

RDISCLOSURE (Research Disclosure)

| | | | | | |
|--------------------------|--|--|---|--|---|
| Subject Coverage | All areas of science and technology, i.e., all classes of the International Patent Classification. | | | | |
| File Type | Full text | | | | |
| Features | Thesaurus Alerts (SDIs) | International Patent Classification (IPC) Monthly | CAS Registry Numbers® Keep & Share | <input type="checkbox"/> Page Images <input checked="" type="checkbox"/> SLART <input type="checkbox"/> Structures | <input type="checkbox"/> STN AnaVist <input checked="" type="checkbox"/> STN Easy <input type="checkbox"/> STN Viewer |
| Record Content | <ul style="list-style-type: none"> • Full text, including images, of technical disclosures of inventions published as an alternative to the patent system. • Records contain the title, patent assignee (company and individual inventors as well as the statement 'anonymous'), patent, priority and source information, and the full text. • About 50% of the records contain the International Patent Classification, about 30% contain additionally the European Patent Classification. | | | | |
| File Size | 40,888 records (10/11) | | | | |
| Coverage | 1960-present | | | | |
| Updates | Monthly; reloaded every 6 months | | | | |
| Language | English | | | | |
| Database Producer | Questel Ireland Ltd. Killernan, Kilmaine Co. Mayo Republic of Ireland Phone: +353 93 33870 Copyright Holder | | | | |

RDISCLOSURE

**Database
Supplier**

FIZ Karlsruhe
STN Europe
P.O. Box 2465
76012 Karlsruhe
Germany
Phone: +49 7247 808-555
Fax: +49 7247 808-259
E-mail: helpdesk@fiz-karlsruhe.de

Sources

Monthly Journal 'Research Disclosure'

User Aids

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

Clusters

- ALLBIB
 - BIOSCIENCE
 - CHEMISTRY
 - ENGINEERUNG
 - FULLTEXT
 - HPATENTS
 - MATERIALS
 - PATENTS
 - PHARMACOLOGY
 - PNTTEXT
- [STN Database Clusters](#) information (PDF)
-

Pricing

See the [STN Price List](#) or enter HELP COST at an arrow prompt.

Search and Display Field Codes

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

General Search Fields

| Search Field Name | Search Code | Search Examples | Display Codes |
|---|--|---|---|
| Basic Index* (contains single words from title (TI), and the full text) | None or /BI | S SOFTWARE? S HERBICIDE# S ?LASER? | TI, TX |
| Accession Number Document Type (code and text) Entry Date (1) EPC, Keyword European Patent Classification (2) Field Availability Graphic Image, Number (1) Graphic Image, Size (1) Graphic Image, Type International Patent Classification (IPC1, IPCR) (2,3) International Standard (Document) Number (Codon and ISSN) IPC, Keyword Term IPC, Version (1) Language (ISO code and text) Patent Assignee (includes inventors) (4) Patent Number (5) Priority Date (1) Priority Number (5) Priority Year (1) Publication Date (1) Publication Year (1) Referenced Non-Patent Literature (2) Source (contains volume, year, and number of the printed publication, ISSN, and CODEN) Title* Update Date (1) | /AN /DT (or /TC) /ED /EPC.KW (or /ECLA.KW) /EPC (or /ECLA) /FA /GIN /GIS /GIT /IPC /ISN /IPC.KW /IPC.VER /LA /PA (or /CS) /PN (or /PATS) /PRD /PRN (or /APPS) /PRY /PD /PY /REN /SO /TI /UP | S 324009/AN S PATENT/DT S ED=MARCH 2007 S B2A1/EPC.KW S A01D/EPC S A01D0034-49/EPC S REN/FA S GIN<5 S GIS=30000 S TIF/GIT S G06F/IPC S G06F0017-30/IPC S RSDSBB/ISN S 0374-4353/ISN S ADVANCED/IPC.KW S 20100101/IPC.VER S FRENCH/LA S FR/LA S INTERNATIONAL BUSINESS CORPORATION/PA S M? MCDERMOTT/PA S RD430009/PN S PRD>=20021000 S RD2002-456008/PRN S 1991/PRY S PD=JAN-FEB 2002 S PY>1999 S XP000001356/REN S 463/SO S ?COMPOSITE?/TI S INTERFACE/TI S UP=MAR 2007 | AN DT ED EPC EPC FA GIN GIS GIT IPC1, IPCR ISN, SO IPC.TAB IPC.TAB LA PA PI PRAI PRAI PRAI PI PI REN SO TI UP |

