

Title (en)

METHOD FOR HYDROGENATING ORGANIC COMPOUNDS BY MEANS OF RU/SIO₂ CATALYSTS

Title (de)

VERFAHREN ZUR HYDRIERUNG ORGANISCHER VERBINDUNGEN UNTER VERWENDUNG VON RU/SIO₂ KATALYSATOREN

Title (fr)

PROCEDE POUR L'HYDROGENATION DE COMPOSES ORGANIQUES AVEC UTILISATION DE CATALYSEURS RU/SIO₂

Publication

EP 1412082 A1 20040428 (DE)

Application

EP 02740699 A 20020607

Priority

- DE 10128242 A 20010611
- EP 0206287 W 20020607

Abstract (en)

[origin: DE10128242A1] The invention relates to a method for hydrogenating at least one organic compound by bringing said organic compound into contact with a gas containing hydrogen in the presence of a catalyst. Said catalyst comprises ruthenium as an active metal, either alone or combined with another metal of the subgroups I, VII or VIII of the periodic table, deposited on an amorphous silicon dioxide-based support. Said catalyst is obtained by i): treating the amorphous silicon dioxide-based support with a halogen-free aqueous solution of a low-molecular ruthenium compound, and subsequently drying the treated support at a temperature of less than 200 DEG C, ii) reducing the solid matter obtained in i) with hydrogen at a temperature ranging from 100 to 350 DEG C, wherein step ii) is carried out directly after step i).

[origin: DE10128242A1] Hydrogenation of organic compound(s) (I) comprises contacting (I) with a gas containing hydrogen in the presence of a catalyst (A) containing ruthenium, obtained by treating an amorphous silicon dioxide-based carrier material at least once with a halogen-free aqueous solution of a low molecular ruthenium compound and drying and immediately reducing the obtained solid with hydrogen. Hydrogenation of organic compound(s) (I) comprises contacting (I) with a gas containing hydrogen in the presence of a catalyst (A) containing ruthenium and optionally other Group I, VII or VIII transition metal(s), obtained by treating an amorphous silicon dioxide-based carrier material at least once with a halogen-free aqueous solution of a low molecular ruthenium compound and drying at less than 200 deg C and immediately reducing the obtained solid with hydrogen at 100-350 deg C.

IPC 1-7

B01J 23/46; **B01J 37/18**; **C07C 5/10**; **C07C 29/136**; **C07C 51/36**

IPC 8 full level

B01J 23/46 (2006.01); **B01J 37/18** (2006.01); **C07C 5/10** (2006.01); **C07C 29/141** (2006.01); **C07C 29/17** (2006.01); **C07C 29/19** (2006.01); **C07C 29/20** (2006.01); **C07C 51/36** (2006.01); **C07C 209/48** (2006.01); **C07C 209/72** (2006.01); **C07D 295/023** (2006.01); **C08F 8/04** (2006.01); **B01J 21/08** (2006.01); **C07C 211/03** (2006.01); **C07C 211/11** (2006.01); **C07C 211/35** (2006.01); **C07C 211/36** (2006.01)

CPC (source: EP US)

B01J 23/462 (2013.01 - EP US); **B01J 37/18** (2013.01 - EP US); **C07C 5/10** (2013.01 - EP US); **C07C 29/141** (2013.01 - EP US); **C07C 29/172** (2013.01 - EP US); **C07C 29/19** (2013.01 - EP US); **C07C 29/20** (2013.01 - EP US); **C07C 51/36** (2013.01 - EP US); **C07C 209/48** (2013.01 - EP US); **C07C 209/72** (2013.01 - EP US); **C07D 295/023** (2013.01 - EP US); **C08F 8/04** (2013.01 - EP US); **B01J 21/08** (2013.01 - EP US); **C07B 2200/09** (2013.01 - EP US); **C07C 2523/46** (2013.01 - EP US); **C07C 2601/14** (2017.04 - EP US)

C-Set (source: EP US)

1. **C07C 5/10 + C07C 13/18**
2. **C07C 29/141 + C07C 31/12**
3. **C07C 29/172 + C07C 31/20**
4. **C07C 29/20 + C07C 35/08**
5. **C07C 29/20 + C07C 35/21**
6. **C07C 29/19 + C07C 31/1355**
7. **C07C 29/172 + C07C 31/1355**
8. **C07C 29/175 + C07C 31/1355**
9. **C07C 209/48 + C07C 211/03**
10. **C07C 209/48 + C07C 211/11**
11. **C07C 209/48 + C07C 211/35**
12. **C07C 209/48 + C07C 211/36**
13. **C07C 209/72 + C07C 211/03**
14. **C07C 209/72 + C07C 211/11**
15. **C07C 209/72 + C07C 211/35**
16. **C07C 209/72 + C07C 211/36**

Citation (search report)

See references of WO 02100536A1

Citation (examination)

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