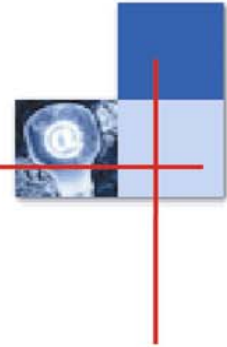


Derwent World Patents Index[®] Reload on Questel•Orbit

DWPI Reload



Reload consists of two files

DWPI – the traditional DWPI file

- Plus new data

DWPIMV – Members View

- First level data from which the DWPI file is based

DWPI enhancements also covers the DWPX and WPAM file

DWPI – New Features



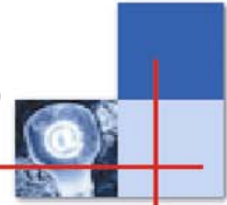
- **Same look-and-feel of the existing DWPI file**
 - SDI Alerts not impacted
- **Addition of Inventor Abstracts**
 - English, French, German
- **Documentation Abstracts (DWPX only)**
- **DCR codes (previously in MMS)**
- **IPC Reform (IPC 8)**
 - Comprehensive from 2006 backfile being added
- **US Patent Classification**
- **PATVIEW Feature to display the corresponding Member View information from the DWPIMV file**

Member View: DWPIMV



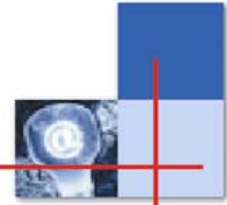
- **First level patent data including titles, abstracts, main claim (English, French or German)**
 - by publication stage
- **Names and addresses for assignees, inventors and agents (representatives)**
- **US PCL, historical IPC data**
- **Derwent titles, abstracts, Technology Focus, company codes, Novelty abstracts**
- **Document type, such as Basic, Equivalent, or Intellectual family**

DWPIMV Coverage Details



- **The Members View information covers first level information by stage**
 - For example: an EP A and B will be in two records
- **Member View authorities include: US, EP, DE, WO, JP, AU, and GB**
 - Basic information such as patent numbers are included for other countries
- **Over 31 million records**
- **Over 5 million records with claims**
- **Coverage back to 1960 however most comprehensive coverage starts in 1974**

DWPIMV New Features



- **Corresponding Members View information can be displayed within DWPI/DWPX/WPAM using the new PATVIEW feature**
- **XDWPI, XDWPX, XWPAM feature can be used within DWPIMV to transfer result sets to DWPI/DWPX/WPAM**
 - **Avoids MEM charges**

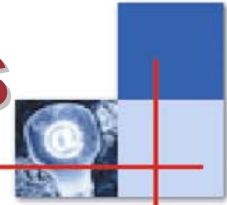
Search and Display Basics



Searching DWPI and DWPIMV

- The files are designed to be searched separately
- DWPI – traditional DWPI file with coding
- DWPIMV – original source data
 - For example: full inventor names, representatives, Main Claims, etc.

Search and Display Basics



Display

- Records can be displayed in either file using predefined or user-defined formats
- Corresponding DWPIMV records can be included when displaying records from DWPI/DWPX/WPAM

Display Corresponding Member Details (DWPIMV) from DWPI

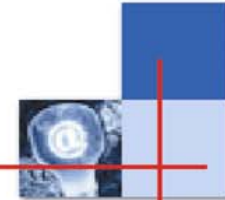
- New PATVIEW command (see slide 14 for examples)
- Pricing: Single record charge
 - 1 DWPI & 5 DWPIMV = 1 charge

DWPI Example



AN - 2005-067408 [08]
AXR - API P200508935
XA - C2005-023678
TI - Separation of acrylic acid from liquid mixture, for use as monomer, by rectification in column in presence of diacrylic acid as polymerization inhibitor in upper part of column
DC - A41 E17
PA - (BADI) BASF AG
IN - HOEFER F; HOFER F; MUELLER-ENGEL KJ; MULLER-ENGEL KJ; SCHLIEPHAKE V
NP - 3
NC - 106
PN - DE10347664 A1 20041202 DW2005-08 C07C-057/07 Ger 15p *
AP: 2003DE-1047664 20031009
- US20050077240 A1 20050414 DW2005-26 B01D-011/00 Eng
AP: 2004US-0939498 20040914, Provisional 2003US-P509540 20031009
- WO200535478 A2 20050421 DW2005-27 C07C-057/07 Ger
AP: 2004WO-EP11026 20041002
PR - 2003DE-1047664 20031009; 2003US-P509540 20031009
IC - B01D-011/00; C07C-057/07
PCL - 210634000 095213000 261113000 562600000