- (1) Numeric search field that may be searched using numeric operators or ranges.
(2) Data not available in regular monthly updates. Data are included in the 6-months updates.
(3) An online thesaurus is available in this field.
(4) Search with implied (S) proximity is available in this field.
(5) Either STN or Derwent format may be used.

RDISCLOSURE**International Patent Classification (/IPC) Thesaurus**

The classifications, validity 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.

| Code | Content | Examples |
|---|--|---|
| ADVANCED (ADV) ALL BRO (MAN) BT CORE (COR) ED HIE INDEX KT NEXT NT PREVn RT (SIB) TI | Advanced Codes for the Core Level IPC Code All Associated Terms (BT, SELF, NT, RT) Complete Class Broader Term (SELF, BT) Core Codes for the Advanced Level IPC Code Complete title of the SELF term and IPC manual edition Hierarchy Term (Broader and Narrower Term) (BT, SELF, NT) Complete title of the SELF term Keyword Term (catchwords) (SELF, KT) Next Classification Narrower Terms (SELF, NT) Previous Classification (n =1,2,...) Related Terms (SELF, RT) Complete Title of the SELF Term and Broader Terms (BT, SELF) | E A61K0066-02+ADVANCED/IPC E C01C003-00+ALL/IPC E C01C+BRO/IPC E C01F001-00+BT/IPC E G08C0019-22+CORE/IPC E C01F001-00+ED/IPC E C011003-00+HIE/IPC E C01F001-00+INDEX/IPC E CYANOGEN+KT/IPC E C01C001-00+NEXT5/IPC E C01C+NT/IPC E C01C001-12+PREV10/IPC E C01C003-20+RT/IPC E C01F001-00+TI/IPC |

DISPLAY and PRINT Formats

Any combination of formats may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI AU. The fields are displayed or printed in the order requested.

Hit-term highlighting is available for all fields. Highlighting must be ON during SEARCH to use the HIT, KWIC, and OCC formats.

| Format | Content | Examples |
|---|---|--|
| AN DT (TC) ED (1) EPC (ECLA) FA (1) GI GIN GIS GIT (1) IPC IPCI IPCR ISN (1) LA PA (CS) PI (PN) (2) PRAI (PRN) (2) REN SO TI TX UP (1) | Accession Number Document Type Entry Date European Patent Classification Field Availability Graphic Image Graphic Image, Number Graphic Image, Size Graphic Image, Type International Patent Classification (IPCI, IPCR) IPC, Initial IPC, Reclassified International Standard (Document) Number Language Patent Assignee Patent Information Priority Information Referenced Non-Patent Literature Source Title Text Update Date | D 1-5 AN D DT D ED D EPC D FA D GI D GIN D GIS D GIT D IPCI D IPCR D ISN D LA TI D PA D PI D PRAI D REN D SO D TI 1-10 D TX D UP |

DISPLAY and PRINT Formats (cont'd)

| Format | Content | Examples |
|--|---|---|
| ABS ALL (MAX) (2) ALLG (MAXG) (2) IALL (2) IALLG (2) BIB (STD) (2) IBIB (2) IND IPC.TAB SCAN (3) TRIAL (TRI, SAMPLE, SAM, FREE) | TX AN, TI, PA, PI, PRAI, REN, SO, LA, DT, GIN, GIS, IPC, EPC, TX BIB, plus graphic Image ALL, indented with text labels ALLG, indented with text labels AN, TI, PA, PI, PRAI, REN, SO, LA, DT, GIN, GIS, IPC, EPC (BIB is the default) BIB, indented with text labels IPC, EPC IPC, IPC.KW, IPC.VER, Tabular Version TI (random display without answer numbers) TI | D ABS D 1-3 ALL D ALLG D IALL D IALLG D BIB D IBIB D IND D IPC.TAB D SCAN D TRIAL |
| HIT KWIC OCC | Hit term(s) and field(s) Up to 50 words before and after hit term(s) (KeyWord-In-Context) Number of occurrences of hit term(s) and field(s) in which they occur | D HIT D KWIC D OCC |

(1) Custom display only.

