from the group consisting of the metals in Group 8, Group 9 Group 10 and mixtures thereof; (b) one or more promoters selected from the group consisting of oxides of the elements in Group 1, Group 2, the Lanthanides group, the Actinides group and mixtures thereof; and (c) a support has also been developed.

5554274

MANUFACTURE OF IMPROVED CATALYST

Degnan Thomas F; Klocke Donald J; Rubin Mae Moorestown, NJ, UNITED STATES assigned to Mobil Oil Corporation

This invention relates the use of a catalyst composition having the structure of ZSM-5 and a matrix material, which has been manufactured by a new and useful method, for organic compound, e.g., hydrocarbon compound, conversion. The organic compound conversion processes described include catalytic cracking, gasoline hydrofinishing, toluene disproportionation, xylene isomerization, and ethylbenzene production.

5554573

RANEY-TYPE CATALYSTS FOR THE HYDROGENATION OF HALONITROAROMATIC COMPOUNDS

Cordier Georges; Damon Jean-Pierre; Fouilloux Pierre; Marion Philippe Francheville, FRANCE assigned to Rhone-Poulenc Chimie

Halonitroaromatic compounds, e.g., 3-chloro-4-fluoronitrobenzene, are selectively hydrogenated into the corresponding haloaromatic amines, in the essential absence of hydrodehalogenation, by reacting same with hydrogen in the presence of a catalytically effective amount of a novel Raney-type catalyst composition consisting essentially of an alloy of nickel, aluminum and molybdenum, Ni/Al/Mo, the Al/Mo ratio by weight thereof being equal to or greater than 1.

5554574

METHOD FOR PREPARING COPPER-CONTAINING HYDROGENATION REACTION CATALYST AND METHOD FOR PRODUCING ALCOHOL

Tsukada Kiyoshi; Hattori Yasuyuki;Mimura Taku Wakayama, JAPAN assigned to Kao Corporation

A copper-containing hydrogenation reaction catalyst is prepared by reducing a precursor of a copper-containing catalyst usable in hydrogenation reaction with hydrogen gas or a mixture of hydrogen and an inert gas by liquid phase reduction in a stream of a solvent in the temperature range of from 50° to 140°C. An alcohol is produced using the catalyst thus obtained in a fixed bed continuous reaction system.

5554778

RUTHENIUM HYDROGENATION CATALYSTS

Beatty Richard; Paciello Rocco Newark, DE, UNITED STATES assigned to E I Du Pont de Nemours and Company

The invention relates to a novel ruthenium complex having the formula Ru(eta3-C6H8-PCy2)(PCy3)Cl, wherein Cy is cyclohexyl; its use in the preparation of RuHCl(H2)(PCy3)2 and RuH2(H2)2(PCy3)2; and the use of the complexes as catalysts in

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