New US Patent Classification



Value-add Abstract Includes, Novelty, Use, Advantage

Search Tip

Novelty can be searched in
the AB field or with the
/NOV qualifier

AB - DE10347664 A

NOVELTY: In the separation of a liquid (F) containing acrylic acid (I) by supplying (F) to an inlet site (Z) of a rectification column and recovering a stream (S) having a (I) content of at least 90 wt. % (and higher than that of (F)) from an outlet site (E) above (Z), the content (G) of diacrylic acid (II) in the reflux liquid in the region of the column at least two theoretical plates above (Z) is at least 550 ppm by weight.

- USE: (I) is a monomer, useful in the production of polymers such as water-absorbing resins. The process is useful for recovering (I) from reaction mixtures (e.g. from the partial gas-phase oxidation of propene, propane and/or acrolein) or for further purification of partially purified (I).
- ADVANTAGE: Diacrylic acid ($\text{CH}_2=\text{CHCOOCH}_2\text{CH}_2\text{COOH}$) (II) (a dimer of (I), formed by Michael addition and often present in (I) as an impurity) has been found to inhibit the polymerization of (I) by interrupting chain growth, and is effective in preventing polymerization of (I) in the upper part of the rectification column.

New Inventor Abstracts

- May be in English, French, German

Search Tip

The inventor abstracts are searchable in the basic index. To limit a search to the value-add AB field, qualify to /AB

EAB - (US20050077240 A1)

A process for rectificatively separating an acrylic acid-containing liquid, by withdrawing an acrylic acid-rich stream from the rectification column above the feed point and polymerization-inhibiting the upper section of the rectification column by means of diacrylic acid.

- (WO2005035478 A2)

The invention relates to a method for rectification separation of an acrylic acid-containing liquid consisting in supplying an acrylic acid-rich material flow to a rectification column upstream of a supplying area and in carrying out an inhibiting polymerisation in the top section of the rectification column with the aid of diacrylic acid.

FAB - (WO2005035478 A2)

L'invention concerne un procédé de séparation rectificative d'un liquide contenant de l'acide acrylique, consistant à prélever un flux de produit riche en acide acrylique dans la colonne de rectification, en amont de la zone d'alimentation, et à réaliser une inhibition de polymérisation à l'aide d'acide diacrylique dans le haut de la colonne de rectification.

GAB - (DE10347664 A1)

Ein Verfahren der rektifikativen Auftrennung einer Acrylsäure enthaltenden Flüssigkeit, wobei oberhalb der Zulaufstelle ein an Acrylsäure reicher Stoffstrom aus der Rektifikationskolonne entnommen und der obere Teil der Rektifikationskolonne mittels Diacrylsäure polymerisationsinhibiert wird.

- (WO2005035478 A2)

Ein Verfahren der rektifikativen Auftrennung einer Acrylsäure enthaltenden Flüssigkeit, wobei oberhalb der Zulaufstelle ein an Acrylsäure reicher Stoffstrom aus der Rektifikationskolonne entnommen und der obere Teil der Rektifikationskolonne mittels Diacrylsäure polymerisationsinhibiert wird.

Extended Abstract
Only available in
DWPX

TF - ORGANIC CHEMISTRY: Preferred Process: The value of (G) is at least 650 (preferably at least 1000) ppm by weight, in the whole region at least two (preferably at least four) theoretical plates above (Z). (I) is at least two theoretical plates above (Z). (F) contains an added Bronsted acid having pKa 16 or less and boiling below (I). (II) is added as such and/or contained in (I). The column includes at least one perforated plate or hydraulically sealed cross-current plate as separating component. The thermal energy necessary for the process is supplied by external forced circulation depressurization evaporator, especially a rotary evaporator. (F) is a mixture containing (by weight) 10-35% (I), 50-80% hydrophobic organic liquid with a higher b.pt. than (I) and up to 5000 ppm, especially a mixture containing 50-75% diphyl, 10-25% dimethyl phthalate, 0.2-3% (II), 15-35 (particularly 15-25)% (I), 0.07-0.2% water, 0.01-0.2% acetic acid, 0.001-0.02% formic acid, 0.001-0.02% propionic acid, 0.01-0.1% phenothiazine, 0.1-1% phthalic anhydride, 0.02-2% benzoic acid, 0.1-2% maleic anhydride, 0.1-1% benzaldehyde and 0.01-0.05% furfural. Alternatively (F) contains 95-99.8% (I).

