

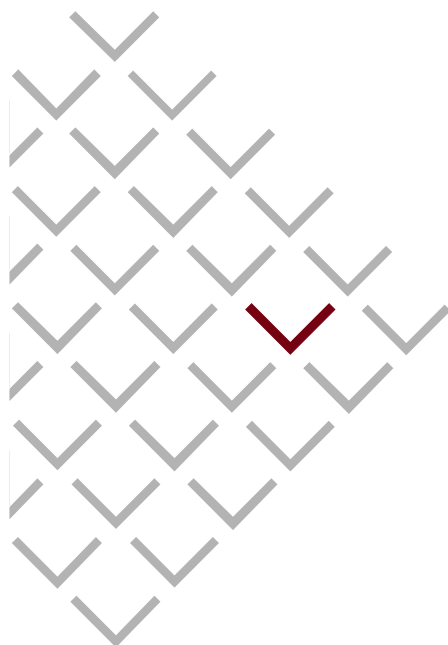


Chemical Abstracts Service  
provides access to STN International  
in North America

# STNNotes

JANUARY 2009

No. 26 REVISED



In response to customer requests for more detailed information on new and enhanced system features, we have created STNNotes. STNNotes give you the in-depth technical details you need for efficient use of STN. We hope you find this information useful. Please let us know how we can continue to improve in meeting your technical information needs.

## Searching pre-1967 references in CAplus and CA

**CAplus and CA now provide easy online access to bibliographic information, abstracts, and indexing for patents and literature covered in CA from 1907 to the present.**

CAplus and CA files have been enhanced with bibliographic information, CA abstracts, and indexing for documents covered in Chemical Abstracts in the 1<sup>st</sup> – 7<sup>th</sup> Collective Index periods (1907-1966).

CAplus and CA now provide easy online access to patents and literature covered in CA from 1907 to the present.

### Content of the 1907-1966 records

The 1907-1966 records include:

- bibliographic information
- abstracts
- page images from printed CA
- index entries

For content details, refer to the tables in this STNNote.

## Reference-identifying fields for the 1907-1966 records

Content	Search Field	Format
Accession Number	/AN	In CPlus, the format of AN is YYYY:NNNN where YYYY is the year of publication in printed CA and NNNN is a sequentially assigned number. In CA, the format of AN is VV:NNNN where VV is the CA volume number and NNNN is a sequentially assigned record number.
Document Number	/DN	VV:NNNN where VV is the CA volume number and NNNN is a sequentially assigned record number
Original Reference Number	/OREF	VV:column number and fraction designation for the location of the entire record, i.e., both the bibliographic information and the abstract, on the page

## General content of the 1907-1966 records

Content	Search Fields	Display Fields	Availability, if limited
Abstract Text	/AB, /BI	AB	Structure diagrams displayed in PAGE format
Author	/AU	AU	
CA Section Number and Title	/CC	CC	CA subsections not available
Corporate Source	/CS	CS	
Country of Author	/CYA	CS, CYA	If available
Document Type	/DT	DT	Algorithmically assigned
Issue Number of Publication	/IS	SO	1963 forward
Journal Title	/JT	JT, SO	
Language (text and code)	/LA	LA	Available for some journals
Publication Date	/PD	PI, PD, SO	
Publication Year	/PY	PI, PY, SO	
Publisher (Book)	/PB	PB	If available
Source	/SO	SO	
Title	/TI, /BI	TI	
Volume and Issue of CA	/VI	DN	
Volume Number of Publication	/VL	SO	

### Patent data for the 1907-1966 records

Content	Search Fields	Display Fields	Availability, if limited
Application Country	/AC	PI, AI	If available
Application Date	/AD	PI, AI	If available
Application Year	/AY	PI, AI	If available
Country Number Count	/CYC	CY.CNT	If available
Family Accession Number	/FAN	FAN	If available
Family Accession Number Count	/FAN.CNT	FAN.CNT	If available
International Patent Classifications	/IC	IC	If available
Inventor	/IN	IN	
National Patent Classification	/NCL	NCL	If available
Patent Assignee	/PA	PA	
Patent Country	/PC	PI	
Patent Date	/PD	PI	
Patent Number	/PN	PI	Family data if available
Patent Number Count	/PNC	PN.CNT	
Priority Application Country	/PRC	PRAI	If available
Priority Application Date	/PRD	PRAI	If available
Priority Application Year	/PRY	PRAI	If available

### Indexing data for the 1907-1966 records

Content	Search Fields	Display Fields
CA General Subject Index Headings	/IT, /BI	IT
Substance Index Entries (CA Index names and CAS Registry Numbers, when available)	/IT, /BI	IT
Text-modifying phrases for index terms	/IT, /BI	IT

## Searching bibliographic data and abstracts for pre-1967 records

You may search and display the bibliographic information and abstracts for the pre-1967 references using the same search and display field codes as for any other record in the CAPLUS and CA files on STN. For details of content availability, refer to the tables in this STNnote.