(2) By default, patent numbers, and priority numbers are displayed in STN Format. To display them in Derwent format, enter SET PATENT DERWENT at an arrow prompt. To reset display to STN Format, enter SET PATENT STN.

(3) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

| Field Name | Field Code | ANALYZE/ SELECT (1) | SORT |
|---|------------|------------------------|------|
| Accession Number | AN | Y | N |
| Document Type | DT (TC) | Y | Y |
| Entry Date | ED | Y | N |
| European Patent Classification | EPC (ECLA) | Y | N |
| Graphic Image, Number | GIN | Y | N |
| Graphic Image, Size | GIS | Y | Y |
| Graphic Image, Type | GIT | Y | N |
| International Patent Classification | IPC | Y | N |
| IPC, Advanced Level Symbols | IPC.A | Y (2) | N |
| IPC, Advanced Level Symbols for Invention | IPC.AI | Y (2) | N |
| IPC, Core Level Symbols | IPC.C | Y (2) | N |
| IPC, Core Level Symbols for Invention | IPC.CI | Y (2) | N |
| Language | LA | Y | Y |
| Occurrence Count of Hit Terms | OCC | N | Y |
| Patent Assignee | PA (CS) | Y | Y |
| Patent Information | PI (PN) | Y | Y |
| Priority Date | PRD | Y | Y |

RDISCLOSURE

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

| Field Name | Field Code | ANALYZE/ SELECT (1) | SORT |
|----------------------------------|------------|------------------------|------|
| Priority Information | PRAI (PRN) | Y | Y |
| Priority Year | PRY | Y | Y |
| Referenced Non-Patent Literature | REN | Y | Y |
| Source | SO | Y | Y |
| Text | TX | Y (3) | N |
| Title | TI | Y (default) | Y |
| Update Date | UP | Y | N |

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT TI.

(2) Appends /IPC to the terms created by SELECT.

(3) Appends /BI to the terms created by SELECT.

Sample Records

DISPLAY ALL

AN 453062 RDISCLOSURE

TI Improved method for preparation of bicyclic orthoester functional compounds

PA Anonymous

PI RD 453062 20020110

PRAI RD 2001-453062 20011220

REN XP001127230; XP007129599

SO Research Disclosure, Volume 453, 01 2002, p. 38

CODEN: RSDSBB; ISSN: 0374-4353

LA English

DT Patent

GIN 3

GIS 37252; 41444; 23582

IPCI C07D

IPCR C07D0493-08 [I,A]; C07D0493-00 [I,C*]

EPC C07D0493-08; C07D0493-08+319C+319C+2

TX 453062

Improved method for preparation of bicyclic orthoester functional compounds

Disclosed is an improved method for the preparation of bicyclic orthoester (BOE) -functional compounds. BOE-functional compounds are described, for example, in patent publication WO 97/31703.

BOE-functional compounds can be prepared in several ways. One such way is the transesterification of a polyol in an appropriate solvent. The transesterification agent can be a trialkyl orthoester. Such a process is described in T. Endo et al. *Polymer Journal*. Volume 13 (1981), p. 715. A disadvantage of this method is the need to use trialkylorthoesters, which are expensive raw materials.