EX - EXAMPLE: Samples (0.5 ml) of 99.8 wt. % pure acrylic acid (I) were adjusted to various diacrylic acid (II) contents, adjusted to a benzaldehyde content of 500 ppm, placed in 1.8 ml ampoules under air and stored at 120degreesC under rotation (to ensure complete mixing). The times (in minutes) necessary for complete polymerization of (I) were assessed visually as 128 in presence of 5 ppm or less of (II), 136 minutes in presence of 500 ppm of (II), 136 minutes in presence of 500 ppm of (II), 143 minutes in presence of 1000 ppm of (II), 153 minutes in presence of 1500 ppm of (II), 175 minutes in presence of 10000 ppm of (II) and 195 minutes in presence of 15000 ppm of (II).

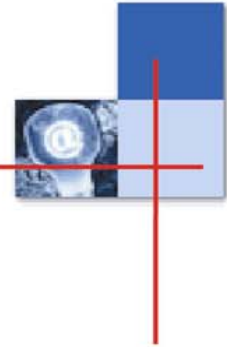
New DCR Codes

Search Tip

131513-P/DCR
131513-K/DCR
131513+/DCR

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PI01- [001] 2004;G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51
D53 D58 D60 D83 F36 F35 R00446 1911;H0271
- [002] 2004;ND07;N9999 N6655;N9999 N6893 N6655;B9999
B4535;B9999 B3690
PI02- [001] 2004;G0282 G0271 G0260 G0022 D01 D12 D10 D26 D51
D53 D58 D60 D83 F36 F35 R00446 1911;H0000;H0011;L9999
L2506;L9999 L2299;P0088;P0099
- [002] 2004;ND08;ND04;B9999 B3407 B3383 B3372;B9999
B4535;B9999 B5094 B4977 B4740
M3 - [01] M904 M905 H7 H714 H721 J0 J011 J1 J171 M210 M212
M262 M281 M320 M416 M720 M782 N163 N209 N224 N341 N343
N362 N411 N513 Q110 Q431 R023 R00446-K R00446-M
R00446-P R04893-K R04893-M R04893-P 131110-P 131110-U
131513-P 131513-U 135175-P 135175-U 1911-K 1911-M
1911-P 1911-U 192043-P 192043-U
- [02] M904 M905 H7 H714 H721 J0 J012 J1 J171 J2 J271
M210 M212 M262 M281 M312 M321 M332 M342 M381 M391 M416
M720 M782 N163 N213 N262 N321 N342 N513 Q431 R023
RA6V0U-K RA6V0U-M RA6V0U-P 531310-K 531310-M 531310-P
- [03] M904 M905 H7 H721 M210 M213 M231 M320 M416 M610
M730 R00964-K R00964-S 1145-K 1145-S 1145-U
- [04] M904 M905 M210 M213 M231 M320 M416 M610 M620 M730
R00335-K R00335-S 104782-K 104782-S 104782-U
- [05] M904 M905 H7 H714 H721 J4 J471 M210 M212 M262 M281
M320 M416 M730 R00808-K R00808-S 8784-K 8784-S 8784-U
DR - 0335-S 0335-U 0446-P 0446-U 0808-S 0808-U 0964-S 0964-U
CN - R00446-K R00446-M R00446-P R04893-K R04893-M R04893-P
RA6V0U-K RA6V0U-M RA6V0U-P R00964-K R00964-S R00335-K
R00335-S R00808-K R00808-S
KW - [1] 1911-CL; 1911-PRD; 1911-PUR; 531310-CL; 531310-PRD;
531310-PUR; 1145-CL; 104782-CL; 8784-CL
DCR - 131110-P 131110-U 131513-P 131513-U 135175-P 135175-U
1911-K 1911-M 1911-P 1911-U 192043-P 192043-U 531310-K
531310-M 531310-P 1145-K 1145-S 1145-U 104782-K
104782-S 104782-U 8784-K 8784-S 8784-U 104782-S
104782-U 1145-S 1145-U 131110-P 131110-U 131513-P
131513-U 135175-P 135175-U 1911-P 1911-U 192043-P
192043-U 8784-S 8784-U

