CEABA
(Chemical Engineering And Biotechnology Abstracts)

Subject Coverage

- Bioprocess engineering and process development
- Chemical and process engineering
- Economics and management
- Environmental protection and safety
- Equipment and plant
- Fermentation, enzymology and biotransformation
- Information technology
- Materials technology and testing, corrosion
- Mathematical methods and modelling
- Measurement and process control
- Production processes and process development
- Utilities and services

File Type

Bibliographic

Features

Thesaurus	None		
Alerts (SDIs)	Not available		
CAS Registry Number® Identifiers	☐	Page Images	☐
Keep & Share	☑	SLART	☑
Learning Database	☐	Structures	☐

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.

File Size

1.600,083 records (11/2021)

Coverage

1966-2021

Updates

Static file

Language

English, German

Database Producer

WTI Frankfurt eG
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Sources

- Journals
- Books
- Conference contributions
- Reports
- Dissertations
- Other non-conventional literature

User Aids

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

Cluster

- ALLBIB
- AUTHORS
- BIOSCIENCE
- CHEMENG
- CHEMISTRY
- CORPSOURCE
- ENGINEERING
- ENVIRONMENT
- MATERIALS
- NPS
- SAFETY

STN Database Cluster information:
http://www.stn-international.de/en/customersupport/customer-support#cluster+%7C+subjects+%7C+features

Search and Display Field Codes

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

General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index* (contains single words from the title (TI), abstract (AB, ABDE), controlled term (CT), controlled term in German (CTDE), and supplementary term (ST) fields)	None or /BI	S FLOW PATTERNS AND SPRAY DRYING S ALGORITHMI? S BIOREA!TOR? S KOLONN?(L)FLUTPUNKT S 100-01-6	TI, AB, ABDE, CT, CTDE, ST, UT
Accession Number	/AN	S 20100011636/AN	AN
Abstract*	/AB	S ELECTRIC MOTOR/AB	AB
Author (patent inventor)	/AU	S BABENKO, E M/AU	AU
Classification Code (code and text) **(1)**	/CC (or /CCEN)	S 3UM/CC S ENVIRONMENTAL POLLUTION/CC	CC
Classification Code in German (code and text) **(1)**	/CCDE	S 3U/CCDE S UMWELTSCHADSTOFFE/CCDE	CCDE
Controlled Term	/CT (or /CTEN)	S PACKAGING-MATERIAL/CT	CT
Controlled Term in German	/CTDE	S BENZIN/CTDE	CTDE
Controlled Word (contains English and German)	/CW	S COMPUTER PROGRAM/CW S MARKTANALYSE/CW	CT, CTDE
Corporate Source	/CS	S (CHEM?(L)HUELS)/CS S BASF, LUDWIGSHAFEN?/CS	CS
Document Number	/DN	S 20200700422/DN	DN
Document Type (code and text)	/DT (or /TC)	S B/DT S CONFERENCE/DT AND DE/LA	DT
Entry Date **(2)**	/ED	S L10 AND ED>JUL 2020	ED
Field Availability	/FA	S CT/FA	FA
Digital Object Identifier	/FTDOI (or /DOI)	S HTTPS://DX.DOI.ORG/10.3390/MET10060711 /FTDOI	FTDOI, SO
International Standard (Document) Number (contains CODEN, ISSN and ISBN)	/ISN	S CITEAH/ISN S 0009-286X/ISN S 978-0-12-380876-9/ISN	ISN, SO
Journal Title	/JT	S CHEMICAL ENGINEERING NEWS/JT	JT, SO
Language (code and text)	/LA	S (EN OR FR)/LA S GERMAN/LA	LA
Meeting Date **(2)**	/MD	S 20200701/MD	MD, SO
Meeting Location	/ML	S ABBEY/ML	ML, SO
Meeting Title **(1)**	/MT	S FIBERS CONGRESS/MT	MT, SO
Meeting Year	/MY	S 2019/MY	MY, SO
Publication Year **(2)**	/PY	S 2004/PY S 2004-2005/PY	PY, SO
Source (contains CODEN, journal title and other higher level titles, CODEN, ISBN, ISSN, publisher, DOIs, URLs, and meeting information)	/SO	S (CHEM(L)ING(L)TECH)/SO S DECHEMA MONO?/SO S SPRINGER VERLAG/SO S (BERLIN AND VDI)/SO S WSKRAT/SO	SO
Supplementary Term	/ST	S WASTE TREATMENT/ST S (BIOL?(S)PROZ?)/ST	ST
Title*	/TI	S TURMPACKUNG?/TI S TOWER PACK?/TI	TI
Update Date	/UP	S UP>JUL 2020	UP
Uniform Resource Locator	/URL	S SPRINGERNATURE/URL	SO, URL

(1) Search with implied (S) proximity is available in this field.
(2) Numeric search field that may be searched using numeric operators or ranges.