Also, BOE-functional compounds can be prepared by converting the corresponding ester-functional oxetane compounds with a Lewis acid catalyst, e.g. BF₃Et₂O, as described by E.J. Corey et al., *Tetrahedron Letters*. 24 (1983), pp. 5571-5574. A drawback to this route is the use of a homogeneous Lewis acid catalyst, which has to be removed prior to further process steps, e.g. purification of the crude product by distillation. Removal of the catalyst can be carried out by precipitation of an insoluble complex of e.g. BF₃ e.g. by addition of a suitable amine, followed by filtration. Apart from the disadvantage of this additional step, the removal of the insoluble complex of BF₃ generates waste, since the precipitate cannot be reused.

Furthermore, polymeric material is formed by side reactions during the

rearrangement step. The proportion of polymeric material formed often exceeds 20% of the starting material. It is desirable to minimize this polymer forming side reaction, since it will lower the yield of BOE-functional compound.

It has now been found that the disadvantages of the previously known methods for the preparation of BOE-functional compounds can be overcome when the rearrangement of the corresponding ester-functional oxetane compound is carried out by contacting said ester-functional oxetane compound with an acidic catalyst on a solid support or with a solid acidic catalyst.

Suitable solid supports can be organic or inorganic supports. Examples of inorganic supports are silica, silica-alumina, such as conventional silica-alumina, silica coated alumina and alumina coated silica, alumina such as (pseudo)boehmite, or gibbsite, titania, titania coated alumina, zirconia, clays such as saponite, bentonite, kaolin, sepiolite or hydrotalcite, or zeolites, or mixtures thereof. Some materials may act as support and catalyst at the same time.

Suitable organic supports can be crosslinked polymeric resins. The acids can be Lewis acids or Bronsted acids. Examples of suitable Lewis acids are AlCl_3 , SbCl_6 , BF_3 , BCl_3 , BeCl_2 , FeCl_3 , FeBr_3 , SnCl_4 , TiCl_4 , ZnCl_2 , and ZrCl_4 and complexes thereof, e.g., $\text{BF}_3\text{Et}_2\text{O}$, $\text{BF}_3\text{-}2\text{CH}_3\text{COOH}$, $\text{BF}_3\text{-}2\text{H}_2\text{O}$, $\text{BF}_3\text{-H}_3\text{PO}_4$, $\text{BF}_3\text{-(CH}_3)_2\text{O}$, $\text{BF}_3\text{-THF}$, $\text{BF}_3\text{-}2\text{CH}_3\text{OH}$, $\text{BF}_3\text{-}2\text{C}_2\text{H}_5\text{OH}$, and $\text{BF}_3\text{-C}_6\text{H}_5\text{CH}_2$, and halides and sulphonates of lanthanide metals, for example LaCl_3 or YbCl_3 , and $\text{La}(\text{CF}_3\text{-SO}_3)_3$, $\text{Sc}(\text{CF}_3\text{-SO}_3)_3$ or $\text{Yb}(\text{CF}_3\text{-SO}_3)_3$.

Examples of suitable Bronsted acids are mono- or dialkyl phosphates, a carboxylic acid having at least one chlorine and/or fluorine atom, an alkyl or aryl sulphonic acid or an (alkyl)phosphoric acid, more particularly methane sulphonic acid, paratoluene sulphonic acid, optionally substituted naphthalene sulphonic acids, dodecyl benzene sulphonic acid, dibutyl phosphate, trichloroacetic acid, phosphoric acid, and mixtures thereof. Examples of Bronsted acids on organic supports are commercially available acidic ion exchange resins. Numerous types of acidic ion exchange resins are commercially available, for example under the trade names Amberlyst, Amberlite or Dowex. The conversion takes place in the range of -100 to 200°C , preferably in the range of 0 to 120°C . The reaction may be carried out in the presence of one or more suitable solvents. Examples of suitable solvents are chlorinated hydrocarbons, such as dichloromethane, chloroform, or trichloroethane, cyclic and acyclic ethers, such as tetrahydrofuran, dioxan, diethylether, diisopropylether and the like, aliphatic and aromatic hydrocarbons, such as pentane, hexane, heptane, toluene, xylene, or trimethylbenzene, and ester functional solvents, such as ethylacetate, butylacetate or propylacetate. An advantage of the current method is that it enables easy removal of the rearrangement catalyst by filtration and employment of the catalyst in subsequent batches of BOE-functional compound preparation. A further advantage of this method is the lower proportion of side reactions during the rearrangement reaction. This reduces the amount of undesirable polymeric by-product, while the yield of BOE-functional compound is increased. Since the purity of the crude product is higher than according to methods of the prior art, purification steps, e.g. distillation, may become unnecessary. Preferably, a continuous process is used, wherein the ester-functional oxetane compound is contacted with a rearrangement catalyst on a solid support by pumping the ester-functional oxetane compound, or a solution thereof, through a reactor which contains said rearrangement catalyst on a solid support. Either the flow rate through the reactor is adjusted in such a way that the desired degree of conversion is reached during one passage, or the mixture of ester-functional oxetane compound and BOE-functional compound is recycled into the reactor until the desired degree of conversion is reached. The optimum flow rate through the reactor as well as the reaction temperature depends on the particular type of reactor, the type of ester-functional

