

CSA Aerospace & High Technology Database

FILE DESCRIPTION

The **CSA Aerospace & High Technology Database** provides references, abstracts, and controlled-vocabulary indexing of key scientific and technical documents, as well as books, reports, and conferences covering aerospace research and development in more than 40 countries including Japan and Eastern European nations. The database supports basic and applied research in aeronautics, astronautics, and space sciences, as well as technology development and applications in complementary and supporting fields such as chemistry, geosciences, physics, communications, and electronics.

The CSA Aerospace & High Technology Database is the online equivalent of *International Aerospace Abstracts* (IAA) and *Scientific and Technical Aerospace Reports* (STAR)(1962-1993). It also contains reports issued by NASA, other U.S. government agencies, international institutions, universities, and private firms. File 108 is available through all available Dialog contract options to corporate customers, and via site license only to those in the government sector. It is not available to customers in the academic sector through Dialog.

SUBJECT COVERAGE

- Aeronautics
- Applied physics
- Artificial intelligence
- Astronautics
- Atomic and molecular physics
- Circuits and logic
- Communications and networks
- Computer applications
- Computer programming
- Computer systems organization
- Computing milieux
- Condensed matter physics
- Database information systems and applications
- Decision support systems
- Electronics and electrical engineering
- Electronics and communications milieux
- Geophysics and earth resources
- Hardware and evaluation
- Information systems
- Lasers and masers
- Local area networks
- Logic and switching theories
- Mathematics of computing
- Meteorology, climatology, and oceanography
- Navigation
- Nuclear and high energy physics
- Optical and acoustic technology
- Optics
- Photonics
- Plasma physics
- Robotics
- Semiconductors
- Software engineering
- Solid state milieux
- Superconductors
- Telecommunications
- Telecommunications, equipment, & instrumentation

SOURCES

More than 3,000 periodicals from worldwide sources are scanned. Coverage includes journal articles, conferences, books, theses, and unpublished report literature.

TIPS

USE FILE 108

to search for information relating to aerospace issues.

USE /TI AND /DE

for precise subject searching:

S NAVIGATION/TI,DE

USE SUBJECT HEADINGS or

SUBJECT HEADING CODES

to narrow a search to a topic.

S NONMETALLIC(W)MATERIALS/SH

S SC=27

USE RANK

to find experts working in an area of interest.

S FRACTURE TOUGHNESS?

RANK AU

DIALOG FILE DATA

Inclusive Dates: 1962 to the present

Update Frequency: Monthly

File Size: More than 5.7M records as of June 2009

CONTACT

The CSA Aerospace & High Technology Database is provided by CSA. Questions concerning file content should be directed to:

CSA

7200 Wisconsin Avenue, Suite 601

Bethesda, MD 20814

Phone: +1 301-961-6700

Toll Free: 800-843-7751 (in N. America)

Fax: +1 301-961-6720

E-Mail: support@csa.com

SAMPLE RECORD

DIALOG(R)File 108: CSA Aerospace & High Technology
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AA= 0006841287 IP ACCESSION NO: A05-27-17360
/TI Y-TZP ceramics with optimized toughness: new results
AU= Gupta, Nitesh; Mallik, Prafulla; Basu, Bikramjit
CS= Indian Institute of Technology
JN=,SO=,PD= Journal of Alloys and Compounds, v 379, n 1-2, p 228-232, 6 Oct. 2004
PY= PUBLICATION DATE: 2004
PU= PUBLISHER: Elsevier Science SA, P.O. Box 564, Lausanne 1, CH-1001
CP= COUNTRY OF PUBLICATION: Switzerland
PUBLISHER URL: <http://www.elsevier.com>
DT= DOCUMENT TYPE: Journal Article
RT= RECORD TYPE: Abstract
LA= LANGUAGE: English
SN= ISSN: 0925-8388
NOTES: Numerical Data; Photomicrographs; Graphs
NO. OF REFS.: 16
DOI: 10.1016/j.jallcom.2004.02.014
FS= FILE SEGMENT: Aerospace & High Technology
ABSTRACT:
/AB This paper presents a simple route of obtaining tough TZP ceramics, based on the mixing of 8 and 0 mol% Y-ZrO₂ powders followed by sintering under identical conditions. The experimental results clearly revealed that toughness optimization by careful tuning the compositional variation is achievable in this new route. For the first time, the present research has demonstrated that the indentation toughness of 8Y-ZrO₂ can be significantly improved by addition of different amounts of yttria free monoclinic zirconia particles. The addition of Y-free zirconia powders is also observed to cause significant microstructural refinement in the sintered materials.

