CA[SM]/HCA/ZCA (Chemical Abstracts)

Subject Coverage

- Analytical chemistry
- Applied chemistry
- Biochemistry
- Chemical engineering
- Macromolecular chemistry
- Organic chemistry

File Type

Bibliographic

Features

Thesauri	Classification Code (/CC), Company Name (/CO), Controlled Term (/CT), Cooperative Patent Classification (CPC), European Patent Classification (/ECLA), F-Term (/FTERM), ICO (in-computer-only) Classification (/ICO), International Patent Classifications (/IPC), National Patent Classifications Current (/NCL), National Patent Classifications Issue (/INCL), and Role (/RL)		
Alerts (SDIs)	Biweekly		
CAS Registry Number® Identifiers	☑	Page Images	☑
Keep & Share	☑	SLART	☑
Learning Database	☑	Structures	☑
Register Links	☑		

Record Content

- Bibliographic information, indexing, and available abstracts
- Claims from the following patent authorities: AU (2000-), BR (2000-), CH (1975-), CN (1985-), DE (1997-), EP (1979-), GB (1963-), IN (1987-), JP (1983-), KR (1986-), RU (1994-), TW (2000-), US (1906-), WO (1979-)
- Tags for claimed substances from CN, JP, KR, US and WO patents
- Patent Status Indicator information for patents and utility models
- Legal status information for U.S. patents since 1980
- Patent classifications: IPC, CPC, ECLA, ICO, NCL and FTERM
- Cited references for journals, conference proceedings, and basic patents from the U.S., EPO, WIPO, and German patent offices added to CAS databases since 1997
- Patent examiner citations from British and French patents (2003-present), Canadian patents (2005-present), Japanese patents (2011-present), as well as nearly 300,000 patent records from 1982-2008
- Citing references

File Size

More than 49.6 million records (10/2024)

Coverage

1907-present plus over 180,000 pre-1907 records

Updates

Weekly updates (more than 25,000 records)

Language

English

Database Producer

CAS
2540 Olentangy River Road
P.O. Box 3012
Columbus, Ohio 43210-0012 USA
Phone: 800-753-4227 (North America)
Phone: 614-447-3731 (worldwide)
Email: help@cas.org
Copyright Holder

Sources

- Journals: Thousands of journals are monitored. New indexed records are added weekly.
- Patents
- Conference Proceedings
- Electronic-only Journals
- Books
- Dissertations
- Reviews
- Technical Disclosures
- Web Pre-prints
- Meeting Abstracts

User Aids

- Support and training materials are available on the web: https://www.cas.org/training/solution/stn
- Online Helps (HELP DIRECTORY lists all help messages available)
- STNGUIDE

Clusters

None

Related Databases

- CAplus
- LCA

Search and Display Field Codes

Fields that allow left truncation are indicated by an asterisk (*). The minimum stem length for left truncation is three (3) characters.

General Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Basic Index * (contains single words from title (TI), supplementary term (ST), index term (IT), and abstract (AB) fields, as well as CAS Registry Numbers)	None (or /BI or /IA)	S 50-21-5 S TRANSGENIC COTTON S ?FLUOROCARBON? S (WATER(S)OIL)/BI	AB, IT, ST, TI
Basic Index plus Claims *	/BI,BIEX or /BI,CLM	S ALLOPURINOL/BI,BIEX S TRANSGENIC/BI,CLM(W)COTTON/BI,CLM	BIB CLM ALL CLM
Abstract *	/AB	S (WATER(1W)OIL)/AB S LD50/AB S HIGH TEMP?/AB S (HIV(S)TREAT?)/AB	AB
Accession Number	/AN	S 65:109061/AN	AN
Author (inventor)	/AU	S LEHNINGER A?/AU S (DUCHEYNE P?(S)EDITOR#)/AU S ANON/AU	AU, IN
CA Section Cross Reference **(1,2)** (number and title)	/SX	S 1/SX S ANALYTICAL/SX S RADIATION CHEMISTRY/SX	CC
Classification Code **(2,3)** (contains CA section-subsection number, if available, section title, and section group codes)	/CC (or /SC)	S 1/CC S 80-6/CC S TOXICOLOGY/CC S RADIATION CHEMISTRY/CC S L1 AND BIO/CC	CC
Classification Code Section Descriptor **(2)**	/CCN (or /SCN)	S TOXICOLOGY/SCN S RADIATION CHEMISTRY/CCN	SCN, CCN
Company Name **(3c)**	/CO	E DOW CHEMICAL/CO	CO, CS, PA
Controlled Term **(3c,4)**	/CT	S ANTITUMOR AGENTS/CT	CT, IT
Controlled Word **(4)**	/CW	S OPTIC?/CW	CT, IT
Corporate Source **(2)** (organization name, patent assignee)	/CS	S DOW/CS S DOW CHEM MIDLAND/CS S “DOW CORNING”?/CS	CS, PA
Country of Author	/CYA	S USA/CYA	CS, CYA, PA
Digital Object Identifier	/DOI (or /FTDOI)	S 10.1101?/DOI	DOI, FTDOI
Document Type (code and text)	/DT (or /TC)	S P/DT S PATENT/DT S REVIEW/DT	DT
Entry Date **(5)**	/ED	S ED>20010511 S ED>MAY 11, 2001	ED
Field Availability	/FA	S L1 AND ABS/FA	Not displayed
File Segment	/FS	S BIO/FS AND L2	FS
Index Term * **(6)**	/IT	S 75-28-5(2W)CRACKING OF/IT S DETN OF/IT	IT
International Standard (Document) Number (contains CODEN, ISBN, and ISSN) **(7)**	/ISN	S JOCRAM/ISN S 0021-9673/ISN	ISN, SO
Issue Number of Publication **(5,8)**	/IS	S 1-3/IS AND 32/VL	SO
Journal Title **(11)**	/JT	S J CHROMATOGR/JT S COMPT REND?/JT	JT, SO
Journal Title Keyword	/JTW	S NANO/JTW	SO

General Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
Language (code and text) **(9)**	/LA	S L1 AND EN/LA S L1 AND ENGLISH/LA S L1 NOT DE/LA	LA
Original Reference Number **(10)**	/OREF	S 63:5967A/OREF	OREF
Other Source **(1)**	/OS	S L1 AND MARPAT/OS	OS
Publication Date **(5)**	/PD	S PD>20010400 S JUNE 1992-SEPT 1993/PD	PI, SO
Publication Year **(5)**	/PY	S 1947-1949/PY	PI, PY, SO
Publisher **(2)**	/PB	S ACADEMIC/PB	PB
Publisher Item Identifier **(1)**	/PUI	S "S 0014-5793(96)01227-6"/PUI	PUI
CAS Registry Number (CAS RN) **(12)**	/RN	S 50-78-2/RN S 50-78-2D/RN S 50-78-2DP/RN S 50-78-2P/RN	RN
Role **(1,3)**	/RL	S 99685-96-8(L)SPN/RL S 99685-96-8/SPN S FULLERENES(L)SPN/RL S FULLERENES/SPN	IT, RL
Source (contains publication title, date, publisher, conference title, meeting date, volume, issue, pagination, CODEN, ISBN, ISSN, and URL) **(7)**	/SO	S INORG CHEM/SO S JOCRAM/SO S 0021-9673/SO S AM CERAM SOC/SO S 1992/SO	SO
Supplementary Term * **(1)**	/ST	S LIVER METAB?/ST	ST
Title *	/TI	S LIVER/TI S SPIN SPIN/TI S (METABOLISME(S)VEGETAUX)/TI	TI
Uniform Resource Locator **(1)**	/URL	S "HTTP://WWW.BIOSCIENCE.ORG/ BIOSCIENCE/1996/V1/D/CHINTALL/ /HTMLS/324-339.HTM"/URL	SO, URL
Update Date **(5)**	/UP	S L1 AND UP>20010400 S UP>APRIL 1, 2001	Not displayed
Update Date, Addition of Registered Substance **(5)**	/UPIT	S L2 AND UPIT>20080200	Not displayed
Volume and Issue of CA	/VI	S 41-17/VI	Not displayed
Volume Number of Publication **(5)**	/VL	S 105-106/VL AND SCIENCE/JT	VL, SO

(1) Content of this field is available for records from 1967 to the present with exception for select role coverage. ISBNs are included only for records added since December 17, 2001.
(2) Search with implied (S) proximity is available in this field.
(3) (a) PREP role uniquely assigned back to 1907. (b) SCLM role assignment corresponds to PatentPak claim tags coverage. (c) A thesaurus is available in this field.
(4) Pre-1967 subject index headings are searchable in the /CT and /CW field only if they matched the index headings in the CA Lexicon database. Unmatched pre-1967 subject headings are searchable as single words in the /IT and /BI fields.
(5) Numeric search field that may be searched with numeric operators or ranges.
(6) Stopwords are not removed from this field.
(7) ISBNs are included only for records added since December 17, 2001.
(8) Content of this field is available only for records from 1963 to the present.
(9) Language is available only for records from 1967 to the present and for some journals prior to 1967.
(10) OREF contains the CA volume number and page location information for abstracts published 1907-1966.
(11) Full Journal Titles are available for most records from 1907 to the present.
(12) Search for a non-specific derivative of a substance, a non-specific derivative's preparation, or a preparation by placing a "D", "DP", or "P" following the CAS RN. A non-specific derivative (D) is a compound that is not fully described in the source document. A "P" designation following a CAS RN means that the source document describes preparation of the specific compound. A "DP" denotes the preparation of the non-specific derivative.

Patent Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Claim * **(15)**	/CLM or /BIEX	S COBALT (L) SALT#/CLM	CLM
Cooperative Patent Classification **(3,13)**	/CPC	S C12N0009/CPC	CPC
Cooperative Patent Classification, Action Date	/CPC.ACD	S 20121113/CPC.ACD	CPC.TAB
Cooperative Patent Classification, Combination Sets	/CPC.CS	S (H01L2224-48091 (S) H01L2924-00014)/CPC.CS	CPC.TAB
Cooperative Patent Classification, Keywords **(13)**	/CPC.KW	S C12N0009/CPC (S) I/CPC.KW	CPC.TAB
Cooperative Patent Classification, Version	/CPC.VER	S 20130101/CPC.VER	CPC.TAB
Cooperative Patent Initial Classification	/CPCI	S A61K0006-0014/CPCI	CPCI
Country Number Count **(1)**	/CYC	S L1 AND 4-5/CYC	CY.CNT
Designated States **(2)**	/DS	S FR/DS;S R DE/DS	DS, PI
Designated States, Basic **(2)**	/DS.B	S DE/DS.B	DS, PI
European Classifications **(3)**	/ECLA (or /EPC or /EPCLA)	S C01B003/ECLA S C01B003/00D2/ECLA	CLASS, ECLA, EPC, EPCLA
European Classification Keywords	/ECLA.KW (or /EPC.KW or /EPCLA.KW)	S A1F1/ECLA.KW	CLASS, ECLA, EPC, EPCLA
Exemplary Claim * **(15)**	/ECLM	S COBALT (L) MIXTURE/ECLM	ECLM
Extended Basic Index	/BIEX or /CLM	S ALLOPURINOL/BIEX	CLM
Family Accession Number	/FAN	S 1998:98369/FAN	FAN
Family Accession Number Count **(1)**	/FAN.CNT (or FAM.CNT)	S L1 AND FAN.CNT>1	FAN
F-Terms (Patent Classifications from the Japanese Patent Office) **(4)**	/FTERM (or /FTCLA or /JPCLA)	S 4C002/BB03/FTERM S 4C002/FTERM	CLASS, FTERM, FTCLA, JPCLA
ICO (in-computer-only) Classification **(3)**	/ICO	S K61B0010:00L10/ICO	ECLA, EPC, EPCLA, ICO
International Patent Classification, Action Date **(1)**	/IPC.ACD	S 20050101/IPC.ACD	IPC.TAB
International Patent Classification, Additional or Supplementary **(2,6)**	/ICA	S B01J/ICA S B01J027/ICA S CYANOGEN/ICA	ICA
International Patent Classification, All **(5)**	/IPC	S A61K/IPC S A61K0031-473/IPC	IPC
International Patent Classification, Basic Patent	/IPC.B	S G01N0001-28/IPC.B	IPC.B
International Patent Classification, Index or Complementary **(2,6)**	/ICI	S A61K/ICI S A61K031/ICI S AMMONIA/ICI	ICI
International Patent Classification, Keywords	/IPC.KW	S G01N000128/IPC(S)BASIC/IPC.KW	IPC.TAB
International Patent Classification, Main **(2,6)**	/ICM	S A01N/ICM S A01N025/ICM S AMMONIA/ICM	IC, ICM
International Patent Classification, Main and Secondary **(6)**	/IC	S C07C/IC S C07C015/IC S C07C015-04/IC S CYANOGEN/IC	IC
International Patent Classification, Main Group, Range Searchable **(1,2,6)**	/MGR	S 10-20/MGR(S)C07C/IC	IC
International Patent Classification, Secondary **(2,6)**	/ICS	S C02F/ICS S C02F001/ICS S AMMONIA/ICS	IC, ICS
International Patent Classification, Subgroup, Range Searchable **(1,2,6)**	/SGR	S SGR=>30000(S)C01B031/IC	IC
International Patent Classification, Version	/IPC.VER	S 6/IPC.VER	IPC.TAB

