

Current Biotechnology Abstracts

FILE DESCRIPTION

Current Biotechnology Abstracts database corresponds to the printed publication **Current Biotechnology** formerly produced by The Royal Society of Chemistry and contains all of the material published in the hard-copy version since its start-up in April 1983. From January 2000 forward, the database is produced by the Deutsche Gesellschaft für Chemisches Apparatewesen (DECHEMA). Records contain bibliographic details, an informative abstract, and subject, chemical, and company indexes designed for ease of online searching. Documents indexed cover technocommercial news, scientific and technical items (including patents), and general information (forthcoming events, book announcements etc.).

SUBJECT COVERAGE

Current Biotechnology Abstracts covers all aspects of biotechnology, including:

- genetic manipulation
- monoclonal antibodies
- immobilized cells and enzymes
- single-cell proteins
- fermentation technology in the pharmaceutical, fuel, agricultural, chemical, food, and other industries

SOURCES

A core source of nearly 200 primary and news journals is supplemented by European, U.S., PCT, and UK patents, press releases, conference proceedings, and announcements of books, technical reports, meetings, and other matters pertaining to biotechnology.

TIPS

USE FILE 358

to find information on all aspects of biotechnology.

USE /AB

to search both the English and German language abstracts.

SELECT (SEWAGE OR ABWASSER)/AB

USE AE DISPLAY CODE

to display only the English language abstract.

TYPE S1/AE/1

USE AG DISPLAY CODE

to display only the German language abstract.

TYPE S2/AG/ALL

DIALOG FILE DATA

Inclusive Dates: April 1983 to January 2006

Update Frequency: Closed - Use File 315

File Size: 131,832 records as of January 2006

CONTACT

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SAMPLE RECORD

DIALOG(R)File 358:Current BioTech Abs
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AX=, DT= 123423 CBA Acc. No.: 21-09-005051 DOC. TYPE: Journal
/TI Lonza: 20 years of biotransformations
Orig. Title: Lonza: 20 Jahre Biotransformationen
AU= AUTHOR: Shaw, N.M. ; Robins, K.T. ; Kiener, A.
CS=, SO= CORPORATE SOURCE: LONZA AG, Visp, CH
JN=, SO= JOURNAL: Adv. Synth. Catal. Volume: 345 Issue: 4 Page(s): 425-435
CD=, SN= CODEN: ASCAF7 ISSN: 16154150
PD=, PY= PUBLICATION DATE: 2003 (20030000)
/AB ABSTRACT: The present review deals with biotransformations by which the custom manufacturer Lonza produces intermediates for life science companies and especially pharmaceutical companies. Reactions catalysed by microorganisms and/or enzymes are understood as biotransformations; the microorganisms can be wild-type or recombinant, free or immobilised. Biotransformations are usually used for the synthesis of chiral molecules as well as for reactions that are chemically impossible or difficult to carry out. In the text, the syntheses of the following substances as intermediates of pharmaceuticals done at Lonza as well as the rationales for the use of biocatalysts are presented:
--oxidations oxidation of alkyl groups on aromatic heterocycles
-5-methylpyrazine-2-carboxylic acid -pyridyl-3-acetic acid
regiospecific hydroxylations of aromatic N-heterocycles
-6-hydroxynicotinic acid --reductions -(R)-ethyl-4,4,4-trifluoro-3-hydroxybutanoate --hydrolysis -nicotinamide -(S)-pipercolic acid and (S)-piperidine-2-carboxylic acid -CBZ-D-proline and (R)-N-CBZ-proline -(1R,4S)-1-amino-4-hydroxymethylcyclopent-2-ene -(S)-2,2-dimethylcyclopropanecarboxamide -(S)-3,3,3-trifluoro-2-hydroxy-2-methylpropionic acid --multi-enzyme-biotransformations
-L-alaninol -L-carnithine.
ABSTRACTOR: Grohs, Birgit-Maria (FAH, Sinzig)
/AB ABSTRACT: Die Verf. befassen sich mit Biotransformationen, durch die der Auftragshersteller Lonza Intermediate fuer Unternehmen der Lebenswissenschaften und insbesondere pharmazeutische Unternehmen produziert. Dabei werden unter Biotransformationen Reaktionen verstanden, die von Mikroorganismen und/oder Enzymen katalysiert werden; die Mikroorganismen und/oder Enzyme koennen vom Wildtyp oder rekombinant sein, frei oder immobilisiert vorliegen. In der Regel werden Biotransformationen zur Synthese chiraler Molekuele sowie bei Reaktionen eingesetzt, die auf chemischem Weg nicht oder nur schwer zugaenglich sind. Es werden die bei Lonza durchgefuehrten Synthesen der folgenden Substanzen als Intermediate von Arzneimitteln sowie die Rationalen fuer die Verwendung von Biokatalysatoren vorgestellt:
--Oxidationen Oxidation von Alkylgruppen an aromatischen Heterozyklen
-5-Methylpyrazin-2-carbonsaeure -Pyridyl-3-essigsaeure Regiospezifische Hydroxylierung von aromatischen N-Heterozyklen
-6-Hydroxynicotinsaeure --Reduktionen -(R)-Ethyl-4,4,4-trifluor-3-hydroxybutanoat --Hydrolysen -Nicotinamid -(S)-Pipercolinsaeure und (S)-Piperidin-2-carbonsaeure -CBZ-D-Prolin und (R)-N-CBZ-Prolin
-(1R,4S)-1-Amino-4-hydroxymethylcyclopent-2-en -(S)-2,2-Dimethylcyclopropanecarboxamid -(S)-3,3,3-Trifluor-2-hydroxy-2-methylpropionsaeure
--Multi-Enzym-Biotransformationen -L-Alaninol -L-Carnithin.
ABSTRACTOR: Grohs, Birgit-Maria (FAH, Sinzig)
NO. OF PAGES: 11
NO. IN PRINT: 0310/280
NO. OF FIGURES: 17
NO. OF TABLES: 1
NO. OF SOURCES: 57
/DE DESCRIPTORS: review ; biotransformation ; microorganism ; enzyme ; pharmaceutical
/DE DESCRIPTORS: Biotransformation ; Mikroorganismen ; Enzym ; Arzneimittel ; Lonza
/SH, SH=, SC= SECTION: Enzymology and Biotransformation (55)
/DN, DN=, DC= DECHEMA CLASSIFICATION: Biochemical and microbiological processes (5830) ; Basic chemicals (9433)

