

INSPEC

Subject Coverage

- Atomic and molecular physics
- Circuit theory and circuits
- Classical areas of phenomenology
- Communications
- Components, electronic devices and materials
- Computer applications
- Computer hard- and software
- Condensed matter: structure, mechanical properties, electronic structures, electrical, magnetic, and optical properties
- Control technology
- Cross-disciplinary physics and related areas of science and technology
- Electromagnetic fields
- Engineering mathematics, materials science
- Fluids, plasmas, electric discharges
- General and management aspects and applications
- Geophysics, astronomy, astrophysics
- Information technology
- Instrumentation and special applications
- Magnetic and superconducting materials and devices
- Mechanical engineering
- Nuclear physics
- Numerical analysis and theoretical computer topics
- Office automation - communications, computing
- Optical materials and applications, electro-optics and optoelectronics
- Physics of elementary particles and fields
- Power systems and applications
- System and control theory

File Type

Bibliographic

Features

Thesaurus	Controlled Term (/CT), International Patent Classification (/IPC),		
Alerts (SDIs)	Weekly		
CAS Registry Number® Identifiers	<input type="checkbox"/>		
Keep & Share	<input checked="" type="checkbox"/>	SLART	<input checked="" type="checkbox"/>
Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>

Record Content

- Bibliographic information, indexing terms, abstracts and International Patent Classification, where applicable.
- INSPEC also includes an archive from 1898-1968. This archive provides access to Science Abstracts Journals from 1898-1968, and contains over 873,700 records with the original value-added indexing and classifications, as well as enhancements in the form of the nearest equivalent current INSPEC Thesaurus terms and INSPEC Classification Codes.
- IPC codes are available from 2010 onwards.
- There are more than 2.9 million citations mostly from 2010 onwards, with about 300 thousand added each year.

File Size

More than 23.5 million records (10/2023)

Coverage	1898-present
Updates	Weekly
Language	English
Database Producer	<p>The Institution of Engineering and Technology (IET) Futures Place Kings Way Stevenage, Hertfordshire SG1 2UA United Kingdom Phone: +44 1438 765-575 Email: emea.sales@theiet.org</p> <p>Copyright Holder The Institution of Engineering and Technology is registered as a Charity in England & Wales (no 211014) and Scotland (no SC038698).</p>
Sources	<ul style="list-style-type: none">• Journals• Reports• Conferences• Books• Dissertations• Patents (until 1976)
User Aids	<ul style="list-style-type: none">• Inspec List of Journals *• Inspec Classification *• Inspec Thesaurus *• IPC Codes Applied in Inspec Records https://www.theiet.org/media/11146/ipc-patent-codes.pdf• Online Helps (HELP DIRECTORY lists all help messages available)• STNGUIDE <p>* Available printed at producer and online</p>

Cluster

- AEROTECH
- ALLBIB
- AUTHORS
- CHEMENG
- CHEMISTRY
- COMPUTER
- CORPSOURCE
- ELECTRICAL
- ENGINEERING
- ENVIRONMENT
- FUELS
- GEOSCIENCE
- GOVREGS
- MATDATA
- MATERIALS
- MEETINGS
- METALS
- METDATA
- PETROLEUM
- NPS
- PHYSICS
- SAFETY

STN Database Cluster information:

<https://www.cas.org/support/training/stn/database-clusters>

Search and Display Field Codes

Fields that allow left truncation are indicated by an asterisk (*).

