

# WPAM

## Derwent World Patents Index / American Petroleum Institute

La fiche technique WPAM décrit uniquement les champs de l'indexation API EnCompass.  
Tous les autres champs sont expliqués dans la fiche technique DWPI/DWPX/DWPIMV.

### ■ Contenu :

La base WPAM, fusion des données de DWPI avec l'indexation API PAT, contient des informations sur plus de 16 millions de familles de brevets et bénéficie de l'excellente indexation de API EnCompass pour les documents concernant procédés de raffinage du pétrole, combustibles, lubrifiants, pétrochimie, pipelines, pétroliers, stockage, contrôle de la pollution, gaz de synthèse, chimie C1 et autres technologies.

### ■ Période couverte :

De 1963 à nos jours.

### ■ Accès :

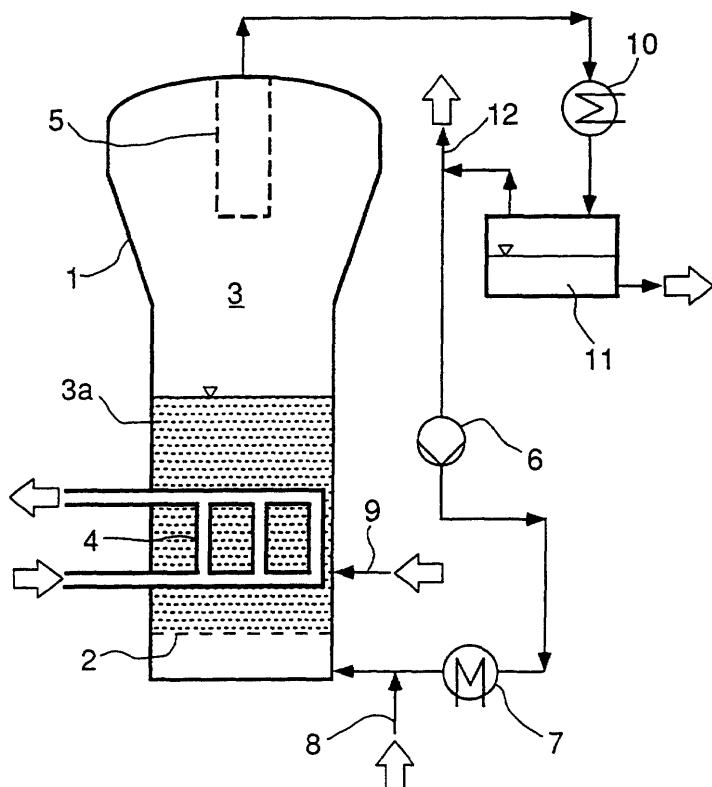
L'accès à la base WPAM est limité aux abonnés des producteurs. Pour les non-abonnés, le nom de la base est WPAMNS.

■ Nombre de références :	Plus de 16 millions de références		
■ Fréquence de mise à jour :	Hebdomadaire		
■ Langue des références :	Anglais		
■ Recherche multi-bases :	La base WPAM fait partie du cluster prédéfini ENERGY		
■ Profil de DSI :	Hebdomadaire		
■ Producteurs :	<table><tr><td>API EnCompass C/O Engineering Information 1 Castle Point Terrace Hoboken, NJ 07030-5996 USA Tél. : +1 (201) 216 8500 Fax : +1 (201) 216 8532 Email : <a href="mailto:info@apiencompass.org">info@apiencompass.org</a> Web :</td><td>Thomson Scientific 14 Great Queen Street Londres, WC2B 5DF Royaume Uni +44 20 7344 2800 +44 20 7344 2900  www.scientific.thomson.com</td></tr></table>	API EnCompass C/O Engineering Information 1 Castle Point Terrace Hoboken, NJ 07030-5996 USA Tél. : +1 (201) 216 8500 Fax : +1 (201) 216 8532 Email : <a href="mailto:info@apiencompass.org">info@apiencompass.org</a> Web :	Thomson Scientific 14 Great Queen Street Londres, WC2B 5DF Royaume Uni +44 20 7344 2800 +44 20 7344 2900  www.scientific.thomson.com
API EnCompass C/O Engineering Information 1 Castle Point Terrace Hoboken, NJ 07030-5996 USA Tél. : +1 (201) 216 8500 Fax : +1 (201) 216 8532 Email : <a href="mailto:info@apiencompass.org">info@apiencompass.org</a> Web :	Thomson Scientific 14 Great Queen Street Londres, WC2B 5DF Royaume Uni +44 20 7344 2800 +44 20 7344 2900  www.scientific.thomson.com		

## Exemple de référence

### Référence visualisée au format MAXT IMG

1/1 WPAM - (C) The Thomson Corp.- image  
CPIM The Thomson Corp.