Patent Search Fields (cont'd)

Search Field Name	Search Code	Search Examples	Display Codes
International Patent Initial Classification	/IPCI	S H01L0023-29/IPCI	IPCI
International Patent Reclassification	/IPCR	S C08L0061-00/IPCR	IPCR
Inventor	/IN	S PATTON JERRY R/IN	IN
National Patent Classification, Current (7)	/NCL (or /USNCL or /USCLA)	S 106035000/NCL S 106/035.000/NCL S 433/227-433/229/NCL S ZEOLITES/NCL	NCL, CLASS
National Patent Classification, Issue (8)	/INCL	S 433228000/INCL S 433/227-433/229/INCL	INCL, CLASS
National Patent Classification, Issue, Range Searchable (1,8)	/NCLR	S 106020000-106040000/NCLR	NCL, CLASS
Number of Claims (15)	/CLMN	S CLMN>20	CLMN
Patent Application Country	/AC	S DE/AC	AI, PI
Patent Application Country, Basic	/AC.B	S DE/AC.B	AI, PI
Patent Application Date (1,9)	/AD	S AD>19920100 S AD>JANUARY 20, 1993	AI, PI
Patent Application Date, Basic (1,4)	/AD.B	S 19970220/AD.B	AI, PI
Patent Application Number (2,10,14)	/AP	S EP83-304630/AP S 83EP-0304630/AP S JP87-10001/AP S 87JP-0010001/AP S US2013-13261341/AP S US2013-261341/AP	AI, PI
Patent Application Number, Basic (2,10,14)	/AP.B	S JP87-10001/AP.B	AI, PI
Patent Application Number Count	/AP.CNT	S 4/AP.CNT	Not displayed
Patent Application Year (1,9)	/AY	S 1990-1992/AY	AI, PI
Patent Application Year, Basic (1,9)	/AY.B	S AY.B>1997	AI, PI
Patent Assignee (11)	/PA	S PFIZER/PA S PFIZER CORP/PA S BADISCHE ANILIN/PA OR BASF/PA	PA
Patent Country	/PC	S WO/PC	PI
Patent Country, Basic	/PC.B	S JP/PC.B	PI
Patent Kind Code (2)	/PK	S DEA1/PK	PI
Patent Kind Code, Basic (2)	/PK.B	S DEA1/PK.B	PI
Patent Number (10)	/PN	S EP536930/PN S EP-536930/PN S WO8402426/PN S JP04000104/PN S JP62000031/PN S IP6243D/PN	PI
Patent Number, Basic (10)	/PN.B	S JP60008341/PN.B	PI
Patent Number Count (1)	/PNC (or /PN.CNT)	S 3/PNC	PN.CNT
Patent Number/Kind Code	/PNK	S US20050136407/PNK	PNK
Patent Number/Kind Code of the Basic Patent	/PNK.B	S US20050136407/PNK.B	PNK.B
Patent Status Established Date (**1**)	/STED	S 20210204/STED	STED
Patent Status Established Year (**1**)	/STEY	S 2021/STEY	STEY
Patent Status Indicator	/STI or /PSPI	S DEAD/STI S D/PSPI	STI PSPI
Patent Status Indicator Basic	/STI.B or /PSPI.B	S ALIVE/STI.B S A/PSPI.B	PSPI.B
Patent Status Update Date **(1)**	/STUP	S 20210204/STUP	Not displayed
Patent Status Update Year **(1)**	/STUY	S 2021/STUY	Not displayed
Priority Application Country	/PRC	S US/PRC	PRAI
Priority Application Country, Basic	/PRC.B	S US/PRC.B	PRAI
Priority Application Date (1,9)	/PRD	S PRD>19910600 S June 20 1991/PRD	PRAI
Priority Application Date, Basic (1,9)	/PRD.B	S PRD.B>19940100	PRAI

Priority Application Year (1,9) Priority Application Year, Basic (1,9)	/PRY /PRY.B	S 1990-1992/PRY S 1997/PRY.B	PRAI PRAI
Search Field Name	**Search Code**	**Search Examples**	**Display Codes**
Publication Date (Patent, Basic) (1) Publication Year (Patent, Basic) (1) Update Date Patent Family (1,2) Ultimate Owner Ultimate Owner Standardized Update Date Patent Family **(1,2)** Update Date, Maximum (contains /UP and /UPP) **(1,2)**	/PD.B /PY.B /UPP /UO /UOS /UPP /UPM	S 19980109/PD.B S 1990-1991/PY.B S US5837509/PN AND UPP>19990100 S MACRONIX INTERNATIONAL COMPANY LIMITED S MACRONIX S US5837509/PN AND UPP>19990100 S L1 and UPM>=20040400	PI PI UPP, PI UO UOS UPP, PI UPP

(1) Numeric search field that may be searched with numeric operators or ranges.
(2) Content of this field is available only for records starting in 1967.
(3) A thesaurus is available in this field.
(4) Content of this field is available only for records from January 2004 to the present. A thesaurus is available in this field.
(5) This field contains all IPCs (pre-IPC Reform and post-IPC Reform) for the basic patents and family members. A thesaurus is available in this field.
(6) This field contains the IPCs only for the basic patents published with pre-IPC Reform codes. This field will not be updated with the IPC Reform codes. Use the /IPC field to search all IPCs (pre-IPC Reform and post-IPC Reform) for the basic patent documents and family members.
(7) This field contains current US Patent Classifications applied to records for basic and family U.S. patents from 1907 to the present. An online thesaurus is available. Current National Patent Classifications may be range-searchable in Manual of Classification order. However, the /NCL field is not a numeric field and may not be searched using numeric operators.
(8) This field contains US Patent Classifications that were in effect when the patent was originally published. Content is available for basic patents only. An online thesaurus is available. Issued National Patent Classifications may be range-searchable in Manual of Classification order. However, the /INCL field is not a numeric field and may not be searched using numeric operators.
(9) Data are available from 1962 (vol. 56) to the present.
(10) Either STN or Derwent format may be used.
(11) Search with implied (S) proximity is available in this field.
(12) U.S. provisional priority numbers are searched only with the P appended, e.g., US1999-121903P/PRN.
(13) When searching combinations of CPC and CPC.KW data, use (T) proximity operator.
(14) Application numbers for U.S. utility patents from series code 13 forward, design patents (series code 29) and provisional patent applications (series code 60 and 61) may be searched either with or without their series code. Include the series code if known to ensure precision. Note that provisional patent application numbers searched without their series codes must have a P appended to the end of the number (e.g., US2013-686038P). Series code information is not available for U.S. patent application numbers with series codes below 13.
(15) Coverage includes PCT (WO), US, and China, from 1999 to present (November 2020).

Super Search Fields

Enter a super search code to execute a search in one or more fields that may contain the desired information. Super search fields facilitate crossfile and multifile searching. EXPAND may not be used with super search fields. Use EXPAND with the individual field codes instead.

Search Field Name	Search Code	Fields Searched	Search Examples	Display Codes
Cooperative Patent Classification **(3)**	/CPC	/CPCI, /CPCR	S C09K2200-0655/CPC	CPC, CPCI, CPCR
IPC of the Basic Patent (Old version of the /IPC super search field) **(1)**	/IPC.OLD	/IC, /ICA, /ICI	S A01B/IPC/OLD S A01B001/IPC.OLD	IC, ICA, ICI
Patent Application and Priority Number **(2,3,4)**	/APPS	/AP, /PRN	S DE84-3400052/APPS S 84DE-3400052/APPS S US2013-13261341/APPS S US2013-261341/APPS	APPS, AI, PI, PRAI
Patent Application and Priority Number, Basic **(2,3,4)**	/APPS.B	/AP.B, /PRN.B	S DE84-3400052/APPS.B	APPS.B, AI, PI, PRAI
Patent Countries	/PCS	/PC, /DS	S DE/PCS	DS, PI
Patent Countries, Basic	/PCS.B	/PC.B, /DS.B	S AT/PCS.B	DS, PI
Patent Numbers **(3)**	/PATS	/PN	S EP536930/PATS S EP-536930/PATS S WO8402426/PATS S JP04000104/PATS S JP62000031/PATS	PI, SO
Patent Numbers, Basic **(3)**	/PATS.B	/PN.B	S WO9850074/PATS.B	PATS.B, PI, SO

(1) Numeric search field that may be searched with numeric operators or ranges.
(2) Content of these fields is available only for records from 1967 to the present.
(3) Either STN or Derwent format may be used.
(4) Application numbers for U.S. utility patents from series code 13 forward, design patents (series code 29) and provisional patent applications (series code 60 and 61) may be searched either with or without their series code. Include the series code if known to ensure precision. Note that provisional patent application numbers searched without their series codes must have a P appended to the end of the number (e.g., US2013-686038P). Series code information is not available for U.S. patent application numbers with series codes below 13.

