

Title (en)

METAL NANO-CATALYSTS IN GLYCEROL AND APPLICATIONS IN ORGANIC SYNTHESIS

Title (de)

METALLNANOKATALYSATOREN IN GLYCEROL UND ANWENDUNGEN DAVON IN EINER ORGANISCHEN SYNTHESE

Title (fr)

NANO-CATALYSEURS METALLIQUES DANS LE GLYCEROL et APPLICATIONS EN SYNTHÈSE ORGANIQUE

Publication

EP 2934748 A1 20151028 (FR)

Application

EP 13821877 A 20131220

Priority

- FR 1262533 A 20121221
- FR 2013053215 W 20131220

Abstract (en)

[origin: WO2014096732A1] The invention relates to a catalytic system consisting of a suspension in glycerol of metal nanoparticles comprising at least one transition metal, said suspension also comprising at least one compound stabilising said metal nanoparticles, soluble in glycerol. These are stable systems that can catalyse a reaction from an organic substrate, with high yields and activity, and excellent selectivity. The invention also relates to the use of the catalytic system for performing organic transformations such as hydrogenation or coupling reactions (formation of C-C, C-N, C-O, C-S... bonds), and for synthesising polyfunctional molecules, in a single reactor, by multi-step, sequential or cascade reactions.

IPC 8 full level

B01J 31/06 (2006.01); **B01J 31/24** (2006.01); **B01J 35/00** (2006.01); **B22F 1/0545** (2022.01); **B22F 1/102** (2022.01); **B82Y 40/00** (2011.01)

CPC (source: EP US)

B01J 23/44 (2013.01 - EP US); **B01J 23/464** (2013.01 - EP US); **B01J 23/72** (2013.01 - EP US); **B01J 31/0202** (2013.01 - US); **B01J 31/0267** (2013.01 - US); **B01J 31/0271** (2013.01 - US); **B01J 31/06** (2013.01 - EP US); **B01J 31/24** (2013.01 - EP US); **B01J 31/2404** (2013.01 - EP US); **B01J 31/28** (2013.01 - US); **B01J 35/23** (2024.01 - EP US); **B01J 35/40** (2024.01 - EP US); **B22F 1/0545** (2022.01 - EP US); **B22F 1/102** (2022.01 - EP US); **B22F 9/26** (2013.01 - EP US); **C07B 37/04** (2013.01 - EP US); **C07C 5/03** (2013.01 - US); **C07C 41/20** (2013.01 - US); **C07C 45/62** (2013.01 - US); **C07C 45/64** (2013.01 - US); **C07C 67/303** (2013.01 - US); **C07C 209/60** (2013.01 - US); **C07C 319/18** (2013.01 - US); **C07D 209/08** (2013.01 - EP US); **C07D 211/62** (2013.01 - EP US); **C07D 211/94** (2013.01 - EP US); **C07D 249/04** (2013.01 - EP US); **C07D 295/096** (2013.01 - EP US); **C07D 295/135** (2013.01 - EP US); **C07D 307/79** (2013.01 - EP US); **C07D 307/84** (2013.01 - EP US); **C07D 307/89** (2013.01 - EP US); **C07D 401/04** (2013.01 - EP US); **C07D 401/06** (2013.01 - EP US); **C07D 403/14** (2013.01 - EP US); **C07D 405/06** (2013.01 - EP US); **C07D 493/04** (2013.01 - EP US); **C07D 493/14** (2013.01 - EP US); **C07D 493/18** (2013.01 - EP US); **B01J 2231/34** (2013.01 - EP US); **B01J 2231/4211** (2013.01 - EP US); **B01J 2231/4216** (2013.01 - EP US); **B01J 2231/4227** (2013.01 - EP US); **B01J 2231/4261** (2013.01 - EP US); **B01J 2231/4266** (2013.01 - EP US); **B01J 2231/4283** (2013.01 - EP US); **B01J 2231/4294** (2013.01 - EP US); **B01J 2231/641** (2013.01 - EP US); **B01J 2231/645** (2013.01 - EP US); **B01J 2531/16** (2013.01 - EP US); **B01J 2531/822** (2013.01 - EP US); **B01J 2531/824** (2013.01 - EP US); **B01J 2531/90** (2013.01 - EP US); **B01J 2540/32** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **B82Y 40/00** (2013.01 - EP US); **C07C 2531/02** (2013.01 - US); **C07C 2531/28** (2013.01 - US); **C07C 2601/14** (2017.04 - EP US)

Citation (search report)

See references of WO 2014096732A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 2999956 A1 20140627; **FR 2999956 B1 20151225**; CN 104968432 A 20151007; EP 2934748 A1 20151028; JP 2016511683 A 20160421; US 2016038926 A1 20160211; WO 2014096732 A1 20140626

DOCDB simple family (application)

FR 1262533 A 20121221; CN 201380071058 A 20131220; EP 13821877 A 20131220; FR 2013053215 W 20131220; JP 2015548735 A 20131220; US 201314654061 A 20131220