC-11561-1] c05 N72-11087

SAVINO, J. M.
Simulated fuel assembly Patent
[NASA-CASE-XLE-00724] c14 N70-34669

SAWKO, P. M.
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines Patent Application
[NASA-CASE-ARC-10325-1] c06 N70-41950
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[NASA-CASE-ARC-10196-1] c18 N72-11456

SAWYER, D. E.
Fabrication of single-crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N69-31339
Semiconductor-ferroelectric memory device
[NASA-CASE-ERC-10307] c08 N72-21198

SCAFICCHIO, A. J.
Apparatus and method for separating a semiconductor wafer Patent
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SCHACHT, W. F.
Water cooled contactor for anode in carbon arc mechanism
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SCHACHTER, M. M.
Apparatus for producing three-dimensional recordings of fluorescence spectra Patent
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SCHAEFFER, D. H.
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Full binary adder Patent
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[NASA-CASE-XGS-04766] c08 N71-18602
Computing apparatus Patent
[NASA-CASE-XGS-04765] c08 N71-18693
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SCHAEFFER, G. L.
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SCOGGINS, J. E.

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[NASA-CASE-ARC-10137-1] c09 N71-28468

SCHAPPERT, J. C.
Ultra-long monostable multivibrator employing
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of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819

SCHALLER, N. G.
Apparatus for vibrational testing of articles
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SCHAPPERT, G. T.
Method and apparatus for wavelength tuning of
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[NASA-CASE-ERC-10187] c16 N69-31343

SCHAUS, R. B.
Thermobulb mount Patent
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SHELL, J. T.
Cryogenic thermal insulation Patent
[NASA-CASE-XMP-05046] c33 N71-28892

SCHER, M. P.
Spacecraft attitude control method and apparatus
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SCHER, S. H.
Hot air ballon deceleration and recovery system
Patent
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SCHINDLER, R. A.
Interferometer direction sensor Patent
[NASA-CASE-NPO-10320] c14 N71-17655
Interferometer servo system Patent
[NASA-CASE-NPO-10300] c14 N71-17662

SCHLESINGER, F. W.
Optical alignment system Patent
[NASA-CASE-XNP-02029] c14 N70-41955

SCHLOSS, A. L.
Solid state switch
[NASA-CASE-XNP-09228] c09 N69-27500

SCHMIDT, E. E.
Caterpillar micro positioner
[NASA-CASE-GSC-10780-1] c14 N72-16283

SCHMIDT, H. W.
Conical valve plug Patent
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Fluid coupling Patent
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SCHMIDT, L. F.
Photosensitive device to detect bearing deviation
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[NASA-CASE-XNP-00438] c21 N70-35089
Digital sun sensor Patent Application
[NASA-CASE-NPO-11072] c21 N70-35437

SCHMIDT, LOUIS F.
Light sensor
[NASA-CASE-NPO-11311] c14 N72-15422

SCHMIDT, R.
Reactance control system Patent
[NASA-CASE-XMP-01598] c21 N71-15583

SCHMIDT, R. F.
Monopulse system with an electronic scanner
[NASA-CASE-XGS-05582] c07 N69-27460
Electronic scanning of 2-channel monopulse
patterns Patent
[NASA-CASE-GSC-10299-1] c09 N71-24804

SCHMIDT, W. G.
Ammonium perchlorate composite propellant
containing an organic transitional metal chelate
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[NASA-CASE-LAR-10173-1] c27 N71-14090

SCHMITZ, B. W.
Trajectory-correction propulsion system Patent
[NASA-CASE-XNP-01104] c28 N70-39931

SCHWITZER, E.
Inflatable honeycomb Patent
[NASA-CASE-XLA-00204] c32 N70-36536
Manned space station Patent
[NASA-CASE-XLA-00258] c31 N70-38676
Method of making inflatable honeycomb Patent
[NASA-CASE-XLA-03492] c15 N71-22713

SCHOEN, A. H.
Honeycomb panels formed of minimal surface
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[NASA-CASE-ERC-10364] c18 N70-40061
Honeycomb core structures of minimal surface
tubule sections Patent Application
[NASA-CASE-ERC-10363] c18 N70-40071
Expandable space frames Patent Application
[NASA-CASE-ERC-10365] c31 N71-28948

SCHORUM, S. W.
High speed binary to decimal conversion system
Patent
[NASA-CASE-XGS-01230] c08 N71-19544

SCHRADER, J. H.
Multiple input radio receiver Patent
[NASA-CASE-XLA-G0901] c07 N71-10775
Cooperative Doppler radar system Patent
[NASA-CASE-LAR-10403] c21 N71-11766

SCHREDER, K. D.
Broadband stable power multiplier Patent
[NASA-CASE-XNP-10854] c10 N71-26331

SCHULLER, F. T.
Journal bearings
[NASA-CASE-LEW-11076-1] c15 N72-21473

SCHUSTER, D. E.
Antenna beam-shaping apparatus Patent
[NASA-CASE-XNP-00611] c09 N70-35219
Parabolic reflector horn feed with spillover
correction Patent
[NASA-CASE-XNP-00540] c09 N70-35382
Insertion loss measuring apparatus having
transformer means connected across a pair of
bolometers Patent
[NASA-CASE-XNP-01193] c10 N71-16057

SCHUSTER, M. A.
Solid state television camera system Patent
[NASA-CASE-XMP-06092] c07 N71-24612

SCHUTT, J. B.
Alkali-metal silicate protective coating
[NASA-CASE-XGS-04119] c18 N69-39979
Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014
Method for etching copper Patent
[NASA-CASE-XGS-06306] c17 N71-16044
Alkali metal silicate protective coating Patent
[NASA-CASE-XGS-04799] c18 N71-24183

SCHWAB, W. B.
Solid state power mapping instrument Patent
[NASA-CASE-XLE-00301] c14 N70-36808

SCHWARZ, F. C.
An analog signal to discrete time interval
converter Patent Application
[NASA-CASE-ERC-10048] c09 N70-25866
Controllable, load insensitive power converters
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[NASA-CASE-ERC-10268] c09 N70-35582
Saturation current protection apparatus for
saturable core transformers Patent
[NASA-CASE-ERC-10075] c09 N71-24800
Unsaturating saturable core transformer Patent
[NASA-CASE-ERC-10125] c09 N71-24893
Load insensitive electrical device
[NASA-CASE-XER-11046-2] c09 N72-21251

SCHWARZ, FRANCIS C.
Load insensitive electrical devices
[NASA-CASE-XER-11046] c09 N71-28902

SCHWARZER, D. E.
Multiwire high temperature thermocouple Patent
Application
[NASA-CASE-LEW-10854-1] c14 N71-28651

SCHWINGHAMER, R. J.
Angular measurement system Patent
[NASA-CASE-XMP-00447] c14 N70-33179
Space vehicle electrical system Patent
[NASA-CASE-XMP-00517] c03 N70-34157
Electrical discharge apparatus for forming Patent
[NASA-CASE-XMP-00375] c15 N70-34249
Electro-optical alignment control system Patent
[NASA-CASE-XMP-00908] c14 N70-40238
Method and apparatus for precision sizing and
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[NASA-CASE-XMP-05114] c15 N71-17650
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[NASA-CASE-XMP-03793] c15 N71-24833
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Method and apparatus for precision sizing and
joining of large diameter tubes Patent
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SCIACCA, T. F.
Device for measuring electron-beam intensities and
for subjecting materials to electron irradiation
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[NASA-CASE-XGS-01725] c14 N69-39982

SCOGGINS, J. E.
Meteorological balloon Patent
[NASA-CASE-XMP-04163] c02 N71-23007

SCOTT, C. H.
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708

SCOTT, CHARLES E.
A magnifying scratch gage force transducer
[NASA-CASE-LAR-10496-1] c14 N71-28654

SCOTT, R. E.
Solar cell including second surface mirrors Patent
[NASA-CASE-NPO-10109] c03 N71-11049

SCOTT, S. G.
Nonmagnetic thermal motor for a magnetometer
[NASA-CASE-XAR-03786] c09 N69-21313

SCOTT, W. L.
An improved prosthetic device
[NASA-CASE-MFS-16570] c05 N72-20111

SCOW, J.
Multiple circuit switch apparatus with improved
pivot actuator structure Patent
[NASA-CASE-XAC-03777] c10 N71-15909

SCROOP, F. B.
Relief container
[NASA-CASE-XMS-06761] c05 N69-23192

SCULLY, P. T.
Collapsible reflector Patent
[NASA-CASE-XMS-03454] c09 N71-20658

SEA, R. G.
Junction range finder
[NASA-CASE-KSC-10108] c14 N72-15426

SEATON, A. F.
Conical reflector antenna Patent Application
[NASA-CASE-NPO-10303] c07 N70-36055

Phase multiplying electronic scanning system
Patent
[NASA-CASE-NPO-10302] c10 N71-26142

Virtual wall slot circularly polarized planar
array antenna
[NASA-CASE-NPO-10301] c07 N72-11148

SEATON, S. L.
Electrostatic plasma modulator for space vehicle
re-entry communication Patent
[NASA-CASE-XLA-01400] c07 N70-41331

Means for communicating through a layer of ionized
gases Patent
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Method for measuring the characteristics of a gas
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[NASA-CASE-XLA-03375] c16 N71-24074

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SEAY, B. P., JR.
Burst synchronization detection system Patent
[NASA-CASE-XMS-05605-1] c10 N71-19468

SECRETAN, L.
Rotary bead dropper and selector for testing
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SEEGMILLER, H. L. B.
Inertia diaphragm pressure transducer Patent
[NASA-CASE-XAC-02981] c14 N71-21072

SEIDENBERG, B.
Method and apparatus for determining the contents
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SEILER, E. E.
Method for leakage testing of tanks Patent
[NASA-CASE-XNF-02392] c32 N71-24285

SEITZ, T. E.
Heat activated cell with alkali anode and alkali
salt electrolyte Patent
[NASA-CASE-LEW-11358] c03 N71-26084

SEITZINGER, V. F.
Unfired-ceramic flame-resistant insulation and
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Ceramic insulation for radiant heating
environments and method of preparing the same
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SELLEN, J. E., JR.
Method and apparatus for measuring potentials in
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[NASA-CASE-XLE-00821] c25 N71-15650

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[NASA-CASE-XLE-00820] c14 N71-16014

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[NASA-CASE-XLE-02038] c09 N71-16086

SERAFINI, T. T.
Preparation of polyimides from mixtures of
monomeric diamines and esters of polycarboxylic
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[NASA-CASE-LEW-11325-1] c06 N72-10134

SEWARD, H. H.
Radiant energy sensor Patent Application
[NASA-CASE-ERC-10174] c21 N70-35861

Compact spectroradiometer.
[NASA-CASE-HQN-10683] c14 N71-34389

SEYFFERT, M. B.
Controlled glass bead peening Patent
[NASA-CASE-XLA-07390] c15 N71-18616

SEYL, J. W.
Dynamic Doppler simulator Patent
[NASA-CASE-XMS-05454-1] c07 N71-12391

SHAFER, J. I.
Solid propellant rocket motor
[NASA-CASE-NPO-11559] c28 N71-34949

SHAPFER, C. V.
Active RC networks
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Multiloop RC active filter apparatus having low
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SHAI, C. M.
Alkali-metal silicate protective coating
[NASA-CASE-XGS-04119] c18 N69-39979

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[NASA-CASE-XGS-04799] c18 N71-24183

SHALTEWS, R. K.
Alloy film deposition Patent Application
[NASA-CASE-LEW-10920-1] c17 N71-31130

SHANKAR, N. K.
Ultrastable calibrated light source Patent
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[NASA-CASE-MS-C-12293-1] c14 N70-36029

SHAPIRO, H.
Trap for preventing diffusion pump backstreaming
[NASA-CASE-GSC-10518] c15 N69-21855

Omni-directional anisotropic molecular trap Patent
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SHATAZSKY, R.
Tape guidance system and apparatus for the
provision thereof Patent
[NASA-CASE-XNP-09453] c08 N71-19420

SHATTUCK, R. D.
Protection of serially connected solar cells
against open circuits by the use of shunting
diode Patent
[NASA-CASE-XLE-04535] c03 N71-23354

SHEFSIEK, P. K.
Method and apparatus for distillation of liquids
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Method for distillation of liquids
[NASA-CASE-XNP-08124-2] c06 N72-13102

SHELTON, J. P., JR.
Monopulse tracking system Patent
[NASA-CASE-XGS-01155] c10 N71-21483

SHELTON, R. D.
Electron beam instrument for measuring electric
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[NASA-CASE-XMF-10289] c14 N71-23699

SHEPARD, C. E.
Electric arc apparatus Patent
[NASA-CASE-XAC-01677] c09 N71-20816

SHEPARD, S. K.
Peak polarity selector Patent
[NASA-CASE-FRC-10010] c10 N71-24862

SHERPEY, J. M.
Bonded elastomeric seal for electrochemical cells
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[NASA-CASE-XGS-02631] c03 N71-23006

Processes for making sheets with parallel pores of
uniform size
[NASA-CASE-GSC-10984-1] c15 N71-34427

Frangible electrochemical cell
[NASA-CASE-XGS-10010] c03 N72-15986

SHERMAN, A.
Annular slit colloid thruster Patent
[NASA-CASE-GSC-10709-1] c28 N71-25213

SHERWIN, E. J.
Bonding thermoelectric elements to nonmagnetic
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[NASA-CASE-XGS-04554] c15 N69-39786

SHEWMAKE, G. A.
Life raft Patent
[NASA-CASE-XMS-00863] c05 N70-34857

Life preserver Patent
[NASA-CASE-XMS-00864] c05 N70-36493

Inflatable radar reflector unit Patent
[NASA-CASE-XMS-00893] c07 N70-40063

Rescue litter flotation assembly Patent
[NASA-CASE-XMS-04170] c05 N71-22748

SHIEBER, H.
Prestressed refractory structure Patent
[NASA-CASE-XNP-02888] c18 N71-21068

SHIGEMOTO, F. H.
Laser fluid velocity detector Patent
[NASA-CASE-XAC-10770-1] c16 N71-24828

SHIMADA, K.
Thermionic diode switch Patent
[NASA-CASE-NPO-10404] c03 N71-12255

Cavity emitter for thermionic converter Patent
[NASA-CASE-NPO-10412] c09 N71-28421

SHIMODA, K.
Method and apparatus for stabilizing a gaseous optical maser Patent
[NASA-CASE-XGS-03644] c16 N71-18614

SHORTRIDGE, S. R.
Switching circuit employing regeneratively connected complementary transistors Patent
[NASA-CASE-XNP-02654] c10 N70-42032

SHRIVER, C. B.
Method of making a filament-wound container Patent
[NASA-CASE-XLE-03803-2] c15 N71-17651

Filament wound container Patent
[NASA-CASE-XLE-03803] c15 N71-23816

Panelized high performance multilayer insulation Patent
[NASA-CASE-MFS-14023] c33 N71-25351

SHRIVER, E. L.
Apparatus for determining the deflection of an electron beam impinging on a target Patent
[NASA-CASE-XMP-06617] c09 N71-24843

SHUBE, E. E.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XMS-04312] c07 N71-22984

SHULMAN, A. R.
Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence
[NASA-CASE-GSC-11133-1] c23 N72-11568

SHUMATE, M. S.
Method and apparatus for aligning a laser beam projector Patent
[NASA-CASE-NPO-11087] c23 N71-29125

SHURE, L. I.
A protected isotope heat source
[NASA-CASE-LEW-11227-1] c33 N71-35153

SIEGEL, B.
Resonant infrasonic gauging apparatus
[NASA-CASE-MSC-11847-1] c14 N72-11363

SIGNORELLI, R. A.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288

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[NASA-CASE-XLE-00231] c17 N70-38198

SIKORA, P. F.
High temperature testing apparatus Patent
[NASA-CASE-XLE-00335] c14 N70-35368

SIKORA, D. J.
Apparatus for overcurrent protection of a push-pull amplifier Patent
[NASA-CASE-MSC-12C33-1] c09 N71-13531

SILVER, R. H.
Means and method of measuring viscoelastic strain Patent
[NASA-CASE-XNP-01153] c32 N71-17645

Miniature stress transducer Patent
[NASA-CASE-XNP-02983] c14 N71-21091

Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test
[NASA-CASE-NPO-10778] c14 N72-11364

SILVERMAN, J. R.
Programmable telemetry system Patent
[NASA-CASE-GSC-1C131-1] c07 N71-24624

SIMAS, V. R.
Optimum predetection diversity receiving system Patent
[NASA-CASE-XGS-00740] c07 N71-23098

SIMMONDS, P. G.
Electrolytic gas operated actuator
[NASA-CASE-NPO-11369] c15 N71-34419

Compact hydrogenator
[NASA-CASE-NPO-11682] c15 N72-21474

SIMMONS, PETER G.
Atmospheric sampling devices
[NASA-CASE-NPO-11373] c13 N72-13306

SIMMONS, W. H.
Indexed keyed connection Patent
[NASA-CASE-XMS-02532] c15 N70-41808

SIMON, H. K.
Data aided carrier tracking loops Patent Application
[NASA-CASE-NPO-11282] c10 N71-33105

SIMON, S. L.
Temperature reducing coating for metals subject to flame exposure Patent
[NASA-CASE-XLE-00035] c33 N71-29151

SIMPSON, W. E.
Radiator deployment actuator Patent
[NASA-CASE-MSC-11817-1] c15 N71-26611

SIMPSON, W. G.
Space environmental work simulator Patent
[NASA-CASE-XMP-07488] c11 N71-18773

Stud-bonding gun
[NASA-CASE-MFS-20299] c15 N72-11392

SIMS, C. R.
Multi axes vibration fixtures
[NASA-CASE-MFS-20242] c14 N72-20405

SINCLAIR, A. R.
A laser remote control system Patent Application
[NASA-CASE-LAR-10311-1] c16 N70-35542

Ablation sensor Patent
[NASA-CASE-XLA-01791] c14 N71-22991

SIROCKY, P. J.
Apparatus for transferring cryogenic liquids Patent
[NASA-CASE-XLE-00345] c15 N70-38020

SIVERTSON, W. E., JR.
Adaptive compression of communication signals Patent
[NASA-CASE-XLA-03076] c07 N71-11266

Rate data encoder
[NASA-CASE-LAR-10128-1] c08 N72-15177

Logical function generator
[NASA-CASE-XLA-05099] c09 N72-15198

SIVITER, J. H., JR.
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[NASA-CASE-XLE-01533] c11 N71-10777

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[NASA-CASE-ARC-10131-1] c15 N71-27754

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 Fire resistant coating composition Patent
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 [NASA-CASE-MSC-13601-1] c05 N72-11088

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 [NASA-CASE-XMS-04533] c15 N71-23086

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T

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 Protection for energy conversion systems
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[NASA-CASE-XNP-01383] c09 N71-10659
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[NASA-CASE-ERC-10113] c09 N71-27053
Current dependent filter inductance

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Hydraulic casting of liquid polymers Patent
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[NASA-CASE-XLA-00141] c09 N70-33312

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Electromechanical control actuator system Patent
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TSUTSUMI, K.
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TUBBS, H. E.
Continuous detonation reaction engine Patent
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TUCKER, E. M.
Coupling device
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Space suit heat exchanger Patent
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Extravehicular tunnel suit system Patent
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VANAUKEN, R.
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VANO, A. E.
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VANSCHOIACK, M. M. E.
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WALLACE, E. D.