### Using RANGE

With the RANGE options you may easily exclude the pre-1967 records or restrict your search to only the pre-1967 records.

To restrict your search results to the pre-1967 records, use the SEARCH RANGE or SET RANGE options in the CA and CAPLUS files. Enter HELP RANGE at an arrow prompt in each file for file-specific information on range parameters.

### Search for all patents assigned to Bayer from 1907 to the present.

```
=> FILE CAPLUS
=> S BAYER/PA
L1      32954 BAYER/PA
```

Patent assignees may be searched as single words in the entire CAPLUS file.

### Search for patents assigned to Bayer from 1907-1966.

```
=> SET RANGE=(1CI,7CI)
SET COMMAND COMPLETED

=> S BAYER/PA
L2      8606 BAYER/PA

=> D 8602 ALL

L1 ANSWER 8602 OF 8605 CAPLUS COPYRIGHT 2003 ACS
   on STN
AN 1907:1560 CAPLUS Full-text
DN 1:1560
OREF 1:386a-c
TI Nitrogen containing anthraquinone derivatives.
PA Farbenfabriken vormals Bayer
DT Patent
LA Unavailable
CC 10 (Organic Chemistry)
FAN.CNT 1
PATENT NO.  KIND DATE      APPLICATION NO.  DATE
-----
PI FR 354717      19050527  FR
AB Production of nitrogen containing anthraquinone
   derivatives, by treating the alkylic, arylic and
   mixed ethers containing at the same time the
   alkyl and aryl hydroxy groups or aromatic ethers
   of the anthraquinone series, by ammonia, primary
   or secondary aliphatic amines or primary
   aromatic amines. The alkyl hydroxy, aryl hydroxy
   or thioaromatic groups are replacd partially or
   wholly by amidogen or the monodialkylamine or
   aromatic amine groups, respectively. The nitro
   or halogen groups can be replaced at the same
   time. Example: A mixture of nitro-4-
   methoxyhydroxyanthraquinone, 10, and p-toluidine,
   50 to 100, are heated to 160°-180° for from 3 to
   4 hours until the mixture shall become intensely
   blue, and upon treating it with alcohol the 1,4-
   di-p-tolylaminoanthraquinone separates.
IT 84-65-1, Anthraquinone
   (nitrogen-contg. derivs.)
```

Enter SET RANGE=(1CI,7CI) to restrict searches to the pre-1967 records.

The ALL format for the pre-1967 records includes the Accession Number, Document Number, the OREF field (Original Reference Numbers), bibliographic information, abstract, and indexing.

## Substance index entries for the 1CI-7CI records

The 1CI-7CI index data for substances have been keyed from the print volumes. Each index entry, i.e., the CA index name for a substance, was matched against the names in the Registry file. Substances that matched are now searchable with both names and CAS Registry Numbers. The CA substance index names that did not match against Registry substance names have been added to the IT field and may be searched in the /IT field or in the Basic Index.

In the example on this page, the first IT shows substances that did not match any Registry names. Their names (as they appeared in the printed index) have been added to the IT field. No CAS Registry Number are included. The second IT includes substances that did match Registry names; both their CAS Registry Numbers and their names were included.

## Searching substances in pre-1967 records

To search substances in pre-1967 records, you may include various names for the substance in the Basic Index search as well as CAS Registry Numbers.

### A 7CI record showing substance index entries.

```
L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1965:466441 CAPLUS Full-text
DN 63:66441
OREF 63:12236g-h
TI Tea flavor of black tea. Sweeping method as a
   technique for flavor collection
   :
   :
IT Flavoring materials
   (detrn. of, in tea)
IT Butyl alcohol, pyridine
   (in tea)
IT 64-19-7, Acetic acid 98-86-2, Acetophenone
   100-52-7, Benzaldehyde
   141-78-6, Ethyl acetate
   (in tea)
```