Cited References Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Cited Reference (contains referenced author, inventor, or assignee, year, volume, page, work title, or patent number)	/RE (or /CIT)	S BLONDELLE S, 1999?/RE S DE 3604874?/RE	RE
Cited Reference Accession Number in Caplus	/RAN.CAPLUS	S 1995:998201/RAN.CAPLUS	Not displayed
Cited Reference Accession Number in CA	/RAN.CA	S 122:196348/RAN.CA	Not displayed
Cited Reference Accession Number in MEDLINE	/RAN.MED	S 96233652/RAN.MED	Not displayed
Cited Reference Author Name	/RAU	S O REILLY/RAU	RE
Cited Reference File Availability	/FILE.CIT	S L1 AND CAPLUS/FILE.CIT S L1 AND MEDLINE/FILE.CIT	Not displayed
Cited Reference Inventor Name	/RIN	S ABBOTT ?/RIN	RE
Cited Reference Page Number (first)	/RPG	S 200/RPG	RE
Cited Reference Patent Country Code	/RPC	S DE/RPC	RE
Cited Reference Patent Kind Code	/RPK	S DEA1/RPK	RE
Cited Reference Patent Number	/RPN	S US5792845/RPN	RE
Cited Reference Publication Year **(1)**	/RPY	S 1997-1998/RPY	RE
Cited Reference Series Issue Number	/RIS	S (2 OR 3)/RIS	RE
Cited Reference Series Volume Number	/RVL	S (3 OR 4)/RVL	RE
Cited Reference Source Information **(2)** (contains year, volume, issue, page, and publication title)	/RSO	S (MOL AND BIOL AND 1997)/RSO	RE
Cited Reference Work (Publication Title)	/RWK	S CANCER RES/RWK	RE
Cited References Count **(1)**	/RE.CNT (or /REC)	S REC>0 S 1-20/RE.CNT	RE.CNT (REC)

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

Citing References Search Fields

Search Field Name	Search Code	Search Examples	Display Codes
Citing Reference Accession Numbers	/OS.G (/OS.CITING.AN)	S 2008:610804/OS.G	OS.G
Citing Reference Count **(1)**	/OSC.G (/CITING.CNT)	S 2-5/OSC.G	OSC.G
Date Last Citing Reference Entered STN	/UPOS.G (/CITING.UP)	S 16 Feb 2009/UPOS.G S UPOS.G>20090216	UPOS.G
Update Date, Citing Reference **(1)**	/UPOG	S 20091026/UPOG	UPOS.G

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

REGISTRY Search Fields

You can search directly in CA any REGISTRY search term, including structures, with REG1stRY. To search a REGISTRY term in CA, enter the SEARCH command and your term followed by the REGISTRY field code, followed by /REG, e.g., SEARCH FENFLURAMINE/CN/REG. The REGISTRY search and crossover to CA are executed automatically and only the final CA answer set L-number is shown.

To suppress the automatic REG1stRY processing when searching CAS Registry Numbers in CA, enter SET REG1stRY OFF at an arrow prompt. To retain the OFF setting beyond the current session, enter SET REG1stRY OFF PERM at an arrow prompt.

Enter HELP FIRST at an arrow prompt in CA for more information.

CA Section (/CC) Thesaurus

The CA Section (/CC) thesaurus is available for records from 1907 to the present.

All Relationship Codes may be used with both the SEARCH and EXPAND command in the /CC thesaurus.

Code	Content	Examples
ALL	All associated terms (BT, SELF, NOTE, HNTE, OLD, CUR, REPL, NT)	E 57 CERAMICS, 1967 TO PRESENT+ALL/CC
BT	Broader Terms (BT, SELF)	E 1 PHARMACOLOGY, 1982 TO PRESENT+BT/CC
CUR	Current Terms (SELF, CUR)	E 1 PHARMACODYNAMICS, 1972-1981+CUR/CC
HIE	Hierarchy (Broader and Narrower Terms) (BT, SELF, NT)	E 31 ALKALOIDS, 1967 TO PRESENT+HIE/CC
HIS	History (SELF, HNTE, CUR, OLD, REPL)	E 17 FOOD AND FEED CHEMISTRY, 1982 TO PRESENT+HIS/CC
HNTE	History Note (SELF, HNTE)	E 1 PHARMACOLOGY, 1982 TO PRESENT+HNTE/CC
KT	Keyword Terms (SELF, KT)	E TOXICITY+KT/CC
NOTE	Notes associated with the term (SELF, NOTE, HNTE)	E 4 TOXICOLOGY, 1972 TO PRESENT+NOTE/CC
NT	Narrower Terms (SELF, NT)	E 4 TOXICOLOGY, 1972 TO PRESENT+NT/CC
RT	Related Terms (SELF, RT)	E 33 CARBOHYDRATES, 1967 TO PRESENT+RT/CC
STD	Standard (Broader Terms, Notes, Narrower Terms) (BT, SELF, HNTE, NOTE, NT)	E 32 STEROIDS, 1967 TO PRESENT+STD/CC
UF	Used For (Forbidden Terms) (SELF, UF)	E 32 STEROIDS, 1967 TO PRESENT+UF/CC
USE	Use (Preferred Terms) (SELF, USE)	E IMMUNOCHEMISTRY+USE/CC

Field Descriptors for the /CC Thesaurus

Code	Description
→	Self
BT	Broader Term (CA section grouping)
CUR	Current Term (current CA section)
HNTE	History Note (section history note)
KT	Keyword Terms (thesaurus terms containing the SELF term)
NOTE	Note (CA section content note)
NT	Narrower Term (subsections for CA sections from 1972 to the present)
OLD	Old Term (previously used sections)
REPL	Replacing Term (more recent, but not current, section)
RT	Related Term (related concurrently existing sections)
UF	Used for Term (non-preferred terms or sections)
USE	Use Term (preferred terms)

Company Name (/CO) Thesaurus Search Aid

The Company Name thesaurus search aid is available in the /CO field with the most frequently occurring major company names for records from 1907 to the present.

All Relationship Codes may be used with both the SEARCH and EXPAND command in the /CO field.

Code	Content	Examples
ALL	All Associated Terms (CNUM, NAME, SELF, RT, NOTE)	E DOW CHEMICAL CO+ALL/CO
CNUM	CAS Assigned Number (CNUM, SELF, NOTE, NAME, RT)	E HONDA MOTOR CO LTD+CNUM/CO
NAME	Highest level company name information (NAME, SELF, NOTE, RT)	E DOW CHEMICAL+NAME/CO E ANGUS CHEMICAL COMPANY+NAME/CO
NOTE	Note (SELF, NOTE)	E CANON INC+NOTE/CO
RT	Related Term (SELF, RT, NAME, NOTE)	E CANON INC+RT/CO

Field Descriptors for the Company Name Thesaurus Search Aid

Code	Description
→	Self
NAME	Preferred name for the highest level company name
CNUM	CAS Assigned Number to identify each company family
NOTE	Note associated with the term
RT	Related Term

Controlled Term (/CT) Thesaurus for the CA Lexicon

The CA Lexicon is an online search tool for the CA indexing terms for concepts, chemical classes, and taxonomic vocabulary. The thesaurus is available for records from 1967 to the present.

All Relationship Codes may be used with both the SEARCH and EXPAND command in the /CT thesaurus.

Code	Content	Examples
ALL	All Associated Terms except for LT terms (BT, SELF, HN, NOTE, UF, USE, OLD, NEW, NT, RT, RTCS)	E AZO DYES+ALL/CT
BT	Broader Terms (BT, SELF, HN)	E BRAIN+BT/CT
HIE	Hierarchy (Broader and Narrower Terms) (BT, SELF, NT)	E BOROXINS+HIE/CT
KT	Keyword Terms (SELF, KT)	E DYES+KT/CT
HN	History Note (HN)	E PHOTOLYSIS+HN/CT
LT	Linking Terms (index heading modifying term)	E RADIOLYSIS+LT/CT
MAX	All Associated Terms, including LT terms (BT, SELF, HN, NOTE, UF, USE, OLD, NEW, NT, RT, RTCS, LT)	E DRUG DELIVERY SYSTEMS+MAX/CT
NEW	New Terms (replace OLD terms)	E NEOPLASM INHIBITORS+NEW/CT
NOTE	Notes associated with the term (SELF, HN, NOTE)	E FISH+NOTE/CT
NT	Narrower Terms (SELF, NT)	E ANTIBIOTICS+NT/CT
OLD	Old term (replaced by NEW term)	E ANTITUMOR AGENTS+OLD/CT
PFT	Preferred and Forbidden Terms (SELF, OLD, NEW, USE, UF)	E PERFUMES+PFT/CT
RT	Related Terms (SELF, RT, RTCS)	E PHOTORESISTS+RT/CT
RTCS	Related Chemical Substance Terms (SELF, RTCS)	E REFRIGERANTS+RTCS/CT
STD	Standard Terms (SELF, BT, HN, NOTE, NT, RT, RTCS)	E SUNSCREENS+STD/CT
UF	Used For (Forbidden terms) (SELF, UF)	E ARECA CATECHU+UF/CT
USE	Use Terms (SELF, USE)	E BETEL NUT+USE/CT

Field Descriptors for the /CT Thesaurus

Code	Description
→	Self
BT	Broader Term
HN	History Note
KT	Keyword Terms
NOTE	Indexing Note
NT	Narrower Term
RT	Related Term
UF	Used For
USE	Use
RTCS	Related Chemical Substance Terms
LT	Linking Terms (index heading modifying term)
OLD	Old term (replaced by NEW term)
NEW	New Terms (replace OLD terms)

CPC (/CPC) Thesaurus

The Cooperative Patent Classification (CPC) is jointly developed and maintained by the European Patent Office and the US Patent and Trademark Office. This thesaurus is available in the /CPC search field. All relationship codes can be used with both the EXPAND and SEARCH commands.

Relationship Code	Content	Search Examples
ALL	All usually required terms (BT, SELF, CODE, DEF)	E C12M0001-005+ALL/CPC
AUTO **(1)**	Automatic relationship (BT, SELF, CODE, DEF)	E G01J003-443+AUTO/CPC
BT	Broader terms (BT, SELF)	E G01J0003-443+BT/CPC
CODE	Classification Code (SELF, CODE)	E CARTRIDGES+CODE/CPC
DEF	Definition (SELF, DEF)	E B65G0045-16+DEF/CPC
HIE	Hierarchy terms (all broader and narrower terms) (BT, SELF, DEF, NT)	E A01B0001-00+HIE/CPC
KT	Keyword terms (SELF, KT)	E LASER+KT/CPC
MAX	All associated terms	E G01J0003-44+MAX/CPC
NEXT	Next classification within the same class (SELF, NEXT)	E A01B0001-24+NEXT/CPC
NEXT(n)	Next n classification within the same class	E A01B0001-24+NEXT3/CPC
NT	Narrower terms	E G05B0001-04+NT/CPC
PREV	Previous Code within the same class (SELF, PREV)	E G05B0019-00+PREV/CPC
PREV(n)	Previous n classifications within the same class	E G05B0019-00+PREV2/CPC
TI	Complete Title of SELF Term and Broader Terms (BT, SELF)	E G05B0001-03+TI/CPC

(1) Automatic Relationship is SET OFF. In case of SET REL ON the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

European Patent Classification (/ECLA or /EPC) and ICO Thesauri

These thesauri are available in the /EPC search field (for ECLA codes) and /ICO search field (for in-computer-only codes). All relationship codes can be used with both the EXPAND and SEARCH commands. Note that the EPC replaced ECLA and ICO in 2013.

Relationship Code	Content	Search Examples
ALL	All associated terms	E C12M0001-34H2+ALL/EPC
AUTO **(1)**	Automatic relationship (BT, SELF, CODE, DEF)	E G01J003-443+AUTO/EPC
BT	Broader terms (BT, SELF, DEF)	E G01J0003-443+BT/EPC
CODE	Classification Code (SELF, CODE)	E SCRAPER BIASING MEANS+CODE/EPC
DEF	Definition (SELF, DEF)	E B65G0045-16+DEF/EPC
HIE	Hierarchy terms (all broader and narrower terms) (BT, SELF, DEF, NT)	E A01B0001+HIE/EPC
KT	Keyword terms (SELF, KT)	E LASER+KT/EPC
MAX	All associated terms	E G01J0003-44B+MAX/EPC
NEXT	Next classification within the same class (SELF, NEXT, DEF)	E A01B0001-24+NEXT/EPC
NEXT(n)	Next n classification within the same class	E A01B0001-24+NEXT3/EPC
NT	Narrower terms (SELF, NT, DEF)	E G05B0001-04+NT/EPC
PREV	Previous Code within the same class (PREV, SELF, DEF)	E G05B0019-418N1+PREV/EPC
PREV(n)	Previous n codes within the same class	E G05B0019-418N1+PREV2/EPC
TI	Complete Title of the SELF Term and Broader Terms (BT, SELF, DEF)	E G05B0001-03+TI/EPC

(1) Automatic Relationship is SET OFF. In case of SET REL ON the result of EXPAND or SEARCH without any relationship code is the same as described for AUTO.

