

Title (en)

METHOD FOR MANUFACTURING A CATALYST SUITED FOR HYDROGENATION OF AROMATICS.

Title (de)

METHODE ZUR HERSTELLUNG EINES ZUR HYDRIERUNG VON AROMATEN GEEIGNETEN KATALYSATORS.

Title (fr)

PROCEDE ET FABRICATION D'UN CATALYSEUR DESTINE A L'HYDROGENATION DE COMPOSES AROMATIQUES.

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Application

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Abstract (en)

[origin: WO9401216A1] The present invention concerns a method for manufacturing such a heterogeneous catalyst suited for hydrogenation of aromatics which contains nickel bonded onto an aluminum oxide support. In the method a nickel-containing precursor is vaporized and introduced in gas phase into a reaction space where it is brought in contact with the aluminum oxide support material. According to the invention the nickel-containing precursor used is an organic nickel compound such as nickel acetylacetonate which is kept in a sufficiently high vapor pressure and allowed to interact with the support for a sufficiently long time to introduce the reagent in excess amounts relative to the number of bonding sites available on the support. The reaction temperature is approx. 190...220 C. The unreacted nickel compound is removed from the reaction space at the reaction temperature, and the product resulting from the interaction between the nickel compound and the support is treated at a temperature of 200...600 C to remove the organic parts of the nickel compound. The produced catalyst is treated with hydrogen at a temperature of 300...600 C to activate the catalyst. By cyclically repeating the above-described method steps 2...10 times, nickel-contained catalysts of good dispersion are attained in which the nickel content can be varied in the range 3...21 wt.% of the support weight. The catalysts have an excellent activity, particularly in a hydrogenation reaction of sulfur-free hydrocarbon feedstock.

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