Property Fields[1)]

In CEABA 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.

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 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	
/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) 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^3	S 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	Sv	S 100/DEQ
/DOA	Dosage	Milligram/Kilogram/Day	mg/day	
/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^2/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 Density	Tesla	T	S MFD>102
/MFR (/MFL)	Mass Flow Rate	Kilogram/Second	kg/s	S MFR<0.1
/MFST	Magnetic Field Strength	Ampere/Meter	A/m	

Property Fields[1] (cont'd)

Field Code	Property	Unit	Symbol	Search Examples
/MM (/MW, /MOM)	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
/PER	Percent (Proportionality)	none	%	S POLYMER?/AB (5A) 4/PER
/PHV (/PH)	pH Value	pH	pH	S 7.4-7.6/PHV
/POW (/PW)	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 RAD/PHP
/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^2	S PLATE/BI (S) 10 M**2 - 100 M**2 /SAR
/SOL (/SLB)	Solubility	Gram/100 gram	g/100 g	S SOL>20 G/100G (5A) WATER
/SSAM	Specific Surface Area, Mass	Square Meter/Kilogram	M2/kg	
/STSC (/ST)	Surface Tension	Joule /Square Meter	J/m^2	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	
/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^3/s	S 1 M**3/S - 2 M**3/S /VLR (S) ABRASIVE
/VOL	Volume	Cubic Meter	m^3	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	Abstract	D TI AB
AN	Accession Number	D 1-5 AN
AU	Author (patent inventor)	D AU TI
CC (CCEN) **(1)**	Classification Code	D CC CT
CCDE **(1)**	Classification Code in German	D CCDE
CS	Corporate Source	D CS
CT (CTEN)	Controlled Term	D CT CC
CTDE	Controlled Term in German	D CTDE
DN **(1)**	Document Number	D DN
DT (TC)	Document Type	D DT
ED (UP) **(1)**	Entry Date	D ED
FTDOI (DOI) **(1)**	Digital Object Identifier	D FTDOI
ISN **(1)**	International Standard (Document) Number	D ISN
JT **(1)**	Journal Title	D JT
JTF **(1)**	Journal Title, Full	D JTF
LA	Language	D LA
MD **(1)**	Meeting Date	D MD
ML **(1)**	Meeting Location	D ML
MT **(1)**	Meeting Title	D MT
MY **(1)**	Meeting Year	D MY
PY **(1)**	Publication Year	D PY
SO	Source	D L5 SO
ST	Supplementary Term	D ST
TI	Title of Project	D TI 1-10
UP **(1)**	Update Date	D UP
URL **(1)**	Uniform Resource Locator	D URL
UT	Uncontrolled Term	D UT
ABS	AN, AB	D ABS
ALL	AN, DN, TI, AU, CS, SO, DT, AV, LA, ED, AB, CC, CT, ST, UT	D ALL 1-10
ALLDE	AN, DN, TI, AU, CS, SO, DT, AV, LA, ED, AB, CCDE, CTDE, ST, UT	D ALLDE
DALL	ALL, delimited for post processing	D DALL
IALL	ALL, indented with text labels	D IALL
BIB	AN, DN, TI, AU, CS, SO, DT, AV, LA , ED (BIB is default)	D BIB
IBIB	BIB, indented with text labels	D IBIB
IND	AN, CC, CT, ST, UT	D L5 IND
INDDE	AN, CCDE, CTDE, ST, UT	
SCAN **(2)**	TI, CT (random display without answer numbers)	D STD
TRIAL (TRI, SAMPLE, SAM)	TI, CC, CT, ST, UT	D TRI
HIT	Hit term(s) and field(s)	D HIT
KWIC	Up to 50 words before and after hit term(s) (KeyWord-In-Context)	D KWIC
OCC	Number of occurrences of hit term(s) and field(s) in which they occur	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 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 **(2)**	N
Accession Number	AN	Y	N
Author	AU	Y	Y
Classification Code	CC (CCEN)	Y	Y
Classification Code in German	CCDE	Y	Y
CODEN	CODEN	N	Y
Controlled Term	CT (CTEN)	Y	N
Controlled Term in German	CTDE	Y	N
Corporate Source	CS	Y	N
Document Number	DN	Y	Y
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	Y
Digital Object Identifier	FTDOI (DOI)	Y	Y
International Standard (Document) Number	ISN	Y **(3)**	N
International Standard Book Number	ISBN	N	Y
International Standard Serial Number	ISSN	N	Y
Journal Title	JT	Y	Y
Journal Title, Full	JTF	Y **(4)**	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**(5)**	N
Supplementary Term	ST	Y	N
Title	TI	Y (default)	Y
Uniform Resource Locator	URL	Y	Y
Uncontrolled Term	UT	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) Appends /BI to the terms created by SELECT.
(3) Selects or analyzes CODEN, ISSN and ISBN with /ISN appended to the terms created by SELECT.
(4) Appends /JT to the terms created by SELECT.
(5) Selects or analyzes CODEN, ISSN, and ISBN with /ISN appended to the terms created by SELECT.

