

## CAS roles in CA<sup>SM</sup>/CAplus<sup>SM</sup>

CAS roles are powerful CAS indexing terms that allow you to search for precise information on substances. Roles are assigned to every indexed substance and to controlled index terms for classes of compounds. You can search specific roles and super roles; all are listed on the last page of this card.

The PREP (Preparation) role is assigned for documents from 1907 to the present. Most other CAS roles are available for documents from 1967 to date. You can search roles in all of the CA/CAplus family of databases.

### Find references to the therapeutic use or toxic effects of dimethyl sulfoxide (CAS Registry Number 67-68-5).

**1** In a CA/CAplus database, search the CAS Registry Number<sup>®</sup> followed by a slash and a code for the role. Separate multiple roles by commas without spaces.

**2** Display some answers.

Roles display as codes along with their names in the Role (RL) field within the Index Term (IT) field. The 3-letter specific roles are listed first in alphabetical order, followed by 4-letter codes for super roles. Super roles, e.g., BIOL and USES, are automatically generated from the specific roles.

=> **FILE CAPLUS**

=> **S 67-68-5/THU,ADV**

```

33940 67-68-5
920380 THU/RL
1440 67-68-5/THU
      (67-68-5 (L) THU/RL)
33940 67-68-5
595307 ADV/RL
523 67-68-5/ADV
      (67-68-5 (L) ADV/RL)

```

L1 1930 67-68-5/THU,ADV

=> **D HITRN 1-2**

```

L1 ANSWER 1 OF 1930 CAPLUS COPYRIGHT 2008 ACS on STN
IT 67-68-5, Dimethyl sulfoxide, biological studies
RL: THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
      (skin treatment compns. containing copper-
pigment complexes)

```

```

L1 ANSWER 2 OF 1930 CAPLUS COPYRIGHT 2008 ACS on STN
IT 67-68-5, Dimethyl sulfoxide, biological studies
RL: ADV (Adverse effect, including toxicity); BSU
(Biological study, unclassified); BIOL (Biological
study)
      (used as carcinogen; Tyl retrotransposition
induced by carcinogens in Saccharomyces
cerevisiae yeast depends on mitochondrial
function)

```

## Find references on the synthetic preparation of fullerenes.

1 Search CAS REGISTRY<sup>SM</sup> for CAS Registry Numbers of the substances of interest.

2 In a CA/CAPLUS database, search the REGISTRY L-number answer set (L1), followed by a slash and the role code (SPN for synthetic preparation). You can supplement this strategy by also searching the roles assigned to appropriate index terms for classes of compounds (FULLERENES). Append the index term for a class of compounds with a slash and the role code.

*This answer displays information and indexing for the class of fullerenes.*

*This answer displays information and indexing for specific fullerenes.*

```
=> FILE REGISTRY
=> S FULLERENE/CNS
L1      24594 FULLERENE/CNS

=> FILE CAPLUS
=> S L1/SPN OR FULLERENES/SPN
      26642 L1
      1914426 SPN/RL
      4215 L1/SPN
              (L1 (L) SPN/RL)
      11177 FULLERENES/CT
      1914426 SPN/RL
      1953 FULLERENES/SPN
              (FULLERENES/CT (L) SPN/RL)
L2      5063 L1/SPN OR FULLERENES/SPN

=> D TI HIT 3, 15
L2 ANSWER 3 OF 5063 CAPLUS COPYRIGHT 2008 ACS on STN
TI Multi-Triphenylamine-Substituted Porphyrin-
Fullerene Conjugates as Charge Stabilizing
"Antenna-Reaction Center" Mimics
IT Fullerenes
RL: PEP (Physical, engineering or chemical
process); PRP (Properties); RCT(Reactant); SPN
(Synthetic preparation); PREP (Preparation); PROC
(Process); PRP (Properties); RACT (Reactant or
reagent)
      (multi-triphenylamine-substituted porphyrin-
fullerene conjugates as charge stabilizing
"antenna-reaction center" mimics)

L2 ANSWER 15 OF 5063 CAPLUS COPYRIGHT 2008 ACS on
STN
TI X-ray structure and DFT study of C1-C60(CF3)12. A
high-energy, Kinetically stable isomer prepared at
500 °C
IT 941295-33-6P
RL: PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation)
      (crystallog.; preparation and x-ray structure
and DFT study of C1-C60(CF3)12 as a high-energy,
kinetically stable isomer at 500 °C)
IT 941295-32-5P
RL: PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation)
      (preparation and x-ray structure and DFT study
of C1-C60(CF3)12 as a high-energy, kinetically
stable isomer at 500 °C)
```

## Online thesaurus for CAS roles

To use the online thesaurus, enter a term in the EXPAND or SEARCH command followed by the plus sign (+) and the relationship code followed by /RL. The following relationship codes are available:

**ALL** (for all associated terms including NOTE)  
**BT** (for all broader terms)  
**HIE** (for all broader and narrower terms)  
**NOTE** (for role definitions)  
**NT** (for narrower terms)

### What roles are available for preparation?

1 Expand on a term followed by +ALL/RL to display the definition of the term (NOTE), plus all broader and narrower terms.

