

## RAPRA (Polymer Library)

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- Subject Coverage**
- Additives and compounding ingredients
  - Applications of polymers
  - Chemical modification
  - Company and commercial information
  - Environmental effects
  - Industrial hazards and toxicology
  - Intermediate and semi-finished products
  - Machinery and test equipment
  - Markets and industry statistics
  - Polymer synthesis
  - Processing technology
  - Properties and testing
  - Trade names and product announcements
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**File Type** Bibliographic

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**Features**

Thesaurus	None
Alerts (SDIs)	Not available
CAS Registry Number® Identifiers	<input type="checkbox"/>
<a href="#">Keep &amp; Share</a>	<input checked="" type="checkbox"/> <a href="#">SLART</a> <input checked="" type="checkbox"/>
Learning Database	<input type="checkbox"/> Structures <input type="checkbox"/>

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- Record Content**
- Bibliographic information, indexing, and abstracts.
  - Most abstracts are in English, some in German.
  - Controlled terms and classifications are available in both English and German.
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**File Size** 1,505,982 records (10/2023)

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**Coverage** 1972 – 2021

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**Updates** Static file

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**Language** English, German

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**Database Producer** WTI AG  
Weidbrunnenstraße 2  
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Copyright Holder

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- Sources**
- Journals
  - Conference Contributions
  - Books
  - Company publications and other non-conventional literature
-

**User Aids**

- WTI-Classification \*
  - Online Helps (HELP DIRECTORY lists all help messages available)
  - STNGUIDE
- \* Available from producer
- 

**Cluster**

- ALLBIB
- AUTHORS
- BUSINESS
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STN Database Cluster information:

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## Search and Display Field Codes

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

### Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from the title (TI), abstract (AB), controlled term (CT), controlled term in German (CTDE), and supplementary term (ST) fields)	None or /BI	S BLOCK COPOLYMER? S MELINAR AND PRIC? AND ICI S WESTERN EUROPE AND PETP S ?ACRYLAMIDE?	TI, AB, CT, CTDE, ST
Abstract*	/AB	S MARINE APPLICATION/AB	AB
Accession Number	/AN	S 20210081424/AN	AN
Author	/AU	S ENDO, K/AU S CONNAN C/AU	AU
Classification Code (1,2) (code and text)	/CC (or /CCEN)	S 041C1/CC S 3KB/CC S RAW MATERIALS/CC	CC
Classification Code in German (1) (code and text)	/CCDE	S 3KB/CCDE S ROHSTOFFE/CCDE	CCDE
Controlled Term in German	/CTDE	S MANAGEMENTSYSTEM/CTDE	CTDE
Controlled Word	/CW	S MANAGEMENTSYSTEM/CW	CT, CTDE
Corporate Source (1)	/CS	S OSAKA UNIV?/CS S EXXON FRANCE/CS	CS
Document Number	/DN	S P1224318/DN S 20180832832/DN	DN
Document Type (code and text)	/DT (or /TC)	S JOURNAL/DT S J/DT	DT
Entry Date (3)	/ED (or /UP)	S ED>19990100	ED
Field Availability	/FA	S L7 AND AB/FA	FA
Digital Object Identifier	/FTDOI		Digital Object Identifier
International Standard (Document) Number (contains ISSN and CODEN)	/ISN	S 1022-1344/ISN S ANALAO/ISN	ISN, SO
Journal Title	/JT	S BRITISH POLYMER JOURNAL/JT	JT, SO
Language (ISO code and text)	/LA	S GERMAN/LA S DE/LA	LA
Meeting Date (3)	/MD	S NOV 2019/MD	MD, SO
Meeting Location	/ML	S HAMBURG/ML	ML, SO
Meeting Title (1)	/MT	S FACHTAGUNG UNTERWASSERTECHNIK/MT	MT, SO
Meeting Year (3)	/MY	S 2019/MY	MY, SO
Publisher (1)	/PB	S SPRINGER BERLIN/PB	SO
Publication Year (3)	/PY	S 1997-1998/PY	PY, SO
Source (contains journal title and other higher-level titles collation, publisher, meeting information, ISSN, CODEN, URL, and FTDOI)	/SO	S CANADIAN PLASTICS/SO AND 1997/PY S DVS BERICHTS/SO S MOLECULAR BIOLOGY/SO	SO
Supplementary Term	/ST	S ABBAUBARER WERKSTOFF/ST S (BIOL?(S)PROZ?)/ST	ST
Title*	/TI	S PETP PRIC?/TI	TI
Uniform Resource Locator (1)	/URL	S MEDIA/URL	SO, URL
Update Date (3)	/UP (or /ED)	S UP>=JUL 2020	UP

(1) Search with implied (S) proximity is available.

