1MOBILITY (Global Mobility Bibliographic Database)

Subject Coverage

- Automation
- Emissions
- Environment
- Fuels & Lubricants
- Human factors
- Management
- Manufacturing
- Marketing
- Materials
- Noise & Vibration
- Population
- Reliability
- Research & Design
- Quality
- Safety
- Testing
- Transportation

File Type

Bibliographic

Features

Thesaurus	None				
Alerts (SDIs)	Monthly				
CAS Registry Numbers® Identifiers	☐	Page Images	☐	STN® AnaVist™	☐
Keep & Share	☐	SLART	☑	STN Easy®	☐
Learning Database	☐	Structures	☐		

Record Content

- Bibliographic information
- Indexing
- Abstracts

File Size

More than 185,501 records (08/2019)

Coverage

1906-present

Updates

Monthly

Language

English

Database Producer

SAE International
400 Commonwealth Drive
Warrendale, PA 15096 USA
Phone: (724) 772-7108
Telefax:(724) 776-3036

Database Supplier

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Fax: +49-7247-808-259
Email: helpdesk@fiz-karlsruhe.de

Sources	Books, conference proceedings, journals, papers, and file data
User Aids	• Online Helps (HELP DIRECTORY lists all help messages available) • STNGUIDE
Clusters	• ALLBIB • AUTHORS • ENGINEERING • FUELS • MATERIALS • MEETINGS • MOBILITY • SAFETY STN Database Clusters information (PDF).
Pricing	Enter HELP COST at an arrow prompt (=>).

Search and Display Field Codes

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

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from the abstract (AB), controlled term (CT) and title (TI) **(1**)	None (or /BI)	S DUMP TRUCK# S PASSENGER CAR#/BI S NISSAN AND 1996 S ?CYLINDER?	AB, CT, TI
Abstract* **(1)**	/AB	S 3D CAD/AB	AB
Accession Number	/AN	S 1998:1004/AN	AN
Author	/AU	S BAKER T?/AU S BAKER,T?/AU	AU
Classification Code **(2)**	/CC	S SPACE/CC S "LAND OR SEA"/CC S AIR SPACE/CC	CC
Controlled Term	/CT	S ADHESIVES/CT S MANUFACTURING PROCESSES/CT	CT
Controlled Word	/CW	S INTELLIGENT VEHICLE/CW	CT
Corporate Source **(2)**	/CS	S HONEYWELL AERONAUTIC?/CS	CS
Country of Publication (ISO code and text)	/CY	S US/CY S UNITED STATES OF AMERICA/CY	CY
Cross Reference	/CR	S 630115/CR	CR
Document Number	/DN	S 080008/DN	DN
Document Type (code and text)	/DT (or /TC)	S CONFERENCE?/DT S CA/DT	TC
Entry Date **(3)**	/ED	S ED>=2012	ED
Field Availability	/FA	S AB/FA	FA
File Segment (code and text)	/FS	S SAE/FS	FS
International Standard (Document) Number (contains ISSN, AND ISBN)	/ISN	S 0736-2536/ISN	ISN, SO
Journal Title	/JT	S AUTOMOTIVE ENGINEER?/JT	JT, SO
Language (ISO code and text)	/LA	S EN/LA S ENGLISH/LA	LA
Meeting Date **(3)**	/MD	S 20-23 APR 1992/MD	MD, SO
Meeting Location	/ML	S (AIRLINE OR AEROSPACE)/SO AND CALIF?/ML	ML, SO
Meeting Title	/MT	S CAR CRASH CONFERENCE/MT	MT, SO
Meeting Year **(3)**	/MY	S MY=2000	MD, SO
Publication Date **(3)**	/PD	S PD>19900600 AND ISUZU/CS	SO
Publication Year **(3)**	/PY	S 1996-2000/PY	PY, SO
Source (contains journal title, meeting information, collation information (volume, issue, pagination), publishing information, ISBN, and ISSN)	/SO	S USA/SO S 1991/SO	ISN, JT, MD, ML, MT, PY, SO
Title* **(1)**	/TI	S BRAKE CYLINDER?/TI	TI
Update Date **(3)**	/UP	S UP>=19980100	ED

(1) In 1MOBILITY a numeric search for a specific set of physical properties (/PHP) is available within the fields AB, BI, and TI. 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. See HELP NPS.

(2) Searching with implied (S) proximity is available in this field.