AN - 1997-365883 [34]

AXR - API 9752619

XA - C1997-117397

TI - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity by reducing regeneration cycle time by periodic addition of sub-stoichiometric amount of oxygen for partial regeneration of for oxygen transfer catalyst, especially useful in styrene production from ethyl-benzene

DC - A41 E19

PA - (BADI) BASF AG

IN - HAGEMeyer A; SCHWEINZE J; SCHWEINZER J; WATZENBERGER O

NP - 4

NC - 7

PN - EP-785177 A2 19970723 DW1997-34 Ger 10p \*

AP: 1997EP-0100115 19970107

- DE19601750 A1 19970724 DW1997-35 C07C-015/46 Ger 9p

AP: 1996DE-1001750 19960119

- EP-785177 A3 19970903 DW1997-46 Eng

AP: 1997EP-0100115 19970107

- US5866737 A 19990202 DW1999-12 Eng

AP: 1997US-0779840 19970107

PR - 1996DE-1001750 19960119

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IC - B01J-008/00; B01J-008/24; C07B-033/00; C07B-035/04; C07C-253/26;  
C07C-253/28; C07C-005/42; C07B-035/00; C07C-253/00; C07C-005/00  
ICAA- B01J-008/00 [2006-01 A - I R - -]; B01J-008/24 [2006-01 A - I R - -];  
C07B-033/00 [2006-01 A - I R - -]; C07B-035/04 [2006-01 A - I R - -];  
C07C-253/26 [2006-01 A - I R - -]; C07C-253/28 [2006-01 A - I R - -];  
C07C-005/42 [2006-01 A - I R - -]  
ICCA- B01J-008/00 [2006 C - I R - -]; B01J-008/24 [2006 C - I R - -];  
C07B-033/00 [2006 C - I R - -]; C07B-035/00 [2006 C - I R - -];  
C07C-253/00 [2006 C - I R - -]; C07C-005/00 [2006 C - I R - -]  
EC - B01J-008/00J4; B01J-008/24; B01J-008/24D; C07B-033/00; C07B-035/04;  
C07C-005/42+15/46; C07C-253/26; C07C-253/28  
ICO - L01J-208:00C2B2B; L01J-208:00C2D2D; L01J-208:00C2D4L; L01J-208:00C2D6B  
PCL - 585443000 585380000 585444000 585445000 585617000 585621000  
585624000 585625000 585626000 585629000 585630000 585631000  
585658000 585661000 585662000 585663000 585943000

DS - EP-785177

Regional States: BE DE FR GB IT NL

AB - EP-785177 A

The oxidation and oxidative dehydrogenation of hydrocarbons to oxidised or olefinically unsaturated compounds is carried out on an oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>). The process uses an operating cycle alternating in time with a regeneration cycle and intermediate purging phase(s). The partial regeneration is carried out during the operating cycle by periodic addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the fluidised bed reactor used.

- USE: The process is used as catalyst support (claimed). The other uses are for (1) oxidative dehydrogenation of (a) aliphatics to olefins, (b) mono- to di-olefins, (c) cycloalkanes to aromatics, (d) alcohols to aldehydes/ketones and (e) aliphatics and olefins to oxygenates; (2) dehydrocyclisation and aromatisation of aliphatics and naphthenes to aromatics; (3) oxidative coupling of methane to 2C compounds and of toluene to stilbene; (4) ammonoxidation of aliphatics and olefins; (5) oxidation and ammonoxidation of side chains aromatics to side chain oxygenates or nitriles; and preferably (6) dehydrogenation of an alkyl-aromatic compound or paraffinic hydrocarbon to the corresponding alkenyl-aromatics or olefin, especially of ethylbenzene (EB) to styrene (all claimed).
- ADVANTAGE: The productivity is increased, as partial regeneration during the operating cycle reduces the time required in the regeneration cycle.

EAB - (EP785177 A2)

Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity The oxidation and oxidative dehydrogenation of hydrocarbons to oxidised or olefinically unsaturated compounds is carried out on an oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>). The process uses an operating cycle alternating in time with a regeneration cycle and intermediate purging phase(s). The partial regeneration is carried out during the operating cycle by periodic addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the fluidised bed reactor used.

- (US5866737 A)

A process for the oxidation and oxidative dehydrogenation of hydrocarbons, in particular ethylbenzene, to form corresponding oxidized or olefinically unsaturated compounds, in particular styrene, over an oxygen-conferring, oxygen-regenerable catalyst involving a working period, a time-displaced regenerating period and at least one intermediate rinsing period comprises effecting a partial regeneration during the working period by time-displaced addition of a substoichiometric amount of oxygen.

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MC - CPI: A01-C00C A01-D03 A01-D04 A01-D13 E10-A15D E10-D01B E10-F02  
E10-J02B3 E10-J02C3 N02 N03

BH - CATALYSTS/ZEOLITES  
- CHEMICAL PRODUCTS  
- CHEMICALS-PROCESSING CATALYSTS  
- NITROGEN COMPOUNDS  
- OXYGEN COMPOUNDS  
- PETROLEUM REFINING AND PETROCHEM  
- PURE HYDROCARBONS

RN - 100-41-4-A; 100-42-5\*-P; 10024-97-2-N; 108-88-3-A; 11104-93-1 (BT)-N;  
12136-45-7-N; 1312-81-8-N; 1318-02-1-N; 13463-67-7-N; 588-59-0\*-P;  
74-82-8-A; 7784-30-7-N