General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from abstract (AB), controlled term (CT), supplementary term (ST), controlled term original (CTO), and title (TI) fields)	None or /BI	S MICROELECTRON? S QUANTUM HALL S LIQUID(A)CRYST? S AL203-NA20 S ?LASER?	AB, CT, CTO, ST, TI
Abstract* Accession Number Application Date (1) Application Year (1) Astronomical Object	/AB /AN /AD /AY /AO	S NEUTRON ?RADIATION?/AB S 1990:3615482/AN S AD = APR 1969 S AY = 1970 S WESTERBORK-19 32/AO S 1101+38/AO	AB AN AI AI AO
Author	/AU	S SMITH S/AU S SMITH, S/AU	AU
Availability (2) Chemical Indexing	/AV /CHI (or /MAI)	S NASA CENTER/AV S BA DOP/CHI S CU SS/CHI S SS304 BIN/CHI	AV CHI
Classification Code (contains INSPEC classification)	/CC	S A9110Q/CC S A4/CC S A41/CC S OPTICAL DEVICE?/CC	CC
Classification Code, Original (2)	/CCO	S MATHEMATICAL PHYSICS/CCO S 621.791/CCO	CCO
Controlled Term (4) Controlled Term, Original (2) Controlled Word Corporate Source (incl. affiliation, patent assignee) Corporate Source Identifier (Ringgold Identifier (RIN))	/CT /CTO /CW /CS /CSID	S MAGNETIC LEVITATION/CT S "MANGANESE BISMUTHIDE"/CTO S MAGNETIC/CW S (NAT(W)BUR?(2W)WASH?)/CS S GAIN ELECTRON?/CS S 120034/CSID	CT CTO CT, CTO CS CSID
Country of Publication Digital Object Identifier Document Number Document Type (code and text) E-mail Address (3) Entry Date (1) File Segment International Patent Classification (2,4)	/CY /FTDOI /DN /DT (or /TC) /EML /ED /FS /IPC	S GERMANY/CY S HTTPS://DOI.ORG/10.0002/ER.802/FTDOI S 23562477 /DN S Book/DT S GENERAL REVIEW/DT S HEIDEL IBM/EML S ED>JAN 2023 S B/FS AND SAFETY S B82B0001-00/IPC	CY FTDOI DN DT AU, EML ED FS IPC
International Standard (Document) Number (contains ISSN, ISBN, and CODEN) (2) Journal Title (contains full and abbreviated titles) Language (ISO code and text)	/ISN /JT /LA	S 1220-3033/ISN S 1-88044-651-0/ISN S AABNAC/ISN S CREATIVE COMPUT?/JT S GERMAN/LA S RU/LA	SO, ISN JT, JTA, JTF, SO LA
Meeting Date (1) Meeting Location (3) Meeting Title (3) Meeting Year (1)	/MD /ML /MT /MY	S 15 DEC 1999/MD S NANTES/ML S ACADEMIC CONFERENCE S 1983-1984/MY	MD, SO ML, SO MT, SO MY, SO

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Note (2)	/NTE	S ALSO PUBLISHED/NTE	NTE
Number of Contract	/NC	S 016-77-1 RPU B/NC	NC
Number of Report (number and prefix)	/NR	S GEPP-8/NR	NR
Patent Assignee (3,5)	/PA	S GEPP/NR	PA
Patent Country (WIPO code and text) (5)	/PC	S BATTELLE CORP/CS	PNO
Patent Number, Original (5)	/PNO (or /PATS)	S GB1 122 151/PNO	PNO
Physical Properties	/PHP	S BIT/PHP	HIT
Priority Date (1,5)	/PRD	S DEC 1960/PRD	PRAO, PRAI
Priority Number, Original (5)	/PRNO	S AUSTRALIA006404/PRNO	PRAO
Priority Year (1,5)	/PRY	S PRY>1965	
Publication Date (1)	/PD	S JAN 2004-MAR 2004/PD	PD, SO
Publication Year (1)	/PY	S 2004-2005/PY	SO, PNO
Publisher (3)	/PB	S MCGRAW LONDON/PB	PB, SO
Reference (2)	/RE	S LANDRY M/RE	RE
Reference Count (1)	/REC (or /RE.CNT)	S L1 AND REC<10	REC, SO
Source (contains CODEN, journal title and other higher-level titles, ISBN, ISSN, SICi, Internet URL, publisher, meeting information, number of contract, number of report)	/SO	S EARTH PLANET/SO S (CREATIVE COMP?(L)USA)/SO S 0031-9201/SO S WWW.COMPUTER.ORG/SO S AABNAC/SO	SO
Supplementary Term	/ST	S AL2O3-NA2O/ST S MEASUR? DEVICE#/ST	ST
Title*	/TI	S GRAVITY PARAMETERS/TI	TI
Uniform Resource Locator (3)	/URL	S JHEP ARCHIVE/URL	URL, SO
Update Date (1)	/UP	S UP=JUL 2023	UP
Word Count, Title (1)	/WC.T	S L1 AND WC.T>10	WC.T

(1) Numeric search field that may be searched using numeric operators or ranges.

(2) Field available for data since 1969 only.

(3) Search with implied (S) proximity is available in this field.

(4) An online thesaurus is available in this field.

(5) Field available until 1976.

Property Fields ¹⁾

In INSPEC a numeric search for a specific set of physical properties (/PHP) is available within the text fields (TI, AB). The numeric values are not displayed as single fields, but highlighted within the hit displays.