### Search pre-1967 references with CAS Registry Numbers and substance names.

```
=> FILE REGISTRY

=> S 6-CHLOROPURINE/CN
L1 1 6-CHLOROPURINE/CN

=> SEL CHEM
E1 THROUGH E3 ASSIGNED

=> FILE HCAPLUS; SET RANGE=(1CI, 7CI)
SET COMMAND COMPLETED

=> S E1-E3
L2 235 (6-CHLORO-9H-PURINE/BI OR 6-
     CHLOROPURINE/BI OR 87-42-3/BI)

=> D AN HIT 2
L2 ANSWER 2 OF 235 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1966:473577 HCAPLUS
DN 65:73577
OREF 65:13738a-c
AB Manuf. of the title compds. from uric acid was
   described. In an example, a mixt. of 100 g. uric
   acid and 1000-1400 g. formamide is heated in an
   autoclave at 150-230° for 2-3 hrs. and an excess
   of formamide is removed in vacuo to give 68-75%
   6-hydroxypurine (I). I (10 g.) is refluxed in a
   mixt. of 25 ml. dimethylaniline and 300 ml. POCl3
   at 130-5° for 4-5 hrs., the whole kept overnight,
   an excess of POCl3 removed in vacuo, the residue
   poured onto ice, and the whole adjusted to pH 1
   with NaOH and extd. with Et2O to give 10.2 g. 6
   - chloropurine (II), yellow needles, m. 178-9°.
   II (10 g.) is heated at 130-50° for 9 hrs. with
   30 g. furfurylamine, an excess of furfurylamine
   is removed by distn., and Me2CO is added to the
   residue to give 12.6 g. 6-(N-furfurylamino)
   purine, m. 266-8° (EtOH). Similarly is prepd.
   6-(N-benzylamino)purine, m. 230° (EtOH).
IT 87-42-3, Purine, 6-chloro- 525-79-1, Adenine,
   N-furfuryl- 1807-85-8, Theophylline, 7-benzyl-
   (prepn. of)
```

Search a substance name in the /CN field of the Registry file.

Use SELECT CHEM to create E-number search terms from the CAS Registry Number and names for the substance.

Enter HCAPLUS. Search the E-numbers created by SELECT CHEM.

The HIT display shows the CAS Registry Number, a name, or both in the retrieved records.

## Displaying page images in CAplus or CA

You may also display page images for abstracts from 1907-1966. Use the DISPLAY command and PAGE format. If the abstract appears on more than one page of printed CA, all of the relevant pages are automatically downloaded. Display of page images for the pre-1967 records is useful when you want to see the structure diagrams in abstracts.

## Display page images for pre-1967 abstracts.

```
=> FILE CAPLUS

=> S SYNTAX/PA RAN=(4CI,7CI)
L2      636 SYNTAX/PA

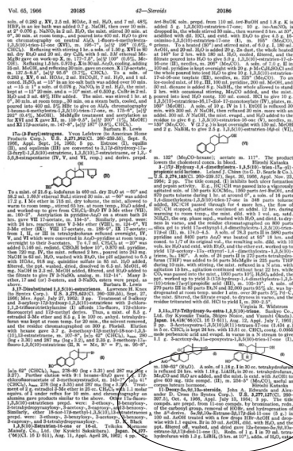
=> D PAGE 7

L2      ANSWER 7 OF 636 CAPLUS  COPYRIGHT 2003 ACS on
      STN

START LOCAL KERMIT RECEIVE PROCESS

BINARY DATA HAVE BEEN DOWNLOADED TO MULTIPLES FILES
'IMAGEnnn.TIF'
```

Enter the **DISPLAY** command and **PAGE** format to download page images in **CAplus** or **CA**.

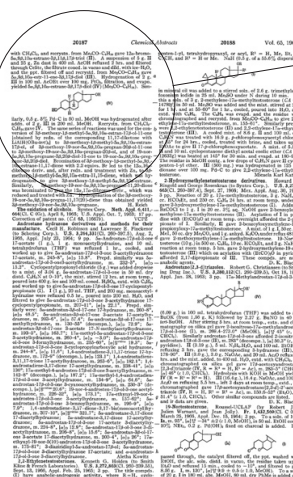


Vol. 65, 1966

42—Steroids

20186

**11-Deoxy-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -steroids.** John A. Edwards and Alexander D. Cross (to Syntex Corp.). U.S. 3,277,127(Cl. 260-397.5), Oct. 4, 1966, Appl. July 13, 1964; 3 pp. The title compds. are prepd. from 11-oxo compds. by bromination, redn. of the carbonyl group, removal of HOBr, and hydrogenation of the  $\Delta^{11}$ -derivs. 5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -Estrane-3 $\beta$ ,17 $\beta$ -diol-11-one (5 g.) in 100 ml. AcOH treated with a few drops HBr-AcOH and dropwise with 1.1 equivs. Br in 50 ml. AcOH, dild. with H<sub>2</sub>O, and the ppt. filtered off, washed, and dried gave 12 $\alpha$ -bromo-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-3 $\beta$ ,17 $\beta$ -diol-11-one (I). Redn. of 1 g. I in 70 ml. tetrahydrofuran with 1.3 g. LiBH<sub>4</sub> (5 hrs. at 10°), addn. of H<sub>2</sub>O, extn.