IT - ACTIVATION-N; ACTIVITY-N; ALUMINUM-N; ALUMINUM PHOSPHATE-N; ALUMINUM  
SILICATES-N; AMMOXIDATION-N; ANTIMONY-N; AROMATIZATION-N; ARSENIC-N;  
ATE-N; ATMOSPHERIC PRESSURE-N; BADISCHE ANILIN-N; BARIUM-N; BED-N;  
BISMUTH-N; BUSINESS OPERATION-N; CALCIUM-N; CARBON-N; CARBON DEPOSIT-N;  
CATALYST\*-N; CATALYST ACTIVITY-N; CATALYST SUPPORT-N; CERAMIC-N;  
CERIUM-N; CHROMIUM-N; CLAY MINERAL-N; COBALT-N; COMBUSTION-N;  
COMPOSITION-N; COMPOUNDS-N; CONCENTRATION-N; CONDENSATION REACTION\*-N;  
COPPER-N; CYCLE-N; CYCLIZATION-N; CYLINDER-N; DEHYDROCYCLIZATION-N;  
DEHYDROGENATION\*-N; DIAMETER-N; DISTRIBUTOR-N; EDDY-N; ELEMENT-N;  
FILTER-N; FLOW RATE-N; FLUID BED-N; FLUID FLOW-N; FLUIDIZED SYSTEM-N;  
GAS-N; GROUP IA-N; GROUP IB-N; GROUP IIA-N; GROUP IIB-N; GROUP IIIA-N;  
GROUP IIIB-N; GROUP IVA-N; GROUP IVB-N; GROUP VA-N; GROUP VB-N; GROUP  
VIA-N; GROUP VIB-N; GROUP VIIB-N; GROUP VIII-N; HEAT EXCHANGER-N;  
HEIGHT-N; HYDROCARBON-N; IDE-N; INDIUM-N; IRON-N; LANTHANUM-N;  
LANTHANUM OXIDE-N; LEAD-N; MAGNESIUM-N; MANGANESE-N; MASS TRANSFER-N;  
MINERAL-N; MOLYBDENUM-N; MOTION-N; NIOBIUM-N; NITROGEN-N; NITROGEN  
OXIDE-N; NITROGEN OXIDE, N2O-N; NOBLE METAL-N; OPERATING CONDITION-N;  
OXIDATION REACTION\*-N; OXIDATIVE COUPLING\*-N; OXIDATIVE  
DEHYDROGENATION\*-N; OXYGEN-N; PART-N; PHOSPHORUS-N; PHYSICAL  
PROPERTY-N; PILLARED-N; POTASSIUM-N; POTASSIUM OXIDE-N; PRECIOUS  
METAL-N; PREHEATING-N; PRESSURE-N; PRESSURE 10 TO 150 PSIG-N;  
PRODUCTIVITY-N; PURGING-N; RARE EARTH-N; REACTOR-N; REGENERATION-N;  
SEPARATION EQUIPMENT-N; SHEET-N; SILICATE MINERAL-N; SILICON-N;  
SILVER-N; SOLID-N; SPACE VELOCITY-N; STATIC-N; TEMPERATURE-N;  
TEMPERATURE 200 TO 300 C-N; TEMPERATURE 300 TO 600 C-N; TEMPERATURE  
600 C AND HIGHER-N; THORIUM-N; TIN-N; TITANIUM-N; TITANIUM OXIDE-N;  
TRANSITION METAL-N; TUNGSTEN-N; URANIUM-N; VACUUM-N; VANADIUM-N;  
VOLUME-N; WASTE DEPOSIT-N; WASTE MATERIAL-N; YIELD-N; ZEOLITE-N;  
ZINC-N; ZIRCONIUM-N

- BENZENE RING-A; C1-A; C7-A; C8-A; COMPOUNDS-A; ETHYLBENZENE-A;  
HYDROCARBON-A; METHANE-A; MONOHYDROXY-A; NAPHTHENES-A; OLEFIN-A;  
SATURATED CARBOCYCLIC-A; SATURATED CHAIN-A; SINGLE STRUCTURE TYPE-A;  
TOLUENE-A; UNSATURATED-A; UNSATURATED CHAIN-A

- ALDEHYDE-P; AROMATIC HYDROCARBON-P; BENZENE RING\*-P; C13-16\*-P; C8\*-P;  
COMPOUNDS-P; HYDROCARBON\*-P; INTERNAL OLEFINIC\*-P; KETONE-P;  
MONOOLEFINIC\*-P; NITRILE\*-P; STILBENE\*-P; STRAIGHT CHAIN\*-P;  
STYRENE\*-P; TERMINAL OLEFINIC\*-P; UNSATURATED CHAIN\*-P

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.../...