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VAUGHAN, G. R.
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VERMILLION, C. H.
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WEBB, D. L.
Electronic video editor Patent Application
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WEBER, R. J.
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WEINSTEIN, H.
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Positive displacement flowmeter Patent
[NASA-CASE-XMF-02822] c14 N70-41994

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WELLS, W. H.
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WENZEL, G. E.
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WESTON, K. C.
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WESTPHAL, J. A.
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WETHORE, J. W.
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WEZNER, F. S.
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WHEATLEY, D. G.
Hermetic sealed vibration damper. Patent
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WHEELER, R. K.
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[NASA-CASE-MSC-12372-1] c31 N70-41959

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WIBBE, ERVIN R.
Improved helium refrigerator and method for decontaminating the refrigerator
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WIECH, R. E.
Zeta potential flowmeter Patent
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WILNER, B. M.
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WILSON, M. L.
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WILSON, M. N., JR.
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[NASA-CASE-XMS-04292]	c15 N71-22722	[NASA-CASE-MFS-20410]		
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[NASA-CASE-WLP-10002]	c15 N72-17451	WYLIE, G. M.	Sealed battery gas manifold construction Patent	c03 N71-11051
WOLFF, J. R.		[NASA-CASE-XNP-03378]		
High speed binary to decimal conversion system Patent				
[NASA-CASE-IGS-01230]	c08 N71-19544			
WOLLER, J. A.				
Evacuation port seal Patent				
[NASA-CASE-XMP-03290]	c15 N71-23256			
WOLTHUTS, R. A.				
Contourograph system for monitoring electrocardiograms				
[NASA-CASE-MSC-13407-1]	c10 N72-20225			
WONG, R. Y.				
Plurality of photosensitive cells on a pyramidal base for planetary trackers				
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Apparatus for absorbing and measuring power Patent				
[NASA-CASE-XLE-00720]	c14 N70-40201			
Television signal processing system Patent				
[NASA-CASE-NPO-10140]	c07 N71-24742			
Video signal enhancement system with dynamic range compression and modulation index expansion Patent				
[NASA-CASE-NPO-10343]	c07 N71-27341			
WOO, K. E.				
High impact antenna Patent				
[NASA-CASE-NPO-10231]	c07 N71-26101			
WOO, KENNETH E.				
Multi-purpose antenna				
[NASA-CASE-NPO-11264]	c07 N72-21155			
WOOD, A. D.				
Transient heat transfer gauge Patent				
[NASA-CASE-XNP-09802]	c33 N71-15641			

WYMAN, C. L.
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

WYSOCKI, J. J.
Radiation resistant silicon semiconductor devices
Patent [NASA-CASE-IGS-07801] c09 N71-12513

Y

YAGER, S. P.
Piping arrangement through a double chamber
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YANG, P. H.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465

YASUI, R. K.
Solar cell submodule Patent
[NASA-CASE-XNP-05821] c03 N71-11056
Solar cell matrix Patent
[NASA-CASE-NPO-10821] c03 N71-19545
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[NASA-CASE-NPO-11190] c03 N71-34044
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YEAGER, P. R.
Gas analyzer for bi-gaseous mixtures Patent
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Fast scan control for deflection type mass
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YOST, V. E.
Apparatus for welding torch angle and seam
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YOUNG, A. L.
Control valve and co-axial variable injector
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YOUNG, H.
Radio frequency shielded enclosure Patent
[NASA-CASE-XMF-09422] c07 N71-19436

YOUNG, L. R.
Display research collision warning system
[NASA-CASE-HQN-10703] c21 N72-11527

YOUNG, R. N.
Ac power amplifier Patent Application
[NASA-CASE-LAR-10218-1] c09 N70-34559
Automatic balancing device Patent
[NASA-CASE-LAR-10774] c10 N71-13545

YOUNG, W. J.
Phonocardiograph transducer Patent
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YOUNGBLUTH, O., JR.
Sensitivity mapping of photodetectors Patent
Application [NASA-CASE-LAR-10320-1] c09 N70-36057

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ZARLAVA, B. A.
Vacuum probe surface sampler
[NASA-CASE-LAR-10623-1] c14 N72-21415

ZAREMBA, J. G.
Passive caging mechanism Patent
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ZARETSKY, E. V.
Method of improving the reliability of a rolling
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ZAVADA, E. J.
Frangible tube energy dissipation Patent
[NASA-CASE-XLA-00754] c15 N70-34850

ZAVIAHNTSEFF, V. T.
Apparatus for ionization analysis Patent
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ZEBROWSKI, Z. E.
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ZELLNER, G. J.
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ZEMAN, JOHN R.
Lamp modulator [NASA-CASE-KSC-10565] c09 N72-15199

ZERGER, R. S.
Constant temperature heat sink for calorimeters
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ZERLAUT, G. A.
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ZIEMKE, M. C.
Constant temperature heat sink for calorimeters
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Thermally operated valve Patent [NASA-CASE-XLE-00815] c15 N70-35407
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[NASA-CASE-XNP-02839] c28 N70-41922

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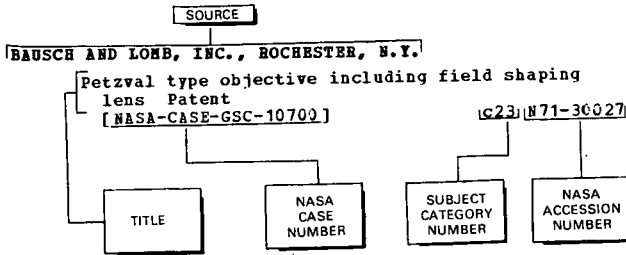
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AEROJET-GENERAL CORP., SACRAMENTO, CALIF.
Process of forming particles in a cryogenic path Patent [NASA-CASE-NPO-10250] c23 N71-16212

AIRBORNE INSTRUMENTS LAB., DEER PARK, N.Y.
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AMERICAN OPTICAL CO., PITTSBURGH, PA.
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AMERICAN OPTICAL CO., SOUTHBRIDGE, MASS.
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AMERICAN SCIENCE AND ENGINEERING, INC., CAMBRIDGE, MASS.
X-ray reflection collimator adapted to focus

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APPLIED MAGNETICS CORP., GOLETA, CALIF.
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APPLIED SPACE PRODUCTS, INC., PALO ALTO, CALIF.
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ASTRO-SPACE LABS., INC., HUNTSVILLE, ALA.
Linear differential pressure sensor Patent [NASA-CASE-XNP-01974] c14 N71-22752

ATLANTIC RESEARCH CORP., ALEXANDRIA, VA.
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AUBURN RESEARCH FOUNDATION, INC., ALA.
Shear modulated fluid amplifier Patent [NASA-CASE-MFS-10412] c12 N71-17578
Laser coolant and ultraviolet filter [NASA-CASE-NFS-20180] c16 N72-12440

AUTOMETICS, ANAHEIM, CALIF.
An adaptive voting computer system [NASA-CASE-MSC-13932-1] c08 N72-21206

AVCO CORP., NEW YORK.
Signal multiplexer [NASA-CASE-XGS-01110] c07 N69-24334

AVCO CORP., WILMINGTON, MASS.
Method and apparatus for making a heat insulating and ablative structure Patent [NASA-CASE-XMS-02009] c33 N71-20834

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BALDWIN-LIMA-HAMILTON CORP., SAN FRANCISCO, CALIF.
Valve actuator Patent [NASA-CASE-XHQ-01208] c15 N70-35409

BARNES ENGINEERING CO., STANFORD, CONN.
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BATTELLE MEMORIAL INST., COLUMBUS, OHIO.
Process for preparation of dianilinosilanes Patent [NASA-CASE-XMF-06409] c06 N71-23230
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BATTELLE MEMORIAL INST., RICHLAND, WASH.
Low temperature aluminum alloy Patent [NASA-CASE-XMF-02786] c17 N71-20743

BATTELLE-NORTHWEST, RICHLAND, WASH.
Preparation of high purity copper fluoride [NASA-CASE-LEW-10794-1] c06 N72-17093

BAUSCH AND LOHB, INC., ROCHESTER, N.Y.
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BAYLOR UNIV., HOUSTON, TEX.
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BECKMAN INSTRUMENTS, INC., FULLERTON, CALIF.
Pulse activated polarographic hydrogen detector Patent

- [NASA-CASE-XMF-06531] c14 N71-17575
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[NASA-CASE-HFS-13532] c18 N72-17532
- INSTITUTE OF RESEARCH AND INSTRUMENTATION, HOUSTON, TEX.**
- Pressed disc type sensing electrodes with ion-screening means Patent
[NASA-CASE-XMS-04212-1] c05 N71-12346
- INTERNATIONAL BUSINESS MACHINES CORP., NEW YORK.**
- Electrical connector pin with wiping action
[NASA-CASE-XMF-04238] c09 N69-39734
- Tool attachment for spreading loose elements away from work Patent
[NASA-CASE-XMF-02107] c15 N71-10809
- Redundant memory organization Patent
[NASA-CASE-GSC-10564] c10 N71-29135
- INTERNATIONAL HARVESTER CO., SAN DIEGO, CALIF.**
- Silicide coatings for refractory metals Patent
[NASA-CASE-XLE-10910] c18 N71-29040
- IIT CORP., NUTLEY, N.J.**
- Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773
- Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473
- Satellite interlace synchronization system
[NASA-CASE-GSC-10390-1] c07 N72-11149
- J**
- JET PROPULSION LAB., CALIF. INST. OF TECH., PASADENA.**
- Pressure variable capacitor
[NASA-CASE-XNP-09752] c14 N69-21541
- Rock drill for recovering samples
[NASA-CASE-XNP-07478] c14 N69-21923
- Data compression system
[NASA-CASE-XNP-09785] c08 N69-21928
- Magnetohydrodynamic induction machine
[NASA-CASE-XNP-07481] c25 N69-21929
- Electromechanical actuator
[NASA-CASE-XNP-05975] c15 N69-23185
- Refrigeration apparatus
[NASA-CASE-NPO-10309] c15 N69-23190
- Direct radiation cooling of the collector of linear beam tubes
[NASA-CASE-XNP-09227] c15 N69-24319
- Excitation and detection circuitry for a flux responsive magnetic head
[NASA-CASE-XNP-04183] c09 N69-24329
- Telemetry word forming unit
[NASA-CASE-XNP-09225] c09 N69-24333
- Solid state switch
[NASA-CASE-XNP-09228] c09 N69-27500
- Belleville spring assembly with elastic guides
[NASA-CASE-XNP-09452] c15 N69-27504
- Trifunctional alcohol
[NASA-CASE-NPO-10714] c06 N69-31244
- New sterilizable propellant oxidizer in dipropellant composition
[NASA-CASE-NPO-10687] c27 N69-33347
- Plurality of photosensitive cells on a pyramidal base for planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
- Coating process
[NASA-CASE-XNP-06508] c18 N69-39895
- Bi-metallic power controlled actuator
[NASA-CASE-XNP-09776] c09 N69-39929
- Piping arrangement through a double chamber structure
[NASA-CASE-XNP-08882] c15 N69-39935
- Micropacked column for a chromatographic system
[NASA-CASE-XNP-04816] c06 N69-39936
- Temperature sensitive capacitor device
[NASA-CASE-XNP-09750] c14 N69-39937
- Thermally cascaded thermoelectric generator Patent application
[NASA-CASE-NPO-10753] c03 N70-10898
- Polymerization method Patent application
[NASA-CASE-NPO-10893] c27 N70-11130
- Thin-film gauge Patent Application
[NASA-CASE-NPO-10617] c14 N70-12618

Image copier Patent Application
 [NASA-CASE-NPO-10196-2] c14 N70-20711
 High speed movie data acquisition system Patent
 Application
 [NASA-CASE-NPO-10745] c08 N70-20727
 Pulsed power transistor circuit with stored
 charges sweep means Patent Application
 [NASA-CASE-NPO-10674] c10 N70-22132
 Communications link for computers Patent
 Application
 [NASA-CASE-NPO-11161] c08 N70-22193
 Feedback shift register with states decomposed
 into cycles of equal length Patent Application
 [NASA-CASE-NPO-11082] c08 N70-22205
 Electrode and method of making same Patent
 Application
 [NASA-CASE-NPO-11157] c15 N70-22275
 Cathode sputtering apparatus Patent Application
 [NASA-CASE-NPO-11009] c15 N70-22292
 Method and apparatus for applying cover slides
 Patent Application
 [NASA-CASE-NPO-10575] c15 N70-25621
 Improved valve seat Patent Application
 [NASA-CASE-NPO-10606] c15 N70-25622
 Mechanically extendible telescoping boom Patent
 Application
 [NASA-CASE-NPO-11118] c03 N70-25674
 Cover plate for solar cell panels Patent
 Application
 [NASA-CASE-NPO-10747] c03 N70-25867
 Digital function generator Patent Application
 [NASA-CASE-NPO-11104] c08 N70-25930
 Optical system for space simulator Patent
 Application
 [NASA-CASE-NPO-11096] c11 N70-25959
 Method of treating metallic surfaces Patent
 Application
 [NASA-CASE-NPO-10779] c15 N70-34641
 Thermionic tantalum emitter doped with oxygen
 Patent Application
 [NASA-CASE-NPO-11138] c03 N70-34646
 Data handling system based on source significance,
 storage availability and data received from the
 source Patent Application
 [NASA-CASE-XNP-04162-1] c08 N70-34675
 Flexible material having a controlled resiliency
 and a process for providing such material
 Patent Application
 [NASA-CASE-NPO-10853] c18 N70-34685
 Electro-optical scanning apparatus Patent
 Application
 [NASA-CASE-NPO-11106] c14 N70-34697
 Ionene membrane separator Patent Application
 [NASA-CASE-NPO-11091] c18 N70-34742
 Helium refining by superfluidity Patent
 [NASA-CASE-XNP-00733] c06 N70-34946
 Means and methods of depositing thin films on
 substrates Patent
 [NASA-CASE-XNP-00595] c15 N70-34967
 Photosensitive device to detect bearing deviation
 Patent
 [NASA-CASE-XNP-00438] c21 N70-35089
 Coaxial injector for reaction motors Patent
 Application
 [NASA-CASE-NPO-11095] c28 N70-35103
 Antenna beam-shaping apparatus Patent
 [NASA-CASE-XNP-00611] c09 N70-35219
 Temperature-compensating means for cavity
 resonator of amplifier Patent
 [NASA-CASE-XNP-00449] c14 N70-35220
 Digital control and information system Patent
 Application
 [NASA-CASE-NPO-11016] c08 N70-35351
 Parabolic reflector horn feed with spillover
 correction Patent
 [NASA-CASE-XNP-00540] c09 N70-35382
 Means for visually indicating flight paths of
 vehicles between the Earth, Venus, and Mercury
 Patent
 [NASA-CASE-XNP-00708] c14 N70-35394
 Space vehicle attitude control Patent
 [NASA-CASE-XNP-00465] c21 N70-35395
 Continuously variable voltage-controlled phase
 shifter Patent Application
 [NASA-CASE-NPO-11129] c09 N70-35396
 Binary to binary-coded-decimal converter Patent
 [NASA-CASE-XNP-00432] c08 N70-35423
 Cassegrainian antenna subreflector flange for
 suppressing ground noise Patent
 [NASA-CASE-XNP-00683] c09 N70-35425
 Optical scanning apparatus Patent Application
 [NASA-CASE-NPO-11002] c14 N70-35433
 Digital sun sensor Patent Application
 [NASA-CASE-NPO-11072] c21 N70-35437
 Self-obturing, gas-operated launcher Patent
 Application
 [NASA-CASE-NPO-11013] c11 N70-35519
 Screen particle separator Patent Application
 [NASA-CASE-XNP-09770-2] c15 N70-35588
 Constant current source Patent Application
 [NASA-CASE-NPO-10733] c09 N70-35631
 Method and a system for controlling vapor content
 of a gas Patent Application
 [NASA-CASE-NPO-10633] c03 N70-35641
 Ionization vacuum gauge Patent
 [NASA-CASE-XNP-00646] c14 N70-35666
 Conical reflector antenna Patent Application
 [NASA-CASE-NPO-10303] c07 N70-36055
 Analog-to-digital converter analyzing system
 Patent Application
 [NASA-CASE-NPO-10560] c08 N70-36074
 Two-fluid magnetohydrodynamic system and method
 for thermal-electric power conversion Patent
 [NASA-CASE-XNP-00644] c03 N70-36803
 Mechanical coordinate converter Patent
 [NASA-CASE-XNP-00614] c14 N70-36907
 High pressure four-way valve Patent
 [NASA-CASE-XNP-00214] c15 N70-36908
 Liquid rocket system Patent
 [NASA-CASE-XNP-00610] c28 N70-36910
 Radar ranging receiver Patent
 [NASA-CASE-XNP-00748] c07 N70-36911
 Attitude control for spacecraft Patent
 [NASA-CASE-XNP-00294] c21 N70-36938
 Elastic universal joint Patent
 [NASA-CASE-XNP-00416] c15 N70-36947
 Apparatus and method for control of a solid fueled
 rocket vehicle Patent
 [NASA-CASE-XNP-00217] c28 N70-38181
 Expulsion bladder-equipped storage tank structure
 Patent
 [NASA-CASE-XNP-00612] c11 N70-38182
 High-voltage cable Patent
 [NASA-CASE-XNP-00738] c09 N70-38201
 Umbilical separator for rockets Patent
 [NASA-CASE-XNP-00425] c11 N70-38202
 Multiple Belleville spring assembly Patent
 [NASA-CASE-XNP-00840] c15 N70-38225
 Ignition system for monopropellant combustion
 devices Patent
 [NASA-CASE-XNP-00249] c28 N70-38249
 Pressure regulating system Patent
 [NASA-CASE-XNP-00450] c15 N70-38603
 Slit regulated gas journal bearing Patent
 [NASA-CASE-XNP-00476] c15 N70-38620
 Steerable solid propellant rocket motor Patent
 [NASA-CASE-XNP-00234] c28 N70-38645
 Space simulator Patent
 [NASA-CASE-XNP-00459] c11 N70-38675
 Ejection unit Patent
 [NASA-CASE-XNP-00676] c15 N70-38996
 Time-division multiplexer Patent
 [NASA-CASE-XNP-00431] c09 N70-38998
 Trajectory-correction propulsion system Patent
 [NASA-CASE-XNP-01104] c28 N70-39931
 Electrically-operated rotary shutter Patent
 [NASA-CASE-XNP-00637] c14 N70-40273
 Zero gravity starting means for liquid propellant
 motors Patent
 [NASA-CASE-XNP-01390] c28 N70-41275
 Parallel motion suspension device Patent
 [NASA-CASE-XNP-01567] c15 N70-41310
 Ignition means for monopropellant Patent
 [NASA-CASE-XNP-00876] c28 N70-41311
 Reinforcing means for diaphragms Patent
 [NASA-CASE-XNP-01962] c32 N70-41370
 High pressure filter Patent
 [NASA-CASE-XNP-00732] c28 N70-41447
 Phase-locked loop with sideband rejecting
 properties Patent
 [NASA-CASE-XNP-02723] c07 N70-41680
 Digital television camera control system Patent
 [NASA-CASE-XNP-01472] c14 N70-41807
 Antiflutter ball check valve Patent
 [NASA-CASE-XNP-01152] c15 N70-41811
 Roll attitude star sensor system Patent
 [NASA-CASE-XNP-01307] c21 N70-41856

Process for preparing sterile solid propellants Patent
 [NASA-CASE-XNP-01749] c27 N70-41897

Solenoid construction Patent
 [NASA-CASE-XNP-01951] c09 N70-41929

Closed loop ranging system Patent
 [NASA-CASE-XNP-01501] c21 N70-41930

Printed circuit board with bellows rivet connection Patent
 [NASA-CASE-XNP-05082] c15 N70-41960

Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent
 [NASA-CASE-XNP-00911] c08 N70-41961