(2) Please refer to HELP CLA in the file for information about classification codes until July 2018 and afterwards.

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

## Property Fields<sup>(1)</sup>

In RAPRA a numeric search for a specific set of physical properties (/PHP) is available within the text fields (TI, AB, BI). The numeric values are not displayed as single fields but highlighted within the hit displays.

EXPAND in the PHP field (e.g., E A/PHP) to see 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 8000-10000/BIR
/BIT	Stored Information	Bit	bit	S BIT > 3 MEGABIT
/CAP	Capacitance	Farad	F	S 1-10 MF/CAP
/CATA	Catalytic Activity	Katal	kat	S 1-10/CATA
/CDN	Current Density	Ampere/Square Meter	A/m <sup>2</sup>	S CDN>10 A/M**2
/CMOL	Molarity, Molar Concentration	Mol/Liter	mol/L	S UREA/BI (S) 8/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 (/C)	Density (Mass Concentration)	Kilogram/Cubic Meter	kg/m <sup>3</sup>	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOA	Dosage	Milligram/Kilogram/Day	mg/day	S 100-300/DOA
/DOS (/LD50)	Dose	Milligram/Kilogram	mg/kg	S DOS>0.8
/DV	Viscosity, dynamic	Pascal * Second	Pa*s	S DV>5000
/ECH (/CHA)	Electric Charge	Coulomb	C	S 0.0001-0.001/ECH
/ECO (/ECND)	Electrical Conductivity	Siemens/Meter	S/m	S ECO>800 S/M (15A) AQUEOUS
/ELC (/ECC)	Electric Current	Ampere	A	S 1-10/ELC
/ELF (/ECF)	Electric Field	Volt/Meter	V/m	S 200/ELF
/ENE	Energy	Joule	J	S DROPLETS (10A) 40 JOULE - 70 JOULE /ENE
/ERE (/ERES)	Electrical Resistivity	Ohm * Meter	Ohm*m	S ERE>0.1
/FOR	Force	Newton	N	S 50 N /FOR
/FRE (/F)	Frequency	Hertz	Hz	S OSCILLAT?/BI (S) 1- 3/FRE
/IU	International Unit	none	IU	S IU>1000 (P) VITAMIN A
/KV	Viscosity, kinematic	Square Meter/Second	m <sup>2</sup> /s	S METHYLPOLYSILOXANES/BI (10A) 200-300 CST /KV
/LEN (/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=1
/MFD (/MFS)	Magnetic Flux	Tesla	T	S MFD>102
/MFR (/MFL)	Density	Kilogram/Second	kg/s	S MFR<0.1
/MFST	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MM (/MW)	Magnetic Field Strength	Ampere/Meter	A/m	S 1-100/MFST
/MOLS	Molar Mass	Gram/Mol	g/mol	S 2000-3000 G/MOL/MM
	Molality of Substance	Mol/Kilogram	mol/kg	S 01.-10 MOL/KG/MOLS