LM - COMPOUNDS-N; HYDROCARBON-N  
- CYCLE-N; PART-N; REGENERATION-N  
- ELEMENT-N; OXYGEN-N  
- STYRENE-P  
- ETHYLBENZENE-A  
- NAPHTHENES-A; OLEFIN-A  
- AROMATIC HYDROCARBON-P  
- COMPOUNDS-A; MONOHYDROXY-A  
- ALDEHYDE-P; COMPOUNDS-P  
- COMPOUNDS-P; KETONE-P  
- COMPOUNDS-A; HYDROCARBON-A; SATURATED CHAIN-A; UNSATURATED-A;  
UNSATURATED CHAIN-A  
- METHANE-A  
- TOLUENE-A  
- STILBENE-P  
- COMPOUNDS-P; NITRILE-P  
- BENZENE RING-A; COMPOUNDS-A; HYDROCARBON-A; SATURATED CHAIN-A  
- CYLINDER-N; DIAMETER-N; DISTRIBUTOR-N; HEIGHT-N; REACTOR-N; SHEET-N  
- NITROGEN OXIDE, N2O-N  
- BISMUTH-N; CATALYST-N; LANTHANUM OXIDE-N; POTASSIUM OXIDE-N; TITANIUM  
OXIDE-N  
- ELEMENT-N; NITROGEN-N  
TD - TEMPLATE TITLE: CATALYST  
NUMBER OF TEMPLATE GENERATED LINK TERMS: 126  
CATALYST  
IDE  
OXYGEN  
V1 ANTIMONY; ARSENIC; BISMUTH; CERIUM; COBALT;  
> COPPER; INDIUM; IRON; LEAD; MANGANESE;  
> MOLYBDENUM; NIOBIUM; SILVER; TIN; TUNGSTEN;  
> URANIUM; VANADIUM  
S2 ALUMINUM PHOSPHATE; CLAY MINERAL;  
> [ALUMINUM SILICATES; ZEOLITE]; [CARBON;  
> SILICON]; [NITROGEN; SILICON]; [CLAY MINERAL;  
> PILLARED]; [ALUMINUM; BARIUM; CALCIUM;  
> CHROMIUM; MAGNESIUM; SILICON; THORIUM;  
> TITANIUM; ZINC; ZIRCONIUM]  
UP - 1997-34  
UE - 1997-35; 1997-46; 1999-12  
UE4 - 2006-08  
UAPI- 1997-42

## La même référence avec le détail des membres de la famille au format SCAN PATVIEW (ALL)

1/1 WPAM - (C) The Thomson Corp.- image  
AN - 1997-365883 [34]  
AXR - API 9752619  
XA - C1997-117397  
FS - CPI  
DC - A41 E19  
TT - OXIDATION DEHYDROGENATE HYDROCARBON INCREASE PRODUCE REDUCE REGENERATE  
CYCLE TIME PERIODIC ADD SUB STOICHIOMETRIC AMOUNT OXYGEN TRANSFER  
CATALYST USEFUL STYRENE ETHYL BENZENE

1/4 DWPIMV - (C) The Thomson Corp.

AN - 1997-365883 [12]  
DT - Equivalent  
PN - US5866737 A 19990202 DW1999-12 C07C-005/42 Eng  
AP: 1997US-0779840 19970107  
TI - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with  
increased productivity by reducing regeneration cycle time by periodic  
addition of sub-stoichiometric amount of oxygen for partial  
regeneration of for oxygen transfer catalyst, especially useful in  
styrene production from ethyl-benzene  
PR - 1996DE-1001750 19960119  
PAA - BASF AG, Germany  
PA - (BADI) BASF AG  
INO - Watzenberger, Otto; Ludwigshafen [DE]  
- Hagemeyer, Alfred; Ludwigshafen [DE]  
- Schweinzer, Juergen; Frankenthal [DE]  
IN - WATZENBERGER O; HAGEMEYER A; SCHWEINZER J  
REP - Keil & Weinkauf  
LA - English; Eng  
IC - B01J-008/00; B01J-008/24; C07B-033/00; C07B-035/04; C07C-253/26;  
C07C-253/28; C07C-005/42; C07B-035/00; C07C-253/00; C07C-005/00  
ICH - C07C-005/42; C07C-005/09; C07C-005/327; C07C-005/333  
EC - B01J-008/00J4; B01J-008/24; B01J-008/24D; C07B-033/00; C07B-035/04;  
C07C-005/42+15/46; C07C-253/26; C07C-253/28  
ICO - L01J-208:00C2B2B; L01J-208:00C2D2D; L01J-208:00C2D4L; L01J-208:00C2D6B  
PCL - 585443000 585380000 585444000 585445000 585617000 585621000  
585624000 585625000 585626000 585629000 585630000 585631000  
585658000 585661000 585662000 585663000 585943000  
AB - US5866737 A  
The oxidation and oxidative dehydrogenation of hydrocarbons to  
oxidised or olefinically unsaturated compounds is carried out on an  
oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>).  
The process uses an operating cycle alternating in time with a  
regeneration cycle and intermediate purging phase(s). The partial  
regeneration is carried out during the operating cycle by periodic  
addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the  
fluidised bed reactor used.  
- USE: The process is used as catalyst support (claimed). The other  
uses are for (1) oxidative dehydrogenation of (a) aliphatics to  
olefins, (b) mono- to di-olefins, (c) cycloalkanes to aromatics, (d)  
alcohols to aldehydes/ketones and (e) aliphatics and olefins to  
oxygenates; (2) dehydrocyclisation and aromatisation of aliphatics and  
naphthenes to aromatics; (3) oxidative coupling of methane to 2C  
compounds and of toluene to stilbene; (4) ammonoxidation of aliphatics  
and olefins; (5) oxidation and ammonoxidation of side chains aromatics  
to side chain oxygenates or nitriles; and preferably (6)  
dehydrogenation of an alkyl-aromatic compound or paraffinic  
hydrocarbon to the corresponding alkenyl-aromatics or olefin,  
especially of ethylbenzene (EB) to styrene (all claimed).