F-Term Thesaurus

This thesaurus is available in the F-Term (/FTERM) field that contains patent classifications from the Japanese Patent Office in records from January 2004 to the present.

Code	Content	Example
ALL	All associated terms (BT, SELF,TI, NT)	E 4K001/AA16+ALL/FTERM
BRO(n) **(1)**	Browse n preceding and following Classifications	E 4K001/AA20+BRO3/FTERM
BT	Broader Terms (BT, SELF)	E 4K001/AA25+BT/FTERM
HIE	Hierarchy (BT, SELF, NT)	E 4K001/AA14+HIE/FTERM
NEXT(n) **(1)**	Next n Classifications	E 4K001/AA16+NEXT5/NCL
NT	Narrower Terms (SELF, NT)	E 4K001+NT/FTERM
PREV(n) **(1)**	Previous n Classifications	E 5K002+PREV3/FTERM
RT	Related term	E 4K001+RT/FTERM
TI	Complete Title of the SELF Term	E 4K001/AA07+TI/FTERM

(1) When using this code in the F-Term thesaurus, you must specify a number between 1-999 as shown in example.

Field Descriptors for the F-Term Thesaurus

Code	Description
→	Self
BT	Broader Term
NT	Narrower Term
TI	Title

IPC Thesaurus

The classifications and catchwords for the main headings and subheadings from the current (8th) edition of the WIPO International Patent Classification (IPC) manual are available. The classifications from the previous editions (1-7) are also available as separate thesauri. To EXPAND and SEARCH in the thesauri for editions 1-7, use the field code followed by the edition number, e.g., /IPC2, for the 2nd edition. Catchwords are included only in the thesauri for the 8th, 7th, 6th, and 5th editions. The IPC thesauri are available for records from 1967 to the present.

Code	Content	Examples
ALL	All Associated Terms (BT, SELF, NT, RT)	E C01C003-00+ALL/IPC
ADV	Advanced Terms (SELF, ADVANCED)	E A01N0047-02+ADV/IPC
BRO (MAN)	Complete Class	E C01C+BRO/IPC
BT	Broader Terms (BT, SELF)	E C01F001-00+BT/IPC
COR	Core Terms (SELF, CORE)	E A01N0041-12+COR/IPC
ED	Complete title of the SELF term and IPC manual edition	E C01F001-00+ED/IPC
HIE	Hierarchy Terms (Broader and Narrower Terms) (BT, SELF, NT)	E C01C003-00+HIE/IPC
INDEX	Complete title of the SELF term	E C01F001-00+INDEX/IPC
KT	Keyword Terms (catchwords) (SELF, KT)	E CYANOGEN+KT/IPC
NEXT	Next Classification	E C01C001-00+NEXT5/IPC
NT	Narrower Terms (SELF, NT)	E C01C+NT/IPC
PREV	Previous Classification	E C01C001-12+PREV10/IPC
RT (SIB)	Related Terms (SELF, RT)	E C01C003-20+RT/IPC
TI	Complete Title of the SELF Term and Broader Terms (BT, SELF)	E C01F001-00+TI/IPC

Field Descriptors for the IPC Thesaurus

Code	Description
→	Self
BT	Broader Term
KT	Keyword Term
NT	Narrower Term
RT	Related Term
TI	Title

National Patent Classification Thesaurus

A thesaurus is present for the National Patent Classification, Current (/NCL) and the National Patent Classification, Issue (INCL) fields. Note that the CPC replaced the NCL in 2013.

Code	Content	Example
ALL	All associated terms (BT, SELF,TI, NT)	E 210190000+ALL/NCL
BRO(n)	Browse n preceding and following Classifications	E 502060000+BRO3/NCL
BT	Broader Terms (BT, SELF)	E 502060000+BT/NCL
HIE	Hierarchy (BT, SELF, NT)	E 502060000+HIE/NCL
KT	Keyword Terms **(1)** (SELF, KT)	E ZEOLITES+KT/NCL
NEXT(n)	Next n Classifications	E 210660000+NEXT5/NCL
NT	Narrower Terms (SELF, NT)	E 502060000+NT/NCL
PREV(n)	Previous n Classifications	E 210665000+PREV3/NCL
RT	Related Term	E 220+RT/NCL
TI	Complete Title of the SELF Term	E 502060000+TI/NCL

(1) Keyword terms are the catchwords corresponding to the USPTO Manual of Classifications subject index headings and subheadings.

Field Descriptors for the National Patent Classification Thesaurus

Code	Description
→	Self
BT	Broader Term
KT	Keyword Term
NT	Narrower Term
TI	Title

Role (/RL) Thesaurus

The thesaurus is available for records from 1967 to the present.

Code	Content	Examples
ALL	All associated terms, including Notes (BT, SELF, NOTE, NT)	E SPN+ALL/RL
BT	Broader Terms (SELF, BT)	E CAT+BT/RL
HIE	Hierarchy Terms (Broader and Narrower Terms) (BT, SELF, NT)	E FFD+HIE/RL
NOTE	Any Notes (role definitions) (SELF, NOTE)	E IMF+NOTE/RL
NT	Narrower Terms (SELF, NT)	E USES+NT/RL

Field Descriptors for the Role Thesaurus

Code	Description
→	Self
BT	Broader Term
NOTE	Note
NT	Narrower Term

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; D L1 1-5 TI,AU. The fields are displayed or printed in the order requested.

Hit term highlighting is available in all fields except FAN. In the table-like display of the PI (Patent Information) field, highlighting is shown by an arrow on the right side pointing to the line that includes the hit terms. Highlighting must be on during SEARCH in order to use the FHITSEQ, FHITSTR, HIT, HITIND, HITRN, HITSEQ, HITSTR, KWIC, and OCC display formats.

Format	Content	Examples
AB	Abstract Text	D TI AB
AI (AP) **(1,2)**	Patent Application Information	D AI
AI.B (AP.B) **(1,2)**	Patent Application Information, Basic	D AI.B
AN	Accession Number and Original Reference Number	D 1-5 AN
AU	Author Name	D AU, TI
CC (SC)	CA Classification Code (CA section and section cross-references)	D CC
CCN (SCN)	CA Classification Code Section	D SCN
CLM **(2)**	Claim Text	D CLM
CLM(n) **(2)**	Claim Text for Claim n	D CLM(9)
CLMN	Number of Claims	D CLMN
CO	Corporate Name	D CO
CPC	Cooperative Patent Classification	D CPC
CPC.TAB	CPC, Tabular Display	D CPC.TAB
CPC.UNIQ	CPC codes unique for a basic patent and equivalents	D CPC.UNIQ
CPCI	CPC Initial Classification	D CPCI
CPCR	CPC Reclassification	D CPCR
CS	Corporate Source	D TI AU CS
CS.DIV	Corporate Source Division	D CS.DIV
CS.ORG	Corporate Source Organization	D CS.ORG
CT **(2)**	Controlled Term	D CT
CUR **(3)**	Patent Currency Status	D CUR ALL
CYA **(2)**	Country of Author	D CYA
CYC (CY.CNT) **(2)**	Patent Country Count	D CYC
DOI (FTDOI)	Digital Object Identifier	D DOI
DS **(2)**	Designated States	D DS
DS.B **(2)**	Designated States, Basic	D DS.B
DT (TC)	Document Type	D DT
ECLA (EPC, EPCLA)	Patent Family European Classifications associated with patent numbers	D ECLA
ED **(2)**	Entry Date	D ED
ECLM **(2)**	Exemplary Claim	D ECLM
FS **(2)**	File Segment	D FS
FTERM (FTCLA, JPCLA)	File Forming Terms from the Japanese Patent Office associated with patent numbers	D FTERM
GI **(2)**	Graphic Image or Graphic Image Information	D GI
IC	Main and Secondary IPC	D IC
ICA	Additional or Supplementary IPC	D ICA
ICI	Index or Complementary IPC	D ICI
ICM	Main IPC	D ICM
ICO	ICO Classification	D ICO
ICS	Secondary IPC	D ICS
IN	Inventor Name	D IN
INCL	Issued National Classification	D INCL
IPC.B	IPC of the Basic Patent	D IPC.B
IPC.F	IPC, First Invention	D IPC.F
IPC.TAB	IPC, Tabular Display	D IPC.TAB
IPC.UNIQ	IPC codes unique for a basic patent and equivalents	D IPC.UNIQ
IPCI	IPC Initial Classification	D IPCI
IPCR	IPC Reclassification	D IPCR
ISN **(2)**	International Standard (Document) Number	D ISN
IT **(4)**	Index Term and Role	D AN IT

Format	Content	Examples
JT **(2)**	Journal Title, Abbreviated	D JT
JTA **(2)**	Journal Title	D JT
JTF **(2,5,7)**	Journal Title, Full	D JTF 1-3
LA	Language	D LA
LSUS **(2)**	Legal status information for U.S. patents	D LSUS
NCL	National Patent Classification, Current	D PI IC NCL
OREF **(5)**	Original Reference Number	D OREF
OS	Other Source	D TI OS
OS.G (OS.CITING.AN)	Citing Reference Accession Numbers	D OS.G
OSC.G (CITING.CNT)	Citing Reference Count	D OSC.G
PA	Patent Assignee	D PA
PB	Publisher	D PB
PI **(1)**	Patent Information Table	D TI PI
PI.B (PN.B) **(1,2)**	Patent Information, Basic	D PI.B
PN	Patent Number	D PN
PNC (PN.CNT) **(2)**	Patent Number Count	D PNC
PNK	Patent Number/Kind Code	D PNK
PNK.B	Patent Number/Kind Code of the Basic Patent	D PNK.B
PRAI (PRN) **(1)**	Priority Application Information	D PRAI
PRAI.B (PRN.B) **(1,2)**	Priority Application Information, Basic	D PRAI.B
PSPI	Patent Status Patent Information Table	D PSPI
PSPI.B	Patent Status Information, Basic	D PSPI.B
PUI **(2)**	Publisher Item Identifier	D PUI
PY (2)	Publication Year	D TI PY
PY.B (2)	Publication Year, Basic	D TI PY.B
RE **(5)**	Cited References	D TI RE
RETABLE **(2,5)**	Cited References Table	D TI AU RETABLE
RE.CNT (REC) **(5)**	Cited References Count	D REC
RL **(4)**	Index Term and Role	D RL
RN **(2)**	CAS Registry Number	D AN RN
RNK **(10)**	Rank, Relevance Score	D RNK
RNKM **(10)**	Rank Multifiles	D RNKM
SO	Source	D TI AU SO
ST	Supplementary Term (CA Keyword)	D ST
STED	Patent Status Established Date	D STED, D PSPI
STEY	Patent Status Established Year	D STEY, D PSPI
STI	Patent Status Indicator	D STI, D PSPI
SX **(2,7)**	CA Section Cross Reference Code	D TI SX
TI	Title of Document	DIS TI 1-10
UPOS.G (CITING.UP)	Date Last Citing Reference Entered STN	D UPOS.G
UPP **(1)**	Update Date, Patent Family	D UPP
URL **(2)**	Uniform Resource Locator	D URL
ABS	GI, AB	D ABS
ALL **(1,4)**	AN, OREF, ED, TI, AU, IN, CS, PA, UO, UOS, SO, DOI, PB, DT, LA, CLMN, CC, FAN.CNT, PI, PRAI, CLASS, OS, GI, AB, ST, IT, RL, OSC.G, UPOS.G, OS.G, RE, RE.CNT	D 1-30 ALL
APPS **(1)**	AI, PRAI	D APPS
APPS.B **(1)**	AI, PRAI (for Basic Patent)	D APPS.B
BIB **(1)**	AN, OREF, TI, AU, IN, CS, PA, UO, UOS, SO, DOI, PB, DT, LA, FAN.CNT, PI, PRAI, OS, OSC.G, RE.CNT (BIB is the default)	D 1 3
CAN	List of CA Abstract Numbers, no L-number headers)	D CAN
CBIB (1)	AN, OREF, plus compressed bibliographic data	D L2 1 CBIB
CLASS	Classifications (IPC, CPC, NCL, ECLA, ICO and FTERM codes) associated with basic patent and family members	D CLASS
CPC	CPCI, CPCR for the basic patent and patent family members	D CPC
CPC.TAB	CPC, CPC.KW, CPC.ACD, CPC.VER in tabular format	D CPC.TAB
CPC.UNIQ	Deduplicated list of CPC codes for the patent family	D CPC.UNIQ
DMAX **(1,4)**	MAX, delimited for post-processing	D MAX
FAM	AN, FAN.CNT, PI for the accession number, plus PI for other family accession numbers	D FAM

