

## ALUMINIUM (ALUMINIUM Industry Abstracts)

---

- Subject Coverage**
- Aluminium Industry
  - Aluminium Intermetallics
  - Business Information
  - End Uses of Aluminium
  - Engineering Properties and Tests
  - Extractive Metallurgy
  - Melting, Casting and Foundry
  - Metalworking, Fabrication and Finishing
  - Ores, Extraction of Alumina and Aluminium
  - Patents
  - Physical and Mechanical Metallurgy
  - Quality Control and Tests
- 

**File Type** Bibliographic

---

**Features**

<a href="#">Alerts (SDIs)</a>	Monthly				
CAS Registry Numbers®	<input type="checkbox"/>	Page Images	<input type="checkbox"/>	STN AnaVist	<input type="checkbox"/>
<a href="#">Keep &amp; Share</a>	<input checked="" type="checkbox"/>	SLART	<input type="checkbox"/>	<a href="#">STN Easy</a>	<input checked="" type="checkbox"/>
Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>	STN Viewer	<input type="checkbox"/>

---

**Record Content** Bibliographic and indexing information, and from 1972 onwards abstracts

---

**File Size** 361,853 citations (03/2011)

---

**Coverage** 1968-present

---

**Updates** Monthly

---

**Language** English

---

**Database Producer** Cambridge Scientific Abstracts  
 7200 Wisconsin Avenue  
 Bethesda, MD, 20814  
 U.S.A.  
 Phone: +1 301-961-6700  
 Fax: +1 301-961-6720  
 E-mail: support@csa.com  
 Copyright Holder

---

**ALUMINIUM**

---

**Database  
Supplier**

FIZ Karlsruhe  
STN Europe  
P.O. Box 2465  
76012 Karlsruhe  
Germany  
Phone: +49-7247-808-555  
Fax: +49-7247-808-259  
E-mail: [helpdesk@fiz-karlsruhe.de](mailto:helpdesk@fiz-karlsruhe.de)

---

**Sources**

- Journals
  - Conferences
  - Books
  - Reports
  - Dissertations
  - Patents (until 1996)
- 

**User Aids**

- Online Helps (HELP DIRECTORY lists all help messages available)
  - STNGUIDE
- 

**Clusters**

- ALLBIB
  - AUTHORS
  - CHEMISTRY
  - COMPANIES
  - CORPSOURCE
  - CSAALL
  - ELECTRICAL
  - ENGINEERING
  - MATERIALS
  - MATDATA
  - METALS
- [STN Database Clusters](#) information (PDF).
- 

**Pricing**

See the [STN Price List](#) or enter HELP COST at an arrow prompt.