Use EXPAND/PHP to search for all available physical properties. A search with the respective field codes will be carried out in all database fields with English text. The /PHP index contains a complete list of codes and related text for all physical properties available for numeric search.

Field Code	Property	Unit	Symbol	Search Examples
/AOS	Amount of substance	Mol	mol	S 10 /AOS
/BIR	Bit Rate	Bit/Second	bit/s	S 8000-10000/BIR
/BIT	Stored Information	Bit	Bit	S BIT > 3 MEGABIT
/CAP	Capacitance	Farad	F	S 1-10 MF/CAP
/CATA	Catalytic Activity	Katal	kat	S 1-10/CATA
/CDN	Current Density	Ampere/Square Meter	A/m ²	S CDN>10 A/M**2
/CMOL	Molarity, Molar Concentration	Mol/Liter	mol/L	S UREA/BI (S) 8/CMOL
/CON	Conductance	Siemens	S	S 1S-3/CON
/DB	Decibel	Decibel	dB	S DB>50
/DEG	Degree	Degree	°	S CYLINDER/BI (S) 45/DEG
/DEN (/C)	Density (Mass Concentration)	Kilogram/Cubic Meter	kg/m ³	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOA	Dosage	Milligram/Kilogram/Day	mg/day	S 100-300/DOA
/DOS (/LD50)	Dose	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal*Second	Pa*s	S DV>5000
/ECH (/CHA)	Electric Charge	Coulomb	C	S 0.0001-0.001/ECH
/ECO (/ECND)	Electrical Conductivity	Siemens/Meter	S/m	S ECO>800 S/M (15A) AQUEOUS
/ELC (/ECC)	Electric Current	Ampere	A	S 1-10/ELC
/ELF (/ECF)	Electric Field	Volt/Meter	V/m	S 200/ELF
/ENE	Energy	Joule	J	S DROPLETS (10A) 40 JOULE - 70 JOULE /ENE
/ERE (/ERES)	Electrical Resistivity	Ohm*Meter	Ohm*m	S ERE>0.1
/FOR	Force	Newton	N	S 50 N /FOR
/FRE (/F)	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE
/IU	International Unit	none	IU	S IU>1000 (P) VITAMIN A
/KV	Viscosity, kinematic	Square Meter/Second	m ² /s	S METHYLPOLYSILOXANES/BI (10A) 200-300 CST /KV
/LEN (/SIZ)	Length, Size	Meter	m	S 1-4/LEN
/LUME	Luminous Emittance, Illuminance	Lux	lx	S 10-50/LUME
/LUMF	Luminous Flux	Lumen	Lm	S LUMF>1000
/LUMI	Luminous Intensity	Candela	cd	S LUMI<4
/M	Mass	Kilogram	kg	S ALLOY/BI (30A) 1E-10-1E-5/M
/MCH	Mass to Charge Ratio	none	m/z	S MCH=1
/MFD (/MFS)	Magnetic Flux Density	Tesla	T	S MFD>102
/MFR (/MFL)	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MFST	Magnetic Field Strength	Ampere/Meter	A/m	S MFST/PHP
/MM (/MW, /MOM)	Molar Mass	Gram/Mol	g/mol	S 2000-3000 G/MOL/MM
/MOLS	Molality of Substance	Mol/Kilogram	mol/kg	S 01.-10 MOL/KG/MOLS
/MVR	Melt Volume Rate, Melt Flow Rate	None	g/10 min	S 3/MVR
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER