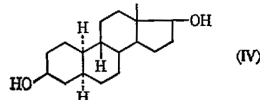


20187

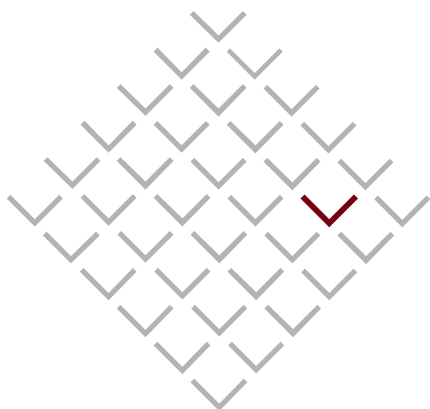
Chemical Abstracts

Vol. 65, 1966

with CH<sub>2</sub>Cl<sub>2</sub>, and recrystn. from Me<sub>2</sub>CO-C<sub>6</sub>H<sub>14</sub> gave 12 $\alpha$ -bromo-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-3 $\beta$ ,11 $\beta$ ,17 $\beta$ -triol (II). A suspension of 5 g. II and 25 g. Zn dust in 400 ml. AcOH refluxed 2 hrs. and filtered through Celite, the filtrate concd. in vacuo and dild. with ice-H<sub>2</sub>O, and the ppt. filtered off and recrystd. from Me<sub>2</sub>CO-C<sub>6</sub>H<sub>14</sub> gave 5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estr-11-ene-3 $\beta$ ,17 $\beta$ -diol (III). Hydrogenation of 2 g. III in 100 ml. AcOEt over 100 mg. PtO<sub>2</sub>, filtration, and evapn. yielded 5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-3 $\beta$ ,17 $\beta$ -diol (IV) (Me<sub>2</sub>CO-C<sub>6</sub>H<sub>14</sub>). Sim-



ilarly, 0.5 g. 5% Pd-C in 50 ml. MeOH was hydrogenated after addn. of 2 g. III in 200 ml. MeOH. Recrystn. from CH<sub>2</sub>Cl<sub>2</sub>-C<sub>6</sub>H<sub>14</sub> gave IV. The same series of reactions was used for the conversion of 3 $\beta$ -methoxy-1 $\beta$ -methyl-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-17 $\beta$ -ol-11-one [obtained by redn. of the corresponding 11,17-diketone with LiAlH(OBu-*tert*)<sub>2</sub>] to 3 $\beta$ -methoxy-1 $\beta$ -methyl-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-17 $\beta$ -ol, of 3 $\beta$ -methoxy-19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnan-20 $\beta$ -ol-11-one to 3 $\beta$ -methoxy-19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnan-20 $\beta$ -ol, and of 19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnane-3 $\beta$ ,20 $\beta$ -diol-11-one to 19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnane-3 $\beta$ ,20 $\beta$ -diol. Bromination of 3 $\beta$ -methoxy-1 $\beta$ -methyl-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane-11,17-dione with 2.2 equivs. Br led to the 12 $\alpha$ ,16 $\alpha$ -dibromo deriv. and, after redn. and treatment with Zn, to 3 $\beta$ -methoxy-1 $\beta$ -methyl-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estra-11,16-diene, which was hydrogenated to give 3 $\beta$ -methoxy-1 $\beta$ -methyl-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -estrane. Similarly, 3 $\beta$ -methoxy-19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnane-11,20-dione was brominated to give the 12 $\alpha$ ,17 $\alpha$ -dibromo deriv., which was reduced and treated with Zn. Hydrogenation of the 3 $\beta$ -methoxy-19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregna-11,17(20)-diene thus obtained yielded 3 $\beta$ -methoxy-19-nor-5 $\alpha$ ,9 $\beta$ ,10 $\alpha$ -pregnane. H. Reich



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## For more information

For more information on searching and displaying pre-1967 references in the CAplus and CA files, please refer to the CAplus database summary sheet at:

[www.cas.org/support/stngen/dbss/](http://www.cas.org/support/stngen/dbss/)

or the CA database summary sheet at:

[www.cas.org/support/stngen/dbss/](http://www.cas.org/support/stngen/dbss/)

The database summary sheets are also available online in STNGUIDE.

Enter HELP DIRECTORY at an arrow prompt in each file to see a list of online help messages for the file.

For web access to STNotes, visit:

[www.cas.org/support/stngen/stnotes/](http://www.cas.org/support/stngen/stnotes/)