RDISCLOSURE

oxetane compound to be converted to BOE-functional compound, and the type and amount of rearrangement catalyst on a solid support employed. The optimum conditions for converting an ester-functional oxetane compound to a BOE-functional compound can be easily determined by experimentation. The method is further illustrated by the following non-limiting example: A double-walled glass column of 1.5 cm inner diameter and 15 cm length was filled with 7 g of Amberlyst* 15 dry acidic ion exchange resin. The column was held at 75C by circulating thermostated oil between the walls. 3-Ethyloxetan-3-yl-methyl laurate was pumped through the column at a rate of 0.04 ml/min. The composition of the reaction material at the exit of the column was analyzed by gas chromatography and by size exclusion chromatography. The composition of the reaction product was found to be:
 4-Ethyl-1-undecyl-2,6,7-trioxabicyclo[2.2.2]octane (BOE): 89.4 %
 3-Ethyloxetan-3-yl-methyl laurate: 6.8 %
 Polymer: 3.8 %
 Disclosed anonymously
 453062

DISPLAY STD

AN 498013 RDISCLOSURE
 TI Applying metadata to scanned images
 PA Virgil K. Russon, Michael L Rudd, and Tina-Marie Leja
 PI RD 498013 20051010
 PRAI RD 2005-498013 20050920
 REN XP007135500
 SO Research Disclosure, Volume 498, 10 2005, p. 1132
 CODEN: RSDSBB; ISSN: 0374-4353
 LA English
 DT Patent
 GIN 5
 GIS 70016; 59850; 566798; 238584; 59652
 IPCI G06F
 IPCR G06F0017-30 [I,A]; G06F0017-30 [I,C*]
 EPC G06F0017-30M2

DISPLAY IPC.TAB

| IPC | CODE | VERSION | POS | INV | LEVEL | CC ASSIGNMENT | DATE | STAT |
|------|-------------|----------|-----|-----|----------|---------------|------|------|
| IPCI | G06F | | | | | | | O |
| IPCR | G06F0017-30 | (200801) | F | I | Advanced | EP Machine | | R |
| | G06F0017-30 | (2006) | L | I | Core* | RC Machine | | R |

In North America

CAS
 STN North America
 P.O. Box 3012
 Columbus, Ohio 43210-0012 U.S.A.

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

In Europe

FIZ Karlsruhe
 STN Europe
 P.O. Box 2465
 76012 Karlsruhe
 Germany
 Phone: +49-7247-808-555
 Fax: +49-7247-808-259
 E-mail: helpdesk@fiz-karlsruhe.de
 Internet: www.stn-international.com

In Japan

JAICI (Japan Association for
 International Chemical Information)
 STN Japan
 Nakai Building
 6-25-4 Honkomagome, Bunkyo-ku
 Tokyo 113-0021, Japan
 Phone: +81-3-5978-3601 (Technical Service)
 +81-3-5978-3621 (Customer Service)
 Fax: +81-3-5978-3600
 E-mail: support@jaici.or.jp (Technical Service)
 customer@jaici.or.jp (Customer Service)
 Internet: www.jaici.or.jp