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

Property Fields[1)]

In 1MOBILITY a numeric search for a specific set of physical properties (/PHP) is available within the full-text fields (TIEN, AB, DETD, and CLM). 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 330/BIR
/BIT	Stored Information	Bit	Bit	S BIT > 3 MEGABIT
/CAP	Capacitance	Farad	F	S 1-10 MF/CAP
/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) 2/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	Density (Mass Concentration	Kilogram/Cubic Meter	kg/m^3	S ANTIBODY/CLM (S) 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 2/DEQ
/DOS	Dosage	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal * Second	Pa * s	S DV>5000
/ECD	Electric Charge Density	Coulomb/Square Meter	C/m^2	S 1 C/M**2 /ECD
/ECH	Electric Charge	Coulomb	C	S 2-3/ECH
/ECO	Electrical Conductivity	Siemens/Meter	S/m	S ECO>800 S/M (5A) METAL
/ELC	Electric Current	Ampere	A	S 1-10/ELC
/ELF	Electric Field	Volt/Meter	V/m	S 650-700/ELF
/ENE	Energy	Joule	J	S TORQUE (5A) 20 - 30 /ENE
/ERE	Electrical Resistivity	Ohm * Meter	Ohm * m	S ERE>2
/FOR	Force	Newton	N	S 50 N /FOR
/FRE	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE
/IU	International Unit	none	IU	S IU>1000 (P) ANTIBIOTIC
/KV	Viscosity, kinematic	Square Meter/Second	m^2/s	S SILICON?/BI (5A) 10E-5 M**2/S /KV
/LEN (or /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=100
/MFD (or /MFS)	Magnetic Flux Density	Tesla	T	S MFD>102
/MFR (or /MFL)	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MM	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
/NUC	Nutrition Content	none	g/100 kcal	S NUC<100 (P) NUTRIENT
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/PERA	Permittivity, Absolute	Farad/Meter	F/m	S DIELECTRIC/BI (S) 4- 4.1/PERA
/PHV	pH Value	pH	pH	S 7.4-7.6/PHV

Property Fields (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/POW	Power	Watt	W	S LIGHT/BI (S) ENERGY/BI (S) 350 WATT/POW
/PRES (or /P)	Pressure	Pascal	Pa	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD	Radioactivity	Becquerel	Bq	S RAD/PHP
/RES	Electrical Resistance	Ohm	Ohm	S SENSOR /BI (S) 10- 100/RES
/RSP	Rotational Speed	Revolution/Minute	rpm	S 2-100/RSP (S) MACHINE/AB
/SAR	Area /Surface Area	Square Meter	m^2	S (COATING? OR FOIL?)/BI (S) 10-100/SAR
/SOL	Solubility	Gram/100 gram	g/100 g	S SOL>20 (10W) WATER
/STSC	Surface Tension	Joule /Square Meter	J/m^2	S 60 J/M**2/STSC
/TCO	Thermal Conductivity	Watt/Meter * Kelvin	W/m * K	S 1/TCO (S) HEAT?
/TEMP (or /T)	Temperature	Kelvin	K	S (REACTION? (10A) ENZYM?) (S) 5/TEMP
/TIM	Time	Second	s	S ?INCUB?/BI (10A) 10-50/TIM
/VEL (or /V)	Velocity	Meter per Second	m/s	S REDUC?/BI (S) 1E-3-5E-3/VEL
/VELA	Velocity, angular	Radian/Second	rad/s	S VELA>10
/VLR	Volumetric Flow Rate	Cubic Meter/Second	m^3/s	S 1-2/VLR (5A) POWDER
/VOL	Volume	Cubic Meter	m^3	S 1E-8-2E-8/VOL.EX
/VOLT	Voltage	Volt	V	S POTENTIAL/CLM (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 0.000000092).

