hydrogenation, imination and reductive hydrolysis processes.

5558766

HYDROCRACKING OF FEEDSTOCKS AND CATALYST THEREFOR

Prada Ricardo; Galiasso Robert T; Romero Yilda; Reyes Edito; Rodriguez Edilberto Caracas, VENEZUELA assigned to Intevep S A

A tri-elemental catalyst on a support that includes a pentasil crystalline zeolite and is suitable for hydrocracking and hydrogenation of aromatics-containing petroleum hydrocarbon feedstocks such as hydrotreated cracked feedstock, virgin feedstock, vacuum distillate, middle distillate, mixtures thereof, and the like, is disclosed. The catalyst is suitable for hydrodesulfurization as well as hydrodenitrogenation, thus the feedstock can contain sulfur and nitrogen in addition to the aromatic components. Hydrocracking and aromatics hydrogenation of the petroleum hydrocarbon feedstocks is accomplished under a relatively wide range of process conditions in plural process zones using the tri-elemental catalyst thatcontains a catalytically active metal phase constituted by a Group VI-B element, a Group VIII first transition series element and a Group VIII second transition series element. In an upstream zone the catalytically active metal phase is supported on a titania-alumina support containing about 5% to about 30% by weight titania in the support. In a downstream zone the catalytically active metal phase is supported on a titania-alumina-pentasil crystalline zeolite support. The preferred pentasil crystalline zeolite is ZSM-5.

5559066

PREPARATION OF IRON-, POTASSIUM- AND CERIUM-CONTAINING CATALYSTS

Poepel Wolfgang J; Tremmel Grego; Buechele Wolfgang; Deimling Axel; Petersen Hermann Darmstadt, GERMANY assigned to BASF Aktiengesellschaft

PCT No. PCT/EP93/03083 Sec. 371 Date Feb. 13, 1995 Sec. 102(e) Date Feb. 13, 1995 PCT Filed Nov. 5, 1993 PCT Pub. No. WO94/11104 PCT Pub. Date May 26, 1994. A process for the preparation of iron-, potassium- and cerium-containing catalysts for the dehydrogenation of hydrocarbons from the same spent catalysts (regeneration) by grinding and, if necessary, purifying the spent material, restoring the original activity by adjusting the composition and restoring the external shape comprises adding to the ground material an effective amount of potassium and such an amount of cerium that the total amount of cerium is greater than the amount originally present.

5559067

MODIFIED MICROSPHERE FCC CATALYSTS AND MANUFACTURE THEREOF

Lerner Bruce A; Stockwell David M; Madon Rostam J Plainsboro, NJ, UNITED STATES assigned to Engelhard Corporation

An in situ process for making improved zeolitic fluid cracking catalyst by spray drying a mixture of hydrous kaolin, gibbsite and spinel, essentially free from metakaolin, calcining the resulting microspheres to convert the hydrous kaolin to metakaolin whereby the gibbsite is hydrothermally converted to a transitional alumina, and reacting the