Baseline stabilization system for ionization detector Patent
 [NASA-CASE-XNP-03128] c10 N70-41991

Deployable support Patent Application
 [NASA-CASE-NPO-10883] c31 N70-42330

Single or joint amplitude distribution analyzer Patent
 [NASA-CASE-XNP-01383] c09 N71-10659

Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent
 [NASA-CASE-XNP-03134] c07 N71-10676

Method for determining the state of charge of batteries by the use of tracers Patent
 [NASA-CASE-XNP-01464] c03 N71-10728

High pressure regulator valve Patent
 [NASA-CASE-XNP-00710] c15 N71-10778

Solar battery with interconnecting means for plural cells Patent
 [NASA-CASE-XNP-06506] c03 N71-11050

Sealed battery gas manifold construction Patent
 [NASA-CASE-XNP-03378] c03 N71-11051

Solar cell submodule Patent
 [NASA-CASE-XNP-05821] c03 N71-11056

Reflectometer for receiver input impedance match measurement Patent
 [NASA-CASE-XNP-10843] c07 N71-11267

Means for generating a sync signal in an FM communication system Patent
 [NASA-CASE-XNP-10830] c07 N71-11281

Multi-feed cone Cassegrain antenna Patent
 [NASA-CASE-NPO-10539] c07 N71-11285

Thermionic diode switch Patent
 [NASA-CASE-NPO-10404] c03 N71-12255

Anti-backlash circuit for hydraulic drive system Patent
 [NASA-CASE-XNP-01020] c03 N71-12260

Binary number sorter Patent
 [NASA-CASE-NPO-10112] c08 N71-12502

Linear three-tap feedback shift register Patent
 [NASA-CASE-NPO-10351] c08 N71-12503

Binary sequence detector Patent
 [NASA-CASE-XNP-05415] c08 N71-12505

Data compression system with a minimum time delay unit Patent
 [NASA-CASE-XNP-08832] c08 N71-12506

Magnetic counter Patent
 [NASA-CASE-XNP-08836] c09 N71-12515

Operational integrator Patent
 [NASA-CASE-NPO-10230] c09 N71-12520

Starting circuit for vapor lamps and the like Patent
 [NASA-CASE-XNP-01058] c09 N71-12540

Matched thermistors for microwave power meters Patent
 [NASA-CASE-NPO-10348] c10 N71-12554

Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent
 [NASA-CASE-XNP-00384] c09 N71-13530

Automatic thermal switch Patent
 [NASA-CASE-XNP-03796] c23 N71-15467

Photoelectric energy spectrometer Patent
 [NASA-CASE-XNP-04161] c14 N71-15599

Anti-glare improvement for optical imaging systems Patent
 [NASA-CASE-NPO-10337] c14 N71-15604

Fluid flow restrictor Patent
 [NASA-CASE-NPO-10117] c15 N71-15608

High temperature lens construction Patent
 [NASA-CASE-XNP-04111] c14 N71-15622

Solder flux which leaves corrosion-resistant coating Patent
 [NASA-CASE-XNP-03459-2] c18 N71-15688

Intermittent type silica gel adsorption refrigerator Patent
 [NASA-CASE-XNP-00920] c15 N71-15906

Dual mode horn antenna Patent
 [NASA-CASE-XNP-01057] c07 N71-15907

Means for controlling rupture of shock tube diaphragms Patent
 [NASA-CASE-XAC-00731] c11 N71-15960

Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent
 [NASA-CASE-XNP-01193] c10 N71-16057

Polarimeter for transient measurement Patent
 [NASA-CASE-XNP-08883] c23 N71-16101

Flexible composite membrane Patent
 [NASA-CASE-XNP-08837] c18 N71-16210

Mount for thermal control system Patent
 [NASA-CASE-NPO-10138] c33 N71-16357

Optical characteristics measuring apparatus Patent
 [NASA-CASE-XNP-08840] c23 N71-16365

Parallel plate viscometer Patent
 [NASA-CASE-XNP-09462] c14 N71-17584

Means and method of measuring viscoelastic strain Patent
 [NASA-CASE-XNP-01153] c32 N71-17645

Interferometer direction sensor Patent
 [NASA-CASE-NPO-10320] c14 N71-17655

Interferometer servo system Patent
 [NASA-CASE-NPO-10300] c14 N71-17662

Electrical spot terminal assembly Patent
 [NASA-CASE-NPO-10034] c15 N71-17685

Sealed separable connection Patent
 [NASA-CASE-NPO-10064] c15 N71-17693

Incremental motion drive system Patent
 [NASA-CASE-XNP-08897] c15 N71-17694

Microbalance including crystal oscillators for measuring contaminants in a gas system Patent
 [NASA-CASE-NPO-10144] c14 N71-17701

Apparatus and method for protecting a photographic device Patent
 [NASA-CASE-NPO-10174] c14 N71-18465

Ranging system Patent
 [NASA-CASE-NPO-10066] c09 N71-18598

High impact pressure regulator Patent
 [NASA-CASE-NPO-10175] c14 N71-18625

Magnetic core current steering combinator Patent
 [NASA-CASE-NPO-10201] c08 N71-18694

Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent
 [NASA-CASE-NPO-10373] c03 N71-18698

A dc-coupled noninverting one-shot Patent
 [NASA-CASE-XNP-09450] c10 N71-18723

Automatic fault correction system for parallel signal channels Patent
 [NASA-CASE-XNP-03263] c09 N71-18843

Data compression processor Patent
 [NASA-CASE-NPO-10068] c08 N71-19288

Tape guidance system and apparatus for the provision thereof Patent
 [NASA-CASE-XNP-09453] c08 N71-19420

High voltage transistor circuit Patent
 [NASA-CASE-XNP-06937] c09 N71-19516

Solar cell matrix Patent
 [NASA-CASE-NPO-10821] c03 N71-19545

Electrical switching device Patent
 [NASA-CASE-NPO-10037] c09 N71-19610

Drift compensation circuit for analog to digital converter Patent
 [NASA-CASE-XNP-04780] c08 N71-19687

Roll-up solar array Patent
 [NASA-CASE-NPO-10188] c03 N71-20273

Method and device for determining battery state of charge Patent
 [NASA-CASE-NPO-10194] c03 N71-20407

Soil particles separator, collector and viewer Patent
 [NASA-CASE-XNP-09770] c15 N71-20440

Transmission line thermal short Patent
 [NASA-CASE-XNP-09775] c09 N71-20445

Synchronous servo loop control system Patent
 [NASA-CASE-XNP-03744] c10 N71-20448

Processing for producing a sterilized instrument Patent
 [NASA-CASE-XNP-09763] c14 N71-20461

Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent
 [NASA-CASE-XNP-05254] c07 N71-20791

Elimination of frequency shift in a multiplex communication system Patent		Detenting servomotor Patent	
[NASA-CASE-XNP-01306]	c07 N71-20814	[NASA-CASE-XNP-06936]	c15 N71-24695
High power-high voltage waterload Patent		Reversible motion drive system Patent	
[NASA-CASE-XNP-05381]	c09 N71-20842	[NASA-CASE-NPO-10173]	c15 N71-24696
Coaxial cable connector Patent		Decoder system Patent	
[NASA-CASE-XNP-04732]	c09 N71-20851	[NASA-CASE-NPO-10118]	c07 N71-24741
Soldering with solder flux which leaves corrosion resistant coating Patent		Television signal processing system Patent	
[NASA-CASE-XNP-03459]	c15 N71-21078	[NASA-CASE-NPO-10140]	c07 N71-24742
Miniature stress transducer Patent		Switching circuit Patent	
[NASA-CASE-XNP-02983]	c14 N71-21091	[NASA-CASE-XNP-06505]	c10 N71-24799
Holder for crystal resonators Patent		Magnetic power switch Patent	
[NASA-CASE-XNP-03637]	c15 N71-21311	[NASA-CASE-NPO-10242]	c09 N71-24803
Correlation function apparatus Patent		Remodulator filter Patent	
[NASA-CASE-XNP-00746]	c07 N71-21476	[NASA-CASE-NPO-10198]	c09 N71-24806
Split nut separation system Patent		Broadband microwave waveguide window Patent	
[NASA-CASE-XNP-06914]	c15 N71-21489	[NASA-CASE-XNP-08880]	c09 N71-24808
Light position locating system Patent		Cavity radiometer Patent	
[NASA-CASE-XNP-01059]	c23 N71-21821	[NASA-CASE-XNP-08961]	c14 N71-24809
Electron bombardment ion engine Patent		High-gain, broadband traveling wave maser Patent	
[NASA-CASE-XNP-04124]	c28 N71-21822	[NASA-CASE-NPO-10548]	c16 N71-24831
Data compressor Patent		Fluid containers and resealable septum therefor Patent	
[NASA-CASE-XNP-04067]	c08 N71-22707	[NASA-CASE-NPO-10123]	c15 N71-24835
Error correcting method and apparatus Patent		Temperature telemetric transmitter Patent	
[NASA-CASE-XNP-02748]	c08 N71-22749	[NASA-CASE-NPO-10649]	c07 N71-24840
Counter and shift register Patent		Tuning arrangement for an electron discharge device or the like Patent	
[NASA-CASE-XNP-01753]	c08 N71-22897	[NASA-CASE-XNP-09771]	c09 N71-24841
Friction measuring apparatus Patent		Noise limiter Patent	
[NASA-CASE-XNP-08680]	c14 N71-22995	[NASA-CASE-NPO-10169]	c10 N71-24844
Hybrid lubrication system and bearing Patent		Noninterruptable digital counting system Patent	
[NASA-CASE-XNP-01641]	c15 N71-22997	[NASA-CASE-XNP-09759]	c08 N71-24891
Filler valve Patent		Drive circuit for minimizing power consumption in inductive load Patent	
[NASA-CASE-XNP-01747]	c15 N71-23024	[NASA-CASE-NPO-10716]	c09 N71-24892
Refrigeration apparatus Patent		Space simulator Patent	
[NASA-CASE-XNP-08877]	c15 N71-23025	[NASA-CASE-NPO-10141]	c11 N71-24964
Reduced bandwidth video communication system utilizing sampling techniques Patent		Process for reducing secondary electron emission Patent	
[NASA-CASE-XNP-02791]	c07 N71-23026	[NASA-CASE-XNP-09469]	c24 N71-25555
Model launcher for wind tunnels Patent		Minimal logic block encoder Patent	
[NASA-CASE-XNP-03578]	c11 N71-23030	[NASA-CASE-NPO-10595]	c10 N71-25917
Drive circuit utilizing two cores Patent		Novel polycarboxylic prepolymeric materials and polymers thereof Patent	
[NASA-CASE-XNP-01318]	c10 N71-23033	[NASA-CASE-NPO-10596]	c06 N71-25929
Solar vane actuator Patent		Current steering switch Patent	
[NASA-CASE-XNP-05535]	c14 N71-23040	[NASA-CASE-XNP-08567]	c09 N71-26000
Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent		Dual polarity full wave dc motor drive Patent	
[NASA-CASE-XNP-01056]	c14 N71-23041	[NASA-CASE-XNP-07477]	c09 N71-26092
Connector internal force gauge Patent		High impact antenna Patent	
[NASA-CASE-XNP-03918]	c14 N71-23087	[NASA-CASE-NPO-10231]	c07 N71-26101
Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent		Video communication system and apparatus Patent	
[NASA-CASE-XNP-02140]	c09 N71-23097	[NASA-CASE-XNP-06611]	c07 N71-26102
Method of resolving clock synchronization error and means therefor Patent		Parallel generation of the check bits of a PN sequence Patent	
[NASA-CASE-XNP-08875]	c10 N71-23099	[NASA-CASE-XNP-04623]	c10 N71-26103
Impact testing machine Patent		Phase multiplying electronic scanning system Patent	
[NASA-CASE-XNP-04817]	c14 N71-23225	[NASA-CASE-NPO-10302]	c10 N71-26142
Zeta potential flowmeter Patent		Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent	
[NASA-CASE-XNP-06509]	c14 N71-23226	[NASA-CASE-NPO-10625]	c09 N71-26182
Comparator for the comparison of two binary numbers Patent		Fluid phase analyzer Patent	
[NASA-CASE-XNP-04819]	c08 N71-23295	[NASA-CASE-NPO-10691]	c14 N71-26199
Decontamination of petroleum products Patent		Variable frequency nuclear magnetic resonance spectrometer Patent	
[NASA-CASE-XNP-03835]	c06 N71-23499	[NASA-CASE-XNP-09830]	c14 N71-26266
Dicyanoacetylene polymers Patent		Time synchronization system utilizing moon reflected coded signals Patent	
[NASA-CASE-XNP-03250]	c06 N71-23500	[NASA-CASE-NPO-10143]	c10 N71-26326
Indexing microwave switch Patent		Broadband stable power multiplier Patent	
[NASA-CASE-XNP-06507]	c09 N71-23548	[NASA-CASE-XNP-10854]	c10 N71-26331
Millimeter wave radiometer for radio astronomy Patent		Cascaded complementary pair broadband transistor amplifiers Patent	
[NASA-CASE-XNP-09832]	c30 N71-23723	[NASA-CASE-NPO-10003]	c10 N71-26415
Radiant energy intensity measurement system Patent		Digital memory in which the driving of each word location is controlled by a switch core Patent	
[NASA-CASE-XNP-06510]	c14 N71-23797	[NASA-CASE-XNP-01466]	c10 N71-26434
High speed phase detector Patent		Conically shaped cavity radiometer with a dual purpose cone winding Patent	
[NASA-CASE-XNP-01306-2]	c09 N71-24596	[NASA-CASE-XNP-09701]	c14 N71-26475
Apparatus for testing polymeric materials Patent		Analog signal integration and reconstruction system Patent	
[NASA-CASE-XNP-09699]	c06 N71-24607	[NASA-CASE-NPO-10344]	c10 N71-26544
Digital synchronizer Patent		Rapid sync acquisition system Patent	
[NASA-CASE-NPO-10851]	c07 N71-24613	[NASA-CASE-NPO-10214]	c10 N71-26577
Signal processing apparatus for multiplex transmission Patent		Cryogenic cooling system Patent	
[NASA-CASE-NPO-10388]	c07 N71-24622	[NASA-CASE-NPO-10467]	c23 N71-26654
Self-testing and repairing computer Patent			
[NASA-CASE-NPO-10567]	c08 N71-24633		
Serial digital decoder Patent			
[NASA-CASE-NPO-10150]	c08 N71-24650		

Vacuum evaporator with electromagnetic ion steering Patent
 [NASA-CASE-NPO-10331] c09 N71-26701

Automated fluid chemical analyzer Patent
 [NASA-CASE-XNP-09451] c06 N71-26754

Material handling device Patent
 [NASA-CASE-XNP-09770-3] c11 N71-27036

Pressure seal Patent
 [NASA-CASE-NPO-10796] c15 N71-27068

Multiducted electromagnetic pump Patent
 [NASA-CASE-NPO-10755] c15 N71-27084

Peak acceleration limiter for vibrational tester Patent
 [NASA-CASE-NPO-10556] c14 N71-27185

Thin film capacitive bolometer and temperature sensor Patent
 [NASA-CASE-NPO-10607] c09 N71-27232

Black body cavity radiometer Patent
 [NASA-CASE-NPO-10810] c14 N71-27323

Video signal enhancement system with dynamic range compression and modulation index expansion Patent
 [NASA-CASE-NPO-10343] c07 N71-27341

Force-balanced, throttle valve Patent
 [NASA-CASE-NPO-10808] c15 N71-27432

Cavity emitter for thermionic converter Patent
 [NASA-CASE-NPO-10412] c09 N71-28421

Frictionless universal joint Patent
 [NASA-CASE-NPO-10646] c15 N71-28467

Epoxy-aziridine polymer product Patent
 [NASA-CASE-NPO-10701] c06 N71-28620

Fluid impervious barrier including liquid metal alloy and method of making same Patent
 [NASA-CASE-XNP-08881] c17 N71-28747

Wind tunnel microphone structure Patent
 [NASA-CASE-XNP-00250] c11 N71-28779

Trialkyl-dihalotantalum and niobium compounds Patent
 [NASA-CASE-XNP-04023] c06 N71-28808

Digital memory sense amplifying means Patent
 [NASA-CASE-XNP-01012] c08 N71-28925

Digital filter for reducing sampling jitter in digital control systems Patent
 [NASA-CASE-NPO-11088] c08 N71-29034

Method and apparatus for aligning a laser beam projector Patent
 [NASA-CASE-NPO-11087] c23 N71-29125

Rubber composition for use with hydrazine Patent Application
 [NASA-CASE-NPO-11433] c18 N71-31140

Improved maser for frequencies in the 7-20 GHz range Patent Application
 [NASA-CASE-NPO-11437] c16 N71-33023

Interferometer polarimeter Patent Application
 [NASA-CASE-NPO-11239] c14 N71-33024

Data aided carrier tracking loops Patent Application
 [NASA-CASE-NPO-11282] c10 N71-33105

Temperature control system with a pulse width modulated bridge Patent Application
 [NASA-CASE-NPO-11304] c14 N71-33106

High pulse rate high resolution optical radar system Patent Application
 [NASA-CASE-NPO-11426] c07 N71-33107

Rotable accurate reflector system for telescopes Patent
 [NASA-CASE-NPO-10468] c23 N71-33229

Thin film light detector Patent Application
 [NASA-CASE-NPO-11432] c14 N71-33322

Encoder/decoder system for a rapidly synchronizable binary code Patent
 [NASA-CASE-NPO-10342] c10 N71-33407

Apparatus for recovering matter adhered to a host surface Patent Application
 [NASA-CASE-NPO-11213] c15 N71-33492

MOD 2 sequential function generator for multibit binary sequence
 [NASA-CASE-NPO-10636] c19 N71-33493

High power microwave power divider Patent
 [NASA-CASE-NPO-11031] c07 N71-33606

A dc servosystem including an ac motor Patent
 [NASA-CASE-NPO-10700] c07 N71-33613

Binary coded sequential acquisition ranging system
 [NASA-CASE-NPO-11194] c08 N71-33869

Method and apparatus for frequency division multiplex communications by digital phase shift of carrier
 [NASA-CASE-NPO-11338] c07 N71-33923

Solar cell matrix
 [NASA-CASE-NPO-11190] c03 N71-34044

Multichannel telemetry system
 [NASA-CASE-NPO-11572] c07 N71-34159

Flexible computer accessed telemetry
 [NASA-CASE-NPO-11358] c07 N71-34160

Two carrier communication system with single transmitter
 [NASA-CASE-NPO-11548] c07 N71-34161

Versatile arithmetic unit for high speed sequential decoder
 [NASA-CASE-NPO-11371] c08 N71-34187

Digital scope threshold compressor
 [NASA-CASE-NPO-11630] c08 N71-34188

Automated attendance accounting system
 [NASA-CASE-NPO-11456] c08 N71-34189

Improved high-voltage isolator for liquid metal feed lines
 [NASA-CASE-NPO-11075] c09 N71-34208

Magnetic arc stabilization in compact arc lamps
 [NASA-CASE-NPO-10887] c09 N71-34209

Thermal motor
 [NASA-CASE-NPO-11283] c09 N71-34213

Inverter
 [NASA-CASE-NPO-10760] c09 N71-34215

Parallel-plate viscometer with double-diaphragm suspension
 [NASA-CASE-NPO-11387] c14 N71-34383