Property Fields (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/PHV (/PH) /POW (/PW)	pH Value Power	pH Watt	pH W	S 7.4-7.6/PHV S "HG-XE-?"/BI (S) 100-200 WATT/POW
/PPM	Parts per million	Ppm	ppm	S 100 PPM /PPM (10A) ADDITIVE/BI
/PRES (/P)	Pressure	Pascal	Pa	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD /RES	Radioactivity Electrical Resistance	Becquerel Ohm	Bq Ohm	S RAD/PHP S SENSOR /BI (S) 10- 100/RES
/RI /RSP	Refractive Index Rotational Speed	none Revolution/Minute	rpm	S 3-4/RI S 2 RPM - 100 RPM /RSP (S) ENGINE/BI
/SAR	Area /Surface Area	Square Meter	m ²	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB) /SSAM	Solubility Specific Surface Area, Mass	Gram/100 gram Square Meter/Kilogram	g/100g m ² /kg	S SOL>20 G/100G (5A) WATER S 1-10/SSAM
/STSC (/ST) /TCO (TCND)	Surface Tension Thermal Conductivity	Joule /Square Meter Watt/Meter*Kelvin	J/m ² W/m*K	S 60 J/M**2/STSC S 1/TCO (S) HEAT?
/TEMP (/T) /TEX /TIM	Temperature Tex Time	Kelvin Gram/Kilometer Second	K g/km s	S 20-25/TEMP S 1-5/TEX S ?INCUB?/BI (10A) 50 S - 150 S /TIM
/VEL (/V) /VELA /VLR	Velocity Velocity, angular Volumetric Flow Rate	Meter per Second Radian/Second Cubic Meter/Second	m/s rad/s m ³ /s	S REDUC?/BI (S) 1E-3-5E-3/VEL S VELA>10 S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL /VOLT	Volume Voltage	Cubic Meter Volt	m ³ V	S 1E-8-2E-8/VOL.EX S TENSION/BI (10A) 5E-3 V <VOLT<7E-3 V

(1) Exponential format is recommended for the search of particularly high or low values, e.g., 1.8E+7 or 1.8E7 (for 18000000) or 9.2E-8 (for 0.00000092).

Controlled Term (/CT) Thesaurus

All Relationship Codes can be used with both the SEARCH and EXPAND command.

Code	Content	Examples
ALL AUTO (1) BT HIE KT	All Associated Terms Automatic Relationship (SELF, USE, UF) Broader Terms (also BT1, BT2 etc. possible) Hierarchy (all Broader and Narrower Terms) Keyword Terms (Multi-word Phrases containing the specified Keyword Term)	E ALUMINIUM COMPOUNDS+ALL/CT S POWDER SPRAYING+AUTO/CT E TERBIUM ALLOYS+BT/CT E SHOCK WAVES+HIE/CT E POWDER+KT/CT
NOTE NT PFT PT	Notes associated with Terms (SELF, DA, CC) Narrower Terms (also NT1, NT2 etc. possible) All Preferred, Forbidden Terms, and Dates (SELF, DA, USE, UF) Prior Terms	E ELECTRIC MACHINES+NOTE/CT S ACOUSTIC TRANSDUCERS+NT/CT E POWER AMPLIFIERS+PFT/CT E DATABASE MANAGEMENT SYSTEMS+PT/CT
RT STD	Related Terms (see also) Standard (all Broader, Narrower, Related, and Prior Terms)	E TRANSIENT ANALYSERS+RT/CT E TRANSFER FUNCTIONS+STD/CT
UF USE	Used For (Preferred and Forbidden Terms) Use (Forbidden and Preferred Terms)	E TRANSDUCERS+UF/CT E SOLIONS+USE/CT

(1) Automatic Relationship is SET OFF. In case of SET REL ON the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

IPC THESAURUS

The classifications, validity and catchwords for the main headings and subheadings from the current (8th) edition of the WIPO International Patent Classification (IPC) manual are available. The classifications from the previous editions (1-7) are also available as separate thesauri. To EXPAND and SEARCH in the thesauri for editions 1-8, use the field code followed by the edition number, e.g., /IPC2 for the 2nd edition. Catchwords are included only in the thesauri for the 8th, 7th, 6th, and 5th editions.

Code	Content	Examples
ADVANCED (ADV) ALL BRO (MAN) BT BTn	Advanced Level Codes for the Core Level IPC Code All Associated Terms (BT, SELF, NT, RT) Complete Class Broader Term (SELF, BT) Broader Term (SELF, BT) up to the next n levels (n =1,2,...)	E A61K0066-02+ADVANCED/IPC E C01C003-00+ALL/IPC E C01C+BRO/IPC E C01F001-00+BT/IPC E C01F001-21+BT2/IPC
CORE (COR) ED HIE	Core Codes for the Advanced Level IPC Code Complete title of the SELF term and IPC manual Hierarchy Term (Broader and Narrower Term) (BT, SELF, NT)	E G08C0019-22+CORE/IPC E C01F001-00+ED/IPC E C011003-00+HIE/IPC
INDEX KT NEXT NT NTn	Complete title of the SELF term Keyword Term (catchwords) (SELF, KT) Next Classification Narrower Terms (SELF, NT) Narrower Terms (SELF, NT) down to the next n levels (n =1,2,...)	E C01F001-00+INDEX/IPC E CYANOGEN+KT/IPC E C01C001-00+NEXT5/IPC E C01C+NT/IPC E C01C+NT3/IPC
PREV PREV(n) RT (SIB) TI	Previous Code within the same class (SELF, PREV) Previous n classifications within the same class Related Terms (SELF, RT) Complete Title of the SELF Term and Broader Terms (BT, SELF)	E C01C001-12+PREV/IPC E C01C001-12+PREV10/IPC E C01C003-20+RT/IPC E C01F001-00+TI/IPC