DWPIMV - Example



- The following examples are the Member View records from the previous DWPI example
 - ALL display format is used
- Using the PATVIEW feature in DWPI/DWPX/WPAM
 - Example:
 - PRT format/field PATVIEW (format/field)

 - PRT MAX PATVIEW (MAX)
 - displays MAX format for DWPI and DWPIMV

 - PRT MAX PATVIEW (ALL)
 - displays MAX in DWPI and ALL format in DWPIMV

1st of 3 members

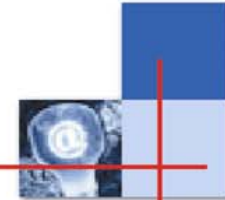
TI – Original (as it appears official on publication)

Also English, French, German titles are included

Publication details

Representative

1/3 DWPIMV - (C) Thomson Scientific
AN - 2005-067408 [27]
TI - (Original title) METHOD FOR RECTIFICATION SEPARATION OF A LIQUID FROM AN ACRYLIC ACID
ET - METHOD FOR RECTIFICATION SEPARATION OF A LIQUID FROM AN ACRYLIC ACID
FT - PROCEDE DE SEPARATION RECTIFICATIVE D'UN LIQUIDE CONTENANT DE L'ACIDE ACRYLIQUE
GT - VERFAHREN DER REKTIFIKATIVEN AUFTRENNUNG EINER ACRYLS'URE ENTHALTENDEN FLUESSIGKEIT
PA - (BADI) BASF AG
- HOEFER, Frank
- SCHLIEPHAKE, Volker
- MUELLER-ENGEL, Klaus Joachim
IN - HOEFER F; SCHLIEPHAKE V; MUELLER-ENGEL KJ
PN - WO200535478 A2 20050421 DW2005-27 C07C-057/07 Ger
AP: 2004WO-EP11026 20041002
DS - National States: 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 HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional States: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
DT - Equivalent
PR - 2003DE-1047664 20031009; 2003US-P509540 20031009
IC - C07C-057/07
ICH - C07C-057/07
REP - BASF AKTIENGESELLSCHAFT
67056 Ludwigshafen, Germany
LA - German; Ger



Inventor abstracts
In this case in English,
French, German

- EAB - The invention relates to a method for rectification separation of an acrylic acid-containing liquid consisting in supplying an acrylic acid-rich material flow to a rectification column upstream of a supplying area and in carrying out an inhibiting polymerisation in the top section of the rectification column with the aid of diacrylic acid.
- FAB - L'invention concerne un proc,d, de s,paration rectificative d'un liquide contenant de l'acide acrylique, consistant ... pr,lever un flux de produit riche en acide acrylique dans la colonne de rectification, en amont de la zone d'alimentation, et ... r,aliser une inhibition de polym,risation ... l'aide d'acide diacrylique dans le haut de la colonne de rectification.
- GAB - Ein Verfahren der rektifikativen Auftrennung einer Acryls`ure enthaltenden Fluessigkeit, wobei oberhalb der Zulaufstelle ein an Acryls`ure reicher Stoffstrom aus der Rektifikationskolonne entnommen und der obere Teil der Rektifikationskolonne mittels Diacryls`ure polymerisationsinhibiert wird.

Representative

Main Claim

2/3 DWPI MV - (C) Thomson Scientific
AN - 2005-067408 [26]
TI - (Original title) Rectificative separation of an acrylic acid-containing liquid
ET - Rectificative separation of an acrylic acid-containing liquid
PA - (BADI) BASF AG
IN - HOFER F; SCHLIEPHAKE V; MULLER-ENGEL KJ
PN - US20050077240 A1 20050414 DW2005-26 B01D-011/00 Eng
AP: 2004US-0939498 20040914, Provisional 2003US-P509540 20031009
DT - Equivalent
PR - 2003DE-1047664 20031009
IC - B01D-011/00
ICH - B01D-011/00
PCL - 210634000 095213000 261113000 562600000
REP - OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET, ALEXANDRIA, VA, United States
LA - English; Eng
EAB - A process for rectificatively separating an acrylic acid-containing liquid, by withdrawing an acrylic acid-rich stream from the rectification column above the feed point and polymerization-inhibiting the upper section of the rectification column by means of diacrylic acid.
MCLM- We claim: 1. A process for rectificatively separating an acrylic acid-containing liquid F by feeding the acrylic acid-containing liquid F to a rectification column via a feed point Z and withdrawing a stream S at a withdrawal point E above the feed point Z of the rectification column, said stream S having a content of acrylic acid, based on the weight of the stream S, which is [GREATER-THAN OVER EQUAL TO] 90% by weight and is greater than the corresponding acrylic acid content of the liquid F in% by weight, wherein the diacrylic acid content G of the reflux liquid within the region of the rectification column at least two theoretical plates above the feed point Z is at least in places [GREATER-THAN OVER EQUAL TO] 550 ppm by weight based on the weight of the reflux liquid.