Format	Content	Examples
FAN	Family Accession Number (AN, FAN.CNT, FAN)	D FAN
FBIB **(1)**	BIB plus PI for other family accession numbers	D FBIB
IABS **(1,4)**	ABS, with text labels	D IABS
IALL **(1,4)**	ALL, indented with text labels	D IALL
IBIB	BIB, indented with text labels	D IBIB
IMAX **(1,4)**	MAX, indented with text labels	D IMAX
IND **(4)**	INCL, IPCI, IPCR, CPCI, CPCR, NCL, ECLA, ICO, FTERM, CC, SX, ST, IT, RL	D TI IND
IPC	International Patent Classifications for the basic patent and patent family members	D L2 1 IPC
IPC.B	IPC of the Basic Patent	D IPC.B
IPC.TAB	IPC, Tabular Display	D IPC.TAB
IPC.UNIQ	IPC codes unique for a basic patent and equivalents	D IPC.UNIQ
ISTD **(1)**	STD, indented with text labels	D ISTD
MAX **(1,4)**	ALL, plus FAN and PI for other family accession numbers	D MAX
OBIB **(1)**	BIB, Original, without patent family data (AN, OREF, TI, AU, IN, CS, PA, SO, DOI, PB, PI, PRAI, DT, LA, OS)	D OBIB
OIBIB **(1)**	OBIB, indented with text labels	D OIBIB
OSG	OSC.G, UPOS.G, OS.G (up to 50 accession numbers)	D OSG
OSG.MAX	OSC.G, UPOS.G, and OS.G (up to 1020 accession numbers)	D OSG.MAX
OS.GMAX	OS.G (up to 1020 accession numbers)	D OS.GMAX
PATS	PI, SO	D PATS
PATS.B	PI, SO for basic patents	D PATS.B
SAM (SAMPLE) **(4)**	INCL, IPCI, IPCR, CPCI, CPCR, NCL, ECLA, ICO, CC, TI, ST, IT, RL	DIS SAM 1-5
SBIB **(1)**	BIB, Standard, without cited references (AN, OREF, TI, AU, IN, CS, PA, SO, DOI, PB, DT, LA, FAN.CNT, PI, PRAI, OS)	D 1 3 SBIB
SCAN **(5,9)**	INCL, IPCI, IPCR, CPCI, CPCR, NCL, ECLA, ICO, FTERM, CC, TI, ST, IT fields will appear if available (random display, no answer numbers)	D SCAN
SIBIB **(1)**	BIB, without RE.CNT	D SIBIB
CPC.HIT (HITCPC)	HIT display of CPC code searched	D CPC.HIT or D HITCPC
FHITSEQ	First hit CAS Registry Number, its role, text modification, its CA index name, and the sequence diagram	D CBIB FHITSEQ
FHITSTR	First hit CAS Registry Number, its role, text modification, its CA index name, and the structure diagram	D CBIB FHITSTR
HIT	Fields containing hit terms	D HIT 1-5
HITIND	NCL, CC, ST, IT, and RL containing hit terms	D HITIND
HITRN	Hit CAS Registry Number, its role, and text modification	D HITRN
HITSEQ	Hit CAS Registry Number, its role, text modification, its CA index name, and its sequence diagram	D HITSTR KWIC
HITSTR	Hit CAS Registry Number, its role, text modification, its CA index name, and its structure diagram	D HITSTR KWIC
IPC.HIT (HITIPC)	Hit IPC	D IPC.HIT or D HITIPC
KWIC	Hit terms plus 20 words on either side (Key-Word-In-Context)	D 1-7 TI KWIC
OCC **(5)**	Number of occurrences of hit terms and fields in which they occur	D OCC

(1) By default, patent, application, and priority numbers are displayed in STN format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset the display to STN format, enter SET PATENT STN.
(2) Custom display only.
(3) CUR must be entered on the command line, e.g., D CUR. The patent status information displays before the requested records.
(4) By default, roles are displayed as codes and text. To suppress display of role codes and text, enter SET ROLES OFF. To display only codes, enter SET ROLES CODES.
(5) No online display fee for this format.
(6) Full journal titles are available for most records from 1907.
(7) SX displays all information in the CC field, i.e., CA section and section cross-references.
(8) The PAGE format is used in the DISPLAY command to download images of pages of printed CA with abstracts published in 1907-1998. If the abstract is located on more than one page, all the relevant pages are automatically downloaded.
(9) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.
(10) The RNK and RNKM formats display only the hit term occurrence ranking for the record, with the following line: RELEVANCE SCORE ##. RNK is for the single file environment, while RNKM is for the multifile environment.

Displaying CAplus, CA, or MEDLINE documents for cited references

Enter the following in the DISPLAY command: L-number for the answer set; answer number (only one may be specified); RAN.CAPLUS(x-y), RAN,CA(x-y), RAN.MED(x-y), where (x-y) is the cited reference number, numbers, or range of numbers; and the display format for the document to display, e.g., BIB ABS. For example, to display CA records for the cited references 1 and 2 from answer 2 in the answer set L5, enter the following:

=> **D RAN.CA(1-2) L5 2 BIB ABS**

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 **(2)**	N
Author	AU	Y	Y
CA Classification Code (section and subsection)	CC	Y	Y
CA Classification Code Section Descriptor	CCN (SCN)	Y	Y
CA Section Cross-Reference	SX	Y	Y
CAS Registry Number	RN	Y **(2)**	N
Citation	CIT	Y **(3,4)**	N
Cited References	RE	Y	N
Cited Reference(n)	RE(n)	Y **(5)**	N
Cited Reference Accession Number in CA	RAN.CA	Y **(6)**	N
Cited Reference Accession Number(n) in CA	RAN.CA(n)	Y **(5,6)**	N
Cited Reference Accession Number in MEDLINE	RAN.MED	Y **(7)**	N
Cited Reference Accession Number(n) in MEDLINE	RAN.MED(n)	Y **(5,7)**	N
Cited Reference Author Name	RAU	Y	N
	RIN	Y **(8)**	N
Cited Reference Count	RE.CNT (REC)	Y	Y
Cited Reference Page Number (first)	RPG	Y	N
Cited Reference Patent Number	RPN	Y	N
Cited Reference Publication Year	RPY	Y	N
Cited Reference Volume Number	RVL	Y	N
Cited Reference Work Title	RWK	Y	N
Citing Reference Accession Numbers (up to 50)	OS.G (OS.CITING.AN)	Y	N
Citing Reference OS.G Information (up to 1020 accession numbers)	OS.GMAX	Y	N
Citing Reference Information (OSC.G, UPOS.G, OS.G)(up to 1020 accession numbers)	OSG.MAX	Y	N
Citing Reference Count	OSC.G (CITING.CNT)	Y	Y
Citing Reference Date	UPOS.G (CITING.UP)	Y	Y
Claim Text	CLM	Y	N
CODEN	CODEN	Y **(9)**	Y
Company Name	CO	Y	Y
Controlled Term	CT	Y	Y
CPC Classification	CPC	Y	N
CPC, Initial	CPCI	Y	N
CPC, Reclassified	CPCR	Y	N
CPC Hit Display	CPC.HIT (HITCPC)	N	Y
CPC Codes Deduplicated for patent family	CPC.UNIQ	N	Y
Corporate Source	CS	Y	Y
Corporate Source, Division	CS.DIV	Y	N
Corporate Source, Organization	CS.ORG	Y	N
Country Name of Author	CYA	Y	Y
Designated States	DS	Y	N
Designated States, Basic	DS.B	Y **(4,10)**	N
Digital Object Identifier	DOI (FTDOI)	N	Y
Document Type	DT (TC)	Y	Y
Entry Date	ED	Y	Y

SELECT, ANALYZE, and SORT Fields (cont'd)

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
European Classifications	ECLA (EPC, EPCLA)	Y	N
Exemplary Claim Text	ECLM	T **(4,11)**	N
Family Accession Number	FAN	Y **(4,11)**	N
File Forming Terms	FTERM (FTCLA, JPCLA)	Y	N
File Segment	FS	Y **(4)**	Y
Genbank Number	GENBANK (GBN)	Y **(2,4)**	N
ICO Classification	ICO	Y	N
Index Term	IT	Y	N
International Standard Book Number	ISBN	Y **(12)**	Y
International Standard (Document) Number	ISN	Y **(12)**	N
International Standard Serial Number	ISSN	Y **(12)**	Y
Inventor Name	IN	Y	Y
IPC	IPC	Y **(13)**	N
IPC Initial Classification	IPCI	Y	N
IPC Reclassification	IPCR	Y	N
IPC, Additional or Supplementary	ICA	Y	Y
IPC, Basic Patent	IPC.B	Y **(13)**	N
IPC, First	IPC.F	Y **(13)**	N
IPC, Index or Complementary	ICI	Y	Y
IPC, Main	ICM	Y	Y
IPC, Main and Secondary	IC	Y	Y
IPC, Secondary	ICS	Y	Y
Issued National Classification	INCL	Y	Y
Journal Title	JT	Y	Y
Journal Title, Abbreviated	JTA	Y **(13)**	Y
Journal Title, Full	JTF	Y **(14)**	Y
Language	LA	Y	Y
National Patent Classification, Current	NCL	Y	N
Occurrence of Hit Terms	OCC	N	Y
Original Reference Number	OREF	Y **(4,11)**	Y
Other Source	OS	Y	Y
Patent Application Country	AC	Y **(4)**	Y
Patent Application Country, Basic	AC.B	Y **(4,15)**	Y
Patent Application Date	AD	Y **(4)**	Y
Patent Application Date, Basic	AD.B	Y **(16)**	Y
Patent Application Information	AI	Y **(4,17,18)**	Y
Patent Application Information, Basic	AI.B	Y **(4,17,18)**	Y
Patent Application Number	AP	Y **(4,18)**	Y
Patent Application Number, Basic	AP.B	Y **(17,18)**	Y
Patent Application and Priority Number	APPS	Y **(4,18,19)**	N
Patent Application and Priority Number, Basic	APPS.B	Y **(4,18,19)**	N
Patent Application Year	AY	Y	Y
Patent Application Year, Basic	AY.B	Y **(20)**	Y
Patent Assignee	PA	Y	Y
Patent Countries	PCS	Y **(4,21)**	N
Patent Countries, Basic	PCS.B	Y **(4,21)**	N
Patent Country	PC	Y **(4)**	Y
Patent Country, Basic	PC.B	Y **(4,22)**	Y
Patent Country Count	CYC (CY.CNT)	Y **(23)**	N
Patent Information	PI	Y **(4,18,24)**	Y
Patent Information, Basic	PI.B	Y **(18,24)**	Y
Patent Kind Code	PK	Y **(4)**	Y
Patent Kind Code, Basic	PK.B	Y **(4,25)**	Y
Patent Number	PN	Y **(4,18)**	Y
	PATS	Y **(4,18,26)**	N