DISPLAY and PRINT Formats

Any combination of formats may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI AU. The fields are displayed or printed in the order requested.

Hit-term highlighting is available for all fields except AU and CS. Highlighting must be ON during SEARCH to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AB	Abstract	D TI AB
AI	Application Information	
AN	Accession Number	D 1-5 AN
AO	Astronomical Object	D AO
AU	Author	D AU TI
CC	Classification Code	D CC
CCO	Classification Code, Original	D CCO
CHI	Chemical Indexing	D CHI
CS	Corporate Source (format includes AU)	D CS
CSID (1)	Corporate Source Identifier (Ringgold Identifier (RIN))	D CSID
CT	Controlled Term	D CT
CTO	Controlled Term, Original	D CTO
CY	Country	D CY
DN	Document Number	D AN DN
DT	Document Type (incl. Treatment Code)	D DT
ED	Entry Date	D ED
EML (1)	E-mail Address	D EML
FS (1)	File Segment	D FA
FTDOI (1)	Digital Object Identifier	D FTDOI
IPC	International Patent Classification	D IPC
ISN (1)	International Standard (Document) Number	D ISN
JT (1)	Journal Title	D JT
JTA (1)	Journal Title, Abbreviated	D JTA
JTF (1)	Journal Title, Full	D JTF
LA	Language	D LA TI
MD (1)	Meeting Date	D MD
ML (1)	Meeting Location	D ML
MT (1)	Meeting Title	D MT
MY (1)	Meeting Year	D MY
NC	Number of Contract	D NC
NR	Number of Report	D NR
NTE	Note	D NTE
PA	Patent Assignee	D PA
PB (1)	Publisher	D PB
PD (1)	Publication Date	D PD
PI	Patent Information	D PI
PNO (1)	Patent Number, Original	D PNO
PRAI	Priority Information	D PRAI
PRAO (1)	Priority Information, Original	D PRAO
PY (1)	Publication Year	D PY
RE	Reference	D RE
REC (RE.CNT) (1)	Reference Count	D REC
SO	Source	D SO
ST	Supplementary Term	D ST
TI	Title	D TI
UP (1)	Update Date	D UP
URL (1)	Uniform Resource Locator	D URL
WC.T (1)	Word Count, Title	D WC.T
ABS	AN, DN, AB	D ABS
ALL	BIB, AB, CC, CCO, CT, CTO, ST, IPC, AO, CHI	D 1-3 ALL
DALL	ALL, delimited for post-processing	D DALL
IALL	ALL, indented with text labels (BIB is default)	D IALL
BIB	AN, DN, TI, AU, CS, NC, NR, SO, AV, DT, CY, LA, Patents: AN, DN, TI, IN, PA, PI, AI, PRAI, DT, CY, LA (BIB is default)	D BIB

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
IBIB IND MAX SCAN TRIAL (TRI, SAMPLE, SAM, FREE)	BIB, indented with text labels AN, DN, CC, CCO, CT, CTO, ST, IPC, AO, CHI ALL + RE TI, IPC, CC, CT, ST (random display without answer numbers) TI, CC, CCO, CT, CTO, ST, IPC, AO, CHI	D IBIB D IND D MAX D SCAN D TRI
HIT KWIC OCC	Hit term(s) and field(s) Up to 50 words before and after hit term(s) KeyWord-In-Context) Number of occurrences of hit term(s) and field(s) in which they occur	D HIT D KWIC D OCC

(1) Custom display only.