Title used in DWPI record

Shows this is the DWPI Basic

The DWPI Abstract

3/3 DWPIMV - (C) Thomson Scientific
AN - 2005-067408 [08]
XA - C2005-023678
TI - Separation of acrylic acid from liquid mixture, for use as monomer, by rectification in column in presence of diacrylic acid as polymerization inhibitor in upper part of column
GT - Verfahren der rektifikativen Auftrennung einer Acryls'ure enthaltenden Fluessigkeit
PA - (BADI) BASF AG
IN - HOEFER F; SCHLIEPHAKE V; MUELLER-ENGEL KJ
PN - DE10347664 A1 20041202 DW2005-08 C07C-057/07 Ger 15p *
AP: 2003DE-1047664 20031009
DT - Basic
IC - C07C-057/07
ICH - C07C-057/07
LA - German; Ger
AB - DE10347664 A
NOVELTY: In the separation of a liquid (F) containing acrylic acid (I) by supplying (F) to an inlet site (Z) of a rectification column and recovering a stream (S) having a (I) content of at least 90 wt. % (and higher than that of (F)) from an outlet site (E) above (Z), the content (G) of diacrylic acid (II) in the reflux liquid in the region of the column at least two theoretical plates above (Z) is at least 550 ppm by weight.
- USE: (I) is a monomer, useful in the production of polymers such as water-absorbing resins. The process is useful for recovering (I) from reaction mixtures (e.g. from the partial gas-phase oxidation of propene, propane and/or acrolein) or for further purification of partially purified (I).
- ADVANTAGE: Diacrylic acid (CH₂=CHCOOCH₂CH₂COOH) (II) (a dimer of (I), formed by Michael addition and often present in (I) as an impurity) has been found to inhibit the polymerization of (I) by interrupting chain growth, and is effective in preventing polymerization of (I) in the upper part of the rectification column.

DWPI Technology Focus

German Abstract

German Main Claim

TF - ORGANIC CHEMISTRY: Preferred Process: The value of (G) is at least 650 (preferably at least 1000) ppm by weight, in the whole region at least two (preferably at least four) theoretical plates above (Z). (I) is at least two theoretical plates above (Z). (F) contains an added Bronsted acid having pKa 16 or less and boiling below (I). (II) is added as such and/or contained in (I). The column includes at least one perforated plate or hydraulically sealed cross-current plate as separating component. The thermal energy necessary for ...edited for display

GAB - Ein Verfahren der rektifikativen Auftrennung einer Acryls'ure enthaltenden Fluessigkeit, wobei oberhalb der Zulaufstelle ein an Acryls'ure reicher Stoffstrom aus der Rektifikationskolonne entnommen und der obere Teil der Rektifikationskolonne mittels Diacryls'ure polymerisationsinhibiert wird.

GCLM- Ein Verfahren der rektifikativen Auftrennung einer Acryls'ure enthaltenden Fluessigkeit F, bei dem man die Acryls'ure enthaltende Fluessigkeit F ueber eine Zufuehrstelle Z einer Rektifikationskolonne zufuehrt und oberhalb der Zufuehrstelle Z der Rektifikationskolonne an einer Entnahmestelle E einen Stoffstrom S entnimmt, dessen Gehalt an Acryls'ure, bezogen auf das Gewicht des Stoffstroms S, ≥ 90 Gew.-% betr'gt und groesser ist als der entsprechende Acryls'uregehalt der Fluessigkeit F in Gew.-%, dadurch gekennzeichnet, dass innerhalb des wenigstens zwei theoretische Trennstufen oberhalb der Zufuehrstelle Z befindlichen Bereichs der Rektifikationskolonne der Gehalt G der Ruecklauffluessigkeit an Diacryls'ure, bezogen auf das Gewicht der Ruecklauffluessigkeit, wenigstens in Teilbereichen ≥ 550 Gew.-ppm betr'gt.