Improved irradiance measuring device
 [NASA-CASE-NPO-11493] c14 N71-34388

Electrolytic gas operated actuator
 [NASA-CASE-NPO-11369] c15 N71-34419

Dual purpose momentum wheels for spacecraft
 [NASA-CASE-NPO-11481] c21 N71-34591

Solid propellant rocket motor
 [NASA-CASE-NPO-11559] c28 N71-34949

Rotary actuator
 [NASA-CASE-NPO-10680] c31 N71-35080

Disconnect unit
 [NASA-CASE-NPO-11330] c33 N71-35154

Vehicle for use in planetary exploration
 [NASA-CASE-NPO-11366] c11 N71-35382

Stabilization of pigments
 [NASA-CASE-NPO-11139] c06 N72-10136

Singly curved reflector for use in high gain antennas
 [NASA-CASE-NPO-11361] c07 N72-10152

RF source resistance meters
 [NASA-CASE-NPO-10734] c14 N72-10378

Manually actuated heat pump
 [NASA-CASE-NPO-10677] c05 N72-11084

Virtual wall slot circularly polarized planar array antenna
 [NASA-CASE-NPO-10301] c07 N72-11148

System for controlling the operation of a variable signal device
 [NASA-CASE-NPO-11064] c07 N72-11150

Method and apparatus for synchronizing a single channel digital communications system
 [NASA-CASE-NPO-11302] c07 N72-11160

Method and apparatus for data compression by a decreasing slope threshold test
 [NASA-CASE-NPO-10769] c08 N72-11171

Numerical computer peripheral interactive device with manual controls
 [NASA-CASE-NPO-11497] c08 N72-11208

Silent emergency alarm system for schools and the like
 [NASA-CASE-NPO-11307] c10 N72-11258

Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test
 [NASA-CASE-NPO-10778] c14 N72-11364

Vibration isolation system using compression springs
 [NASA-CASE-NPO-11012] c15 N72-11391

Improved helium refrigerator and method for decontaminating the refrigerator
 [NASA-CASE-NPO-10634] c23 N72-11567

Feed system for an ion thruster
 [NASA-CASE-NPO-10737] c28 N72-11709

Thermostatic actuator
 [NASA-CASE-NPO-10637] c15 N72-12409

Analysis of hydrogen-deuterium mixtures
 [NASA-CASE-NPO-11322] c06 N72-13101

Solid state switch
 [NASA-CASE-NPO-10817] c09 N72-13206

Atmospheric sampling devices
 [NASA-CASE-NPO-11373] c13 N72-13306

Pseudonoise sequence generators with three tap linear feedback shift registers [NASA-CASE-NPO-11406]	c08 N72-14221	Radiant source tracker independent of non-constant irradiance [NASA-CASE-NPO-11686]	c14 N72-20395
Character recognition system [NASA-CASE-NPO-11337]	c08 N72-15178	Apparatus and method for measuring the Seebeck coefficient and resistivity of materials [NASA-CASE-NPO-11749]	c14 N72-20398
Push-pull transistor amplifier [NASA-CASE-NPO-11365]	c09 N72-15204	Impact energy absorbing system utilizing fracturable material [NASA-CASE-NPO-10671]	c15 N72-20443
Fail-safe multiple transformer circuit configuration [NASA-CASE-NPO-11078]	c09 N72-15205	Torsional disconnect unit [NASA-CASE-NPO-10704]	c15 N72-20445
Audio frequency marker system [NASA-CASE-NPO-11147]	c14 N72-15417	Gas operated actuator [NASA-CASE-NPO-11340]	c15 N72-20455
Light direction sensor [NASA-CASE-NPO-11201]	c14 N72-15421	Gas flow control device [NASA-CASE-NPO-11479]	c15 N72-20459
Light sensor [NASA-CASE-NPO-11311]	c14 N72-15422	Solid propellant rocket motor [NASA-CASE-NXP-03282]	c28 N72-20758
Cyclically operable, optical shutter [NASA-CASE-NPO-10758]	c14 N72-15429	Ion thruster with a combination keeper electrode and electron baffle [NASA-CASE-NPO-11880]	c28 N72-20766
Shock absorbing device [NASA-CASE-NPO-10626]	c15 N72-15465	Shell side liquid metal boiler [NASA-CASE-NPO-10831]	c33 N72-20915
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Quick disconnect coupling [NASA-CASE-NPO-11202]	c15 N72-15467	Multi-purpose antenna [NASA-CASE-NPO-11264]	c07 N72-21155
Linear actuator [NASA-CASE-NPO-11222]	c15 N72-15468	Current steering commutator [NASA-CASE-NPO-10743]	c08 N72-21199
High voltage transistor amplifier with constant current load [NASA-CASE-NPO-11023]	c09 N72-17155	Automated equipotential plotter [NASA-CASE-NPO-11134]	c09 N72-21246
Reference voltage switching unit [NASA-CASE-NPO-11253]	c09 N72-17157	Pressure transducer [NASA-CASE-NPO-10832]	c14 N72-21405
Valving device for automatic refilling in cryogenic liquid systems [NASA-CASE-NPO-11177]	c15 N72-17453	Penetrometer [NASA-CASE-NPO-11103]	c14 N72-21406
Expandible support means [NASA-CASE-NPO-11059]	c15 N72-17454	Positioning mechanism [NASA-CASE-NPO-10679]	c15 N72-21462
Breakaway connector [NASA-CASE-NPO-11140]	c15 N72-17455	Compact hydrogenator [NASA-CASE-NPO-11682]	c15 N72-21474
Modular encoder [NASA-CASE-NPO-10629]	c08 N72-18184	Improved injector for use in high voltage isolators for liquid feed lines [NASA-CASE-NPO-11377]	c15 N72-21475
Stacked solar cell arrays [NASA-CASE-NPO-11771]	c03 N72-20038		
Transition tracking bit synchronization system [NASA-CASE-NPO-10844]	c07 N72-20140	K	
Collapsible structure for an antenna reflector [NASA-CASE-NPO-11751]	c07 N72-20153	KELSEY-HAYES CO., ROMULUS, MICH. Variable thrust ion engine utilizing thermally decomposable solid fuel Patent [NASA-CASE-NXP-00923]	c28 N70-36802
Data compression system [NASA-CASE-NPO-11243]	c07 N72-20154	KELTEC INDUSTRIES, INC., ALEXANDRIA, VA. Unfurlable structure including coiled strips thrust launched upon tension release Patent [NASA-CASE-NQN-00937]	c07 N71-28979
Automatic carrier acquisition system [NASA-CASE-NPO-11628]	c07 N72-20156	KINELOGIC CORP., PASADENA, CALIF. Excitation and detection circuitry for a flux responsive magnetic head [NASA-CASE-NXP-04183]	c09 N69-24329
Multiple reflection conical microwave antenna [NASA-CASE-NPO-11661]	c07 N72-20158	Tape guidance system and apparatus for the provision thereof Patent [NASA-CASE-NXP-09453]	c08 N71-19420
Time synchronized VLF phase tracking receiver system [NASA-CASE-NPO-11600]	c07 N72-20159	Incremental tape recorder and data rate converter Patent [NASA-CASE-NXP-02778]	c08 N71-22710
Code regenerative clean up loop transponder for a mu-type ranging system [NASA-CASE-NPO-11707]	c07 N72-20161	KOLLSMAN INSTRUMENT CORP., ELMSHURST, N.Y. Wide angle long eye relief eyepiece Patent [NASA-CASE-NMS-06056-1]	c23 N71-24857
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier [NASA-CASE-NPO-11593]	c07 N72-20162	KOLLSMAN INSTRUMENT CORP., SYOSSET, N.Y. Digital modulator and demodulator Patent [NASA-CASE-ERC-10041]	c08 N71-29138
Digital quasi-exponential function generator [NASA-CASE-NPO-11130]	c08 N72-20176	Improved Ritchey-Chretien telescope [NASA-CASE-GSC-11487-1]	c14 N72-20404
Method and apparatus for high resolution spectral analysis [NASA-CASE-NPO-10748]	c08 N72-20177	KORAD CORP., NEW YORK. Laser apparatus for removing material from rotating objects Patent [NASA-CASE-NPS-11279]	c16 N71-20400
Flow rate switch [NASA-CASE-NPO-10722]	c09 N72-20199		
Electrical connector [NASA-CASE-NPO-10694]	c09 N72-20200	L	
Wide band doubler and sine wave quadrature generator [NASA-CASE-NPO-11133]	c10 N72-20223	LING-TEMCO-VOUGHT, INC., DALLAS, TEX. Latch/ejector unit Patent [NASA-CASE-XLA-03538]	c15 N71-24897
Signal phase estimator [NASA-CASE-NPO-11203]	c10 N72-20224	LITTLE (ARTHUR D.), INC., CAMBRIDGE, MASS. Apparatus for measuring thermal conductivity Patent [NASA-CASE-XGS-01052]	c14 N71-15992
Low phase noise digital frequency divider [NASA-CASE-NPO-11569]	c10 N72-20231	LITTON INDUSTRIES, BEVERLY HILLS, CALIF. Life support system [NASA-CASE-HSC-12411-1]	c05 N72-20096
The m-ary linear feedback shift register with binary logic [NASA-CASE-NPO-11868]	c10 N72-20236	LITTON INDUSTRIES, COLLEGE PARK, MD. Shrink-fit gas valve Patent	
Optimal control system for an electric motor driven vehicle [NASA-CASE-NPO-11210]	c11 N72-20244		
Digital control of random excitation environmental testing [NASA-CASE-NPO-11612]	c11 N72-20251		
Improved compact precision rotary vane attenuator [NASA-CASE-NPO-11418]	c14 N72-20393		

[NASA-CASE-XGS-00587] c15 N70-35087
LOCKHEED AIRCRAFT CORP., BURBANK, CALIF.
 Aerodynamic protection for space flight vehicles Patent
 [NASA-CASE-XNP-02507] c31 N71-17679
 Solar energy powered heliotope Patent Application
 [NASA-CASE-GSC-10945-1] c21 N71-28460
LOCKHEED ELECTRONICS CO., HOUSTON, TEX.
 Current-limiting voltage regulator Patent Application
 [NASA-CASE-MSC-11824-1] c09 N70-35574
 Photographic camera system Patent Application
 [NASA-CASE-MSC-13322-1] c14 N70-39900
 Television signal scan rate conversion system Patent
 [NASA-CASE-XMS-07168] c07 N71-11300
 Burst synchronization detection system Patent
 [NASA-CASE-XMS-05605-1] c10 N71-19468
 Automatic signal range selector for metering devices Patent
 [NASA-CASE-XMS-06497] c14 N71-26244
 Monostable multivibrator with complementary NOR gates Patent
 [NASA-CASE-MSC-13492-1] c10 N71-28860
LOCKHEED MISSILES AND SPACE CO., SUNNYVALE, CALIF.
 Device for handling heavy loads Patent
 [NASA-CASE-XNP-04969] c11 N69-27466
 Transient heat transfer gauge Patent
 [NASA-CASE-XNP-09802] c33 N71-15641
 Dual solid cryogenics for spacecraft refrigeration Patent
 [NASA-CASE-GSC-10188-1] c23 N71-24725
 Apparatus for detecting the amount of material in a resonant cavity container Patent
 [NASA-CASE-XNP-02500] c18 N71-27397
 Emergency earth orbital escape device
 [NASA-CASE-MSC-13281] c31 N72-18859
 Whole body measurement system
 [NASA-CASE-MSC-13972-1] c05 N72-20105
LOCKHEED PROPELLSION CO., REDLANDS, CALIF.
 Propellant grain for rocket motors Patent
 [NASA-CASE-XGS-03556] c27 N70-35534
LOCKHEED-CALIFORNIA CO., BURBANK.
 Absorptive splitter for closely spaced supersonic engine air inlets Patent
 [NASA-CASE-XLA-02865] c28 N71-15563

M

MACON-RUST CO., LEXINGTON, KY.
 Stretcher Patent
 [NASA-CASE-XMP-06589] c05 N71-23159
MARQUARDT CORP., VAN NUYS, CALIF.
 Fuel injection pump for internal combustion engines Patent
 [NASA-CASE-MSC-12139-1] c28 N71-14058
 Multislit film cooled pyrolytic graphite rocket nozzle Patent
 [NASA-CASE-XNP-04389] c28 N71-20942
 Tube sealing device Patent
 [NASA-CASE-NPO-10431] c15 N71-29132
MARTIN MARIETTA CORP., BALTIMORE, MD.
 Landing gear Patent
 [NASA-CASE-XMP-01174] c02 N70-41589
 Emergency escape system Patent
 [NASA-CASE-XKS-02342] c05 N71-11199
MARTIN MARIETTA CORP., ORLANDO, FLA.
 Temperature measurement system
 [NASA-CASE-MFS-20781] c14 N72-21429
MARYLAND UNIV., COLLEGE PARK.
 Method and apparatus for optical modulating a light signal Patent
 [NASA-CASE-GSC-10216-1] c23 N71-26722
MASSACHUSETTS INST. OF TECH., CAMBRIDGE.
 Pretreatment method for anti-wettable materials
 [NASA-CASE-XMS-03537] c15 N69-21471
 Hydraulic drive mechanism Patent
 [NASA-CASE-XMS-03252] c15 N71-10658
 Electronic amplifier with power supply switching Patent
 [NASA-CASE-XMS-00945] c09 N71-10798
 Method and apparatus for stabilizing a gaseous optical maser Patent
 [NASA-CASE-XGS-03644] c16 N71-18614
 Power supply Patent
 [NASA-CASE-XMS-02159] c10 N71-22961
 Optical frequency waveguide Patent
 [NASA-CASE-HQN-10541] c07 N71-26291

Laser machining apparatus Patent
 [NASA-CASE-HQN-10541-2] c15 N71-27135
 Optical frequency waveguide and transmission system Patent
 [NASA-CASE-HQN-01054-1] c16 N71-27183
 Compact spectroradiometer
 [NASA-CASE-HQN-10683] c14 N71-34389
 Display research collision warning system
 [NASA-CASE-HQN-10703] c21 N72-11527
 Transparent switchboard
 [NASA-CASE-MSC-13746-1] c10 N72-20240
MCDONNELL AIRCRAFT CORP., ST. LOUIS, MO.
 Method for making a heat insulating and ablative structure
 [NASA-CASE-XMS-01108] c15 N69-24322
 Heat flux sensor assembly
 [NASA-CASE-XMS-05909-1] c14 N69-27459
 Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent
 [NASA-CASE-XMS-01905] c12 N71-21089
 Power supply circuit Patent
 [NASA-CASE-XMS-00913] c10 N71-23543
MCDONNELL-DOUGLAS AERONAUTICS CO., HUNTINGTON BEACH, CALIF.
 New polymers of perfluorobutadiene and method of manufacture
 [NASA-CASE-NPO-10863-2] c06 N72-20127
MCDONNELL-DOUGLAS AERONAUTICS CO., SANTA MONICA, CALIF.
 New polymers of perfluorobutadiene and method of manufacture Patent application
 [NASA-CASE-NPO-10863] c06 N70-11251
 Method of polymerizing perfluorobutadiene Patent application
 [NASA-CASE-NPO-10447] c06 N70-11252
MCDONNELL-DOUGLAS CO., NEWPORT BEACH, CALIF.
 Method of making membranes
 [NASA-CASE-XNP-04264] c03 N69-21337
MCDONNELL-DOUGLAS CO., SANTA MONICA, CALIF.
 Rocket nozzle test method Patent
 [NASA-CASE-NPO-10311] c31 N71-15643
MCDONNELL-DOUGLAS CO., ST. LOUIS, MO.
 Collapsible pistons
 [NASA-CASE-MSC-13789-1] c11 N72-11271
 Variable direction force coupler
 [NASA-CASE-MFS-20317] c15 N72-20456
 Utilization of oxygen difluoride for syntheses of fluoropolymers
 [NASA-CASE-NPO-12061-1] c06 N72-21100
 Thermally conductive polymers
 [NASA-CASE-GSC-11304-1] c06 N72-21105
MELLON INST., PITTSBURGH, PA.
 Instrument for measuring torsional creep and recovery Patent
 [NASA-CASE-XLE-01481] c14 N71-10781
HELPER, INC., FALLS CHURCH, VA.
 Television simulation for aircraft and space flight Patent
 [NASA-CASE-XPR-03107] c09 N71-19449
 Compact solar still Patent
 [NASA-CASE-XMS-04533] c15 N71-23086
HETCOM, INC., SALEM, MASS.
 Tuning arrangement for an electron discharge device or the like Patent
 [NASA-CASE-XNP-09771] c09 N71-24841
MICROWAVE ELECTRONICS CORP., PALO ALTO, CALIF.
 Folded traveling wave maser structure Patent
 [NASA-CASE-XNP-05219] c16 N71-15550
 Superconducting magnet Patent
 [NASA-CASE-XNP-06503] c23 N71-29049
MIDWEST RESEARCH INST., KANSAS CITY, MO.
 Preparation of ordered poly /arylenesiloxane/ polymers
 [NASA-CASE-XMP-10753] c06 N71-11237
 Inorganic solid film lubricants Patent
 [NASA-CASE-XMP-03988] c15 N71-21403
 Fluorinated esters of polycarboxylic acids
 [NASA-CASE-MFS-21040] c06 N72-10135
MILLIKEN (D. B.) CO., ARCADIA, CALIF.
 Film feed camera having a detent means Patent
 [NASA-CASE-LAR-10686] c14 N71-28935
MINNEAPOLIS-HONEYWELL REGULATOR CO., MINN.
 Microelectronic module package Patent
 [NASA-CASE-XMS-02182] c10 N71-28783
MOTOROLA, INC., PHOENIX, ARIZ.
 Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent
 [NASA-CASE-XMP-08665] c10 N71-19467

MOTOROLA, INC., SCOTTSDALE, ARIZ.

Sealed cabinetry Patent
 [NASA-CASE-MSC-12168-1] c09 N71-18600
 Digital frequency discriminator Patent
 [NASA-CASE-MFS-14322] c08 N71-18692
 Phase modulator Patent
 [NASA-CASE-MSC-13201-1] c07 N71-28429

N

NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL, WASHINGTON, D.C.

Converging barrel plasma accelerator Patent
 [NASA-CASE-ARC-10109] c25 N71-29181
 Suppression of flutter
 [NASA-CASE-IAR-10682-1] c02 N72-21009
 Gyrator employing field effect transistors
 [NASA-CASE-MFS-21433] c09 N72-21255
 Electron microscope aperture system
 [NASA-CASE-ARC-10448-1] c14 N72-21421
 Optical data processing using paraboloidal mirror segments
 [NASA-CASE-GSC-11296-1] c23 N72-21662

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. AMES RESEARCH CENTER, MOFFETT FIELD, CALIF.