Sample Records

DISPLAY ALL OF JOURNAL

```
AN      20200068395   CEABA
DN      20191223083
TI      Rechargeable-battery chemistry based on lithium oxide growth through
        nitrate anion redox
AU      Giordani, Vincent; Tozier, Dylan; Uddin, Jasim; Tan, Hongjin; Gallant,
        Betar M.; McCloskey, Bryan D.; Greer, Julia R.; Chase, Gregory V.;
        Addison, Dan
CS      Liox Power, Pasadena, CA, US; California Institute of Technology,
        Pasadena, CA, US; Massachusetts Institute of Technology (MIT),
        Cambridge, MA, US; University of California, Berkeley, CA, US
SO      Nature Chemistry (2019), Volume 11, Number 12, pp. 1133-1138, 6 Seiten
        CODEN: NCAHBB  ISSN: 1755-4330  E-ISSN: 1755-4349
        DOI: https://dx.doi.org/10.1038/s41557-019-0342-6
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CEABA

DT Journal
LA English
AV TIB-ZL4408
ED Entered STN: 22 Jul 2020
Last updated on STN: 22 Jul 2020
AB Next-generation lithium-battery cathodes often involve the growth of lithium-rich phases, which enable specific capacities that are 2-3 times higher than insertion cathode materials, such as lithium cobalt oxide. Here, we investigated battery chemistry previously deemed irreversible in which lithium oxide, a lithium-rich phase, grows through the reduction of the nitrate anion in a lithium nitrate-based molten salt at 150X2009−C. Using a suite of independent characterization techniques, we demonstrated that a Ni nanoparticle catalyst enables the reversible growth and dissolution of micrometre-sized lithium oxide crystals through the effective catalysis of nitrate reduction and nitrite oxidation, which results in high cathode areal capacities (~12X2009mAhX2009cm-2). These results enable a rechargeable battery system that has a full-cell theoretical specific energy of 1,579X2009WhX2009kg-1, in which a molten nitrate salt serves as both an active material and the electrolyte.
CC 3ELB Electric energy storage devices, direct energy conversion; 3BX Fundamentals of chemistry; 3KG Inorganic nonmetallic materials
CT LITHIUM-OXIDE; NITRATES; NITRATES; FUSED-SALTS; OXIDATION-REACTION; CATHODE-MATERIALS; NITRITES; WORKING-MATERIAL; ELECTROLYTES; ANIONS; CATHODES; STORAGE-BATTERIES; CATALYSIS; NITRATE-REDUCTION; NANOPARTICLES
ST LITHIUM-OXIDE; LITHIUM; NITRATES; FUSED-SALTS; OXIDATION-REACTION; CATHODE-MATERIALS; NITRITES; WORKING-MATERIAL; ELECTROLYTES; ANIONS; CATHODES; STORAGE-BATTERIES; CATALYSIS; NITRATE-REDUCTION; NANOPARTICLES; Lithiumoxid; Lithium; Nitrat; Salzschmelze; Oxidation; Kathodenwerkstoff; Nitrit; Arbeitsstoff; Elektrolyt; Anion; Kathode; wiederaufladbare Batterie; Katalyse; Nitratentfernung; Nanopartikel
UT spezifische Kapazitaet

DISPLAY BIB OF CONFERENCE

AN 20200062389 CEABA
DN 20200200274
TI Entwicklung eines kohlenstofffaserverstaerkten Ringdruckbehaelters zur Wasserstoffspeicherung
Development of a carbon fiber reinforced toroidal pressure vessel for hydrogen storage
AU Schramm, N.; Neubert, M.; Naumann, M.D.; Ulke-Winter, L.; Kroll, L.; Nendel, S.
CS Lightweight Structures Engineering, Chemnitz, DE; TU Chemnitz, DE; Cetex Institut, Chemnitz, DE
SO Saubere Antriebe. Effizient Produziert., FC3 Fuel Cell Conference, 1, Brennstoffzellenkonferenz, 1 (2019), pp. 1-10, 10 Seiten, 16 Quellen
ISBN: 978-3-96100-103-3
Published by: TU Chemnitz, Chemnitz, http://www.tu-chemnitz.de
Conference: FC3 Fuel Cell Conference, 1st, Chemnitz, DE, Brennstoffzellenkonferenz, 1., Chemnitz, DE, 2019-11-26 - 2019-11-27, 26 Nov 2019 - 27 Nov 2019
URL (Document): https://nbn-resolving.org/urn:nbn:de:bsz:ch1-qucosa2-361958
DT Conference; Conference Article; Book; Book Article
LA German
ED Entered STN: 22 Jul 2020
Last updated on STN: 22 Jul 2020