(2) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y	N
Accession Number	AN	Y	N
Application Date	AD	Y	Y
Astronomical Object	AO	Y	Y
Author	AU	Y	Y
Chemical Indexing	CHI	Y	N
Citation	CIT	Y (2,3)	N
Classification Code	CC	Y	Y
Classification Code, Original	CCO	Y	Y
CODEN	CODEN	N	Y
Controlled Term	CT	Y	N
Controlled Term, Original	CTO	Y	N
Corporate Source	CS	Y (2)	Y
Corporate Source Identifier (Ringgold Identifier (RIN))	CSID	Y	Y
Country of Publication	CY	Y	Y
Document Number	DN	Y	Y
Document Type	DT (TC)	Y	Y
E-mail Address	EML	Y	Y
Entry Date	ED	Y	Y
International Patent Classification	IPC	Y	N
International Standard (Document) Number	ISN	Y (4)	Y
International Standard Book Number	ISBN	N	Y
International Standard Serial Number	ISSN	N	Y
Journal Title	JT	Y	Y
Journal Title, Abbreviated	JTA	Y (5)	Y
Journal Title, Full	JTF	Y (5)	Y
Language	LA	Y	Y
Meeting Date	MD	Y	Y
Meeting Location	ML	Y	Y
Meeting Title	MT	Y	Y
Meeting Year	MY	Y	Y

SELECT, ANALYZE, and SORT Fields (cont'd)

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Note	NTE	Y	Y
Number of Contract	NC	N	Y
Number of Report	NR	Y	Y
Occurrence Count of HIT Terms	OCC	N	Y
Patent Assignee	PA	Y	Y
Patent Country	PC	Y	Y
Patent Number	PN	Y	Y
Patent Number, Original	PNO	Y	Y
Priority Date	PRD	Y	Y
Priority Number, Original	PRNO (PRAO)	Y	Y
Priority Year	PRY	Y	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Publisher	PB	Y	Y
Reference	RE	Y	N
Reference Count	REC (RE.CNT)	Y	Y
Source	SO	Y (6)	N
Supplementary Term	ST	Y	N
Title	TI	Y (default)	Y
Uniform Resource Locator	URL	Y	Y
Update Date	UP	Y	Y
Word Count, Title	WC.T	Y	Y

- (1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT TI.
- (2) SELECT HIT and ANALYZE HIT are not valid with this field.
- (3) SELECT CIT or ANALYZE CIT allows you to extract the reference from the source documents in this file and have them automatically converted to a citation format for searching in the SCISEARCH file. SEL or ANALYZE CIT extracts first author, publication year, volume, first page, with a truncation symbol and with /RE appended to the terms created by SELECT.
- (4) Selects or analyzes CODEN, ISSN and ISBN, and appends /ISN to the terms created by SELECT.
- (5) Appends /JT to the terms created by SELECT.
- (6) Selects or analyzes CODEN, ISSN and ISBN, and appends /SO to the terms created by SELECT.

Sample Records

DISPLAY BIB of JOURNAL

AN 2021:20413648 INSPEC
DN 20413648
TI An "on-off" electrochemiluminescence immunosensor for PIVKA-II detection based on the dual quenching of CeO₂-Au-g-C₃N₄ hybrids by Ag nanocubes-VB2
AU Zhujun Ai(1); Ke Chen(1); Hua Tang(1); Min Zhao(2); Daobin Han(2); Dongmei Xiong(3)
CS (1)Chongqing Medical University, Department of Infectious Diseases, Chongqing, China; (2)Chongqing Medical University, Key Laboratory of Clinical Laboratory Diagnostics (Ministry of Education), Chongqing, China; (3)Chongqing Medical and Pharmaceutical College, Nursing Department, Chongqing, China
SO Biosensors and Bioelectronics (1 May 2021), Volume 179, pp. 92-99, 41 refs.
CODEN: BBIOE4 ISSN: 0956-5663
DOI: <https://doi.org/10.1016/j.bios.2021.113059>
Published by: Elsevier B.V., Netherlands
PUI S0956-5663(21)00096-8
CY Netherlands
DT Journal; Practical; Experimental
FS INSPEC 1969-; A; B
LA English
ED Entered STN: 26 Mar 2021
Last updated on STN: 26 Mar 2021