## Property Fields (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/MVR	Melt Volume Rate, Melt Flow Rate	none	g/10*min	S 3/MVR
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/PHV (/PH)	pH Value	pH	pH	S 7.4-7.6/PHV
/POW	Power	Watt	W	S "HG-XE-?"/BI (S) 100-200 WATT/POW
/PPM	Parts per million	Ppm	ppm	S 100 PPM /PPM (10A) ADDITIVE/BI
/PRES (/P)	Pressure	Pascal	Pa	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD	Radioactivity	Becquerel	bq	S 1-10/RAD
/RES	Electrical Resistance	Ohm	Ohm	S SENSOR /BI (S) 10- 100/RES
/RI	Refractive Index	none		S 3-4/RI
/RSP	Rotational Speed	Revolution/Minute	rpm	S 2 RPM - 100 RPM /RSP (S) ENGINE/BI
/SAR	Area /Surface Area	Square Meter	m <sup>2</sup>	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB)	Solubility	Gram/100 gram	g/100g	S SOL>20 G/100G (5A) WATER
/SSAM	Specific Surface Area, Mass	Square Meter/Kilogram	m <sup>2</sup> /kg	S 1-10/SSAM
/STSC (/ST)	Surface Tension	Joule /Square Meter	J/m <sup>2</sup>	S 60 J/M**2/STSC
/TCO (/TCND)	Thermal Conductivity	Watt/Meter * Kelvin	W/m*K	S 1/TCO (S) HEAT?
/TEMP (/T)	Temperature	Kelvin	K	S 20-25/TEMP
/TEX	Tex	Gram/Kilometer	g/km	S 1-5/TEX
/TIM	Time	Second	s	S ?INCUB?/BI (10A) 50 S - 150 S /TIM
/VEL (/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 <sup>3</sup> /s	S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL	Volume	Cubic Meter	m <sup>3</sup>	S 1E-8-2E-8/VOL.EX
/VOLT	Voltage	Volt	V	S TENSION/BI (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 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 AN AU CC (CCEN) CCDE CS CTDE DN DT (TC) ED FTDOI (DOI) (1) ISN (1) JT (1) LA MD (1) ML (1) MT (1) MY (1) PY (1) SO ST TI UP URL (1) UT	Abstract Accession Number Author Classification Code Classification Code in German Corporate Source Controlled Term in German Document Number Document Type Entry Date Digital Object Identifier International Standard (Document) Number Journal Title Language Meeting Date Meeting Location Meeting Title Meeting Year Publication Year Source Supplementary Term Title Update Date Uniform Resource Locator Uncontrolled Term	D TI AB D L3 N D AU D CC D CCDE D CS D CTDE D DN D DT D ED D FTDOI D ISN D JT D LA TI D MD D ML D TI MT L5 D MY D PY D SO D ST AU SO D TI AU SO D UP D URL D UT
ABS ALL ALLDE DALL IALL BIB IBIB IND INDDE SCAN TRIAL (TRI, SAMPLE, SAM, FREE)	AN, AB AN, DN, TI, AU, CS, SO, DT, AV, LA, ED, AB, CC, CT, ST, UT AN, DN, TI, AU, CS, SO, DT, AV, LA, ED, AB, CCDE, CTDE, ST, UT ALL, delimited for post processing ALL, indented with text labels AN, DN, TI, AU, CS, SO, DT, AV, LA, ED BIB, indented with text labels AN, CC, CT, ST, UT AN, CCDE, CTDE, ST, UT TI, CT (random display without answer number) TI, CC, CT, ST, UT	D ABS D ALL D ALLDE D DALL D IALL D BIB D IBIB D IND D INDDE 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.

## 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	N
Accession Number	AN	Y	N
Author	AU	Y	Y
Citation	CIT	Y (2)	N
Classification Code	CC (CCEN)	Y	Y
Classification Code in German	CCDE	Y	Y
CODEN	CODEN	N	Y
Controlled Term	CT	Y	Y
Controlled Term in German	CTDE	Y	Y
Corporate Source	CS	Y	Y
Digital Object Identifier	FTDOI (DOI)	N	Y
Document Number	DN	Y	Y
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	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
Publication Year	PY	Y	Y
Source	SO	Y (4)	N
Supplementary Term	ST	Y	Y
Title	TI	Y (default)	Y
Uncontrolled Term	UT	Y (5)	Y
Uniform Resource Locator	URL	Y	Y
Update Date	UP	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 CIT allows you to extract the reference data from the source documents in this file and have them automatically converted to a citation format for searching in the SCISEARCH file. SEL CIT selects first author, publication year, volume, first page, and a truncation symbol with /RE appended.

(3) Selects or analyzes CODEN and ISSN with /ISN appended to the terms created by SELECT.

(4) Selects or analyzes CODEN and ISSN with /SO appended to the terms created by SELECT.

(5) Appends /BI to the terms created by SELECT.