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.../...

- ADVANTAGE: The productivity is increased, as partial regeneration during the operating cycle reduces the time required in the regeneration cycle.
- EAB - A process for the oxidation and oxidative dehydrogenation of hydrocarbons, in particular ethylbenzene, to form corresponding oxidized or olefinically unsaturated compounds, in particular styrene, over an oxygen-conferring, oxygen-regenerable catalyst involving a working period, a time-displaced regenerating period and at least one intermediate rinsing period comprises effecting a partial regeneration during the working period by time-displaced addition of a substoichiometric amount of oxygen.
- MCLM- A process for oxidative dehydrogenation of hydrocarbons to form corresponding olefinically unsaturated compounds over a redox catalyst which comprises the steps of: (1) filling a fluidized-bed reactor with the catalyst; (2) feeding a fluidizing gas and hydrocarbons in the absence of free oxygen into the fluidized-bed reactor wherein the hydrocarbons come into contact with the catalyst; (3) adding an oxidant containing substoichiometric mol% of oxygen with respect to hydrocarbons during the oxidative dehydrogenation period after steady state conditions have been attained; (4) feeding the hydrocarbon in the absence of free oxygen to the fluidized-bed reactor where it comes into contact with the redox catalyst during the oxidative dehydrogenation period; which results in the hydrocarbon being oxidatively dehydrogenated while the redox catalyst is regenerated.
- UP - 1999-12

2/4 DWPIMV - (C) The Thomson Corp.- image

AN - 1997-365883 [46]

DT - Equivalent

PN - EP-785177 A3 19970903 DW1997-46 C07C-005/42 Eng  
AP: 1997EP-0100115 19970107

TI - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity by reducing regeneration cycle time by periodic addition of sub-stoichiometric amount of oxygen for partial regeneration of for oxygen transfer catalyst, especially useful in styrene production from ethyl-benzene

PR - 1996DE-1001750 19960119

PAA - BASF AG

PA - (BADI) BASF AG

IN - HAGEMeyer A; SCHWEINZE J; WATZENBERGER O

LA - English; Eng

IC - B01J-008/00; B01J-008/24; C07B-033/00; C07B-035/04; C07C-253/26;  
C07C-253/28; C07C-005/42; C07B-035/00; C07C-253/00; C07C-005/00

ICH - C07C-005/42; B01J-008/08; C07B-033/00; C07C-015/46

EC - B01J-008/00J4; B01J-008/24; B01J-008/24D; C07B-033/00; C07B-035/04;  
C07C-005/42+15/46; C07C-253/26; C07C-253/28

ICO - L01J-208:00C2B2B; L01J-208:00C2D2D; L01J-208:00C2D4L; L01J-208:00C2D6B

UP - 1997-46

3/4 DWPIMV - (C) The Thomson Corp.- image

AN - 1997-365883 [35]

DT - Equivalent

PN - DE19601750 A1 19970724 DW1997-35 C07C-015/46 Ger 9p  
AP: 1996DE-1001750 19960119

TI - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity by reducing regeneration cycle time by periodic addition of sub-stoichiometric amount of oxygen for partial regeneration of for oxygen transfer catalyst, especially useful in styrene production from ethyl-benzene

GT - Verfahren zur Oxidation und Oxidehydrierung von Kohlenwasserstoffen in der Wirbelschicht

PAA - BASF AG

PA - (BADI) BASF AG

IN - HAGEMeyer A; SCHWEINZER J; WATZENBERGER O

LA - German; Ger

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- IC - C07C-015/46; C07B-035/04; C07C-002/84; C07C-005/32; C07C-005/333; C07C-005/387; C07C-005/41; C07C-011/00; C07C-015/52; C07C-045/33; C07C-051/265; C07C-253/24
- ICH - C07C-015/46; C07B-035/04; C07C-002/84; C07C-005/32; C07C-005/333; C07C-005/387; C07C-005/41; C07C-011/00; C07C-015/52; C07C-045/33; C07C-051/265; C07C-253/24
- EC - B01J-008/00J4; B01J-008/24; B01J-008/24D; C07B-033/00; C07B-035/04; C07C-005/42+15/46; C07C-253/26; C07C-253/28
- ICO - L01J-208:00C2B2B; L01J-208:00C2D2D; L01J-208:00C2D4L; L01J-208:00C2D6B
- AB - DE19601750 A

The oxidation and oxidative dehydrogenation of hydrocarbons to oxidised or olefinically unsaturated compounds is carried out on an oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>). The process uses an operating cycle alternating in time with a regeneration cycle and intermediate purging phase(s). The partial regeneration is carried out during the operating cycle by periodic addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the fluidised bed reactor used.