---

## Search and Display Field Codes

### General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index (contains single words from the abstract (AB), corporate name (CO) (1), controlled term (CT), and title (TI) fields)	None or /BI	S COATINGS S ANTICORROSION PROPERT? S ALLOYS(S)FATIGUE	TI, AB, CT, CO
Accession Number	/AN	S 199801-B1-0005/AN	AN
Alloy Indexing Term	/ALI	S AL-4.3ZN-2.8MG/ALI S AL*ZN*MG/ALI	ALI
Application Date (2,3)	/AD	S 19950720/AD	AI
Application Year (2,3)	/AY	S 1994/AY	AI
Author	/AU	S DOHDA, K/AU	AU
Availability (of documents) (4,5)	/AV	S ASM INTERNATIONAL/AV	AV
Classification Code (code and text) (4)	/CC	S R4/CC S METALLIC COATING/CC S JOINING/CC	CC
Classification Code of Alloy (code and text)	/CCA	S AL/CCA	ALI, CCA
Controlled Term	/CT	S CHROMIUM STEELS/CT	CT
Controlled Word	/CW	S MEASUREMENTS/CW	CT
Corporate Name (1,4)	/CO	S NASA LEWIS RESEARCH CENTER/CO	CO
Corporate Source (author's affiliation) (1)	/CS	S DEFENSE ACADEMY/CS	AU
Country of Publication (ISO code and text)	/CY	S FRANCE/CY S FR/CY	CY
Document Type (code and text)	/DT (or /TC)	S BOOK/DT S B/DT	DT
Element Term (contains chem. elements and formulas, compounds (CP), materials (SY: >= 2 metals), dopings, ions neg. (IN), ions pos. (IP), isotopes (IS))	/ET	S MG1SICU/ET S ALCU2MG/ET S N13AL/ET	ET
E-mail Address (4,6)	/EML	S AIPORG/EML	EML, SO, AU
Entry Date (2)	/ED (or /UP)	S ED=JUL 2005	ED
International Standard (Document) Number (ISBN and ISSN)	/ISN	S 0990-6908/ISN S 1-55899-174-3/ISN	ISN, SO
Inventor (3)	/IN	S ANTICH V A/IN	IN
Issue (1,2)	/IS	S 9909/IS	not displayed
Journal Title (contains full and abbreviated journal titles)	/JT	S CZECH J PHYS/JT	JT, JTA, JTF, SO
Language (ISO code and text)	/LA	S GERMAN/LA S DE/LA	LA
Meeting Date (2)	/MD	S MD=18 JUN 1999	MD, SO
Meeting Location (4)	/ML	S NEW SOUTH WALES/ML	ML, SO
Meeting Title	/MT	S FLUID FLOW PHENOMENA/MT	MT, SO
Meeting Year (2)	/MY	S 1996-1997/MY	MY, SO
Number of Report	/NR	S DE97745377/XAB/NR	NR
Other Source (6)	/OS	S CORROSION ABSTRACTS/OS	OS
Patent Assignee (3,4)	/PA (or /CS)	S ASAHI CHEMICAL INDUSTRIES/PA	PA
Patent Country (3)	/PC	S US/PC	PI
Patent Kind Code (3)	/PK	S GBA/PK	PI
Patent Number (3)	/PN (or /PATS)	S EP519310/PN	PI

## General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Publication Date (2) Publication Year (2) Publisher (4) Reference Count (2)	/PD /PY /PB /REC (/RE.CNT) /SO	S PD>=APR 1999 S 1997-1998/PY S PERGAMON PRESS/PB S REC<100	PD, PI, SO PI, PY, SO PB, SO REC, SO
Source (contains journal title and other higher level titles, ISBN, ISSN, publisher, meeting information)	/SO	S (WATERLOO(S)CANADA)/SO S (PLASTICITY(2A)FRACTURE)/SO S (SPRINGER(L)BERLIN)/SO S 1-55899-174-3/SO S 0202-7747/SO	SO
Title	/TI	S STABILITY/TI S FRACTURE TOUGHNESS/TI	TI
Uniform Resource Locator (4,6) Word Count, Title (2)	/URL /WC.T	S ASME.ORG/URL S WC.T<=10	URL, SO WC.T

- (1) Data available until 2004 only.  
(2) Numeric search field that may be searched with numeric operators or ranges.  
(3) Data available until 1996 only.  
(4) Search with implied (S) proximity is available in this field.  
(5) Data available until 1991 only.  
(6) Data available since 2005.

## 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. 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	D AI
ALI	Alloy Indexing Term (includes CCA until 2004)	D ALI L1 1-3
AN	Accession Number	D 1-5 AN
AU (CS)	Author (includes author's affiliation)	D AU TI
AV	Availability (of document)	D AV
CC	Classification Code	D CC
CCA (2)	Classification Code of Alloy	D CCA
CO (2)	Corporate Name	D TI CO 1-3
CT	Controlled Term	D CT
CY	Country (of Publication)	D CY
DT (TC)	Document Type	D DT
ED (UP) (1)	Entry Date	D ED
EML (1,2)	E-mail Address	D EML
ET	Element Term	D ET, ALI
IN	Inventor	D IN
ISN (1)	International Standard (Document) Number	D ISN
JT (1)	Journal Title	D JT
JTA (1,2)	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, MD

## DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
MY (1) NR (1) OS (2) PA (CS) PB (1) PD (1) PI (PN,PATS) PY (1) REC (RE.CNT) (1) SO URL (1,2) TI WC.T (1)	Meeting Year Number of Report Other Source Patent Assignee Publisher Publication Date Patent Information Publication Year Reference Count Source (format includes NR) Uniform Resource Locator Title Word Count, Title	D MY D NR D OS D PA D PB D PD D PI D PY D REC D SO D URL D TI 1-10 D WC.T
ABS ALL  DALL IALL BIB  IBIB IND SCAN (3) TRIAL (SAM, SAMPLE, FREE)	AN, AB AN, TI, AU, NR, SO, DT, CY, LA, OS, AV, AB, CC, CT, CO, ALI, CCA, ET for patents: AN, TI, PA, IN, SO, PI, AI, DT, CY, LA, OS, AV, AB, CC, CT, CO, ALI, CCA, ET ALL, with delimiter for post processing ALL, indented with text labels AN, TI, AU, NR, SO, DT, CY, LA, OS, AV for patents: AN, TI, PA, IN, SO, PI, AI, DT, CY, LA, OS, AV (BIB is the default) BIB, indented with text labels AN, CC, CT, CO, ALI, CCA, ET TI, CT (random display without answer numbers) AN, TI, CT	D 1-3 ALL  D DALL D IALL D 8 BIB  D IBIB D IND 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) Display code available since 2005.

(3) 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 (2)	N
Accession Number	AN	Y	N
Alloy Indexing Term	ALI	Y	Y
Application Date	AD	Y	Y
Application Year	AY	Y	Y
Author	AU	Y	Y
Availability (of document)	AV	Y	Y

## ALUMINIUM

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

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Citation	CIT (RE)	Y (3,4)	N
Classification Code	CC	Y	Y
Classification Code of Alloy	CCA	Y	Y
Controlled Term	CT	Y	N
Corporate Name	CO	Y	Y
Corporate Source	CS	Y	Y
Country of Publication	CY	Y	Y
Document Type	DT (TC)	Y	Y
Element Term	ET	Y	Y
E-mail Address	EML	Y	Y
Entry Date	ED (UP)	Y	Y
International Standard (Document) Number	ISN	Y (5)	Y
International Standard Book Number	ISBN	N	Y
International Standard Serial Number	ISSN	N	Y
Inventor	IN	Y	Y
Journal Title	JT	Y	Y
Journal Title, Abbreviated	JTA	Y	Y
Journal Title, Full	JTF	Y	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
Number of Report	NR	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
Other Source	OS	Y	Y
Patent Assignee	PA (CS)	Y	Y
Patent Country	PC	Y	Y
Patent Information	PI (PN)	Y	Y
Patent Kind Code	PK	Y	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Publisher	PB	Y	Y
Reference Count	REC (RE.CNT)	Y	Y
Source	SO	Y (6)	Y
Title	TI	Y (default)	Y
Uniform Resource Locator	URL	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) Appends /BI to the terms created by SELECT.
- (3) SELECT 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) SELECT HIT or ANALYZE HIT are not valid with this field.
- (5) Selects or analyzes ISSN, and ISBN with /ISN appended to the terms created by SELECT.
- (6) Selects or analyzes ISSN, and ISBN with /SO appended to the terms created by SELECT.