Nonmagnetic thermal motor for a magnetometer
 [NASA-CASE-IAR-03786] c09 N69-21313
 Balanced bellows spirometer
 [NASA-CASE-IAR-01547] c05 N69-21473
 Cryogenic apparatus for measuring the intensity of magnetic fields
 [NASA-CASE-XAC-02407] c14 N69-27423
 Variable stiffness polymeric damper
 [NASA-CASE-XAC-11225] c14 N69-27486
 Shock-layer radiation measurement
 [NASA-CASE-XAC-02970] c14 N69-39896
 Protective circuit of the spark gap type
 [NASA-CASE-XAC-08981] c09 N69-39897
 Magnetic position detection method and apparatus Patent Application
 [NASA-CASE-ARC-10179-1] c21 N70-12611
 Ultra-flexible biomedical electrodes and wires Patent Application
 [NASA-CASE-ARC-10268-1] c09 N70-12620
 Fluidic proportional thruster system Patent Application
 [NASA-CASE-ARC-10106-1] c28 N70-12624
 Stereoscopic television system and apparatus Patent Application
 [NASA-CASE-ARC-10160-1] c07 N70-20722
 RF controlled solid state switch Patent Application
 [NASA-CASE-ARC-10136-1] c09 N70-20726
 Wide range dynamic pressure Patent Application
 [NASA-CASE-ARC-10263-1] c14 N70-20729
 Space suit having improved waist and torso movement Patent Application
 [NASA-CASE-ARC-10275-1] c05 N70-26799
 Apparatus for coupling a plurality of ungrounded circuits to a grounded circuit Patent
 [NASA-CASE-XAC-00086] c09 N70-33182
 Apparatus for ionization analysis Patent Application
 [NASA-CASE-ARC-10017-1] c14 N70-34558
 Modified polyisocyanurate polymer foam Patent Application
 [NASA-CASE-ARC-10280-1] c18 N70-34695
 Two-plane balance Patent
 [NASA-CASE-XAC-00073] c14 N70-34813
 Centrifuge mounted motion simulator Patent
 [NASA-CASE-XAC-00399] c11 N70-34815
 Differential pressure cell Patent
 [NASA-CASE-XAC-00042] c14 N70-34816
 High-temperature, high-pressure spherical segment valve Patent
 [NASA-CASE-XAC-00074] c15 N70-34817
 Magnetically centered liquid column float Patent
 [NASA-CASE-XAC-00030] c14 N70-34820
 Propeller blade loading control Patent
 [NASA-CASE-XAC-00139] c02 N70-34856
 Temperature compensated solid state differential amplifier Patent
 [NASA-CASE-XAC-00435] c09 N70-35440
 High speed low level electrical stepping switch Patent
 [NASA-CASE-XAC-00060] c09 N70-39915
 Self-stabilized theodolite for manual tracking using photosensitive stabilizing means Patent
 [NASA-CASE-XAC-00460] c14 N70-40017

Analog-to-digital conversion system Patent
 [NASA-CASE-XAC-00404] c08 N70-40125
 Null-type vacuum microbalance Patent
 [NASA-CASE-XAC-00472] c15 N70-40180
 Thermo-protective device for balances Patent
 [NASA-CASE-XAC-00648] c14 N70-40400
 Three-axis controller Patent
 [NASA-CASE-XAC-01404] c05 N70-41581
 Electric arc device for heating gases Patent
 [NASA-CASE-XAC-00319] c25 N70-41628
 Dynamic sensor Patent
 [NASA-CASE-XAC-02877] c14 N70-41681
 Universal pilot restraint suit and body support therefor Patent
 [NASA-CASE-XAC-00405] c05 N70-41819
 Metallic intrusion detector system Patent Application
 [NASA-CASE-ARC-10265-1] c10 N70-41949
 Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines Patent Application
 [NASA-CASE-ARC-10325-1] c06 N70-41950
 Proportional controller Patent
 [NASA-CASE-XAC-03392] c03 N70-41954
 Force transducer Patent
 [NASA-CASE-XAC-01101] c14 N70-41957
 Electrode construction Patent
 [NASA-CASE-ARC-10043-1] c05 N71-11193
 Telemeter adaptable for implanting in an animal Patent
 [NASA-CASE-XAC-05706] c05 N71-12342
 Gyrator type circuit Patent
 [NASA-CASE-XAC-10608-1] c09 N71-12517
 Ultraviolet resonance lamp Patent
 [NASA-CASE-ARC-10030] c09 N71-12521
 Differential temperature transducer Patent
 [NASA-CASE-XAC-00812] c14 N71-15598
 Multiple circuit switch apparatus with improved pivot actuator structure Patent
 [NASA-CASE-XAC-03777] c10 N71-15909
 Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent
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 High efficiency multivibrator Patent
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 Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent
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 Flight craft Patent
 [NASA-CASE-XAC-02058] c02 N71-16087
 Three-axis finger tip controller for switches Patent
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 Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent
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 Inertial reference apparatus Patent
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 Fastener apparatus Patent
 [NASA-CASE-ARC-10140-1] c15 N71-17653
 Stabilization of gravity oriented satellites Patent
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 Microwave flaw detector Patent
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 Hypervelocity gun Patent
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 Nonlinear analog-to-digital converter Patent
 [NASA-CASE-XAC-04031] c08 N71-18594
 Demodulation system Patent
 [NASA-CASE-XAC-04030] c10 N71-19472
 Phase quadrature-plural channel data transmission system Patent
 [NASA-CASE-XAC-06302] c08 N71-19763
 Two force component measuring device Patent
 [NASA-CASE-XAC-04886-1] c14 N71-20439
 Attitude controls for VTOL aircraft Patent
 [NASA-CASE-XAC-08972] c02 N71-20570
 Electric arc apparatus Patent
 [NASA-CASE-XAC-01677] c09 N71-20816
 Inertia diaphragm pressure transducer Patent
 [NASA-CASE-XAC-02981] c14 N71-21072
 Stirring apparatus for plural test tubes Patent
 [NASA-CASE-XAC-06956] c15 N71-21177
 Exposure system for animals Patent
 [NASA-CASE-XAC-05333] c11 N71-22875

Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent [NASA-CASE-XAC-02807] c09 N71-23021

Ball current measuring apparatus having a series resistor for temperature compensation Patent [NASA-CASE-XAC-01662] c14 N71-23037

Transfer valve Patent [NASA-CASE-XAC-01158] c15 N71-23051

Hard space suit Patent [NASA-CASE-XAC-07043] c05 N71-23161

Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent [NASA-CASE-XAC-05422] c04 N71-23185

Feedback integrator with grounded capacitor Patent [NASA-CASE-XAC-10607] c10 N71-23669

Floating two force component measuring device Patent [NASA-CASE-XAC-04885] c14 N71-23790

Control device Patent [NASA-CASE-XAC-10019] c15 N71-23809

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Device for measuring pressure Patent [NASA-CASE-XAC-04458] c14 N71-24232

Transducer circuit and catheter transducer Patent [NASA-CASE-ARC-10132-1] c09 N71-24597

Skeletal stressing method and apparatus Patent [NASA-CASE-ARC-10100-1] c05 N71-24738

Modified polyurethane foams for fuel-fire Patent [NASA-CASE-ARC-10098-1] c06 N71-24739

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Laser fluid velocity detector Patent [NASA-CASE-XAC-10770-1] c16 N71-24828

Transient video signal recording with expanded playback Patent [NASA-CASE-ARC-10003-1] c09 N71-25866

Thermally cycled magnetometer Patent [NASA-CASE-XAC-03740] c14 N71-26135

Optical machine tool alignment indicator Patent [NASA-CASE-XAC-09489-1] c15 N71-26673

Energy limiter for hydraulic actuators Patent [NASA-CASE-ARC-10131-1] c15 N71-27754

Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent [NASA-CASE-ARC-10137-1] c09 N71-28468

Locomotion and restraint aid Patent [NASA-CASE-ARC-10153] c05 N71-28619

Line following servosystem Patent [NASA-CASE-XAC-00001] c15 N71-28952

Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent [NASA-CASE-XAC-00048] c02 N71-29128

Optical imaging system Patent Application [NASA-CASE-ARC-10194-1] c23 N71-31142

Precision rectifier with PET switching means Patent [NASA-CASE-ARC-10101-1] c09 N71-33109

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Nondispersive gas analyzing method and apparatus [NASA-CASE-ARC-10308-1] c06 N71-34090

Coaxial inverted geometry transistor having buried emitter [NASA-CASE-ARC-10330-1] c09 N71-34214

Micrometeroid analyzer [NASA-CASE-ARC-10443-1] c14 N71-34382

Intumescent composition, foamed product prepared therewith, and process for making same [NASA-CASE-ARC-10364-1] c18 N71-34501

Signal conditioning circuit apparatus [NASA-CASE-ARC-10348-1] c10 N72-10205

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Self-tuning bandpass filter [NASA-CASE-ARC-10264-1] c09 N72-15200

Phase shift circuit apparatus [NASA-CASE-ARC-10269-1] c10 N72-16172

High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level [NASA-CASE-ARC-10178-1] c09 N72-17152

Telemetry actuated switch [NASA-CASE-ARC-10105] c09 N72-17153

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Apparatus for automatically stabilizing the attitude of a nonguided vehicle [NASA-CASE-ARC-10134] c30 N72-17873

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Alignment apparatus using a laser having a gravitationally sensitive cavity reflector [NASA-CASE-ARC-10444-1] c16 N72-20476

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Polyimide foam for thermal insulation and fire protection [NASA-CASE-ARC-10464-1] c06 N72-21102

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A temperature compensated light source using a light emitting diode [NASA-CASE-ARC-10467-1] c09 N72-21249

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Method and apparatus for swept-frequency impedance measurements of welds [NASA-CASE-ARC-10176-1] c15 N72-21464

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. ELECTRONICS RESEARCH CENTER, CAMBRIDGE, MASS.

Fabrication of single-crystal film semiconductor devices [NASA-CASE-ERC-10222] c09 N69-31339

Method and apparatus for wavelength tuning of liquid lasers [NASA-CASE-ERC-10187] c16 N69-31343

A method for the deposition of beta-silicon carbide by isoeptitaxy [NASA-CASE-ERC-10120] c26 N69-33482

Full flow with shut off and selective drainage control valve Patent application [NASA-CASE-ERC-10208] c15 N70-10867

An asynchronous binary array divider Patent application [NASA-CASE-ERC-10180] c08 N70-11132

A method for selective gold diffusion of monolithic silicon devices and/or circuits Patent application [NASA-CASE-ERC-10072] c09 N70-11148

A method for preparing stable nonpolarizable silicon dioxide layers on silicon Patent application [NASA-CASE-ERC-10071] c06 N70-11167

Process for making epitaxial germanium films Patent application [NASA-CASE-ERC-10234] c18 N70-11226

A holographic image enhancement technique Patent application [NASA-CASE-ERC-10135] c14 N70-11245

Method and apparatus for the detection of picosecond light pulses by two-photon planar processes Patent Application [NASA-CASE-ERC-10227] c14 N70-12626

Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient Patent Application [NASA-CASE-ERC-10073] c06 N70-12627

Clear air turbulence detector Patent Application [NASA-CASE-ERC-10081] c14 N70-20710

A circularly polarized antenna [NASA-CASE-ERC-10214] c09 N70-20738

Lead attachment to high temperature devices Patent Application [NASA-CASE-ERC-10224] c09 N70-20742

Methods of operating a magnetic core memory Patent Application
 [NASA-CASE-ERC-10166] c08 N70-22136

Method and apparatus for predicting the occurrence of major solar events Patent Application
 [NASA-CASE-ERC-10323-1] c30 N70-22183

A method for fabricating adherent thick layers of high-conductance metals on oxide surfaces Patent Application
 [NASA-CASE-XER-11018] c15 N70-22246

An analog signal to discrete time interval converter Patent Application
 [NASA-CASE-ERC-10048] c09 N70-25866

Method and apparatus for measuring solar activity and atmospheric radiation effects Patent Application
 [NASA-CASE-ERC-10276] c14 N70-26820

Optical pump and driver system for lasers Patent Application
 [NASA-CASE-ERC-10283] c16 N70-34554

Head-up attitude display Patent Application
 [NASA-CASE-ERC-10392] c21 N70-35429

Computer input means Patent Application
 [NASA-CASE-ERC-10223] c08 N70-35432

Controllable, load insensitive power converters Patent Application
 [NASA-CASE-ERC-10268] c09 N70-35582

Radiant energy sensor Patent Application
 [NASA-CASE-ERC-10174] c21 N70-35861

Liquid crystalline memory devices Patent Application
 [NASA-CASE-ERC-10330] c08 N70-36002

Function generator Patent Application
 [NASA-CASE-ERC-10267] c09 N70-36018

Aircraft control system Patent Application
 [NASA-CASE-ERC-10439] c02 N70-36052

Method for the repair and maintenance of dental enamel
 [NASA-CASE-ERC-10338] c04 N70-36053

Laser modulation by stark effect in gases Patent Application
 [NASA-CASE-ERC-10335] c16 N70-36054

Method and apparatus for detecting surface ions on silicon diodes and transistors Patent Application
 [NASA-CASE-ERC-10325] c15 N70-36058

Semiconductor surface protection material Patent Application
 [NASA-CASE-ERC-10339] c18 N70-36075

Phase control circuits using frequency multiplication for phased array antennas Patent Application
 [NASA-CASE-ERC-10285] c09 N70-36076

Location identification system Patent Application
 [NASA-CASE-ERC-10324] c07 N70-36078

Angular velocity and acceleration measuring apparatus Patent Application
 [NASA-CASE-ERC-10292] c14 N70-36079

Display system Patent Application
 [NASA-CASE-ERC-10350] c14 N70-40019

Electricity measurement devices employing liquid crystalline materials Patent Application
 [NASA-CASE-ERC-10275] c26 N70-40022

Honeycomb panels formed of minimal surface periodic tubule layers Patent Application
 [NASA-CASE-ERC-10364] c18 N70-40061

Honeycomb core structures of minimal surface tubule sections Patent Application
 [NASA-CASE-ERC-10363] c18 N70-40071

Method and means for an improved electron beam scanning system Patent
 [NASA-CASE-ERC-10552] c09 N71-12539

Apparatus and method for separating a semiconductor wafer Patent
 [NASA-CASE-ERC-10138] c26 N71-14354

Focused image holography with extended sources Patent
 [NASA-CASE-ERC-10019] c16 N71-15551

Recording and reconstructing focused image holograms Patent
 [NASA-CASE-ERC-10017] c16 N71-15567

Sorption vacuum trap Patent
 [NASA-CASE-XER-09519] c14 N71-18483

Voltage tunable Gunn-type microwave generator Patent
 [NASA-CASE-XER-07894] c09 N71-18721

Array phasing device Patent
 [NASA-CASE-ERC-10046] c10 N71-18722

Parametric microwave noise generator Patent
 [NASA-CASE-XER-11019] c09 N71-23598

Saturation current protection apparatus for saturable core transformers Patent
 [NASA-CASE-ERC-10075] c09 N71-24800

Repetitively pulsed, wavelength selective laser Patent
 [NASA-CASE-ERC-10178] c16 N71-24832

Optical mirror apparatus Patent
 [NASA-CASE-ERC-10001] c23 N71-24868

Unsaturating saturable core transformer Patent
 [NASA-CASE-ERC-10125] c09 N71-24893

Leak detector wherein a probe is monitored with ultraviolet radiation Patent
 [NASA-CASE-ERC-10034] c15 N71-24896

Method for detecting leaks in hermetically sealed containers Patent
 [NASA-CASE-ERC-10045] c15 N71-24910

Satellite aided vehicle avoidance system Patent
 [NASA-CASE-ERC-10090] c21 N71-24948

Transverse piezoresistance and pinch effect electromechanical transducers Patent
 [NASA-CASE-ERC-10088] c26 N71-25490

A solid state acoustic variable time delay line Patent
 [NASA-CASE-ERC-10032] c10 N71-25900

Method and means for recording and reconstructing holograms without use of a reference beam Patent
 [NASA-CASE-ERC-10020] c16 N71-26154

Electromechanical control actuator system Patent
 [NASA-CASE-ERC-10022] c15 N71-26635

Method and apparatus for detecting gross leaks Patent
 [NASA-CASE-ERC-10033] c14 N71-26672

Field ionization electrodes Patent
 [NASA-CASE-ERC-10013] c09 N71-26678

Voltage regulator Patent
 [NASA-CASE-ERC-10113] c09 N71-27053

A multichannel photoionization chamber for absorption analysis Patent
 [NASA-CASE-ERC-10044-1] c14 N71-27090

Pressure sensitive transducers Patent
 [NASA-CASE-ERC-10087] c14 N71-27334

Constant frequency output two stage induction machine systems Patent
 [NASA-CASE-ERC-10065] c09 N71-27364

Fluid power transmitting gas bearing Patent
 [NASA-CASE-ERC-10097] c15 N71-28465

Color television systems using a single gun color cathode ray tube Patent
 [NASA-CASE-ERC-10098] c09 N71-28618

Analytical device for gases Patent Application
 [NASA-CASE-ERC-10021] c06 N71-28635

Ion microprobe mass spectrometer for analyzing fluid materials Patent
 [NASA-CASE-ERC-10014] c14 N71-28863

Load insensitive electrical device
 [NASA-CASE-XER-11046] c09 N71-28902

Expandable space frames Patent Application
 [NASA-CASE-ERC-10365] c31 N71-28948

Orifice gross leak tester Patent
 [NASA-CASE-ERC-10150] c14 N71-28992

Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent
 [NASA-CASE-ERC-11203] c14 N71-28994

Quasi-optical microwave component Patent
 [NASA-CASE-ERC-10011] c07 N71-29065

Multiple hologram recording and readout system Patent
 [NASA-CASE-ERC-10151] c16 N71-29131

Plasma fluidic hybrid display Patent
 [NASA-CASE-ERC-10100] c09 N71-33519

Optical systems having spatially invariant outputs
 [NASA-CASE-ERC-10248] c14 N72-17323

Method of detecting impending saturation of magnetic cores
 [NASA-CASE-ERC-10089] c23 N72-17747

An indicating system for aircraft
 [NASA-CASE-ERC-10226-2] c02 N72-21008

Load insensitive electrical device
 [NASA-CASE-XER-11046-2] c09 N72-21251

Lead attachment to high temperature devices
 [NASA-CASE-ERC-10224-2] c09 N72-21253

Pressure sensitive transducer
 [NASA-CASE-ERC-10087-2] c14 N72-21430

Improved satellite aided vehicle avoidance system
 [NASA-CASE-ERC-10419] c21 N72-21631

Refractory dielectric semiconductors
[NASA-CASE-XPR-08476-2] c26 N72-21800

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. FLIGHT RESEARCH CENTER, EDWARDS, CALIF.

Rocket chamber leak test fixture
[NASA-CASE-XPR-09479] c14 N69-27503

System for communicating biomedical information by means of unmodified conventional voice communication systems Patent Application
[NASA-CASE-FRC-10C31] c05 N70-20717

Pulsed excitation voltage circuit for transducers Patent Application
[NASA-CASE-FRC-10036] c09 N70-22164

Three axis controller Patent
[NASA-CASE-XPR-00181] c21 N70-33279

Catalyst bed removing tool Patent
[NASA-CASE-XPR-00811] c15 N70-36901

Two-axis controller Patent
[NASA-CASE-XPR-04104] c03 N70-42073

Controlled visibility device for an aircraft Patent
[NASA-CASE-XPR-04147] c11 N71-10748

Biomedical electrode arrangement Patent
[NASA-CASE-XPR-10856] c05 N71-11189

Lifting body Patent Application
[NASA-CASE-FRC-10063] c01 N71-12217

Energy management system for glider type vehicle Patent
[NASA-CASE-XPR-00756] c02 N71-13421

Quick attach mechanism Patent
[NASA-CASE-XPR-05421] c15 N71-22994

Heat flux measuring system Patent
[NASA-CASE-XPR-03802] c33 N71-23085

Threadless fastener apparatus Patent
[NASA-CASE-XPR-05302] c15 N71-23254

Traversing probe Patent
[NASA-CASE-XPR-02007] c12 N71-24692

Layout tool Patent
[NASA-CASE-FRC-10005] c15 N71-26145

Full-wave modulator-demodulator-amplifier apparatus
[NASA-CASE-FRC-10072-1] c09 N72-15206

Acoustical transducer calibrating system and apparatus
[NASA-CASE-FRC-10060] c14 N72-15427

Terminal guidance system
[NASA-CASE-FRC-10049-1] c21 N72-21632

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. GODDARD SPACE FLIGHT CENTER, GREENBELT, MD.

