

# 1MOBILITY (Global Mobility Bibliographic Database)

- |                         |   |   |   |
|-------------------------|---|---|---|
| <b>Subject Coverage</b> | <ul style="list-style-type: none"> <li>• Automation</li> <li>• Emissions</li> <li>• Environment</li> <li>• Fuels &amp; Lubricants</li> <li>• Human factors</li> <li>• Management</li> </ul> | <ul style="list-style-type: none"> <li>• Manufacturing</li> <li>• Marketing</li> <li>• Materials</li> <li>• Noise &amp; Vibration</li> <li>• Population</li> <li>• Reliability</li> </ul> | <ul style="list-style-type: none"> <li>• Research &amp; Design</li> <li>• Quality</li> <li>• Safety</li> <li>• Testing</li> <li>• Transportation</li> </ul> |
|-------------------------|---|---|---|

**File Type** Bibliographic

<b>Features</b>	Thesaurus	None			
	<a href="#">Alerts (SDIs)</a>	Monthly			
	CAS Registry Numbers® Identifiers	<input type="checkbox"/>	Page Images	<input type="checkbox"/>	STN® AnaVist™ <input type="checkbox"/>
	Keep & Share	<input type="checkbox"/>	<a href="#">SLART</a>	<input checked="" type="checkbox"/>	STN Easy® <input type="checkbox"/>
	Learning Database	<input type="checkbox"/>	Structures	<input type="checkbox"/>	

- Record Content**
- Bibliographic information
  - Indexing
  - Abstracts

**File Size** More than 176,986 records (05/2018)

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

**Sources** Books, conference proceedings, journals, papers, and file data

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**User Aids**

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

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**Clusters**

- ALLBIB
- AUTHORS
- ENGINEERING
- FUELS
- MATERIALS
- MEETINGS
- MOBILITY
- SAFETY

[STN Database Clusters](#) information (PDF).

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**Pricing** Enter HELP COST at an arrow prompt (=>).

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## 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) <b>(1)</b> )	None (or /BI)	S DUMP TRUCK# S PASSENGER CAR#/BI S NISSAN AND 1996 S ?CYLINDER?	AB, CT, TI
Abstract* <b>(1)</b>	/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 <b>(2)</b>	/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 <b>(2)</b>	/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 <b>(3)</b>	/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 <b>(3)</b>	/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 <b>(3)</b>	/MY	S MY=2000	MD, SO
Publication Date <b>(3)</b>	/PD	S PD>19900600 AND ISUZU/CS	SO
Publication Year <b>(3)</b>	/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* <b>(1)</b>	/TI	S BRAKE CYLINDER?/TI	TI
Update Date <b>(3)</b>	/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.

**1MOBILITY****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.

<b>Format</b>	<b>Content</b>	<b>Examples</b>
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.

## 1MOBILITY

## 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

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