

mixture comprises a sulfur-sensitive reforming catalyst protected from sulfur deactivation by a manganese-oxide catalyst. The invention shows substantial benefits over prior-art processes in catalyst utilization.

5614453

CATALYST CONTAINING ZEOLITE BETA AND A PILLARED CLAY

Ocelli Mario L Yorba Linda, CA, UNITED STATES assigned to UOP

A composition of matter comprising zeolite Beta and a pillared clay is especially suited for use in combination with one or more hydrogenation components as a catalyst for hydrocracking various types of feedstocks.

5618407

CATALYTIC CRACKING PROCESS UTILIZING A CATALYST COMPRISING ALUMINUM BORATE AND ZIRCONIUM BORATE

Kallenbach Lyle R; Senn Dwayne; Johnson Marvin M Bartlesville, OK, UNITED STATES assigned to Phillips Petroleum Company

A process for catalytically cracking a hydrocarbon-containing oil employs a cracking catalyst comprising aluminum borate and zirconium borate.

5618769

PROCESS FOR THE RECOVERY OF ALKYLATION CATALYST

Hommeltoft Sven I Hillerod, DENMARK assigned to Haldor Tops

Process for the recovery of spent fluorinated sulfonic catalyst from acid soluble oil (ASO) being formed during alkylation of hydrocarbons in the presence of the acid catalyst. The process includes washing the ASO with water and recovering an aqueous solution of the acid catalyst, neutralizing the acid in the aqueous solution by adding to the solution a basic compound being selected from the group of amino compounds, ammonia and ammonium salts, thereby, forming ammonium salts of the acid catalyst with a melting point at which the obtained acid catalyst salt in a subsequent concentration and drying step is in the form of a melt, drying the melt, and finally recovering the acid catalyst by protonization of the dried melt with sulfuric acid and distilling off the recovered acid catalyst from the sulfuric acid.

5624547

PROCESS FOR PRETREATMENT OF HYDROCARBON OIL PRIOR TO HYDROCRACKING AND FLUID CATALYTIC CRACKING

Sudhakar Chakka; Fritz Paul O; Kjellson Carl J; Huang Hua-Min; Sandford Gerald Fishkill, NY, UNITED STATES assigned to Texaco Inc

Disclosed is a process for pretreatment of hydrocarbon feed containing sulfur and nitrogen compounds and aromatics prior to hydrocracking or fluid catalytic cracking which comprises: contacting said feedstock with a sulfided catalyst comprising a metal of non-noble Group VIII and Group VIB, and, optionally one or more elements

selected from Group IIIA and Group VA of the Periodic Table on a carbon support consisting essentially of activated carbon, optionally on a carbon support treated with phosphorus, having a B.E.T. (Braunauer-Emmett Teller) surface area of at least 100 m²/g and an average Pore Diameter greater than 12#521 +0 and a Total Pore Volume greater than 0.3 cc/g.+RE+RE.+RI;c/g.+RE

5625114

PROCESS FOR THE RECOVERY OF SPENT ACID CATALYST

Hommeltoft Sven Hiller, DENMARK assigned to Haldor Tops

A process for the recovery of a sulphonic acid catalyst from an aqueous extract of an alkylation effluent stream comprising the steps of evaporating the extract to obtain a hydrate of the sulphonic acid catalyst; reacting the hydrate with an olefin containing hydrocarbon stream to its corresponding sulphonic acid ester; and introducing the acid ester to a process for the alkylation of a hydrocarbon feedstock with an olefinic alkylation agent at alkylation conditions, thereby decomposing the sulphonic acid ester to its acid form being catalytic active in the alkylation process.

5625115

WAX HYDROISOMERIZATION USING A DIFUNCTIONAL CATALYST

Flego Cristin; Zanibelli Laura Trieste, ITALY assigned to Eniricerche S p A; AGIP Petroli S p

A difunctional catalyst is disclosed which is constituted by: (a) silica particles partially coated with zirconia, acidified by means of the introduction of sulfate moieties, (b) one or more metal(s) from Group VIII A. The preparation of said

catalyst and its use in wax hydroisomerization are disclosed as well.

5629463

NAPHTHALENE ALKYLATION WITH RE AND MIXED H/NH₃ FORM CATALYST

Ardito Susan C; Ashjian Henr; Degnan Thomas F; Helton Terry E; Le Quang; Quinones Augusto R Spring Lake Hts, NJ, UNITED STATES assigned to Mobil Oil Corporation

Long chain alkyl substituted naphthalenes are produced by alkylating naphthalene with an olefin or other alkylating agent with at least 6, and usually 12 to 20 carbon atoms, in the presence of an alkylation catalyst comprising a zeolite having rare earth cations, and both ammonium and protonic species, associated with the exchangeable sites of the zeolite. The zeolite is usually a large pore size zeolite such as USY. The presence of rare earths and both ammonium and protonic species increases selectivity for production of long chain mono-alkyl substituted naphthalenes in preference to more highly substituted products.

POLYMERISATION CATALYSTS

5599760

MAGNESIUM CHLORIDE PARTICULATES HAVING UNIQUE MORPHOLOGY AND OLEFIN POLYMERIZATION CATALYSTS SUPPORTED THEREON

Brun Claude; Brusson Jean-Miche; Duranel Laurent; Spitz Roger Idron, FRANCE assigned to Elf Atochem S A

Crystalline MgCl₂ particulates, exhibiting the