- USE: The process is used as catalyst support (claimed). The other uses are for (1) oxidative dehydrogenation of (a) aliphatics to olefins, (b) mono- to di-olefins, (c) cycloalkanes to aromatics, (d) alcohols to aldehydes/ketones and (e) aliphatics and olefins to oxygenates; (2) dehydrocyclisation and aromatisation of aliphatics and naphthenes to aromatics; (3) oxidative coupling of methane to 2C compounds and of toluene to stilbene; (4) ammonoxidation of aliphatics and olefins; (5) oxidation and ammonoxidation of side chains aromatics to side chain oxygenates or nitriles; and preferably (6) dehydrogenation of an alkyl-aromatic compound or paraffinic hydrocarbon to the corresponding alkenyl-aromatics or olefin, especially of ethylbenzene (EB) to styrene (all claimed).
- ADVANTAGE: The productivity is increased, as partial regeneration during the operating cycle reduces the time required in the regeneration cycle.

GCLM- 1. Verfahren zur Oxidation und oxidativen Dehydrierung von Kohlenwasserstoffen unter Bildung entsprechender oxidierter bzw. olefinisch ungesättigter Verbindungen an einem Sauerstoff übertragenden, mit Sauerstoff regenerierbaren Katalysator, das einen Arbeitstakt, einen zeitlich versetzten Regeneriertakt und mindestens eine zwischengeschaltete Spuelphase aufweist, dadurch gekennzeichnet, dass während des Arbeitstakts durch zeitlich versetzte Zugabe einer unterstoechiometrischen Menge an Sauerstoff eine Teilregenerierung vorgenommen wird.

UP - 1997-35

4/4 DWPIMV - (C) The Thomson Corp.- image

AN - 1997-365883 [34]

XA - C1997-117397

DT - Basic

PN - EP-785177 A2 19970723 DW1997-34 C07C-005/42 Ger 10p \*

AP: 1997EP-0100115 19970107

TI - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity by reducing regeneration cycle time by periodic addition of sub-stoichiometric amount of oxygen for partial regeneration of for oxygen transfer catalyst, especially useful in styrene production from ethyl-benzene

DS - Regional States: BE DE FR GB IT NL

PR - 1996DE-1001750 19960119

FT - Procédé pour l'oxydation et l'oxydeshydrogenation d'hydrocarbures dans une couche turbulente

GT - Verfahren zur Oxidation und Oxidehydrierung von Kohlenwasserstoffen in der Wirbelschicht

PAA - BASF AG

PA - (BADI) BASF AG

IN - HAGEMeyer A; SCHWEINZE J; WATZENBERGER O

LA - German; Ger

.../...

.../...

- IC - B01J-008/00; B01J-008/24; C07B-033/00; C07B-035/04; C07C-253/26; C07C-253/28; C07C-005/42; C07B-035/00; C07C-253/00; C07C-005/00
- ICH - C07C-005/42; B01J-008/08; C07B-033/00; C07C-015/46
- EC - B01J-008/00J4; B01J-008/24; B01J-008/24D; C07B-033/00; C07B-035/04; C07C-005/42+15/46; C07C-253/26; C07C-253/28
- ICO - L01J-208:00C2B2B; L01J-208:00C2D2D; L01J-208:00C2D4L; L01J-208:00C2D6B
- AB - EP-785177 A

The oxidation and oxidative dehydrogenation of hydrocarbons to oxidised or olefinically unsaturated compounds is carried out on an oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>). The process uses an operating cycle alternating in time with a regeneration cycle and intermediate purging phase(s). The partial regeneration is carried out during the operating cycle by periodic addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the fluidised bed reactor used.

- USE: The process is used as catalyst support (claimed). The other uses are for (1) oxidative dehydrogenation of (a) aliphatics to olefins, (b) mono- to di-olefins, (c) cycloalkanes to aromatics, (d) alcohols to aldehydes/ketones and (e) aliphatics and olefins to oxygenates; (2) dehydrocyclisation and aromatisation of aliphatics and naphthenes to aromatics; (3) oxidative coupling of methane to 2C compounds and of toluene to stilbene; (4) ammonoxidation of aliphatics and olefins; (5) oxidation and ammonoxidation of side chains aromatics to side chain oxygenates or nitriles; and preferably (6) dehydrogenation of an alkyl-aromatic compound or paraffinic hydrocarbon to the corresponding alkenyl-aromatics or olefin, especially of ethylbenzene (EB) to styrene (all claimed).
- ADVANTAGE: The productivity is increased, as partial regeneration during the operating cycle reduces the time required in the regeneration cycle.

- EAB - Oxidation and oxidative dehydrogenation of hydrocarbon(s) with increased productivity The oxidation and oxidative dehydrogenation of hydrocarbons to oxidised or olefinically unsaturated compounds is carried out on an oxygen-transfer catalyst, which can be regenerated with oxygen (O<sub>2</sub>). The process uses an operating cycle alternating in time with a regeneration cycle and intermediate purging phase(s). The partial regeneration is carried out during the operating cycle by periodic addition of a sub-stoichiometric amount of O<sub>2</sub>. Also claimed is the fluidised bed reactor used.