Refer to the E-numbers with 0 postings for information about the time period during which each role was used.

```
=> FILE CAPLUS

=> E PREPARATION+ALL/RL
E1      4440949  --> Preparation/RL
E2      4440949      PREP/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.
          .
          .
          .
E9      1986      NT1 Combinatorial Preparation/RL
E10     0         NT1 Combinatorial Preparation valid
          Vol. 136 (2002) to present/RL
          .
          .
          .
E17     1914426  NT1 Synthetic Preparation/RL
E18     0         NT1 Synthetic Preparation valid Vol.
          66 (1967) to present/RL
***** END *****
```

### For more information

Enter HELP ROLES and HELP THESAURUS at an arrow prompt in CA/CaPlus.

## CAS roles (1)

**ANST Analytical Study**

ANT	Analyte
AMX	Analytical Matrix
ARG	Analytical Reagent Use
ARU	Analytical Role, Unclassified

**BIOL Biological Study**

ADV	Adverse Effect, Including Toxicity
AGR	Agricultural Use
BAC	Biological Activity or Effector, Except Adverse (2)
BCP	Biochemical Process (3)
BMF	Bioindustrial Manufacture
BOC	Biological Occurrence (2)
BPN	Biosynthetic Preparation
BPR	Biological Process (2)
BSU	Biological Study, Unclassified
BUU	Biological Use, Unclassified
COS	Cosmetic Use (3)
DGN	Diagnostic Use (3)
DMA	Drug Mechanism of Action (3)
FFD	Food or Feed Use
MFM	Metabolic Formation (2)
NPO	Natural Product Occurrence (3)
PAC	Pharmacological Activity (3)
PKT	Pharmacokinetics (3)
THU	Therapeutic Use

**CMBI Combinatorial Study (3)**

CPN	Combinatorial Preparation (3)
CRT	Combinatorial Reactant (3)
CRG	Combinatorial Reagent (3)
CST	Combinatorial Study (3)
CUS	Combinatorial Use (3)

**FORM Formation, Nonpreparative**

FMU	Formation, Unclassified
GFM	Geological or Astronomical Formation
MFM	Metabolic Formation (2)

**NANO Nanomaterial (4)****OCCU Occurrence**

BOC	Biological Occurrence (2)
GOC	Geological or Astronomical Occurrence
NPO	Natural Product Occurrence (3)
OCU	Occurrence, Unclassified
POL	Pollutant

**PREP Preparation (5)**

BMF	Bioindustrial Manufacture
BPN	Biosynthetic Preparation
BYP	Byproduct
CPN	Combinatorial Preparation (3)
IMF	Industrial Manufacture
PUR	Purification or Recovery
PNU	Preparation, Unclassified (6)
SPN	Synthetic Preparation

**PROC Process**

BCP	Biochemical Process (3)
BPR	Biological Process (2)
GPR	Geological or Astronomical Process
PEP	Physical, Engineering, or Chemical Process
CPS	Chemical Process (7)
EPR	Engineering Process (7)
PYP	Physical Process (7)
REM	Removal or Disposal

**PRPH Prophetic Substance (8)****RACT Reactant or Reagent (2,7)**

RCT	Reactant (9)
CRT	Combinatorial Reactant (3)
RGT	Reagent (3)
CRG	Combinatorial Reagent (3)

**USES Uses**

AGR	Agricultural Use
ARG	Analytical Reagent Use
BUU	Biological Use, Unclassified
CAT	Catalyst Use
COS	Cosmetic Use (3)
CUS	Combinatorial Use (3)
DEV	Device Component Use (6)
DGN	Diagnostic Use (3)
FFD	Food or Feed Use
MOA	Modifier or Additive Use
NUU	Other Use, Unclassified (10)
POF	Polymer in Formulation
TEM	Technical or Engineered Material Use
THU	Therapeutic Use

Specific roles that are not associated with any super roles:

MSC	Miscellaneous
PRP	Properties

(1) Super roles have 4-letter codes. Specific roles have 3-letter codes. Under each super role are listed the specific roles that are retrieved when you search that super role.

(2) Used from CA Vol. 66 (1967) to Vol. 135 (2001).

(3) Used starting with CA Vol. 136 (2002).

(4) Used starting with CA Vol. 116 (1992).

(5) The PREP super role has been added to records back to 1907.

(6) Used from CA Vol. 66 (1967) to Vol. 145 (2006).

(7) Used from CA Vol. 136 (2002) to CA Vol. 145 (2006).

(8) Used starting with records from 2003 to the present.

(9) Searching the RCT role retrieves references from CA Vol. 66 (1967) to the present. Searching the RACT super role retrieves references with RCT, CRT, RGT, or CRG references starting with CA Vol. 136 (2002).

(10) Starting in 2002, the searchable text for the NUU role changed from NONBIOLOGICAL USE, UNCLASSIFIED/RL to OTHER USE, UNCLASSIFIED/RL. Search NUU/RL to retrieve records from CA Vol. 66 (1967) to the present.



A division of the  
American Chemical Society

March 2009  
CAS2505-0309

CAS Customer Center  
Phone: 800-753-4227 (North America)  
614-447-3700 (worldwide)  
Fax: 614-447-3751  
E-mail: help@cas.org  
Internet: www.cas.org