/DE DESCRIPTORS: Toughness; Tetragonal zirconia polycrystals; Ceramics;
Zirconium dioxide; Yttria stabilized zirconia; Fracture toughness;
Vickers hardness; Powder blending; Sintering; Optimization;
SC=,SH=,SH SUBJ CATG: 27, Nonmetallic Materials

SEARCH OPTIONS

BASIC INDEX

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
—	—	All Basic Index Fields	Word	S TZP(W)CERAMICS
/AB	AB	Abstract	Word	S MONOCLINIC(W)ZIRCONIA/AB
/DE	DE	Descriptor ¹	Word & Phrase	S CERAMICS/DE
/ID	ID	Identifier	Word & Phrase	S FRACTURE TOUGHNESS/DE
/SH	SH	Subject Category Text ²	Word	S SIGNAL(W)SAMPLING/ID
/TI	TI	Title	Word	S LINEAR EQUATIONS/ID
				S NONMETALLIC(W)MATERIALS/SH
				S OPTIMIZED(W)TOUGHNESS/TI

¹ Also /DF.

² Searchable in the Additional Indexes and in the Basic Index.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AA=	AA	CSA Accession Number	Phrase	S AA=A05-27-17360
AU=	AU	Author	Phrase	S AU=GUPTA, N?
BN=	BN	International Standard Book Number (ISBN)	Phrase	S BN=1-55899-736-9
				S BN=1558997369
CD=	CD	Conference Date	Word	S CD=20031201
CL=	CL	Conference Location	Word	S CL=BOSTON
CP=	CP	Country of Publication	Phrase	S CP=UNITED STATES
CS=	CS	Corporate Source ²	Word & Phrase	S CS=(INDIAN(S)INSTITUTE)
				S CS=INDIAN INSTITUTE OF TECHNOLOGY
CT=	CT	Conference Title	Word	S CT=(GAN(1W)RELATED(W)ALLOYS)
CY=	CY	Conference Year	Phrase	S CY=2004
DT=	DT	Document Type	Phrase	S DT=JOURNAL ARTICLE
FS=	FS	File Segment	Phrase	S FS=AEROSPACE?
—	II	Digital Object Identifier		
JN=	JN	Journal Name	Phrase	S JN=JOURNAL OF ALLOYS?
LA=	LA	Language	Word	S LA=ENGLISH
MC=	MC	Materials Classification	Phrase	S MC=ALUMINUM BASE ALLOY?
ML=	ML	Materials	Phrase	S ML=AL-4CU
NO=	NO	Document Number	Word & Phrase	S NO=(BARR(W)10(W)119)
				S NO=BARR-10-119
—	NT	Note		
PD=	PD	Publication Date	Phrase	S PD=20041004
PU=	PU	Publisher	Word	S PU=(ELSEVIER(W)SCIENCE)
PY=	PY	Publication Year	Phrase	S PY=2004
—	RF	References		
RN=	RN	Report Number	Word & Phrase	S RN=5803
				S RN=NRL-5803
RT=	RT	Record Type	Phrase	S RT=ABSTRACT
SC=	SC	Subject Category	Phrase	S SC=27
SH=	SH	Subject Category Text ²	Phrase	S SH=STRUCTURAL MECHANICS?
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=0925-8388
				S SN=09258388
SO=	SO	Source Information	Word	S SO=(ALLOYS(2N)COMPOUNDS)
UD=	—	Update	Phrase	S UD=9999

SPECIAL FEATURES

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP DUP, HELP CURRENT online.

LIMIT	/ABS -- Record has an Abstract /NOABS -- Record does not have an Abstract /YYYY -- Publication Year	S S1/ABS S S8/NOABS S S3/2004
SORT	AA, AU, CS, JN, PD, PY, TI	SORT S3/ALL/PD,D PRINT S8/5/ALL/PY
RANK	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked.	RANK DE RANK AU S4
RD, ID	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5
CURRENT	Search only the most recent year plus one (CURRENT1) to five (CURRENT5) years.	B 108 CURRENT2

PREDEFINED FORMAT OPTIONS

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	Medium	Bibliographic Citation
4	--	Full Record with Tagged Fields
5	--	Full Record
6	Short	Title and Publication Date
7	Long	Bibliographic Citation and Abstract
8	Free	Title, Indexing, and Publication Date
9	Full	Full Record
K	--	KWIC (Key Word In Context) displays a window of text; may be used alone or with other formats

OTHER OUTPUT OPTIONS

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

USER DEFINED FORMATS	Display codes listed in the Search Options tables can be used to customize output.	TYPE S3/AU,TI,SO/1-5
TAG	Output can be displayed with tags identifying each display field.	TYPE S3/3/1-5 TAG
DIRECT RECORD ACCESS	If the accession number of a specific record is known, it can be used to display the record directly.	TYPE 1344408/5 DISPLAY 1331202/AU,TI,SO PRINT 1329895/5

FOR ONLINE HELP:

See HELP FIELDS 108 for searchable fields; HELP FORMAT 108 for output formats; HELP LIMIT 108 for limits; HELP RATES 108 for cost information; HELP SORT 108 for sorts.