SELECT, ANALYZE, and SORT Fields (cont'd)

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Patent Number, Basic	PN.B	Y **(18,24)**	Y
	PATS.B	Y **(18,24)**	N
Patent Number Count	PNC (PN.CNT)	Y **(29)**	N
Patent Number/Kind Code	PNK	Y	Y
Patent Number/Kind Code of the Basic Patent	PNK.B	Y	Y
Priority Application Country	PRC	Y **(4)**	Y
Priority Application Country, Basic	PRC.B	Y **(4,30)**	Y
Priority Application Date	PRD	Y **(4)**	Y
Priority Application Date, Basic	PRD.B	Y **(31)**	Y
Priority Application Information	PRAI	Y **(4,18,32)**	Y
Priority Application Information, Basic	PRAI.B	Y **(18,32)**	Y
Priority Application Number	PRN	Y **(4,18)**	Y
Priority Application Number, Basic	PRN.B	Y **(18,32)**	Y
Priority Application Year	PRY	Y **(4)**	Y
Priority Application Year, Basic	PRY.B	Y **(33)**	Y
Publication Date	PD	Y **(4)**	Y
Publication Date, Basic	PD.B	Y **(34)**	Y
Publication Year	PY	Y	Y
Publication Year, Basic	PY.B	Y **(35)**	Y
Publisher	PB	Y	N
Publisher Item Identifier	PUI	Y	N
Role	RL	Y **(4)**	N
Source of Document	SO	Y **(36)**	N
Supplementary Term	ST	Y	N
Title	TI	Y (default)	Y
Treatment Code	TC	Y **(37)**	Y
Ultimate Owner	UO	Y **(38)**	Y
Ultimate Owner Standardized	UOS	Y **(39)**	Y
Uniform Resource Locator	URL	Y	N
Volume Number	VL	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 RN.
(2) Appends /BI to the terms created by SELECT.
(3) Extracts first author, publication year, volume, and first page with a truncation symbol appended and with /RE appended to the terms created by SELECT.
(4) SELECT HIT and ANALYZE HIT are not valid with this field.
(5) (n) may be a single number, range, or list of numbers separated by a space or comma.
(6) Selects or analyzes cited reference accession number in CA or CAplus and appends /AN to the terms created by SELECT.
(7) Selects or analyzes cited reference accession number in MEDLINE and appends /AN to the terms created by SELECT.
(8) Selects or analyzes cited reference author name and appends /RAU to the terms created by SELECT.
(9) Selects or analyzes the CODEN and appends /ISN to the terms created by SELECT.
(10) Appends /DS to the terms created by SELECT.
(11) Appends /AN to the terms created by SELECT.
(12) Appends /ISN to the terms created by SELECT.
(13) Selects or analyzes the IC, ICA, ICI and appends /IPC to the terms created by SELECT.
(14) Selects or analyzes JTF and appends /JT to the terms created by SELECT.
(15) Appends /AC to the terms created by SELECT.
(16) Appends /AD to the terms created by SELECT.
(17) Appends /AP to the terms created by SELECT.
(18) Enter SET PATENT DERWENT at an arrow prompt (=>) to SELECT or ANALYZE patent, application, and priority numbers in Derwent format.
(19) Appends /APPS to the terms created by SELECT.
(20) Appends /AY to the terms created by SELECT.
(21) Selects or analyzes the country codes and appends /PCS to the terms created by SELECT.
(22) Appends /PC to the terms created by SELECT.
(23) Appends /CY.CNT to the terms created by SELECT.
(24) Appends /PN to the terms created by SELECT.
(25) Appends /PK to the terms created by SELECT.
(26) Selects or analyzes the Patent Number and appends /PATS to the terms created by SELECT.
(27) Appends /PN to the terms created by SELECT.
(28) Selects or analyzes Basic Patent Number and appends /PATS to the terms created by SELECT.
(29) Appends /PN.CNT to the terms created by SELECT.

Continued on next page

(30) Appends /PRC to the terms created by SELECT.
(31) Appends /PRD to the terms created by SELECT.
(32) Appends /PRN to the terms created by SELECT.
(33) Appends /PRY to the terms created by SELECT.
(34) Appends /PD to the terms created by SELECT.
(35) Appends /PY to the terms created by SELECT.
(36) Selects or analyzes the CODEN and the ISSN and appends /SO to the terms created by SELECT.
(37) Appends /DT to the terms created by SELECT.
(38) Appends /UO to the terms created by SELECT.
(39) Appends /UOS to the terms created by SELECT.

Sample Records

DISPLAY ALL (Patent)

```
L2   ANSWER 1 OF 265280  CA  COPYRIGHT 2020 ACS on STN
AN   173:950723  CA
ED   Entered STN:  03 Dec 2020
TI   Radio wave absorber
IN   Hashimoto, Hirokazu
PA   Fujifilm Corporation, Japan
UO   FUJIFILM HOLDINGS CORP.
UOS  Fujifilm
SO   PCT Int. Appl., 55pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
CLMN 9
CC   76-14 (Electric Phenomena)
     Section cross-reference(s): 49, 77
FAN.CNT 1
     PATENT NO.          KIND  DATE        APPLICATION NO.          DATE
     --------------      ----  --------    ---------------------    --------
PI   WO 2020230709        A1   20201119    WO 2020-JP18622          20200508
PRAI JP 2019-91327        A    20190514
PSPI
     PATENT NO.          KIND  STATUS          STATUS DATE
     ---------------     ----  -------------   -----------
     WO 2020230709        A1   Alive           20201202
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------- -----  ----------------------------------------------
 WO 2020230709   IPCI   H05K0009-00 [I]; C01G0049-00 [I]; C08K0003-22 [I];
                        C08L0101-00 [I]; H01F0001-34 [I]; H01F0001-37 [I];
                        H01Q0017-00 [I]
                 IPCR   H05K0009-00 [I]; C01G0049-00 [I]; C08K0003-22 [I];
                        C08L0101-00 [I]; H01F0001-34 [I]; H01F0001-37 [I];
                        H01Q0017-00 [I]
AB   Provided is a radio wave absorber contg. a magnetic powder and a binder,
     wherein the vol. filling rate of the magnetic powder in the radio wave
     absorber is .ltoreq.35 vol.%, and the radio wave absorber has a
     transmission attenuation amt. of .gtoreq.8.0 dB and a reflection
     attenuation amt. of .gtoreq.8.0 dB.
ST   radio wave absorber
IT   Binders
     Magnetic powders
     Radio wave
        (manufg. of radio wave absorber)
IT   Polyolefin rubber
     RL: PEP (Physical, engineering or chemical process); TEM (Technical or
     engineered material use); PROC (Process); USES (Uses)
        (manufg. of radio wave absorber)
IT   Ferrites
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (manufg. of radio wave absorber)
```

...