- GCLM- 1. Verfahren zur Oxidation und oxidativen Dehydrierung von Kohlenwasserstoffen unter Bildung entsprechender oxidiertes bzw. olefinisch ungesättigter Verbindungen an einem Sauerstoff uebertragenden, mit Sauerstoff regenerierbaren Katalysator, das einen Arbeitstakt, einen zeitlich versetzten Regeneriertakt und mindestens eine zwischengeschaltete Spuelphase aufweist, dadurch gekennzeichnet, dass waehrend des Arbeitstakts durch zeitlich versetzte Zugabe einer unterstoechiometrischen Menge an Sauerstoff eine Teilregenerierung vorgenommen wird.

- UP - 1997-34

# Interrogation

## Indexation API

Recherche par	Index	Conseils d'utilisation	Exemples
Descripteurs principaux sous forme éclatée	/IW	Utiliser cet index pour la recherche de termes indexés en texte.  Utiliser l'index /IT avec les commandes IND, MEM et MEMT.	TREATING/IW
Descripteurs supplémentaires sous forme éclatée	/SW	Interroger par mots simples en utilisant les opérateurs et les troncatures. Les mots n'appartiennent pas aux descripteurs du Thésaurus.  Avec les commandes IND, MEM et MEMT, utiliser l'index /ST.	/SW NYLON /SW UREA AV INDEX /SW UREA+
Combiné	/AI	Cet index permet de rechercher à la fois des descripteurs principaux et supplémentaires.	/AI TREATING ET NYLON
Bulletin et Sections	/BH	Cet index contient le nom : <ul style="list-style-type: none"><li>- du bulletin des résumés API EnCompass</li><li>- des titres de section dans un Bulletin API.</li></ul> Interroger par mots-clés.	PETROLEUM PROCESSES/BH

## Indexation API (suite)

Recherche par	Index	Conseils d'utilisation	Exemples
Descripteurs sous forme de mots-clés	/IT	<p>Interroger par mots-clés en respectant l'écriture exacte du descripteur dans le Thésaurus.</p> <p>Les descripteurs comprenant des caractères spéciaux tels que slashes ou parenthèses doivent être placés entre guillemets.</p> <p>■ <u>Recherche pondérée</u> Les descripteurs qui désignent les concepts les plus importants sont marqués par un astérisque. Pour pondérer la recherche, ajouter l'astérisque juste après le descripteur recherché.</p> <p>Une recherche faite sans astérisque retrouve l'ensemble des descripteurs, pondérés et non pondérés.</p> <p>■ <u>Utilisation des qualificatifs</u> Il est possible de préciser un descripteur en utilisant l'un des trois qualificatifs de rôle :</p> <ul style="list-style-type: none"> <li>• -P : Produit</li> <li>• -A : Réactif</li> <li>• -N : Sans rôle</li> </ul>	<p>/IT PETROLEUM FRACTION</p> <p>"LUBRICANT/INDUSTRIAL OIL"/IT</p> <p>/IT "CRUDE OIL (WELL)"</p> <p>PETROLEUM FRACTION*/IT</p> <p>PETROLEUM FRACTION-A /IT</p> <p>ATMOSPHERIC RESIDUE*-A /IT</p>
Descripteurs supplémentaires sous forme de mots-clés	/ST	<p>Interroger par mots-clés simples ou composés.</p> <p>Les mots n'appartiennent pas aux descripteurs du Thésaurus.</p>	<p>PERSTRACTION/ST</p> <p>/ST UREA INDEX</p>
Descripteurs associés sous forme de mots-clés	/LT	<p>Ce champ comprend les descripteurs qui ont été regroupés pour exprimer un lien spécifique.</p> <p>Interroger par mots-clés en reliant les descripteurs recherchés avec l'opérateur PHR.</p> <p>L'utilisation des qualificatifs est possible.</p>	<p>/LT BENZENE RING PHR SATURATED CHAIN</p> <p>/LT CATALYST-P PHR PLATINUM-P</p>
Descripteurs ajoutés sous forme de mots-clés	/AT	<p>Ce sont des descripteurs attribués par les indexeurs de la base.</p> <p>Interroger par mots-clés.</p> <p>La recherche pondérée et l'utilisation des qualificatifs sont possibles comme dans l'index /IT</p>	<p>NITROBENZENE/AT</p> <p>LUBRICANT STOCK*/AT</p> <p>LUBRICANT STOCK-P/AT</p>

## Autres index

Recherche par	Index	Conseils d'utilisation	Exemples
Numéro de référence croisée API	/AXR (or /XR)	Le champ contient le numéro de résumé API. Les numéros sont précédés par un préfixe API non recherchable.	/AXR 9915404
Numéro de registre CAS	/RN	Interroger par le numéro unique attribué aux composés chimiques par Chemical Abstracts Service.  Le RN peut être suivi d'un qualificatif de rôle : <ul style="list-style-type: none"> <li>• -P : Produit</li> <li>• -A : Réactif</li> <li>• -N : Sans rôle</li> </ul>	101-68-8/RN  101-68-8-N/RN
Code de mise à jour API	/UAPI	Interroger sous le format : AAAA-SS  Le profil de DSI s'exécute par défaut sur le champ UP. Pour mettre en place un profil sur le champ UAPI, utiliser l'option SURV.	/UAPI 2006-35  SV PF nom;SURV UAPI
Affichage des matrices	Utiliser cet index pour isoler les données des matrices API. Interroger par la présence du champ.		TD=PRES
Descripteurs manuels	Ce champ contient les descripteurs associés indexés manuellement. Interroger par la présence du champ.		LM=PRES

# Affichage des documents

La liste ci-dessous donne les formats de visualisation spécifiques à la base WPAM contenant les champs API.