DISPLAY and PRINT Formats

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

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

Format	Content	Examples
AB AN AU CC CR CS CT CY DN DT (TC) ED FA **(1)** FS ISN **(1)** JT **(1)** LA MD **(1)** ML **(1)** MT **(1)** MY **(1)** PB **(1)** PY **(1)** SO TI UP WC.T **(1)**	Abstract Accession Number Author Classification Code Cross Reference Corporate Source Controlled Term Country of Publication Document Number Document Type Entry Date Field Availability File Segment International Standard (Document) (ISSN and ISBN) Number Journal Title Language Meeting Date Meeting Location Meeting Title Meeting Year Publisher Publication Year Source Title Update Date Word Count, Title	D L4 1-4 ABS D L1 3 AN D AU 1,3-5 D CC 5-10 D 1-3,7,8 CR D CS D CT D CY 1-5 D L1 DN 3 D 1,3,6 DT L5 D ED D FA D FS D ISN 2 D L8 JT 1-3 D 1,4 LA D L1 MD D ML D MT L1 4 D MY D PB D PY D SO D TI 2 D UP D WC.T
ABS ALL DALL IALL BIB IBIB IND SCAN **(2)** TRIAL (TRI, SAM, SAMPLE, FREE)	AB AN, DN, CR, TI, AU, CS, SO, CY, DT, FS, LA, ED, AB, CC, CT ALL, delimited for post processing. ALL, indented with text labels AN, DN, CR, TI, AU, CS, SO, CY, DT, FS, LA, ED (default) BIB, indented with text labels AN, CC, CT TI, CC, CT (random display without answer number) AN, TI, CC, CT	D 2,6 ABS D L1 ALL D DALL D IALL 3 D BIB D L4 IBIB 2 5 D IND L8 D SCAN D TRIAL
HIT KWIC OCC	Fields containing hit terms Hit term with 50 words on either side (KeyWord-In-Context) Fields that contain hit terms and number of times 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 or an L-number 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
Author	AU	Y **(2)**	Y
Classification Code	CC	Y	Y
Controlled Term	CT	Y	N
Corporate Source	CS	Y **(2)**	Y
Country of Publication	CY	Y	Y
Cross Reference	CR	Y	N
Document Number	DN	Y	Y
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	Y
Field Availability	FA	Y	N
File Segment	FS	Y	Y
International Standard Book Number	ISBN	N	Y
International Standard (Document) Number	ISN	Y **(3)**	Y
International Standard Serial Number	ISSN	N	Y
Journal Title	JT	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
Occurrence Count of Hit Terms	OCC	N	Y
Publisher	PB	Y	Y
Publication Date	PD	Y	Y
Publication Year	PY	Y	Y
Source	SO	Y **(4)**	N
Update Date	UP	Y	Y
Title	TI	Y (default)	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) Selects or analyzes ISSN and ISBN with /ISN appended to the terms created by SELECT.
(4) Selects ISSN and ISBN with /SO appended to the terms created by SELECT.

Sample Records

DISPLAY ALL

AN 2010:1616 1MOBILITY
DN 2010-01-1092
TI Development of Fuel Cell Hybrid Vehicle Rapid Start-Up from Sub-Freezing Temperatures
AU Manabe, Kota(1); Naganuma, Yoshiaki(1); Nonobe, Yasuhiro(1); Kizaki, Mikio(1); Ogawa, Tomoya(2)
CS (1)Toyota Motor Corp.
(2)Toyota Technical Development Corp.
SO (12 Apr 2010)
Published by: SAE International, Warrendale, Pennsylvania, USA
Conference: SAE 2010 World Congress, Detroit, Michigan, USA, 13 Apr 2010 - 15 Apr 2010
Secondary Source: SP-2276
CY United States of America
DT Conference Article; (Technical Paper)
FS SAE
LA English
ED Entered STN: 2 Apr 2010
Last updated on STN: 29 Feb 2012
AB The Fuel Cell is a highly efficient device that when integrated with hybrid technology yields even higher system-level efficiencies. This impressive efficiency is one of the key reasons fuel cell technology is one of the most promising future power sources. However, this benefit creates a significant challenge in cold climates. With so much of the energy converted directly to power, there is little waste heat compared to conventional internal combustion engine (ICE) technologies. This challenge is particularly apparent at system start up from ambient sub-freezing temperatures due to the fact that the fuel cell heats-up slower than internal combustion engines (ICEs). Clearly, the amount of heat generation can be increased if the total power produced by the system is increased proportionally, but this method can be challenging because the excess power must be consumed in some manner (such as by a cabin heater). Toyota has resolved this issue with a "rapid start-up" methodology to speed warm-up during start by limiting fuel supply to increase its concentration overvoltage, thereby reducing efficiency and maximizing waste heat generation. At this operating point, power generation can be controlled to fulfill the system requirement while waste heat generation can be maximized as much as the fuel cell polarization curve allows. This method yields 10 to 20 times the waste heat generation compared to normal idle operation without using an additional heater unit. This rapid start-up operation method was realized as a stable vehicle start-up system while resolving electro-circuit topology issues and also established the fuel concentration overvoltage control methodology for operating the fuel cell stack at low efficiency.
CC Land or Sea
CT Cold starting; Cold weather operation; Fuel cells; Hybrid vehicles

DISPLAY BIB

AN 2011:4057 1MOBILITY
DN 7-36-7-8
TI BMW 6 Series Convertible
AU Bickerstaffe, Simon(1)
CS (1)Automotive Engineer
SO Automotive Engineer (1 Sep 2011), Volume 36, Number 7, pp. 8, 2 p.
ISSN: 0307-6490
Published by: Institution of Mechanical Engineers, London, England
CY United Kingdom
DT Journal
FS I MECH E
LA English
ED Entered STN: 1 Dec 2011
Last updated on STN: 28 Feb 2012