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IT   7782-61-8, Ferric nitrate nonahydrate   7784-13-6, Aluminum chloride
     hexahydrate   10025-70-4, Strontium chloride hexahydrate   10025-77-1,
     Ferric chloride hexahydrate   10026-22-9, Cobalt nitrate hexahydrate
     13494-90-1, Gallium nitrate   13693-11-3, Titanium sulfate
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (manufg. of radio wave absorber)
```

DISPLAY BIB LSUS (Patent)

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L1   ANSWER 1 OF 1  CA  COPYRIGHT 2013 ACS on STN
AN   149:264451  CA  Full-text
TI   MicroRNA expression abnormalities in pancreatic endocrine and acinar
     tumors
IN   Croce, Carlo M.; Calin, George A.
PA   The Ohio State University Research Foundation, USA
SO   PCT Int. Appl., 133 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   WO 2007081680        A2    20070719    WO 2007-US24           20070103
     WO 2007081680        A3    20071227
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
             KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AP, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             EA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, EP, AT, BE, BG, CH, CY,
             CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV,
             MC, NL, PL, PT, RO, SE, SI, SK, TR, OA, BF, BJ, CF, CG, CI, CM,
             GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2007205257        A1    20070719    AU 2007-205257         20070103
     CA 2635616           A1    20070719    CA 2007-2635616        20070103
     EP 1968622           A2    20080917    EP 2007-716208         20070103
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
     JP 2009521952        T     20090611    JP 2008-549532         20070103
     US 20080306018       A1    20081211    US 2008-160064         20080703
     US 7670840           B2    20100302
     CN 101384273         A     20090311    CN 2007-80005791       20080818
     US 20100197774       A1    20100805    US 2010-700286         20100204
PRAI US 2006-756502P      P     20060105
     WO 2007-US24         W     20070103
     US 2008-160064       A3    20080703
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ASSIGNMENT HISTORY FOR US 20080306018

LSUS  RAD:    20080703
      RAUP:   20081211
      RAK:    ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
      PAO:    CROCE, CARLO M. (DATE EXECUTED: 20080627)
              CALIN, GEORGE A. (DATE EXECUTED: 20080616)
      RAC:    THE OHIO STATE UNIVERSITY, 1960 KENNY ROAD, COLUMBUS, OHIO 43210,
              UNITED STATES
      RAA:    MACMILLAN SOBANSKI & TODD, LLC, ONE MARITIME PLAZA FIFTH FLOOR,
              720 WATER STREET, TOLEDO, OH 43604-1619
      MRN:    21195     MFN: 793  (5 Page(s))

LSUS  RAD:    20090330
      RAUP:   20090330
      RAK:    ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
      PAO:    THE OHIO STATE UNIVERSITY (DATE EXECUTED: 20090327)
      RAC:    THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION, 1216 KINNEAR ROAD,
              COLUMBUS, OHIO 43212, UNITED STATES
      RAA:    MACMILLAN, SOBANSKI & TODD, LLC, 720 WATER STREET, ONE MARITIME
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               PLAZA, FIFTH FLOOR, TOLEDO, OH 43604
      MRN:     22469     MFN: 445  (4 Page(s))

LSUS  RAD:     20080703
      RAUP:    20100302
      RAK:     ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
      PAO:     CROCE, CARLO M. (DATE EXECUTED: 20080627)
               CALIN, GEORGE A. (DATE EXECUTED: 20080616)
      RAC:     THE OHIO STATE UNIVERSITY, 1960 KENNY ROAD, COLUMBUS, OHIO 43210,
               UNITED STATES
      RAA:     MACMILLAN SOBANSKI & TODD, LLC, ONE MARITIME PLAZA FIFTH FLOOR,
               720 WATER STREET, TOLEDO, OH 43604-1619
      MRN:     21195     MFN: 793  (5 Page(s))

LSUS  RAD:     20090330
      RAUP:    20100302
      RAK:     ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
      PAO:     THE OHIO STATE UNIVERSITY (DATE EXECUTED: 20090327)
      RAC:     THE OHIO STATE UNIVERSITY RESEARCH FOUNDATION, 1216 KINNEAR ROAD,
               COLUMBUS, OHIO 43212, UNITED STATES
      RAA:     MACMILLAN, SOBANSKI & TODD, LLC, 720 WATER STREET, ONE MARITIME
               PLAZA, FIFTH FLOOR, TOLEDO, OH 43604
      MRN:     22469     MFN: 445  (4 Page(s))
OSC.G   10     THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (22 CITINGS)
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DISPLAY OSG

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L1   ANSWER 1 OF 1  CA  COPYRIGHT 2013 ACS on STN
OSC.G   10     THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
UPOS.G  Date last citing reference entered STN:  27 Feb 2012
OS.G    CAPLUS 2012:181723; 2010:1328434; 2010:548903; 2009:1288101;
               2009:637424; 2007:75901; 2005:702147; 2005:3368; 2003:236743;
               2001:230866
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DISPLAY IPC.TAB

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L1   ANSWER 1 OF 1  CA  COPYRIGHT 2013 ACS on STN

PI   WO 2007081680

IPCI CODE       VERSION  POS INV CC ASSIGNMENT   DATE   STAT
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A61N0001-30     (200601)  F   I  US Human      20070719  O
A61K0038-00     (200601)  F   I  US Human      20071227  O
A61K0038-00     (200601)  F   I  US Human      20071227  O
C12Q0001-58     (200601)  L   I  US Human      20071227  O
C12Q0001-58     (200601)  L   I  US Human      20071227  O

IPCR CODE       VERSION  POS INV CC ASSIGNMENT   DATE   STAT
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A61N0001-30     (200601)  F   I  US Human      20070719  O

PI   AU 2007205257

IPCI CODE       VERSION  POS INV CC ASSIGNMENT   DATE   STAT
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A61K0038-00     (200601)  F   I  US Human      20080129  O
A61K0038-00     (200601)  F   I  US Human      20080129  O
C12Q0001-58     (200601)  L   I  US Human      20080129  O
C12Q0001-58     (200601)  L   I  US Human      20080129  O
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• • •

DISPLAY ALL (PRE-1907 JOURNAL RECORD)

L1 ANSWER 1 OF 1 CA COPYRIGHT 2013 ACS on STN
AN 0:419 CA Full-text
ED Entered STN: 07 Dec 2003
TI CIII. - A new synthesis of phloroglucinol
AU Jerdan, David Smiles
CS Heidelberg University Chemical Laboratory, Heidelberg, Germany
SO Journal of the Chemical Society, Transactions (1897), 71, 1106-1114
CODEN: JCHTA3; ISSN: 0368-1645
DOI 10.1039/ct8977101106
DT Journal
LA English
CC 10 (Organic Chemistry)
OS CASREACT 0:419
AB Recent researches in the terpene series, and especially investigations into the nature of camphor, have led to the development of various formulae to represent the constitution of the latter. Especially prominent within the last few years have been the formulae proposed by Tiemann and others, in which camphor is represented as containing two variously substituted pentamethylene rings, which have three carbon atoms in common. The proposed formulae may also be described as consisting of a substituted hexamethylene ring in which two carbon atoms in the para position are united by single bonds to a seventh carbon atom. At the suggestion of the late Professor Victor Meyer, the author made various experiments with a view to the synthesis of a substance of analogous constitution. Although, unfortunately, the end in view was not attained, the experiments resulted in a new synthesis of phloroglucinol from ethylic acetonedicarboxylate, and thus added another to the many known methods of passing from the fatty to the aromatic series. Phloroglucinol itself has already been prepared synthetically from another member of the fatty series by Baeyer (Ber., 1885, 18, 3457) who, by heating the monosodium derivative of ethylic malonate, obtained the ethylic salt of phloroglucinoltricarboxylic acid. The ethereal salt, when melted with potash, yielded phloroglucinol.
IT Charcoal, bone
Crystallization
Etherification
Fractionation
Hydrazones
Hydrolysis
Lactones
Wood, pine
(new synthesis of phloroglucinol)
IT 64-17-5, Ethyl alcohol 64-19-7, Acetic acid 67-56-1, Methyl alcohol 67-66-3, Chloroform 71-43-2, Benzene 76-22-2, Camphor 100-63-0, Phenylhydrazine 105-50-0, Ethyl acetonedicarboxylate 106-93-4, Ethylene dibromide 107-07-3, Ethylene chlorhydrin 108-73-6, Phloroglucinol 124-38-9, Carbon dioxide 141-82-2, Malonic acid 497-19-8, Sodium carbonate 513-77-9, Barium carbonate 7440-23-5, Sodium 7647-01-0, Hydrogen chloride 7664-93-9, Sulfuric acid 7705-08-0, Ferric chloride 7726-95-6, Bromine 7783-89-3, Silver bromate 8002-05-9, Petroleum 8032-32-4, Ligroin 17194-00-2, Barium hydroxide 129874-08-4, Terpene
(new synthesis of phloroglucinol)

EXPAND in the CA Section Thesaurus (/CC)

```
=> E CERAMICS+ALL/CC

E1      506928   -->  CERAMICS/CC
E2        1860     USE  17 CERAMICS, 1962 ONLY/CC
E3        9758     USE  21 CERAMICS, 1963-1966/CC
E4      490140     USE  57 CERAMICS, 1967 TO PRESENT/CC
********** END **********

=> E E4+ALL

E5     7573149   BT1  APPLIED/CC
E6      490140     -->  57 CERAMICS, 1967 TO PRESENT/CC
                      NOTE THIS SECTION INCLUDES THE PREPARATION, COMPOSITION,
                           ANALYSIS, PROPERTIES, AND USES OF GLASS, CERAMICS,
                           GLAZES, ENAMELS, REFRACTORIES, CLAY PRODUCTS,
                           ABRASIVES, AND CARBON PRODUCTS. ORGANIC GLASSES ARE
                           INCLUDED IN SECTION 37. STUDIES OF RAW MATERIALS ARE
                           INCLUDED IN SECTION 53 WHEN THE INTEREST IS OF
                           GEOLOGICAL SIGNIFICANCE AND ULTIMATE USE IS
                           INCIDENTAL. CERMETS CONTAINING MORE THAN ONE PERCENT
                           METAL ARE INCLUDED IN SECTION 56. SOME SPECIFIC USES
                           AND PROPERTIES OF CERAMICS ARE COVERED IN OTHER
                           SECTIONS (E.G., 63, 65, 75, AND 76).
E7        1860       OLD  17 CERAMICS, 1962 ONLY/CC
E8         496       OLD  19 GLASS AND CERAMICS, 1908-1909/CC
E9        4422       OLD  19 GLASS AND CERAMICS, 1911-1920/CC
E10       1044       OLD  19 GLASS AND POTTERY, 1906-1907/CC
E11      46601       OLD  19 GLASS, CLAY PRODUCTS, REFRACTORIES, AND ENAMELED
                           METALS, 1921-1961/CC
E12        252       OLD  20 GLASS AND CERAMICS, 1910 ONLY/CC
E13       9758       OLD  21 CERAMICS, 1963-1966/CC
E14          0       NT1  57-0 CERAMICS, 1972 TO PRESENT, REVIEWS/CC
E15          0       NT1  57-1 CERAMICS, 1972 TO PRESENT, GLASS (OXIDE AND
                           NONOXIDE GLASSES)/CC
E16          0       NT1  57-2 CERAMICS, 1972-1981, CLAYS AND CLAY PRODUCTS/CC
E17          0       NT1  57-2 CERAMICS, 1982 TO PRESENT, CERAMICS/CC
E18          0       NT1  57-3 CERAMICS, 1972-1981, GLAZES/CC
E19          0       NT1  57-3 CERAMICS, 1982 TO PRESENT, PORCELAIN/CC
E20          0       NT1  57-4 CERAMICS, 1972-1981, WHITEWARE/CC
E21          0       NT1  57-4 CERAMICS, 1982 TO PRESENT, GLAZES AND GLASSY
                           COATINGS/CC
E22          0       NT1  57-5 CERAMICS, 1972-1981, REFRACTORIES/CC
E23          0       NT1  57-5 CERAMICS, 1982 TO PRESENT, CLAYS AND CLAY
                           PRODUCTS/CC
E24          0       NT1  57-6 CERAMICS, 1972-1981, ABRASIVES/CC
E25          0       NT1  57-6 CERAMICS, 1982 TO PRESENT, REFRACTORIES/CC
E26          0       NT1  57-7 CERAMICS, 1972-1981, OTHER/CC
E27          0       NT1  57-7 CERAMICS, 1982 TO PRESENT, ABRASIVES/CC
E28          0       NT1  57-8 CERAMICS, 1982 TO PRESENT, CARBON PRODUCTS/CC
E29          0       NT1  57-9 CERAMICS, 1982 TO PRESENT, OTHER/CC
********** END **********
```

EXPAND in /CT Thesaurus for the CA Lexicon

=> E SUNFLOWER+ALL/CT

```
E1        7005   -->  Sunflower/CT
                    HNTE Valid heading during volumes 1-135 (1907-2001) only.
E2        8213     NEW  Helianthus annuus/CT
********** END **********
```

=> E AZO DYES+ALL/CT

```
E1       18639   BT3  Chemical compounds/CT
E2       75233     BT2  Organic compounds/CT
E3       10402       BT1  Azo compounds/CT
E4       42595   BT3  Materials/CT
E5       41181     BT2  Coloring materials/CT
E6      169970       BT1  Dyes/CT
E7       16529         -->  Azo dyes/CT
                         HNTE Valid heading during volume 126 (1997) to
                              present.
E8                       OLD  Dyes (L) azo/CT
E9       12082           OLD  Dyes, azo/CT
E10                      UF   Azo dye/CT
E11                      UF   Azodye/CT
E12          0           NT1  4-(Dimethylamino)azobenzene/CT
E13          0           NT1  4-Amino-4'-nitroazobenzene/CT
E14          0           NT1  4-Aminoazobenzene/CT
E15        303           NT1  Acid azo dyes/CT
E16          0             NT2  Acid Red 1/CT
E17          0             NT2  Acid Red 14/CT
E18          0             NT2  Acid Red 88/CT
E19          0             NT2  Acid Yellow 36/CT
E20          0             NT2  Amaranth (dye)/CT
E21          0             NT2  Eriochrome Black T/CT
E22          0             NT2  Methyl orange/CT
E23          0             NT2  Methyl red/CT
E24          0             NT2  New Coccine/CT
E25          0             NT2  Orange G/CT
E26          0             NT2  Sunset Yellow/CT
E27          0             NT2  Tartrazine/CT
E28          0             NT2  Trypan blue/CT
E29          0           NT1  Allura Red 40/CT
E30         14           NT1  Azo dye intermediates/CT
E31         17           NT1  Basic azo dyes/CT
E32          0           NT1  Carmine 6B/CT
E33        131           NT1  Cationic azo dyes/CT
E34        144           NT1  Direct azo dyes/CT
E35          0             NT2  Congo red/CT
E36          0             NT2  Trypan blue/CT
E37        925           NT1  Disperse azo dyes/CT
E38          0             NT2  Disperse Blue 165/CT
E39          0             NT2  Disperse Blue 291/CT
E40          0             NT2  Disperse Blue 79/CT
E41          0             NT2  Disperse Red 1/CT
E42          0             NT2  Disperse Violet CW/CT
E43          0           NT1  Pigment Orange 36/CT
E44          0           NT1  Pigment Yellow 12/CT
E45          0           NT1  Pigment Yellow 128/CT
E46          0           NT1  Pigment Yellow 180/CT
E47          0           NT1  Pigment Yellow 74/CT
E48       1519           NT1  Reactive azo dyes/CT
E49          0             NT2  4-(2-Sulfatoethylsulfonyl)aniline/CT
E50         43             NT2  Tetrazolium dyes/CT
E51          0               NT3  Nitro Blue Tetrazolium/CT
E52          0           NT1  Solvent Red 24/CT
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Continued on next page

