

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

Learning Database

Keep & Share

SLART

Page Images

Structures

 \checkmark

STN[®] AnaVist™

STN Easy®

Record Content Bibliographic information

- Indexing
- **Abstracts**

File Size

More than 172,761 records (06/2017)

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

2 1MOBILITY

Books, conference proceedings, journals, papers, and file data **Sources** • Online Helps (HELP DIRECTORY lists all help messages available) **User Aids** • STNGUIDE • ALLBIB **Clusters** 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 (*).

Basic Index* (contains single words from the abstract (AB), controlled term (CT) and title (TI) (1) S PASSENGER CAR#/BI S	Search Field Name	Search Code	Search Examples	Display Codes
Accession Number Author Cat Space Coc Subsector Author Author Author Author Author Author Author Author Cat Space Coc Subsector And Mericle Author Author Author Author Author Cat Space Coc Subsector And Metering Processes/CT And Metering Pace Coc Subsector And Metering Pac	words from the abstract (AB), controlled term (CT) and title		S PASSENGER CAR#/BI S NISSAN AND 1996	AB, CT, TI
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⁽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.

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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 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
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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	Υ	N
Accession Number	AN	Υ	N
Author	AU	Y (2)	Υ
Classification Code	CC	Υ	Υ
Controlled Term	CT	Υ	N
Corporate Source	CS	Y (2)	Υ
Country of Publication	CY	Υ	Υ
Cross Reference	CR	Υ	N
Document Number	DN	Υ	Υ
Document Type	DT (TC)	Υ	Υ
Entry Date	ED	Υ	Υ
Field Availability	FA	Υ	N
File Segment	FS	Υ	Υ
International Standard Book Number	ISBN	N	Υ
International Standard (Document) Number	ISN	Y (3)	Υ
International Standard Serial Number	ISSN	N	Υ
Journal Title	JT	Υ	Υ
Language	LA	Υ	Υ
Meeting Date	MD	Υ	Υ
Meeting Location	ML	Υ	Υ
Meeting Title	MT	Υ	Υ
Meeting Year	MY	Υ	Υ
Occurrence Count of Hit Terms	OCC	N	Υ
Publisher	PB	Υ	Υ
Publication Date	PD	Υ	Υ
Publication Year	PY	Υ	Υ
Source	SO	Y (4)	N
Update Date	UP	Υ	Υ
Title	TI	Y (default)	Υ
Word Count, Title	WC.T	Υ	Υ

⁽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

⁽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.

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Sample Records

DISPLAY ALL

2010:1616 AN 1MOBILITY DN 2010-01-1092 ΤI Development of Fuel Cell Hybrid Vehicle Rapid Start-Up from Sub-Freezing Temperatures Manabe, Kota(1); Naganuma, Yoshiaki(1); Nonobe, Yasuhiro(1); Kizaki, AU Mikio(1); Ogawa, Tomoya(2) (1) Toyota Motor Corp. CS (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 AΒ 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

2011:4057 1MOBILITY AN

7-36-7-8 DN

BMW 6 Series Convertible TI Bickerstaffe, Simon(1) AU CS (1) Automotive Engineer

Automotive Engineer (1 Sep 2011), Volume 36, Number 7, pp. 8, 2 p. SO

Published by: Institution of Mechanical Engineers, London, England

CY United Kingdom

DTJournal I MECH E FS LΑ English

Entered STN: 1 Dec 2011 ED

Last updated on STN: 28 Feb 2012

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