SEARCH OPTIONS

BASIC INDEX

SEARCH SUFFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
— /AB	— AB	All Basic Index Fields Abstract ¹	Word Segment & Word	S BIOTRANSFORMATION?(F)REVIEW S METHYL/AB S BIO?ATALY?(5N)OXIDAT?/AB
— — /DE	AE AG DE	Abstract in English Abstract in German Descriptor ^{1,2}	Segment & Word & Phrase	S ENZYME/DE S MIKROORGANISMEN/DE S REVIEW/DE S ENZYME/DE S MIKROORGANISMEMENDE S ALGAL BIOMASS/DE S ENZYMOLOGY/SH S 'ENZYMOLOGY AND BIOTRANSFORMATION'/SH
/SH	SH	Section Name ^{3,4}	Word & Phrase	S LONZA/TI S LONZA(F)BIOTRANSFORMATION?/TI
/TI	TI	Title ¹	Segment & Word	

¹ Chemical substance names are segmented in all Basic Index fields; for example, TRINITROBENZENE is retrieved when searched as a single term or by searching the segments: TRI, NITRO, or BENZENE. To exclude the segments use the /FW suffix; e.g., S BENZENE/FW to retrieve the word set off by spaces or punctuation marks.

⁴ Also searchable using SH= or XR=.

² Includes descriptors and chemical substances; chemical substances are also searchable using SY=.

³ Includes Section cross-reference name.

ADDITIONAL INDEXES

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
AD=	AD	Patent Application Date ¹³	Phrase	S AD=19970922
AL=	AL	Abstract Language	Phrase	S AL=FRENCH
AN=	AN	Patent Application Number ¹³	Phrase	S AN=FR 9711757
—	AR	Abstractor		
AU=	AU	Author	Phrase	S AU=SHAW, N.M.
AV=	AV	Availability	Word	S AV=OJPS
AX=	AX	CBA Abstract Number	Phrase	S AX=21-09-005051
—	AX	DIALOG Accession Number		
BN=	BN	International Standard Book Number (ISBN)	Phrase	S BN=3-527-30759-1 S BN=3527307591
CD=	CD	CODEN	Phrase	S CD=ASCAF7
CF=	CF	Conference Information ¹¹	Word	S CF=(ACS AND BOULDER AND 1982)
CO=	CO	Source Organization ^{5,12}	Word & Phrase	S CO=(PROTEOME(W)SCIENCES) S CO=PROTEOME SCIENCES PLC S CO=PROTEOME(W)SCIENCES) S CO=PROTEOME(W)SCIENCES PLC
CS=	CS	Corporate Source ⁵	Word	S CS=(LONZA(W)AG)
CT=	CT	Secondary Citation ^{5,11}	Word	S CT=(CHEM(W)ABSTR(W)110(W)04)
DT=	DT	Document Type	Phrase	S DT=JOURNAL
—	ED	Book Editorial Information		
JN=	JN	Journal Name	Phrase	S JN=ADV. SYNTH. CATAL.
LA=	LA	Language	Phrase	S LA=ENGLISH
—	NF	Number of Figures ¹⁴		
—	NP	Number in Print ¹⁴		
—	NS	Number of Sources ¹⁴		
—	NT	Number of Tables ¹⁴		
PD=	PD	Publication Date	Phrase	S PD=20030000
—	PG	Number of Pages ¹⁴		
PN=	PN	Patent Number ¹³	Phrase	S PN=EP 0077856
PU=	PU	Publisher ⁵	Word	S PU=(J(W)WILEY)
—	PU	Publisher Address		
PY=	PY	Publication Year	Phrase	S PY=2003
RN=	RN	Report Number ¹²	Phrase	S RN='GKSS 99/E/18'
RT=	RT	Report Title	Word	S RT=KERNENERGIEVERWERTUNG
SC=	SC	Section Code ⁶	Phrase	S SC=55
SH=	SH	Section Name ⁷	Phrase	S SH='ENZYMOLOGY AND BIOTRANSFORMATION'
SN=	SN	International Standard Serial Number (ISSN)	Phrase	S SN=16154150
—	SO	Editorial Information		
SO=	SO	Source Information ⁸	Word	S SO=LONZA S SO=(LONZA(F)VISP)