**Sample Record****DISPLAY ALL OF JOURNAL**

AN 20190095036 RAPRA  
 DN 20191006319  
 TI Fabrication of an Efficient Planar Organic-Silicon Hybrid Solar Cell with a 150 nm Thick Film of PEDOT: PSS  
 AU Iqbal, Sami; Su, Dan; Yang, Yi; Ullah, Fahim; Zhou, Huanli; Hussain, Azam; Zhang, Tong  
 CS Joint International Research Laboratory of Information Display and Visualization, Southeast University, Nanjing, CN; Suzhou Key Laboratory of Metal Nano-Optoelectronic Technology, Suzhou Research Institute of Southeast University, CN; Key Laboratory of Micro-Inertial Instrument & Advanced Navigation Technology, Southeast University, Nanjing, CN  
 SO Micromachines (2019), Volume 10, Number 10, pp. 1-8, 8 Seiten, 36 Quellen  
 ISSN: 2072-666X  
 DOI: <https://dx.doi.org/10.3390/mi10100648>  
 URL (Document): <http://www.mdpi.com/journal/micromachines>  
 DT Journal  
 LA English  
 ED Entered STN: 21 Jul 2020  
 Last updated on STN: 21 Jul 2020

**DISPLAY ALL OF JOURNAL (until June 2018)**

AN 20160007953 RAPRA  
 DN P1224318  
 TI Investigation of transient heat transfer in composite walls using carbon/epoxy composites as an example  
 AU Terpilowski, J; Gawron, B; Woroniak, G  
 CS Military University of Technology, Warsaw; Bialystok Technical University  
 SO Archives of Thermodynamics (2015), Volume 36, pp. 87-105, 19 Seiten  
 ISSN: 1231-0956 E-ISSN: 2083-6023  
 DOI: <http://doi.org/10.1515/aoter-2015-0035>  
 DT Journal  
 LA English  
 ED Entered STN: 21 Jul 2020  
 Last updated on STN: 21 Jul 2020  
 AB The paper presents the application of similarity theory to investigations of transient heat transfer in materials with complex structure. It describes the theoretical-experimental method for identification and design of the structure of two-component composite walls based on the research of the thermal diffusivity for the composite and its matrix separately. The thermal diffusivity was measured by means of the modified flash method. The method was tested on two samples of double-layer 'epoxy resin - polyamide'. All the investigated samples had the same diameter of 12 mm and thickness ranging from 1.39-2.60 mm and their equivalent value of thermal diffusivity ranging from  $(1.21-1.98) \times 10^{-7} \text{ m}^2/\text{s}$ . Testing the method and research on carbon/epoxy composites was carried out at temperatures close to room temperature. (6ref)  
 CC 0627; 043E; 096  
 CT ADIABATIC; AMBIENT CONDITIONS; ANISOTROPIC; ANISOTROPY; BOUNDARY CONDITION; BRAIDED; BRAIDING; CAPROLACTAM POLYMER; CARBON FABRIC; CARBON FIBER; CARBON FIBRE; CONTACT RESISTANCE; DATA PROCESSING; DIAMETER; DOUBLE-LAYER; ELECTRICAL RESISTIVITY; EPOXIDE POLYMER; EPOXIDE RESIN; EPOXY COMPOSITE; EPOXY RESIN; FIBER BUNDLE; FIBER GLASS; FIBRE BUNDLE; FIBRE GLASS; FLASH; FOUR-LAYER; GLASS FIBER; GLASS FIBRE; GRAPH;



HALF-TIME; HEAT EXCHANGE; HEAT FLUX; HEAT TRANSFER; IDENTIFICATION;  
 INTERFACIAL; MATRIX; MULTI-LAYER; MULTILAYER; NYLON 6; NYLON-6;  
 ONE-DIMENSIONAL; PA 6; PA6; PHYSICAL PROPERTIES; POLISH; POLISHES;  
 POLY-EPSILON-CAPROLACTAM; POLYAMIDE 6; POLYAMIDE-6; POLYCAPROAMIDE;  
 POLYCAPROLACTAM; POLYEPOXIDE; RESISTIVITY; ROOM TEMPERATURE;  
 ROOM-TEMPERATURE; SINGLE-LAYER; STANDARDISATION; STANDARDIZATION;  
 STRUCTURE; TAB; TACK; TECHNICAL; TEMPERATURE DISTRIBUTION; TEST METHOD;  
 TESTED; TESTING; THEORY; THERMAL DIFFUSIVITY; THERMAL RESISTANCE;  
 THERMAL RESISTIVITY; THERMOPHYSICAL PROPERTIES; THREE-LAYER; TRILAYER;  
 TWO-COMPONENT; TWO-LAYER; TWO-PART; WALL THICKNESS

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