Pour obtenir la liste des autres formats de visualisation, reportez-vous à la fiche technique DWPI/DWPX/DWPIMV.

Champs	Formats					
	TEST (ou TR)	TRT	MAX	MAXT	MAXL	MAXR
AB			✓	✓	✓	✓
AN	✓	✓	✓	✓	✓	✓
AW	✓	✓	✓	✓	✓	✓
AXR	✓	✓	✓	✓	✓	✓
BH	✓	✓	✓	✓	✓	✓
DC	✓	✓	✓	✓	✓	✓
DS			✓	✓	✓	✓
EAB			✓	✓	✓	✓
EC		✓	✓	✓	✓	✓
FAB			✓	✓	✓	✓
FS	✓	✓				
GAB			✓	✓	✓	✓
IC		✓	✓	✓	✓	✓
ICAA		✓	✓	✓	✓	✓
ICCA		✓	✓	✓	✓	✓
ICO		✓	✓	✓	✓	✓
IN			✓	✓	✓	✓
IT	✓	✓	✓	✓	✓	✓
LM		✓		✓		✓
LT	✓		✓		✓	
MC		✓	✓	✓	✓	✓
NC			✓	✓	✓	✓
NP			✓	✓	✓	✓
PA			✓	✓	✓	✓
PCL		✓	✓	✓	✓	✓
PN			✓	✓	✓	✓
PR			✓	✓	✓	✓
RN	✓	✓	✓	✓	✓	✓
TD		✓		✓		✓
TF					✓	✓
TI			✓	✓	✓	✓
TT	✓	✓				
UAPI			✓	✓	✓	✓
UE			✓	✓	✓	✓
UE4			✓	✓	✓	✓
UP			✓	✓	✓	✓
UP4			✓	✓	✓	✓
XA	✓	✓	✓	✓	✓	✓
XP	✓	✓	✓	✓	✓	✓
XR	✓	✓	✓	✓	✓	✓

## ■ Visualisation des images

Pour afficher l'image dans une référence, utiliser le paramètre IMG.

Visualisation de l'image seule : Ajouter le paramètre IMG au champ AN.  
VI AN IMG

Visualisation du texte et de l'image : Ajouter le paramètre IMG au format de visualisation désiré.  
Exemples : VI TEST IMG ou VI MAXT IMG.

## ■ Affichage du détail sur chaque membre de la famille

La base DWPIMV contient le détail des informations incluant les données originales disponibles pour chaque membre de la famille. La couverture varie selon les pays et peut inclure de l'information bibliographique complémentaire telles que titre original, abrégé original et revendication principale visualisables depuis la base WPAM grâce à l'option PATVIEW.

Ajoutez l'option PATVIEW à la commande de visualisation pour afficher la référence WPAM suivie des références DWPIMV. Par défaut, le format d'affichage est le format STDR dans les deux bases.

VI PATVIEW Affiche la référence WPAM en format STDR suivie de(s) référence(s) DWPIMV en format STDR

VI format PATVIEW Affiche la référence WPAM dans un format autre que STDR suivie de(s) référence(s) DWPIMV en format STDR. Exemple : **VI TITL PATVIEW**

VI PATVIEW (format) Affiche la référence WPAM en format STDR suivie de(s) référence(s) DWPIMV dans un format autre que STDR. Le 2<sup>ème</sup> format doit être placé entre parenthèses. Exemple : **VI PATVIEW (ALL)**

VI format PATVIEW (format) Affiche la référence WPAM dans un format autre que STDR suivie de(s) référence(s) DWPIMV dans un format autre que STDR. Le 2<sup>ème</sup> format doit être placé entre parenthèses. Exemple : **VI BASC PATVIEW (ALL)**

## Liste des champs

Tous ces champs sont utilisables avec les commandes VI, PA et =PRES.

La liste ci-dessous donne les champs spécifiques à la base WPAM (indexation API). La liste complète des champs est fournie dans la la fiche technique DWPI/DWPX/DWPIMV.

AT	Descripteurs ajoutés
AXR	Numéro de référence croisée API
BH	Bulletins et sections
FS	Segment du fichier
IT	Descripteurs principaux
LM*	Descripteurs manuels
LT	Descripteurs associés
RN	Numéro de registre CAS
ST	Descripteurs supplémentaires
TD*	Affichage des matrices
UAPI	Code de mise à jour API

\* Ces champs sont visualisables mais pas recherchables.