Regulated dc to dc converter
[NASA-CASE-XGS-03429] c03 N69-21330

Apparatus for measuring swelling characteristics of membranes
[NASA-CASE-XGS-03865] c14 N69-21363

Tumbler system to provide random motion
[NASA-CASE-XGS-02437] c15 N69-21472

Automatic acquisition system for phase-lock loop
[NASA-CASE-XGS-04994] c09 N69-21543

Trap for preventing diffusion pump backstreaming
[NASA-CASE-GSC-10518] c15 N69-21855

Low power drain semi-conductor circuit
[NASA-CASE-XGS-04999] c09 N69-24317

Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320

Scanning aspect sensor employing an apertured disc and a commutator
[NASA-CASE-XGS-08266] c14 N69-27432

Monopulse system with an electronic scanner
[NASA-CASE-XGS-05582] c07 N69-27460

Ring counter
[NASA-CASE-XGS-03095] c09 N69-27463

Retrodirective optical system
[NASA-CASE-XGS-04480] c16 N69-27491

Bioluminescent assay technique for flavin coenzymes
[NASA-CASE-GSC-10565-1] c06 N69-33349

Time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974

Doppler frequency spread correction device for multiplex transmissions
[NASA-CASE-XGS-02749] c07 N69-39978

Alkali-metal silicate protective coating
[NASA-CASE-XGS-04119] c18 N69-39979

Device for measuring electron-beam intensities and for subjecting materials to electron irradiation in an electron microscope
[NASA-CASE-XGS-01725] c14 N69-39982

Tungsten contacts on silicon substrates Patent Application
[NASA-CASE-GSC-10695-1] c09 N70-22184

Fast response low power drain switching circuits Patent Application
[NASA-CASE-GSC-10878-1] c10 N70-22186

Resistance soldering apparatus Patent Application
[NASA-CASE-GSC-10913-1] c15 N70-22206

Bacterial contamination monitor Patent Application
[NASA-CASE-GSC-10879-1] c14 N70-22274

Light sensitive digital aspect sensor Patent
[NASA-CASE-XGS-00359] c14 N70-34158

Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent
[NASA-CASE-XGS-00466] c21 N70-34297

Delayed simultaneous release mechanism Patent Application
[NASA-CASE-GSC-10814-1] c03 N70-34672

Binary magnetic memory device Patent
[NASA-CASE-XGS-00174] c08 N70-34743

Full binary adder Patent
[NASA-CASE-XGS-00689] c08 N70-34787

Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819

Alpha source shaft position encoder Patent Application
[NASA-CASE-GSC-10644-1] c14 N70-35583

Controlled caging and uncaging mechanism Patent Application
[NASA-CASE-GSC-11063-1] c03 N70-35584

Space and atmospheric reentry vehicle Patent
[NASA-CASE-XGS-00260] c31 N70-37924

Variable frequency magnetic multivibrator Patent
[NASA-CASE-XGS-00458] c09 N70-38604

Switching mechanism with energy storage means Patent
[NASA-CASE-XGS-00473] c03 N70-38713

Variable frequency magnetic multivibrator Patent
[NASA-CASE-XGS-00131] c09 N70-38995

Stretch de-spin mechanism Patent
[NASA-CASE-XGS-00619] c30 N70-40016

Folding boom assembly Patent
[NASA-CASE-XGS-00938] c32 N70-41367

Cryogenic connector for vacuum use Patent
[NASA-CASE-XGS-02441] c15 N70-41629

Endless tape cartridge Patent
[NASA-CASE-XGS-00769] c14 N70-41647

Apparatus for producing three-dimensional recordings of fluorescence spectra Patent
[NASA-CASE-XGS-01231] c14 N70-41676

Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent
[NASA-CASE-XGS-02608] c07 N70-41678

Prevention of pressure build-up in electrochemical cells Patent
[NASA-CASE-XGS-01419] c03 N70-41864

Variable time constant smoothing circuit Patent
[NASA-CASE-XGS-01983] c10 N70-41964

Traffic control system and method Patent Application
[NASA-CASE-GSC-10087-4] c07 N70-41978

Endless tape transport mechanism Patent
[NASA-CASE-XGS-01223] c07 N71-10609

Reversible ring counter employing cascaded single SCR stages Patent
[NASA-CASE-XGS-01473] c09 N71-10673

Electronic beam switching commutator Patent
[NASA-CASE-XGS-01451] c09 N71-10677

Sun tracker with rotatable plane-parallel plate and two photocells Patent
[NASA-CASE-XGS-01159] c21 N71-10678

Non-magnetic battery case Patent
[NASA-CASE-XGS-00886] c03 N71-11053

Interconnection of solar cells Patent
[NASA-CASE-XGS-01475] c03 N71-11058

Frequency shift keyed demodulator Patent
[NASA-CASE-XGS-02889] c07 N71-11282

Bi-polar phase detector and corrector for split phase PCM data signals Patent
[NASA-CASE-XGS-01590] c07 N71-12392

Data processor having multiple sections activated at different times by selective power coupling to the sections Patent
[NASA-CASE-XGS-04767] c08 N71-12494

Position location system and method Patent
[NASA-CASE-GSC-10087-2] c21 N71-13958

Fire resistant coating composition Patent		Amplifier clamping circuit for horizon scanner Patent	
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Attitude control system Patent		Signal detection and tracking apparatus Patent	
[NASA-CASE-XGS-C4393]	c21 N71-14159	[NASA-CASE-XGS-03502]	c10 N71-20852
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[NASA-CASE-XGS-03431]	c21 N71-15642	[NASA-CASE-XGS-01021]	c08 N71-21042
Cartwheel satellite synchronization system Patent		Satellite appendage tie down cord Patent	
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[NASA-CASE-XGS-01587]	c14 N71-15962	[NASA-CASE-XGS-02629]	c14 N71-21082
Low friction magnetic recording tape Patent		Nonmagnetic, explosive actuated indexing device Patent	
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[NASA-CASE-XGS-06306]	c17 N71-16044	[NASA-CASE-XGS-04227]	c15 N71-21744
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[NASA-CASE-GSC-10C07]	c18 N71-16046	[NASA-CASE-XGS-02884]	c15 N71-22705
Serrodyne frequency converter re-entrant amplifier system Patent		Precision thrust gage Patent	
[NASA-CASE-XGS-01022]	c07 N71-16088	[NASA-CASE-XGS-02319]	c14 N71-22965
Position location and data collection system and method Patent		Sealing device for an electrochemical cell Patent	
[NASA-CASE-GSC-10083-1]	c30 N71-16090	[NASA-CASE-XGS-02630]	c03 N71-22974
Position sensing device employing misaligned magnetic field generating and detecting apparatus Patent		Rotary bead dropper and selector for testing micrometeorite detectors Patent	
[NASA-CASE-XGS-07514]	c23 N71-16099	[NASA-CASE-XGS-03304]	c09 N71-22988
Optical tracker having overlapping reticles on parallel axes Patent		Moment of inertia test fixture Patent	
[NASA-CASE-XGS-05715]	c23 N71-16100	[NASA-CASE-XGS-01023]	c14 N71-22992
Self-erecting reflector Patent		Fluid flow meter with comparator reference means Patent	
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[NASA-CASE-LEW-10359-1]	c33 N70-35687	[NASA-CASE-XLE-00808]	c24 N71-10560
Formed metal ribbon wrap Patent		Electrostatic thruster with improved insulators Patent	
[NASA-CASE-XLE-00164]	c15 N70-36411	[NASA-CASE-XLE-01902]	c28 N71-10574
Multistage multiple-reentry turbine Patent		Thin-walled pressure vessel Patent	
[NASA-CASE-XLE-00170]	c15 N70-36412	[NASA-CASE-XLE-04677]	c15 N71-10577
Fluid coupling Patent		Method of making a silicon semiconductor device Patent	
[NASA-CASE-XLE-00397]	c15 N70-36492	[NASA-CASE-XLE-02792]	c26 N71-10607
Injector-valve device Patent		Metallic film diffusion for boundary lubrication Patent	
[NASA-CASE-XLE-00303]	c15 N70-36535	[NASA-CASE-XLE-01765]	c18 N71-10772
Nickel-base alloy Patent		Molecular beam velocity selector Patent	
[NASA-CASE-XLE-00283]	c17 N70-36616	[NASA-CASE-XLE-01533]	c11 N71-10777
Apparatus having coaxial capacitor structure for measuring fluid density Patent		Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent	
[NASA-CASE-XLE-00143]	c14 N70-36618	[NASA-CASE-XLE-01246]	c14 N71-10797
Rocket thrust chamber Patent		Capacitor and method of making same Patent	
[NASA-CASE-XLE-00145]	c28 N70-36806	[NASA-CASE-LEW-10364-1]	c09 N71-13522
Solid state power mapping instrument Patent		Capillary radiator Patent	
[NASA-CASE-XLE-00301]	c14 N70-36808	[NASA-CASE-XLE-03307]	c33 N71-14035
Ion rocket Patent		Electrostatic ion engine having a permanent magnetic circuit Patent	
[NASA-CASE-XLE-00376]	c28 N70-37245	[NASA-CASE-XLE-01124]	c28 N71-14043
Annular supersonic decelerator or drogue Patent		Split welding chamber Patent	
[NASA-CASE-XLE-00222]	c02 N70-37939	[NASA-CASE-LEW-11531]	c15 N71-14932
Rocket engine Patent		Method and apparatus for making curved reflectors Patent	
[NASA-CASE-XLE-00342]	c28 N70-37980	[NASA-CASE-XLE-08917]	c15 N71-15597
Variable sweep aircraft wing Patent		Method of making a diffusion bonded refractory coating Patent	
[NASA-CASE-XLA-00350]	c02 N70-38011	[NASA-CASE-XLE-01604-2]	c15 N71-15610
Apparatus for transferring cryogenic liquids Patent		Black-body furnace Patent	
[NASA-CASE-XLE-00345]	c15 N70-38020	[NASA-CASE-XLE-01399]	c33 N71-15625
Method of producing porous tungsten ionizers for ion rocket engines Patent		Method of igniting solid propellants Patent	
[NASA-CASE-XLE-00455]	c28 N70-38197	[NASA-CASE-XLE-01988]	c27 N71-15634
Method of making fiber reinforced metallic composites Patent		Fluid dispensing apparatus and method Patent	
[NASA-CASE-XLE-00231]	c17 N70-38198	[NASA-CASE-XLE-01182]	c27 N71-15635
Rocket engine injector Patent		Automatically deploying nozzle exit cone extension Patent	
[NASA-CASE-XLE-00111]	c28 N70-38199	[NASA-CASE-XLE-01640]	c31 N71-15637
Reinforced metallic composites Patent		High temperature cobalt-base alloy Patent	
[NASA-CASE-XLE-00228]	c17 N70-38490	[NASA-CASE-XLE-00726]	c17 N71-15644
Rocket motor system Patent		Method of making a rocket motor casing Patent	
[NASA-CASE-XLE-00323]	c28 N70-38505	[NASA-CASE-XLE-00409]	c28 N71-15658
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent		Rocket motor casing Patent	
[NASA-CASE-XLE-00243]	c14 N70-38602	[NASA-CASE-XLE-05689]	c28 N71-15659
Penshape exhaust nozzle for supersonic engine Patent		Electrostatic ion rocket engine Patent	
[NASA-CASE-XLE-00057]	c28 N70-38711	[NASA-CASE-XLE-02066]	c28 N71-15661
Multistage multiple-reentry turbine Patent		High temperature cobalt-base alloy Patent	
[NASA-CASE-XLE-00085]	c28 N70-39895	[NASA-CASE-XLE-02991]	c17 N71-16025
Gas lubricant compositions Patent			
[NASA-CASE-XLE-00353]	c18 N70-39897		
Telescoping-spike supersonic inlet for aircraft engines Patent			
[NASA-CASE-XLE-00005]	c28 N70-39899		
High temperature spark plug Patent			
[NASA-CASE-XLE-00660]	c28 N70-39925		
Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent			

Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent
 [NASA-CASE-XLE-02082] c17 N71-16026

Method of improving the reliability of a rolling element system Patent
 [NASA-CASE-XLE-02999] c15 N71-16052

Process of casting heavy slips Patent
 [NASA-CASE-XLE-00106] c15 N71-16076

Boiler for generating high quality vapor Patent
 [NASA-CASE-XLE-00785] c33 N71-16104

Method of making self lubricating fluoride-metal composite materials Patent
 [NASA-CASE-XLE-08511-2] c18 N71-16105

Thrust and direction control apparatus Patent
 [NASA-CASE-XLE-03583] c31 N71-17629

Linear magnetic brake with two windings Patent
 [NASA-CASE-XLE-05079] c15 N71-17652

Method of lubricating rolling element bearings Patent
 [NASA-CASE-XLE-09527] c15 N71-17688

Hot wire liquid level detector for cryogenic fluids Patent
 [NASA-CASE-XLE-00454] c23 N71-17802

Pulsed differential comparator circuit Patent
 [NASA-CASE-XLE-03804] c10 N71-19471

Poil seal Patent
 [NASA-CASE-XLE-05130-2] c15 N71-19570

Generator for a space power system Patent
 [NASA-CASE-XLE-04250] c09 N71-20446

Method of making electrical contact on silicon solar cell and resultant product Patent
 [NASA-CASE-XLE-04787] c03 N71-20492

Small plasma probe Patent
 [NASA-CASE-XLE-02578] c25 N71-20747

Combined electrolysis device and fuel cell and method of operation Patent
 [NASA-CASE-XLE-01645] c03 N71-20904

Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent
 [NASA-CASE-XLE-00787] c14 N71-21090

Control of transverse instability in rocket combustors Patent
 [NASA-CASE-XLE-04603] c33 N71-21507

High voltage divider system Patent
 [NASA-CASE-XLE-02008] c09 N71-21583

Plasma device feed system Patent
 [NASA-CASE-XLE-02902] c25 N71-21694

Burning rate control of solid propellants Patent
 [NASA-CASE-XLE-03494] c27 N71-21819

Protective device for machine and metalworking tools Patent
 [NASA-CASE-XLE-01092] c15 N71-22797

Cryogenic insulation system Patent
 [NASA-CASE-XLE-04222] c23 N71-22881

Method for producing fiber reinforced metallic composites Patent
 [NASA-CASE-XLE-03925] c18 N71-22894

Thermal shock apparatus Patent
 [NASA-CASE-XLE-02024] c14 N71-22964

Arc electrode of graphite with ball tip Patent
 [NASA-CASE-XLE-04788] c09 N71-22987

Gas purged dry box glove Patent
 [NASA-CASE-XLE-02531] c05 N71-23080

Automatic recording McLeod gauge Patent
 [NASA-CASE-XLE-03280] c14 N71-23093

Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent
 [NASA-CASE-XLE-04501] c09 N71-23190

High temperature ferromagnetic cobalt-base alloy Patent
 [NASA-CASE-XLE-03629] c17 N71-23248

Induction furnace with perforated tungsten foil shielding Patent
 [NASA-CASE-XLE-04026] c14 N71-23267

Gd or Sm doped silicon semiconductor composition Patent
 [NASA-CASE-XLE-10715] c26 N71-23292

Protection of serially connected solar cells against open circuits by the use of shunting diode Patent
 [NASA-CASE-XLE-04535] c03 N71-23354

Superconducting alternator Patent
 [NASA-CASE-XLE-02823] c09 N71-23443

Silicon solar cell with cover glass bonded to cell by metal pattern Patent
 [NASA-CASE-XLE-08569] c03 N71-23449

Analytical test apparatus and method for determining oxide content of alkali metal Patent
 [NASA-CASE-XLE-01997] c06 N71-23527

Thermionic converter with current augmented by self induced magnetic field Patent
 [NASA-CASE-XLE-01903] c22 N71-23599

Semiconductor material and method of making same Patent
 [NASA-CASE-XLE-02798] c26 N71-23654

Insulation system Patent
 [NASA-CASE-XLE-02647] c18 N71-23658

Self-lubricating fluoride metal composite materials Patent
 [NASA-CASE-XLE-08511] c18 N71-23710

Alloys for bearings Patent
 [NASA-CASE-XLE-05033] c15 N71-23810

Extrusion die for refractory metals Patent
 [NASA-CASE-XLE-06773] c15 N71-23817

Combustion chamber Patent
 [NASA-CASE-XLE-04857] c28 N71-23968

Metallic film diffusion for boundary lubrication Patent
 [NASA-CASE-XLE-10337] c15 N71-24046

Process for producing dispersion strengthened nickel with aluminum Patent
 [NASA-CASE-XLE-06969] c17 N71-24142

Thermal radiation shielding Patent
 [NASA-CASE-XLE-03432] c33 N71-24145

Method of attaching a cover glass to a silicon solar cell Patent
 [NASA-CASE-XLE-08569-2] c03 N71-24681

Rocket engine injector Patent
 [NASA-CASE-XLE-03157] c28 N71-24736

Multialarm summary alarm Patent
 [NASA-CASE-XLE-03061-1] c10 N71-24798

Apparatus for making curved reflectors Patent
 [NASA-CASE-XLE-08917-2] c15 N71-24836

Flow angle sensor and read out system Patent
 [NASA-CASE-XLE-04503] c14 N71-24864

Shock tube powder dispersing apparatus Patent
 [NASA-CASE-XLE-04946] c17 N71-24911

Pneumatic oscillator Patent
 [NASA-CASE-XLE-10345-1] c10 N71-25899

Heat activated cell with alkali anode and alkali salt electrolyte Patent
 [NASA-CASE-XLE-11358] c03 N71-26084

Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent
 [NASA-CASE-XLE-03940] c18 N71-26153

Ion beam deflector Patent
 [NASA-CASE-XLE-10689-1] c28 N71-26173

Rolling element bearings Patent
 [NASA-CASE-XLE-09527-2] c15 N71-26189

Ion thruster accelerator system Patent
 [NASA-CASE-XLE-10106-1] c28 N71-26642

Propellant feed isolator Patent
 [NASA-CASE-XLE-10210-1] c28 N71-26781

Heat activated cell Patent
 [NASA-CASE-XLE-11359] c03 N71-28579

Process for glass coating an ion accelerator grid Patent
 [NASA-CASE-XLE-10278-1] c15 N71-28582

An improved spiral groove seal Patent Application
 [NASA-CASE-XLE-10326-2] c15 N71-28679

Fluid jet amplifier Patent
 [NASA-CASE-XLE-09341] c12 N71-28741

Gas core nuclear reactor Patent
 [NASA-CASE-XLE-10250-1] c22 N71-28759

Ion thruster magnetic field control
 [NASA-CASE-XLE-10835-1] c28 N71-28873

Gas turbine combustor Patent
 [NASA-CASE-XLE-10286-1] c28 N71-28915

Nickel base alloy
 [NASA-CASE-XLE-10874-1] c17 N71-28972

Cyclic switch Patent
 [NASA-CASE-XLE-10155-1] c09 N71-29035

Silicon solar cell array Patent Application
 [NASA-CASE-XLE-11069-1] c03 N71-29048

Temperature reducing coating for metals subject to flame exposure Patent
 [NASA-CASE-XLE-00035] c33 N71-29151

Liquid spray cooling method Patent
 [NASA-CASE-XLE-00027] c33 N71-29152

Turbo-machine blade vibration damper Patent
 [NASA-CASE-XLE-00155] c28 N71-29154

Rocket thrust throttling system Patent Application
 [NASA-CASE-XLE-10374-1] c28 N71-31103