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E53          0           NT1  Sudan Black B/CT
E54          0           NT1  Sudan I/CT
E55          0           NT1  Sudan II/CT
E56        427           RT   Formazans/CT
E57       1313           RT   Stains, coloring materials/CT
E58                      RTCS 2,5-Dimethoxyaniline/CT
E59                      RTCS 4-Phenylazophenol/CT
********** END **********
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EXPAND in /RL Thesaurus

```
=> E PREP+ALL/RL
E1     5299444   -->  PREP/RL
E2     5299444        Preparation/RL
                  NOTE Vol. 1 (1907) to present -  Assigned to a substance in
                       studies of the synthesis of the substance as a
                       distinct chemical entity, formed with preparative
                       intent, via a chemical, biochemical, or nuclear
                       reaction. The recovery, purification, separation, or
                       other intentional formation with preparative intent of
                       a desired substance also receives a PREP role.
E3       85501     NT1  BMF/RL
E4      190130     NT1  BPN/RL
E5       64754     NT1  BYP/RL
E6        2933     NT1  CPN/RL
E7      713210     NT1  IMF/RL
E8      173903     NT1  PNU/RL
E9      375278     NT1  PUR/RL
E10    2529014     NT1  SPN/RL
********** END **********
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EXPAND in the Company Name (/CO) Thesaurus Search Aid

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=> E DOW CHEMICAL+NAME/CO

E1       17194     NAME DOW CHEMICAL CO/CO
E2          88   -->  DOW CHEMICAL/CO
********** END **********

=> E E1+ALL

E3           0     CNUM CAS1000235/CO
E4       17194   -->  DOW CHEMICAL CO/CO
                       NOTES 1886: Joy Morton & Co. established
                       1897: Dow Chemical Co. incorporated
                       1898: Firma Johann Haltermann founded
                       1900: Midland Chemical Co. merged into Dow Chemical Co.
                       1907: Rohm & Haas Co. founded
                       1910: Joy Morton & Co. renamed Morton Salt Co.
                       1917: Union Carbide & Carbon Corp. incorporated
                       1920: Carbide and Carbon Chemicals Corp. established
                       1933: Ethyl Dow Co. formed
                       1940: Carlisle Chemical Co. founded
                       1942: Dow Chemical of Canada organized
                       1955: Carlisle Chemical Co. acquired Advance Solvents
                       & Chemical Co.
                       1957: Shipley Co. founded
                       1957: Union Carbide & Carbon Corp. renamed Union
                       Carbide Corp.
                       1970: Rodel Inc. established
                       1980: Carlisle Chemical Co. renamed Carstab Corp.
                       1989: DowElanco formed
                       1989: Morton International, Inc. acquired Carstab Corp.
                       1992: Rohm & Haas Co. acquired Shipley Co.
                       1995: Union Carbide Corp. acquired Shell Polypropylene
                       Company
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                        1997: ChiroTech Technology Ltd. established
                        1997: Dow Chemical Co. acquired full ownership of Dow
                        Mitsubishi Chemical Ltd.
                        1998: Dow Chemical Co. acquired Hampshire Chemical
                        Corp.
                        1998: Dow Chemical Co. acquired Mycogen Corp.
                        1998: Dow Chemical Co. acquired Sentrrachem Ltd.
                        integrated
                        1999: Dow Chemical Co. acquired Angus Chemical Company
                        1999: Rohm & Haas Co. acquired LeaRonal, Inc.
                        1999: Rohm & Haas Co. acquired Morton International,
                        Inc.
                        2001: Dow-Reichhold Specialty Latex LLC formed
                        2001: Dow Chemical Co. acquired ChiroTech Technology
                        Ltd.
                        2001: Dow Chemical Co. acquired Haltermann AG
                        2001: Dow Chemical Co. acquired Michael Cotts Chemicals
                        2001: Dow Chemical Co. acquired Union Carbide Corp.
                        2004: Shipley Co. and Rodel Inc. merged to form Rohm &
                        Haas Electronic Materials
                        2006: Dow Chemical Co. acquired Zhejiang Omex
                        Environmental Engineering Ltd
                        2007: Dow Chemical Co. acquired Wolff Walsrode AG
                        2008: Dow-Reichhold Specialty Latex LLC dissolved
                        2009: Dow Chemical Co. acquired Rohm & Haas
E5          40     RT1  ADVANCE SOLVENTS CHEMICAL CORP/CO
E6          32     RT1  AGRIGENET ADV SCI CO/CO
E7          33     RT1  AGRIGENET CORP/CO
E8          66     RT1  AGRIGENETICS INC/CO
E9          14     RT1  AGRIGENETICS RESEARCH ASSOCIATES LTD/CO
E10         18     RT1  AMERCHOL CORP/CO
E11         19     RT1  AMERCHOL CORPORATION/CO
E12          9     RT1  ANGUS CHEM CO/CO
E13         36     RT1  ANGUS CHEMICAL CO/CO
E14         65     RT1  ANGUS CHEMICAL COMPANY/CO
E15         13     RT1  ANGUS CHEMIE GMBH/CO
E16          8     RT1  AWD TECHNOLOGIES INC/CO
E17         13     RT1  BENFIELD CORP/CO
E18          2     RT1  BORIDE PRODUCTS INC/CO
E19         65     RT1  BUNA SOW LEUNA OLEFINVERBUND G M B H/CO
E20         52     RT1  BUNA SOW LEUNA OLEFINVERBUND GMBH/CO
E21         68     RT1  BUSHY RUN RES CENT/CO
E22         11     RT1  CARBIDE AND CARBON CHEM CO/CO
• • •
E323         1     RT1  UNION CARBIDE SERVICES K K/CO
E324         1     RT1  UNION CARBIDE SOUTH AFRICA PTY LTD/CO
E325         1     RT1  UNION CARBIDE STELLITE CO/CO
E326        12     RT1  UNION CARBIDE TECH CENT/CO
E327         9     RT1  UNION CARBIDE TECHNICAL CENTER/CO
E328         1     RT1  UNION CARBIDE THAILAND LTD/CO
E329         6     RT1  UNION CARBIDE U K LTD/CO
E330         6     RT1  UNION CARBIDE UK LTD/CO
E331         2     RT1  WESTERN CARBIDE CORP/CO
E332        12     RT1  WOLFF CELLULOSICS G M B H CO K G/CO
E333        16     RT1  WOLFF CELLULOSICS GMBH CO KG/CO
E334       242     RT1  WOLFF WALSRODE A G/CO
E335       115     RT1  WOLFF WALSRODE AG/CO
E336        21     RT1  WOLFF WALSRODE AKTIENGESELLSCHAFT/CO
E337         1     RT1  WOLFF WALSRODE GMBH CO KG/CO
E338        11     RT1  ZHEJIANG OMEX ENVIRONMENTAL ENGINEERING CO LTD/CO
E339         4     RT1  ZHEJIANG OMEX ENVIRONMENTAL ENGINEERING LIMITED/CO
E340        13     RT1  ZHEJIANG OMEX ENVIRONMENTAL ENGINEERING LTD/CO
********** END **********
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EXPAND in the International Patent Classification (/IPC) Thesaurus

=> E A23G001-00/IPC

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E#   FREQUENCY    AT     TERM
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E1       13332    24     A23G/IPC
E2        2925            A23G0001/IPC
E3        2261    25 --> A23G0001-00/IPC
E4         178     2     A23G0001-02/IPC
E5         190    10     A23G0001-04/IPC
E6           1            A23G0001-05/IPC
E7          21     2     A23G0001-06/IPC
E8           3     2     A23G0001-08/IPC
E9           1            A23G0001-09/IPC
E10         52     2     A23G0001-10/IPC
E11         16     2     A23G0001-12/IPC
E12          3     2     A23G0001-14/IPC
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=> E E3+ALL

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E13          0   BT4   A/IPC
                       SECTION A - HUMAN NECESSITIES
E14          0   BT4   FOODSTUFFS; TOBACCO/IPC
E15          0   BT3   A2/IPC
E16          0   BT2   A23/IPC
                       FOODS OR FOODSTUFFS; THEIR TREATMENT, NOT COVERED BY
                       OTHER CLASSES
                       Note
                       (1) Attention is drawn to the following places:
                       - Polysaccharides, derivatives thereof
                       - Animal or vegetable oils, fats, fatty substances or
                       waxes
                       - Biochemistry, beer, spirits, wine, vinegar
E17      13332   BT1   A23G/IPC
                       COCOA; COCOA PRODUCTS, e.g. CHOCOLATE; SUBSTITUTES FOR
                       COCOA OR COCOA PRODUCTS; CONFECTIONERY; CHEWING GUM;
                       ICE-CREAM; PREPARATION THEREOF
                       Note
                       (1) In this subclass, the following term is used with
                       the meaning indicated:
                       - "ice-cream" includes any edible frozen or congealed
                       semi-liquid or pasty substance, e.g. slush-ice.
                       (2) In this subclass, subject matter which cannot be
                       completely classified in a single one of the main
                       groups should be classified in each relevant main group.
                       -----------------------------------
E18       2261   -->   A23G0001-00/IPC
                       Cocoa; Cocoa products, e.g. chocolate; Substitutes
                       therefor (kitchen equipment for cocoa preparation A47J,
                       e.g. apparatus for making beverages A47J0031-00)
                       CORE
                       VALID FROM 19680901 TO PRESENT   (  IPC EDITION: 1-8  )
E19        178   NT1   A23G0001-02/IPC
                       . Preliminary treatment, e.g. fermentation of cocoa
                       (machines for roasting cocoa A23N0012-00)
                       ADVANCED
                       VALID FROM 19680901 TO PRESENT   (  IPC EDITION: 1-8  )
E20        190   NT1   A23G0001-04/IPC
                       . Apparatus specially adapted for manufacture or
                       treatment of cocoa or cocoa products (machines for
                       roasting cocoa A23N0012-00; crushing or grinding
                       apparatus in general B02C)
                       ADVANCED
                       VALID FROM 19680901 TO PRESENT   (  IPC EDITION: 1-8  )
E21         21   NT2   A23G0001-06/IPC
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                    . . Apparatus for preparing or treating cocoa beans or
                    nibs
                    ADVANCED
                    VALID FROM 19680901 TO PRESENT   (  IPC EDITION: 1-8  )
• • •
E46        173   NT3   A23G0001-54/IPC
                    . . . Composite products, e.g. layered, coated, filled
                    ADVANCED
                    VALID FROM 20060101 TO PRESENT   (  IPC EDITION: 8    )
E47        509   NT2   A23G0001-56/IPC
                    . . Liquid products; Solid products in the form of
                    powders, flakes or granules for making liquid products,
                    e.g. for making chocolate milk
                    ADVANCED
                    VALID FROM 20060101 TO PRESENT   (  IPC EDITION: 8    )

********** END **********
```

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