DISPLAY ALL of ARCHIVE

AN 1899A00035 INSPEC
DN 1899A00035
TI New radio-active element in pitch blende
AU Curie, P.; Sklodowska-Curie
SO Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences (1898), Volume 127, pp. 175-178
CY France
DT Journal
FS INSPEC 1898-1968; A
LA English
ED Entered STN: 14 Oct 2015
Last updated on STN: 26 Apr 2016
AB The suggestion that pitch blende contains some substance more active than uranium (see Abstract Number 1898A01224) has been followed up and found to be true. It is present in the sulphides precipitated by sulphuretted hydrogen from an acid solution of pitch blende, and is so in company with lead, bismuth, copper, arsenic, and antimony. Sulphide of ammonium removes the arsenic and the antimony, nitric acid dissolves the remaining sulphides, and sulphuric acid removes the lead; the sulphate of lead should be well washed with dilute sulphuric acid in order to recover the portion of the element sought for, which is carried down by the precipitate. There remains in solution the new element, with bismuth and copper: ammonia in excess precipitates the two former. No good method has been found for completely separating these by wet methods, but the two sulphides have different volatilities, and when sublimed in a vacuum tube condense at different parts of the tube. The ultimate product is a sulphide 400 times as active as uranium, and appears to be that of a new metal, analytically related to bismuth: name

proposed, Polonium. There is, however, no characteristic ray in its spectrum; but this is the character of the spectra of uranium, thorium, and tantalum, which present merely innumerable very fine lines, difficult to recognise.

CC A4200 Optics
CCO Light
CT rays
CTO rays

DISPLAY MAX

AN 2022:22257643 INSPEC Full-text
DN 22257643
TI Flow control of double bypass variable cycle engine in modal transition
AU Chen, H.(1); Cai, C.(1); Luo, J.(1); Zhang, H.(1)
CS (1)Nanjing University of Aeronautics and Astronautics, Jiangsu Province
Key Laboratory of Aerospace Power Systems, Nanjing, China
EMAIL: zh_zhbb@126.com
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CY Netherlands
DT Journal; Practical; Theoretical
FS INSPEC 1969-; A; C; E
LA English
ED Entered STN: 24 Nov 2022
Last updated on STN: 24 Nov 2022
AB To study the change mechanism and the control of the variable cycle engine in the process of modal transition, a variable cycle engine model based on component level characteristics is established. The two-dimensional CFD technology is used to simulate the influence of mode selection valve rotation on the engine flow field, which improves the accuracy of the model. Furthermore, the constant flow control plan is proposed in the modal transition process to reduce the engine installed drag. The constant flow control plan adopts the augmentation linear quadratic regulator control method. Simulation results indicate that the control method is able to effectively control the bypass ratio and demand flow of the variable cycle engine, and make the engine transform smoothly, which ensures the stable operation of the engine in modal transition and the constant demand flow of the engine. All rights reserved Elsevier.
IPC B64C; B64D; F01; F15D; F15D0001-00; F16K; G05B0017-00; G05D0007-00
CC A4785 Applied fluid mechanics; A4710 General fluid dynamics theory, simulation and other computational methods; C7440 Civil and mechanical engineering computing; C1310 Control system analysis and synthesis methods; C1330 Optimal control; E2130 Fluid mechanics and aerodynamics (mechanical engineering); E2210 Mechanical components; E2320 Engines; E3650C Aerospace industry; E0410H Mechanical engineering applications of IT; E1400 Design
IPC Information:
B64C Aeroplanes; Helicopters
B64D Equipment for fitting in or to aircraft; Flying suits; Parachutes; Arrangements or mounting of power plants or propulsion transmissions
F01 Machines or engines in general; Engine plants in general; Steam engines
F15D Fluid dynamics, i.e., methods or means for influencing the flow of gases or liquids

F15D1/00 Influencing the flow of fluids

F16K Valves; Taps; Cocks; Actuating-floats; Devices for venting or aerating

G05B17/00 Systems involving the use of models or simulators of said systems

G05D7/00 Control of flow

CT aerodynamics; aerospace engines; aircraft; computational fluid dynamics; control system synthesis; design engineering; drag; engines; flow control; linear quadratic control; mechanical engineering computing; subsonic flow; valves

ST engine installed drag; constant flow control plan; quadratic regulator control method; constant demand flow; double bypass variable cycle engine; variable cycle engine model; component level characteristics; two-dimensional CFD technology; mode selection valve rotation; engine flow field; modal transition process

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In Japan

JAICI
(Japan Association for International Chemical Information)
Nakai Building
6-25-4 Honkomagome, Bunkyo-ku
Tokyo 113-0021
Japan

Phone: +81-3-5978-3601 (Technical Service)
+81-3-5978-3621 (Customer Service)
E-mail: support@jaici.or.jp (Technical Service)
customer@jaici.or.jp (Customer Service)
Internet: www.jaici.or.jp