Thermocouple tape Patent Application
 [NASA-CASE-XLE-11072-1] c14 N71-31123

Vacuum insulation for electromagnetic components Patent Application	[NASA-CASE-XLE-05799]	c22 N72-21644
[NASA-CASE-LEW-10330-1]	Single grid accelerator system	[NASA-CASE-XLE-10453-2]
Method and apparatus for measuring electromagnetic radiation Patent Application		c28 N72-21821
[NASA-CASE-LEW-11159-1]	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. HANDED SPACECRAFT CENTER, CAPE CANAVERAL, FLA.	
Alloy film deposition Patent Application	Electrode for biological recording	[NASA-CASE-XMS-02872]
[NASA-CASE-LEW-10920-1]		c05 N69-21925
Corrosion resistant beryllium Patent	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. HANDED SPACECRAFT CENTER, HOUSTON, TEX.	
[NASA-CASE-LEW-10327]	Coupling device	[NASA-CASE-XMS-07846-1]
Airflow control system for supersonic inlets		c09 N69-21927
[NASA-CASE-LEW-11188-1]	Flow test device	[NASA-CASE-XMS-04917]
High powered arc electrodes		c14 N69-24257
[NASA-CASE-LEW-11162-1]	Visual target for retrofire attitude control	[NASA-CASE-XMS-12158-1]
Welding blades to rotors		c31 N69-27499
[NASA-CASE-LEW-10533-1]	System for monitoring signal amplitude ranges	[NASA-CASE-XMS-04061-1]
Deposition of alloy films		c09 N69-39885
[NASA-CASE-LEW-11262-1]	Amplifier drift tester	[NASA-CASE-XMS-05562-1]
A protected isotope heat source		c09 N69-39986
[NASA-CASE-LEW-11227-1]	System for improving signal-to-noise ratio of a communication signal Patent Application	[NASA-CASE-MSC-12259-1]
Multiple fan integrated propulsion wing system		c07 N70-12616
[NASA-CASE-LEW-11224-1]	Burn rate testing apparatus Patent Application	[NASA-CASE-XMS-09690-1]
Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids		c33 N70-12625
[NASA-CASE-LEW-11325-1]	Anti-static film laminate Patent Application	[NASA-CASE-MSC-12255-1]
Gas turbine engine fuel control		c18 N70-20713
[NASA-CASE-LEW-11187-1]	Two-step rocket engine bipropellant valve Patent	[NASA-CASE-XMS-04890-1]
Attaching cover glasses to solar cells		c15 N70-22192
[NASA-CASE-LEW-11065-1]	Emergency earth orbital escape device Patent Application	[NASA-CASE-MSC-13281-1]
Method of making apparatus for sensing temperature		c31 N70-25650
[NASA-CASE-XLE-05230-2]	Heat shield Patent	[NASA-CASE-XMS-00486]
Apparatus for producing metal powders		c33 N70-33344
[NASA-CASE-XLE-06461-2]	Life raft Patent	[NASA-CASE-XMS-00863]
Space vehicle with artificial gravity and earth-like environment		c05 N70-34857
[NASA-CASE-LEW-11101-1]	Shock absorbing support and restraint means Patent	[NASA-CASE-XMS-01240]
Integrated thermoelectric generator/space antenna combination		c05 N70-35152
[NASA-CASE-XER-09521]	Chemical laser Patent Application	[NASA-CASE-MSC-10986-1]
Electrostatic collector for charged particles		c16 N70-35397
[NASA-CASE-LEW-11192-1]	Improved method for curing single component silicone rubber /RTV/ and similar materials	[NASA-CASE-MSC-12230-1]
Production of hollow components for rolling element bearings by diffusion welding		c15 N70-35640
[NASA-CASE-LEW-11026-1]	Energy absorbing structure Patent Application	[NASA-CASE-MSC-12279-1]
High speed hybrid bearing comprising a fluid bearing and a rolling bearing connected in series		c15 N70-35679
[NASA-CASE-LEW-11152-1]	Ultrastable calibrated light source Patent Application	[NASA-CASE-MSC-12293-1]
Nickel aluminide coated low alloy stainless steel		c14 N70-36029
[NASA-CASE-LEW-11267-1]	Bonded solid lubricant coating Patent	[NASA-CASE-XMS-00259]
Swirl can primary combustion		c18 N70-36400
[NASA-CASE-LEW-11326-1]	Life preserver Patent	[NASA-CASE-XMS-00864]
Sensing probe		c05 N70-36493
[NASA-CASE-LEW-10281-1]	Resuscitation apparatus Patent	[NASA-CASE-XMS-01115]
Method of making emf cell		c05 N70-39922
[NASA-CASE-LEW-11359-2]	Inflatable radar reflector unit Patent	[NASA-CASE-XMS-00893]
Electrically conductive polyfluorinated ethylene		c07 N70-40063
[NASA-CASE-XLE-C6774-2]	Measuring device Patent	[NASA-CASE-XMS-01546]
Isolated amplifier for measuring millivolt electrical signals with reference to a high common mode potential		c14 N70-40233
[NASA-CASE-XLE-03155-2]	Liquid-gas separator for zero gravity environment Patent	[NASA-CASE-XMS-01492]
Electromagnetic flow rate meter		c05 N70-41297
[NASA-CASE-LEW-10981-1]	Instrument for use in performing a controlled Valsalva maneuver Patent	[NASA-CASE-XMS-01615]
Low mass rolling elements for bearings		c05 N70-41329
[NASA-CASE-LEW-11087-1]	Radial module space station Patent	[NASA-CASE-XMS-01906]
Gaseous control system for nuclear reactors		c31 N70-41373
[NASA-CASE-XLE-04599]	Hypersonic reentry vehicle Patent	[NASA-CASE-XMS-04142]
An ion exchange nuclear reactor		c31 N70-41631
[NASA-CASE-LEW-11645-1]	Angular accelerometer Patent	[NASA-CASE-XMS-05936]
Magneto plasma dynamic arc thruster		c14 N70-41682
[NASA-CASE-LEW-11180-1]	Indexed keyed connection Patent	[NASA-CASE-XMS-02532]
Composite superconductors		c15 N70-41808
[NASA-CASE-LEW-11015-1]	Discrete local altitude sensing device Patent	[NASA-CASE-XMS-03792]
Supersonic combustion rocket		c14 N70-41812
[NASA-CASE-LEW-11058-1]	Cryogenic storage system Patent	[NASA-CASE-XMS-04390]
Supersonic fan blading		c31 N70-41871
[NASA-CASE-LEW-11402-1]	Scientific experiment flexible mount Patent Application	[NASA-CASE-MSC-12372-1]
Switching regulator		c31 N70-41959
[NASA-CASE-LEW-11005-1]	Open type urine receptacle Patent Application	[NASA-CASE-MSC-12324-1]
Journal bearings		c05 N70-41980
[NASA-CASE-LEW-11076-1]	Mass measuring system Patent	[NASA-CASE-XMS-03371]
Method of forming superalloys		c05 N70-42000
[NASA-CASE-LEW-10805-2]	Line cutter Patent	[NASA-CASE-XMS-04072]
Cobalt tungsten alloy		c15 N70-42017
[NASA-CASE-LEW-10436-1]	Transpirationally cooled heat ablation system Patent	[NASA-CASE-XMS-02677]
Method and apparatus for controlling thermal nuclear reactors		c31 N70-42075
	Voltage-current characteristic simulator Patent	[NASA-CASE-XMS-01554]
		c10 N71-10578

Training vehicle for controlling attitude Patent
 [NASA-CASE-XMS-02977] c11 N71-10746
 Gravity stabilized flying vehicle Patent
 [NASA-CASE-MSC-12111-1] c02 N71-11039
 Helmet assembly and latch means therefor Patent
 [NASA-CASE-XMS-04935] c05 N71-11190
 Pressure suit tie-down mechanism Patent
 [NASA-CASE-XMS-00784] c05 N71-12335
 Hand-held self-manuevering unit Patent
 [NASA-CASE-XMS-05304] c05 N71-12336
 Pressure garment joint Patent
 [NASA-CASE-XMS-09636] c05 N71-12344
 Emergency escape system Patent
 [NASA-CASE-MSC-12086-1] c05 N71-12345
 Dynamic Doppler simulator Patent
 [NASA-CASE-XMS-05454-1] c07 N71-12391
 Electrical load protection device Patent
 [NASA-CASE-MSC-12135-1] c09 N71-12526
 High voltage pulse generator Patent
 [NASA-CASE-MSC-12178-1] c09 N71-13518
 Process for conditioning tanned sharkskin and
 articles made therefrom Patent
 [NASA-CASE-XMS-09691-1] c18 N71-15545
 Ablation structures Patent
 [NASA-CASE-XMS-01816] c33 N71-15623
 Fluid power transmission Patent
 [NASA-CASE-XMS-01445] c12 N71-16031
 Spacecraft radiator cover Patent
 [NASA-CASE-MSC-12049] c31 N71-16080
 Method of improving heat transfer characteristics
 in a nucleate boiling process Patent
 [NASA-CASE-XMS-04268] c33 N71-16277
 Heated element fluid flow sensor Patent
 [NASA-CASE-MSC-12084-1] c12 N71-17569
 Biological isolation garment Patent
 [NASA-CASE-MSC-12206-1] c05 N71-17599
 Metal valve pintle with encapsulated elastomeric
 body Patent
 [NASA-CASE-MSC-12116-1] c15 N71-17648
 Method for forming plastic materials Patent
 [NASA-CASE-XMS-05516] c15 N71-17803
 Flexible blade antenna Patent
 [NASA-CASE-MSC-12101] c09 N71-18720
 Space suit heat exchanger Patent
 [NASA-CASE-XMS-09571] c05 N71-19439
 Light intensity modulator controller Patent
 [NASA-CASE-XMS-04300] c09 N71-19479
 Solar optical telescope dome control system Patent
 [NASA-CASE-MSC-10966] c14 N71-19568
 High temperature composition Patent
 [NASA-CASE-XMS-00370] c17 N71-20941
 Radiation detector readout system Patent
 [NASA-CASE-XMS-03478] c14 N71-21040
 Subgravity simulator Patent
 [NASA-CASE-XMS-04798] c11 N71-21474
 Shock absorber Patent
 [NASA-CASE-XMS-03722] c15 N71-21530
 Apparatus for machining geometric cones Patent
 [NASA-CASE-XMS-04292] c15 N71-22722
 Rescue litter flotation assembly Patent
 [NASA-CASE-XMS-04170] c05 N71-22748
 Aligning and positioning device Patent
 [NASA-CASE-XMS-04178] c15 N71-22798
 Tension measurement device Patent
 [NASA-CASE-XMS-04545] c15 N71-22878
 Amplitude modulated laser transmitter Patent
 [NASA-CASE-XMS-04269] c16 N71-22895
 Digital cardiometer system Patent
 [NASA-CASE-XMS-02399] c05 N71-22896
 Phonocardiograph transducer Patent
 [NASA-CASE-XMS-05365] c14 N71-22993
 Multiple environment materials test chamber having
 a multiple port X-ray tube for irradiating a
 plurality of samples Patent
 [NASA-CASE-XMS-02930] c11 N71-23042
 Soft frame adjustable eyeglasses Patent
 [NASA-CASE-XMS-06064] c05 N71-23096
 Blood pressure measuring system for separating and
 separately recording dc signal and an ac signal
 Patent
 [NASA-CASE-XMS-06061] c05 N71-23317
 Signal ratio system utilizing voltage controlled
 oscillators Patent
 [NASA-CASE-XMF-04367] c09 N71-23545
 Winch having cable position and load indicators
 Patent
 [NASA-CASE-MSC-12052-1] c15 N71-24599
 Radar antenna system for acquisition and tracking
 Patent
 [NASA-CASE-XMS-09610] c07 N71-24625
 Extravehicular tunnel suit system Patent
 [NASA-CASE-MSC-12243-1] c05 N71-24728
 Broadband modified turnstile antenna Patent
 [NASA-CASE-MSC-12209] c09 N71-24842
 Quick release hook tape Patent
 [NASA-CASE-XMS-10660-1] c15 N71-25975
 Plated electrodes Patent
 [NASA-CASE-XMS-04213-1] c09 N71-26002
 Audio signal processor Patent
 [NASA-CASE-MSC-12223-1] c07 N71-26181
 Fabric for micrometeoroid protection garment
 Patent
 [NASA-CASE-MSC-12109] c18 N71-26285
 Antenna array phase quadrature tracking system
 Patent
 [NASA-CASE-MSC-12205-1] c07 N71-27056
 Radiometric temperature reference Patent
 [NASA-CASE-MSC-13276-1] c14 N71-27058
 Pneumatic amplifier Patent
 [NASA-CASE-MSC-12121-1] c15 N71-27147
 Orbital escape device Patent
 [NASA-CASE-XMS-06162] c31 N71-28851
 Inflatable tether Patent
 [NASA-CASE-XMS-10993] c15 N71-28936
 Ion-exchange membrane with platinum electrode
 assembly Patent
 [NASA-CASE-XMS-02063] c03 N71-29044
 Foldable construction block Patent Application
 [NASA-CASE-MSC-12233-2] c32 N71-31415
 Space shuttle vehicle and system Patent
 Application
 [NASA-CASE-MSC-12433-1] c31 N71-31547
 Ergometer
 [NASA-CASE-MSC-11561-1] c05 N72-11087
 Digital to analog conversion apparatus and method
 [NASA-CASE-MSC-12458-1] c08 N72-11209
 Family of frequency to amplitude converters
 [NASA-CASE-MSC-12395-1] c09 N72-11232
 Apparatus and method for statistical time series
 analysis of electrical signals
 [NASA-CASE-MSC-12428-1] c10 N72-11259
 On-film optical recording of camera lens settings
 [NASA-CASE-MSC-12363-1] c14 N72-11373
 Multispectral imaging system
 [NASA-CASE-MSC-12404-1] c23 N72-11569
 Celestial orbit delivery and recovery system with
 reusable unmanned upper stage
 [NASA-CASE-MSC-12391-1] c30 N72-13829
 Foldable construction block and method of
 construction
 [NASA-CASE-MSC-12233-1] c15 N72-15470
 Oxygen production method and apparatus
 [NASA-CASE-MSC-12332-1] c15 N72-15476
 Color television system
 [NASA-CASE-MSC-12146-1] c07 N72-17109
 Current dependent filter inductance
 [NASA-CASE-ERC-10139] c09 N72-17154
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by liquid oxygen Patent
[NASA-CASE-XMF-02221] c18 N71-27170
An impact monitoring apparatus
[NASA-CASE-MSC] c14 N72-15418
Self-cycling fluid heater
[NASA-CASE-MSC-15567-1] c33 N72-15893
Bidirectional flow control device
[NASA-CASE-MFS-18737] c15 N72-20462
Aircraft crash locator apparatus
[NASA-CASE-MFS-16609] c14 N72-21431
Apparatus for remote handling of materials
[NASA-CASE-LAR-10634-1] c15 N72-21476
NORTH AMERICAN ROCKWELL CORP., EL SEGUNDO, CALIF.
Apparatus for testing wiring harness by vibration
generating means
[NASA-CASE-MSC-15158-1] c14 N72-17325
NORTH AMERICAN ROCKWELL CORP., LOS ANGELES, CALIF.
An improved prosthetic device
[NASA-CASE-MFS-16570] c05 N72-20111
NORTHEASTERN UNIV., BOSTON, MASS.
Pulse-width modulation multiplier Patent
[NASA-CASE-XER-09213] c07 N71-1239C
NORTHERN NORTRONICS, NEEDHAM, MASS.
Improved valve seat Patent Application
[NASA-CASE-NPO-10606] c15 N70-25622
NORTHERN NORTRONICS, PALOS VERDES PENINSULA, CALIF.
Method of making dry electrodes
[NASA-CASE-FRC-10029] c05 N72-13081
NORTHERN SPACE LABS., HAWTHORNE, CALIF.
Method of evaluating moisture barrier properties
of encapsulating materials Patent
[NASA-CASE-NPO-10651] c18 N71-24934
NORTRONICS, PALOS VERDES PENINSULA, CALIF.
Flexible conductive disc electrode Patent
[NASA-CASE-FRC-10029] c09 N71-24618
Gas low pressure low flow rate metering system
Patent
[NASA-CASE-FRC-10022] c12 N71-26546
Method of removing insulated material from
insulated wires
[NASA-CASE-FRC-10038] c15 N72-20444
NOTRE DAME UNIV., IND.
Synthesis of polymeric schiff bases by schiff-base
exchange reactions Patent
[NASA-CASE-XMF-08651] c06 N71-11236
Direct synthesis of polymeric schiff bases from
two amines and two aldehydes Patent
[NASA-CASE-XMF-08655] c06 N71-11239
Azine polymers and process for preparing the same
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[NASA-CASE-XMF-08656] c06 N71-11242
Synthesis of polymeric schiff bases by reaction of
acetals and amine compounds Patent
[NASA-CASE-XMF-08652] c06 N71-11243
Aromatic diamine-aromatic dialdehyde high
molecular weight schiff base polymers prepared
in a monofunctional schiff base Patent
[NASA-CASE-XMF-03074] c06 N71-24740

P

PACKARD-BELL ELECTRONICS CORP., NEWBURY PARK, CALIF.
Optical alignment system Patent
[NASA-CASE-XNP-02029] c14 N70-41955
PANAMA CORP., PENNSAUKEN, N.J.
Method of forming transparent films of zinc oxide
Patent Application
[NASA-CASE-FRC-10019] c15 N70-22137
PENINSULAR CHEMRESEARCH, INC., GAINESVILLE, FLA.
Hydroxy terminated perfluoro ethers Patent
[NASA-CASE-NPO-10768] c06 N71-27254
Hydroxy terminated perfluoro ethers Patent
Application
[NASA-CASE-NPO-10768-2] c06 N71-33516
Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
PHILCO-FORD CORP., HOUSTON, TEX.
Frequency modulation demodulator threshold
extension device Patent
[NASA-CASE-MSC-12165-1] c07 N71-33696
PHILCO-FORD CORP., PALO ALTO, CALIF.
Mechanically extendible telescoping boom Patent
Application
[NASA-CASE-NPO-11118] c03 N70-25674
PHILCO-FORD CORP., PHILADELPHIA, PA.
Satellite composite antenna feed subsystem
[NASA-CASE-GSC-11046-1] c07 N72-20155
PRATT AND WHITNEY AIRCRAFT, EAST HARTFORD, CONN.
Liquid-gas separation system Patent
[NASA-CASE-XMS-01624] c15 N70-40062
Vibration damping system Patent
[NASA-CASE-XMS-01620] c23 N71-15673
Vapor pressure measuring system and method Patent
[NASA-CASE-XMS-01618] c14 N71-20741
Sealing member and combination thereof and method
of producing said sealing member Patent
[NASA-CASE-XMS-01625] c15 N71-23022

Q

QUANTUM DYNAMICS, TARZANA, CALIF.
Respiratory analysis system
[NASA-CASE-MSC-13436-1] c05 N72-20113

R

RADIATION INSTRUMENT DEVELOPMENT LAB., INC., MELROSE
PARK, ILL.
High speed binary to decimal conversion system
Patent
[NASA-CASE-XGS-01230] c08 N71-19544
RADIATION SYSTEMS, INC., MCLEAN, VA.
Monopulse tracking system Patent
[NASA-CASE-XGS-01155] c10 N71-21483
RADIO CORP. OF AMERICA, LANCASTER, PA.
Bonding graphite with fused silver chloride
[NASA-CASE-XGS-00963] c15 N69-39735
Thermal flux transfer system
[NASA-CASE-NPO-12070] c28 N72-20771
RADIO CORP. OF AMERICA, NEW YORK.
Water cooled contactor for anode in carbon arc
mechanism
[NASA-CASE-XMS-03700] c15 N69-24266
Apparatus for ballasting high frequency
transistors
[NASA-CASE-XGS-05003] c09 N69-24318
Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323
Radiation resistant silicon semiconductor devices
Patent
[NASA-CASE-XGS-07801] c09 N71-12513
GaAs solar detector using manganese as a doping
agent Patent
[NASA-CASE-XNP-01328] c26 N71-18064
Thermocouple assembly Patent
[NASA-CASE-XNP-01659] c14 N71-23039
Method of erasing target material of a vidicon
tube or the like Patent
[NASA-CASE-XNP-06028] c09 N71-23189
Hermetically sealed semiconductor package Patent
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[NASA-CASE-GSC-10791-1] c15 N71-28562
Transient augmentation circuit for pulse
amplifiers Patent
[NASA-CASE-XNP-01068] c10 N71-28739
Method for distillation of liquids
[NASA-CASE-XNP-08124-2] c06 N72-13102

RADIO CORP. OF AMERICA, PRINCETON, N.J.