ADDITIONAL INDEXES (cont'd)

SEARCH PREFIX	DISPLAY CODE	FIELD NAME	INDEXING	SELECT EXAMPLES
SY= UD= XR=	SY — XR	Chemical Synonyms ^{9,12} Update Cross-Reference Section Name/Section Code ¹⁰	Phrase Phrase Phrase	S SY=ALDEHYDE OXIDASE S UD=9999 S XR=CHEMICAL INDUSTRY

⁵ Also searchable using SO=.

⁶ Searches both section and cross reference section codes; SC display outputs only section code; XR display outputs only cross reference section code.

⁷ Searches section name only. Use XR= to search cross reference section name.

⁸ Display includes Availability, Conference Information, Corporate Source, Journal Name, Secondary Citation, Publication Date, Report Title, Report Number, and Publisher Data as appropriate.

⁹ Also searchable using /DE.

¹⁰ Display outputs both cross-reference section name and code.

¹¹ Available through the end of 1989 only.

¹² Available through the end of 1999 only.

¹³ Patent coverage stopped in 1999.

¹⁴ From January 2000 forward.

SPECIAL FEATURES

For command descriptions, enter HELP LIMIT, HELP SORT, HELP RANK, HELP MAP, HELP DUP, HELP CURRENT online.

LIMIT	/ -- DIALOG Accession Number /CONF -- Conference ¹¹ /ENG -- English Language /NONENG -- Non-English Language /NPT -- Non-Patent Records ¹³ /PAT -- Patent Records ¹³ /YYYY -- Publication Year	S S5/0120318-9999999 S S1/CONF S S3/ENG S S4/NONENG S S1/NPT S S1/PAT S S2/1999-2003
SORT	AU, CS, JN, PD, PY, SH, TI	SORT S3/ALL/JN/AU PRINT S4/5/1-23/PY
RANK	All phrase- and numeric-indexed fields in the Additional Indexes can be ranked. Other RANK codes include: DE	RANK DE RANK AU S4
MAP	CD, PN, SN, SY	MAP PN TEMP S1
RD, ID	Remove duplicates (RD) or identify duplicates (ID,IDO).	RD S5
CURRENT	Search only the most recent year plus one (CURRENT1) to five (CURRENT5) years.	B 358 CURRENT2

PREDEFINED FORMAT OPTIONS

NO.	DIALOGWEB FORMAT	RECORD CONTENT
1	--	DIALOG Accession Number
2	--	Full Record except Abstract
3	Medium	Bibliographic Citation
4	--	Full Record with Tagged Fields
5	--	Full Record
6	Free	Title
7	Long	Full Record except Indexing
8	Short	Title and Indexing
9	Full	Full Record
K	--	KWIC (Key Word In Context) displays a window of text; may be used alone or with other formats

OTHER OUTPUT OPTIONS

For an explanation, enter HELP TYPE, HELP UDF, HELP TAG online.

USER DEFINED FORMATS	Display codes listed in the Search Options tables can be used to customize output.	TYPE S3/TI,AU,JN,PY/ALL
TAG	Output can be displayed with tags identifying each display field.	TYPE S3/5/ALL TAG
DIRECT RECORD ACCESS	If the accession number of a specific record is known, it can be used to display the record directly.	TYPE 011438/5 DISPLAY 011372/TI,SO PRINT 011223/5

FOR ONLINE HELP:

See HELP FIELDS 358 for searchable fields; HELP FORMAT 358 for output formats; HELP LIMIT 358 for limits; HELP RATES 358 for cost information; HELP SORT 358 for sorts.