## Sample Records

### DISPLAY ALL OF JOURNAL

AN 200910-R5-020145 ALUMINIUM  
 TI MECHANICAL AND FATIGUE STRENGTHS OF SILICON CERAMICS IN LIQUID ALUMINIUM ALLOYS  
 AU Okayasu, M (Akita Prefecture, University); Hitomi, M; Yamazaki, H  
 SO European Ceramic Society. Journal, vol. 29, no. 11, p. 2369-2378, Aug. 2009, (20090800; 20090800)  
 Published by: Elsevier Science Ltd., Oxford Fulfillment Centre, P.O. Box 800, Kidlington, Oxford, OX5 1DX, UK  
 ISSN: 0955-2219  
 DT Journal  
 CY United Kingdom  
 LA English  
 OS Engineered Materials Abstracts; Ceramics Abstracts/World Ceramic Abstracts  
 AB Although Si<sub>3</sub>N<sub>4</sub> ceramics have a high mechanical even at high air temperature, much reduction in material strength occurs in liquid aluminium The bending strength of the ceramic in molten Al is about 20% lower than that obtained in an air of 750 C. A significant reduction of the fatigue occurs in the Al alloy melt. The change of properties of Si<sub>3</sub>N<sub>4</sub> ceramic in the melt also on the amount of iron in the molten aluminium a large amount of iron makes the fatigue strength The reduction in the material strength is to the change of material properties caused by chemical reaction between iron and silicon Details of the chemical reaction in Si<sub>3</sub>N<sub>4</sub> ceramic discussed.  
 CC R5 Mechanical Properties  
 CT Ceramics; Silicon nitride; Aluminum base alloys; Strength; Iron; Reduction; Liquids; Melts; Chemical reactions; Fatigue strength; Mechanical properties; Fatigue (materials); Bend strength  
 ET N\*Si; Si<sub>3</sub>N; Si cp; cp; N cp; Al

### DISPLAY BIB OF BOOK

AN 200509-P3-05537 ALUMINIUM  
 TI Inverse Analysis for Simultaneous Determination of Flow Stress and Friction  
 AU Cho, Hyunjoong  
 SO Cold and Hot Forging: Fundamentals and Applications, p. 83-89, (20040000), 6 reference(s), Graphs; Numerical Data  
 Published by: ASM International, Member/Customer Service Center, Materials Park, OH, 44073-0002, USA, cust-srv@asminternational.org, <http://www.asminternational.org>  
 ISBN: 0871708051  
 DT Book  
 CY United States  
 LA English  
 OS Metadex; Mechanical & Transportation Engineering Abstracts; Computer & Information Systems Abstracts

### DISPLAY BIB OF CONFERENCE

AN 200906-B4-017051 ALUMINIUM  
 TI BASALT-ATMOSPHERE INTERACTION ON VENUS: PRELIMINARY RESULTS ON WEATHERING OF MINERALS AND BULK ROCK  
 AU Treiman, A H (Lunar & Planetary Institute, 3600 Bay Area Boulevard, Houston TX 77058.); Schwenzer, S P

**ALUMINIUM**

SO Venus Geochemistry: Progress, Prospects, and New Missions Program and Abstract Volume (LPI Contribution No. 1470), vol. 1470, p. 48-50, 2009, (20090000; 20090000)  
Published by: Lunar and Planetary Institute, 3600 Bay Area Boulevard, Houston, TX, 77058-1113, USA, order@lip.usra.edu  
Conference: Venus Geochemistry: Progress, Prospects, and New Missions, Houston, TX, USA, 26-27 Feb. 2009

DT Conference Article; Journal  
CY United States  
LA English  
OS Aerospace & High Technology; Solid State & Superconductivity Abstracts

---

**In North America**

CAS  
STN North America  
P.O. Box 3012  
Columbus, Ohio 43210-0012 U.S.A.

CAS Customer Center:  
Phone: 800-753-4227 (North America)  
614-447-3700 (worldwide)  
Fax: 614-447-3751  
E-mail: help@cas.org  
Internet: www.cas.org

**In Europe**

FIZ Karlsruhe  
STN Europe  
P.O. Box 2465  
76012 Karlsruhe  
Germany  
Phone: +49-7247-808-555  
Fax: +49-7247-808-259  
E-mail: helpdesk@fiz-karlsruhe.de  
Internet: www.stn-international.com

**In Japan**

JAICI (Japan Association for  
International Chemical Information)  
STN Japan  
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)  
Fax: +81-3-5978-3600  
E-mail: support@jaici.or.jp (Technical Service)  
customer@jaici.or.jp (Customer Service)  
Internet: www.jaici.or.jp