- Connector strips-positive, negative and T tabs
[NASA-CASE-IGS-01395] c03 N69-21539
- Solar cell including second surface mirrors Patent
[NASA-CASE-NPO-10109] c03 N71-11049
- Collapsible reflector Patent
[NASA-CASE-XMS-03454] c09 N71-20658
- Simple method of making photovoltaic junctions
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[NASA-CASE-XNP-01960] c09 N71-23027
- Method of electrolytically binding a layer of semiconductors together Patent
[NASA-CASE-XNP-01959] c26 N71-23043
- Method and apparatus for distillation of liquids
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- Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407
- Method of changing the conductivity of vapor deposited gallium arsenide by the introduction of water into the vapor deposition atmosphere
Patent
[NASA-CASE-XNP-01961] c26 N71-29156
- Radial heat flux transformer
[NASA-CASE-NPO-10828] c33 N72-17948
- RAND CORP., SANTA MONICA, CALIF.**
Satellite communication system Patent
[NASA-CASE-XNP-02389] c07 N71-28900
- RAYMOND ENGINEERING LAB., INC., MIDDLETOWN, CONN.**
Synchronous servo loop control system Patent
[NASA-CASE-XNP-03744] c10 N71-20448
- RAYTHEON CO., LEXINGTON, MASS.**
An apparatus for restoring optically degraded laser optics Patent Application
[NASA-CASE-ERC-10210] c16 N70-41525
- RAYTHEON CO., SUDBURY, MASS.**
Laser Doppler system for measuring three dimensional vector velocity Patent
[NASA-CASE-MFS-20386] c21 N71-19212
- RCA SERVICE CO., INC., CAMDEN, N.J.**
Apparatus for inspecting microfilm Patent
[NASA-CASE-MFS-20240] c14 N71-26788
- RENSSELAER POLYTECHNIC INST., TROY, N.Y.**
Coincidence apparatus for detecting particles
[NASA-CASE-XLA-07813] c14 N72-17328
- RESEARCH TRIANGLE INST., DURHAM, N.C.**
Semiconductor p-n junction stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422
- ROCHESTER UNIV., N.Y.**
Concave grating spectrometer Patent
[NASA-CASE-IGS-01036] c14 N70-40003
- ROCKETDYNE, CANOGA PARK, CALIF.**
Frequency to analog converter Patent
[NASA-CASE-XNP-07040] c08 N71-12500
- Load cell protection device Patent
[NASA-CASE-XMS-06782] c32 N71-15974
- Thermobulb mount Patent
[NASA-CASE-NPO-10158] c33 N71-16356
- Laminar flow enhancement Patent
[NASA-CASE-NPO-10122] c12 N71-17631
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- Gas liquefaction and dispensing apparatus Patent
[NASA-CASE-NPO-10070] c15 N71-27372
- Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928
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[NASA-CASE-NPO-12015] c27 N71-33856
- Observation window for a gas confining chamber Patent Application
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[NASA-CASE-NPO-12000] c27 N72-13736
- Novel polymers and method of preparing same
[NASA-CASE-NPO-10999] c06 N72-15127
- Droplet monitoring probe
[NASA-CASE-NPO-10985] c14 N72-15420
- ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH (ENGLAND).**
Garments for controlling the temperature of the body Patent
[NASA-CASE-XMS-10269] c05 N71-24147
- RYAN AERONAUTICAL CO., SAN DIEGO, CALIF.**
Wing deployment method and apparatus Patent
[NASA-CASE-XMS-00907] c02 N70-41630
- Masking device Patent
[NASA-CASE-XNP-02092] c15 N70-42033

S

SANDERS ASSOCIATES, INC., NASHUA, N.H.

- Increasing efficiency of switching type regulator circuits Patent
[NASA-CASE-XMS-09352] c09 N71-23316
- SCHJELDAHL (G. T.) CO., NORTHFIELD, MINN.**
Rotating mandrel for assembly of inflatable devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687
- Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164
- SMITH ELECTRONICS, INC., CLEVELAND, OHIO.**
Phase detector assembly Patent
[NASA-CASE-XMF-00701] c09 N70-40272
- SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASS.**
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency
[NASA-CASE-HQN-10654-1] c16 N72-21502
- SOLID STATE RADIATIONS, INC., LOS ANGELES, CALIF.**
Biomedical radiation detecting probe Patent
[NASA-CASE-XMS-01177] c05 N71-19440
- SPACE TECHNOLOGY LABS., INC., REDONDO BEACH, CALIF.**
Method and apparatus for measuring potentials in plasmas Patent
[NASA-CASE-XLE-00821] c25 N71-15650
- AC logic flip-flop circuits Patent
[NASA-CASE-XGS-00823] c10 N71-15910
- Apparatus for field strength measurement of a space vehicle Patent
[NASA-CASE-XLE-00820] c14 N71-16014
- Hermetically sealed explosive release mechanism Patent
[NASA-CASE-XGS-00824] c15 N71-16078
- Apparatus for measuring electric field strength on the surface of a model vehicle Patent
[NASA-CASE-XLE-02038] c09 N71-16086
- Solar cell mounting Patent
[NASA-CASE-XNP-00826] c03 N71-20895
- Prestressed refractory structure Patent
[NASA-CASE-XNP-02888] c18 N71-21068
- Linear accelerator frequency control system Patent
[NASA-CASE-IGS-05441] c10 N71-22962
- Fluid lubricant system Patent
[NASA-CASE-XNP-03972] c15 N71-23048
- Compensating bandwidth switching transients in an amplifier circuit Patent
[NASA-CASE-XNP-01107] c10 N71-28859
- SPACELABS, INC., VAN NUYS, CALIF.**
Peak polarity selector Patent
[NASA-CASE-FRC-10010] c10 N71-24862
- Respiration monitor
[NASA-CASE-FRC-10012] c14 N72-17329
- SPACO, INC., HUNTSVILLE, ALA.**
Sight switch using an infrared source and sensor Patent
[NASA-CASE-XMF-03934] c09 N71-22985
- Method and device for detecting voids in low density material Patent
[NASA-CASE-MFS-20044] c14 N71-28993
- Ultrasonic scanning system for in place inspection of brazed tube joints
[NASA-CASE-MFS-20767] c15 N72-21482
- SPECTRA-PHYSICS, INC., MOUNTAIN VIEW, CALIF.**
Optically pumped resonance magnetometer for determining vectoral components in a spatial coordinate system Patent
[NASA-CASE-IGS-04879] c14 N71-26428
- SPECTROLAB, INC., SYLBAR, CALIF.**
Ultraviolet filter
[NASA-CASE-XNP-02340] c23 N69-24332
- Central spar and module joint Patent
[NASA-CASE-XNP-02341] c15 N71-21531
- SPERRY GYROSCOPE CO., GREAT NECK, N.Y.**
Automatic gain control system
[NASA-CASE-XMS-05307] c09 N69-24330
- SPERRY RAND CORP., BLUE BELL, PA.**
Flipflop interrogator and bi-polar current driver Patent
[NASA-CASE-IGS-03058] c10 N71-19547

- SPERRY RAND CORP., HUNTSVILLE, ALA.
Optical tracking mount Patent
[NASA-CASE-MFS-14017] c14 N71-26627
Collapsible antenna boom and transmission line
Patent
[NASA-CASE-MFS-20068] c07 N71-27191
Device for handling printed circuit cards Patent
[NASA-CASE-MFS-20453] c15 N71-29133
Frequency division multiplex technique
[NASA-CASE-KSC-1C521-1] c07 N72-21160
- SPERRY RAND CORP., PHILADELPHIA, PA.
Isolation coupling arrangement for a torque
measuring system Patent Application
[NASA-CASE-XLA-04897] c15 N70-26810
- STANFORD RESEARCH INST., MENLO PARK, CALIF.
Automatic fault correction system for parallel
signal channels Patent
[NASA-CASE-XNP-03263] c09 N71-18843
Mercury capillary interrupter Patent
[NASA-CASE-XNP-02251] c12 N71-20896
Magnetic power switch Patent
[NASA-CASE-NPO-1C242] c09 N71-24803
Procedure and apparatus for determination of water
in nitrogen tetroxide
[NASA-CASE-NPO-1C234] c06 N72-17094
- STANFORD UNIV., CALIF.
Active RC networks
[NASA-CASE-ARC-1C042-2] c10 N72-11256
Multiloop RC active filter apparatus having low
parameter sensitivity with low amplifier gain
[NASA-CASE-ARC-1C192] c09 N72-21245
Spacecraft attitude control method and apparatus
[NASA-CASE-HQN-10439] c21 N72-21624
- STANFORD UNIV., PALO ALTO, CALIF.
RC networks and amplifiers employing the same
[NASA-CASE-XAC-05462-2] c10 N72-17171
- STATE UNIV. OF IOWA, IOWA CITY.
Mixture separation cell Patent
[NASA-CASE-XMS-02952] c18 N71-20742
- SYLVANIA ELECTRONIC SYSTEMS-CENTRAL, WILLIAMSVILLE,
N. Y.
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437
Altitude sensing device
[NASA-CASE-XHS-01994-1] c14 N72-17326
- T**
- TAAG DESIGNS, INC., COLLEGE PARK, MD.
Recovery of radiation damaged solar cells through
thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- TECHBIDYNE, INC., WEST CHESTER, PA.
Methods and apparatus employing vibratory energy
for wrenching Patent
[NASA-CASE-MFS-20586] c15 N71-17686
- TECHNOLOGY, INC., SAN ANTONIO, TEX.
Modification of the physical properties of
freeze-dried rice Patent Application
[NASA-CASE-MSC-13540-1] c05 N70-39923
Contourgraph system for monitoring
electrocardiograms
[NASA-CASE-MSC-13407-1] c10 N72-20225
- TEXAS INSTRUMENTS, INC., DALLAS.
Integrated circuit including field effect
transistor and cermet resistor
[NASA-CASE-GSC-10835-1] c09 N72-11231
- TRIDENT ENGINEERING ASSOCIATES, INC., ANNAPOLIS, MD.
Spectroscope equipment using a slender cylindrical
reflector as a substitute for a slit Patent
[NASA-CASE-XGS-08269] c23 N71-26206
- TRW EQUIPMENT LABS., CLEVELAND, OHIO.
Pulsed energy power system Patent
[NASA-CASE-MSC-13112] c03 N71-11057
- TRW SYSTEMS GROUP, REDONDO BEACH, CALIF.
Ablative resin Patent
[NASA-CASE-XLE-05913] c33 N71-14032
Passive caging mechanism Patent
[NASA-CASE-GSC-10306-1] c15 N71-24694
Multiple varactor frequency doubler
[NASA-CASE-XMP-04958-1] c10 N71-26414
Booster tank system Patent
[NASA-CASE-MSC-12390] c27 N71-29155
Resonant infrasonic gauging apparatus
[NASA-CASE-MSC-11847-1] c14 N72-11363
Fail-safe multiple transformer circuit
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[NASA-CASE-NPO-11078] c09 N72-15205
- Cosmic dust analyzer
[NASA-CASE-MSC-13802-1] c30 N72-20805
Wide range analog-to-digital converter with a
variable gain amplifier
[NASA-CASE-NPO-11018] c08 N72-21200
- TRW SYSTEMS, REDONDO BEACH, CALIF.
Electromechanical actuator
[NASA-CASE-XNP-05975] c15 N69-23185
Control valve and co-axial variable injector
Patent
[NASA-CASE-XNP-09702] c15 N71-17654
Multiple orifice throttle valve Patent
[NASA-CASE-XNP-09698] c15 N71-18580
Semitoroidal diaphragm cavitating valve Patent
[NASA-CASE-XNP-09704] c12 N71-18615
Electrohydrodynamic control valve Patent
[NASA-CASE-NPO-10416] c12 N71-27332
- TRW, INC., LOS ANGELES, CALIF.
Digital control and information system Patent
Application
[NASA-CASE-NPO-11016] c08 N70-35351
- TYCO LABS., INC., WALTHAM, MASS.
Bonding thermoelectric elements to nonmagnetic
refractory metal electrodes
[NASA-CASE-XGS-04554] c15 N69-39786
Segmenting lead telluride-silicon germanium
thermoelements Patent
[NASA-CASE-XGS-05718] c26 N71-16037
Electrocatalyst for oxygen reduction
[NASA-CASE-HQN-10537-1] c06 N72-10138
- U**
- UNIFIED SCIENCE ASSOCIATES, INC., PASADENA, CALIF.
Method of producing crystalline materials
[NASA-CASE-NPO-10440] c15 N72-21466
- UNION CARBIDE CORP., NEW YORK.
Laser apparatus for removing material from
rotating objects Patent
[NASA-CASE-MFS-11279] c16 N71-20400
- UNITED AIRCRAFT CORP., EAST HARTFORD, CONN.
Supporting and protecting device Patent
[NASA-CASE-XMP-00580] c11 N70-35383
Spherical tank gauge Patent
[NASA-CASE-XMS-06236] c14 N71-21007
Omnidirectional joint Patent
[NASA-CASE-XMS-09635] c05 N71-24623
Foreshortened convolute section for a pressurized
suit Patent
[NASA-CASE-XMS-09637-1] c05 N71-24730
Tertiary flow injection thrust vectoring system
Patent
[NASA-CASE-MFS-20831] c28 N71-29153
- UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
Water separating system Patent
[NASA-CASE-XMS-13052] c14 N71-20427
Method of forming a root cord restrained convolute
section
[NASA-CASE-MSC-12398] c05 N72-20098
- UNITED TECHNOLOGY CENTER, SUNNYVALE, CALIF.
Solid propellant liner Patent
[NASA-CASE-XNP-09744] c27 N71-16392
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- VAPOR CORP., CHICAGO, ILL.
Method and apparatus for controllably heating
fluid Patent
[NASA-CASE-XMF-04237] c33 N71-16278
- VARIAN ASSOCIATES, PALO ALTO, CALIF.
High power-high voltage waterload Patent
[NASA-CASE-XNP-05381] c09 N71-20842
- VIRGINIA UNIV., CHARLOTTESVILLE.
Depositing semiconductor films utilizing a thermal
gradient
[NASA-CASE-XKS-04614] c15 N69-21460
Thin film microwave iris Patent Application
[NASA-CASE-LAR-10511-1] c09 N70-35416
Active microwave irises and windows
Patent Application
[NASA-CASE-LAR-10513-1] c07 N70-42162
- W**
- WEBER AIRCRAFT CORP., BURBANK, CALIF.
Articulated multiple couch assembly Patent
[NASA-CASE-MSC-11253] c05 N71-12343
Device for separating occupant from an ejection
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SOURCE INDEX

WILORCO, INC.,

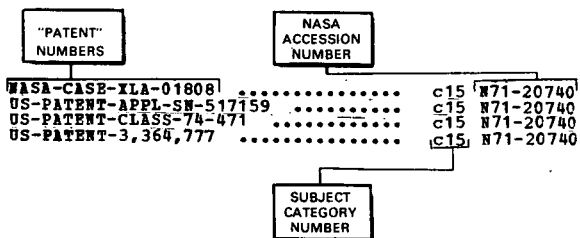
[NASA-CASE-XMS-04625] c05 N71-20718
 Collapsible Apollo couch
 [NASA-CASE-MSC-13140] c05 N72-11085
WESTINGHOUSE ELECTRIC CORP., BALTIMORE, MD.
 Broadband choke for antenna structure
 [NASA-CASE-XMS-05303] c07 N69-27462
 Electronic background suppression method and
 apparatus for a field scanning sensor
 [NASA-CASE-XGS-05211] c07 N69-39980
 Phototransistor imaging system
 [NASA-CASE-MFS-20809] c23 N72-10587
WESTINGHOUSE ELECTRIC CORP., HUNTSVILLE, ALA.
 Solid state television camera system Patent
 [NASA-CASE-XMF-06092] c07 N71-24612
WESTINGHOUSE ELECTRIC CORP., LINA, OHIO.
 Transistor drive regulator Patent
 [NASA-CASE-LEW-10233] c10 N71-27126
WESTINGHOUSE ELECTRIC CORP., LINTHICUM HEIGHTS, MD.
 Phototransistor
 [NASA-CASE-MFS-20407] c09 N72-11229
WESTINGHOUSE ELECTRIC CORP., PITTSBURGH, PA.
 Heat transfer device Patent Application
 [NASA-CASE-NPO-11120] c33 N70-41524
 Linear sawtooth voltage-wave generator employing
 transistor timing circuit having capacitor-zener
 diode combination feedback Patent
 [NASA-CASE-XMS-01315] c09 N70-41675
 Thermal conductive connection and method of making
 same Patent
 [NASA-CASE-XMS-02087] c09 N70-41717
 Gas cooled high temperature thermocouple Patent
 [NASA-CASE-XLE-09475-1] c33 N71-15568
 High resolution developing of photosensitive
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 [NASA-CASE-XGS-04993] c14 N71-17574
 Regulated power supply Patent
 [NASA-CASE-XMS-01991] c09 N71-21449
 Pulse modulator providing fast rise and fall times
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 [NASA-CASE-XMS-04919] c09 N71-23270
 Extended area semiconductor radiation detectors
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 [NASA-CASE-XGS-03230] c14 N71-23401
 Frequency shift keying apparatus Patent
 [NASA-CASE-XGS-01537] c07 N71-23405
 Phase locked phase modulator including a voltage
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 [NASA-CASE-XNP-05382] c10 N71-23544
 Bearing and gimbal lock mechanism and spiral flex
 lead module Patent
 [NASA-CASE-GSC-10556-1] c31 N71-26537
 Multiple slope sweep generator Patent
 [NASA-CASE-XMS-03542] c09 N71-28926
 Self-adjusting multisegment, deployable, natural
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 [NASA-CASE-XHQ-03673] c33 N71-29046
 Demodulator for carrier transducers
 [NASA-CASE-NUC-10107-1] c09 N72-21254
WESTON INSTRUMENTS, INC., COLLEGE PARK, MD.
 Electronically resettable fuse Patent
 [NASA-CASE-XGS-11177] c09 N71-27001
WHIRLPOOL CORP., ST. JOSEPH, MICH.
 Relief container
 [NASA-CASE-XMS-06761] c05 N69-23192
 Fluid sample collector Patent
 [NASA-CASE-XMS-C6767-1] c14 N71-20435
WHITTAKER CORP., LOS ANGELES, CALIF.
 Reinforced polyquinoxaline gasket and method of
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 [NASA-CASE-MFS-21364] c15 N72-20460
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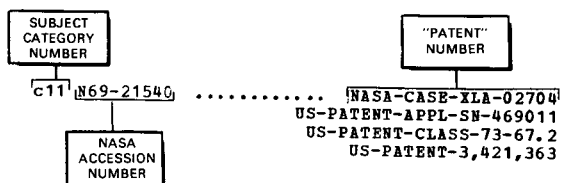
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