

Title (en)

METHOD FOR PREPARING CATALYST SUPPORT LOADED WITH A FIRST METAL AND A SECOND METAL

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES MIT EINEM ERSTEN METALL UND EINEM ZWEITEN METALL BELADENEN KATALYSATORTRÄGERS

Title (fr)

PROCÉDÉ DE PRÉPARATION D'UN SUPPORT DE CATALYSEUR CHARGÉ D'UN PREMIER MÉTAL ET D'UN SECOND MÉTAL

Publication

EP 3965927 A1 20220316 (EN)

Application

EP 20801860 A 20200428

Priority

- CN 201910369858 A 20190505
- CN 2020087419 W 20200428

Abstract (en)

[origin: WO2020224483A1] A method for preparing a highly dispersed ultrafine bimetallic shaped catalyst is provided. Said catalyst is obtainable by a method of solid-state seeded-growth strategy. Said method comprises: mixing an aromatic compound containing at least one N-group, a surfactant, an aldehyde compound and a first metal salt, wherein the first metal is one of Pd, Au, Pt and the like, and preparing a uniform solution; heating the solution to form a support and metal nanocluster seeds loaded on the support; uniformly introducing a second element into the support; during the hydrogenation reduction, the second element grows by taking the first metal nanocluster as a seed to obtain the bimetal-loaded catalyst support. The method can obtain the highly dispersed supported bimetallic catalyst with uniform ultrafine particles. The catalyst is easily shaped, easily separated and regenerated. The preparation process is green and energy-efficient, suitable for promotion, and therefore has a broad scope in the field of catalytic hydrogenation, oxidation and the like.

IPC 8 full level

B01J 31/06 (2006.01); **C07C 211/46** (2006.01)

CPC (source: CN EP)

B01J 23/44 (2013.01 - EP); **B01J 23/462** (2013.01 - EP); **B01J 23/52** (2013.01 - EP); **B01J 23/8926** (2013.01 - EP); **B01J 31/06** (2013.01 - CN); **B01J 35/23** (2024.01 - EP); **B01J 35/30** (2024.01 - EP); **B01J 35/393** (2024.01 - CN EP); **B01J 35/394** (2024.01 - CN); **B01J 37/08** (2013.01 - CN); **B01J 37/16** (2013.01 - CN); **B01J 31/06** (2013.01 - EP); **B01J 31/2234** (2013.01 - EP); **B01J 2531/824** (2013.01 - EP)

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)

WO 2020224483 A1 20201112; CN 111889136 A 20201106; CN 111889136 B 20220201; EP 3965927 A1 20220316; EP 3965927 A4 20230118

DOCDB simple family (application)

CN 2020087419 W 20200428; CN 201910369858 A 20190505; EP 20801860 A 20200428