NEW CATALYST FORMULATIONS

5599962

PROCESS FOR THE PREPARATION OF RUTHENIUM HYDROGENATION CATALYSTS AND PRODUCTS THEREOF

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

This invention relates to a process for the preparation of ruthenium complexes of the formula RuH2L2(PR3)2, wherein each L is independently H2 or an additional equivalent of PR3, and each R is independently H, a hydrocarbyl group, or an assembly of at least two hydrocarbyl groups connected by ether or amine linkages, comprising contacting a source of ruthenium and PR3 with gaseous hydrogen in the presence of a strong base,a phase transfer catalyst, water and an organic solvent; and the use of certain classes of ruthenium complexes as catalysts in hydrogenation, and reductive hydrolysis processes.

5602070

PROCESS FOR PREPARING SILVER CATALYST

Rizkalla Nabil River Vale, NJ, UNITED STATES assigned to Scientific Design Company Inc

An improved silver catalyst for the oxidation of ethylene with molecular oxygen is made by impregnating a porous support with a silver salt of an acid; subjecting the impregnated support to a multi-stage activation by heating and post impregnating the support with an cesium carbonate or bicarbonate from an anhydrous alcohol solution followed by washing with alcohol solvent and rapid drying to produce a finished catalyst having from 1-6*10-3 gew of the alkali metal per kg of catalyst.

5604174

METAL FOIL CATALYST MEMBERS BY AQUEOUS ELECTROPHORETIC DEPOSITION

Friedman Semyon; Kerkar Awdhoot; Hughes Ernest; Brezny Rast; Lau John W; Block Jacob Baltimore, MD, UNITED STATES assigned to W R Grace & Co-Conn

Flexible metal foil catalyst members suitable for use in catalytic devices for combustion engine emission control are prepared by electrophoretic deposition using an aqueous slurry of catalyst support particles. The deposited support layer is of uniform thickness and stable surface area. The catalyst support may then be impregnated with catalytic species and assembled into a catalytic device. The catalyst members from the invention are especially suitable for use in automotive applications, and more especially in electrically heated catalytic devices.

5607890

SUPPORTED LEWIS ACID CATALYSTS DERIVED FROM SUPERACIDS USEFUL FOR HYDROCARBON CONVERSION REACTIONS

Chen Frank J; Guyot Alai; Hamaide Thierry; Le Deore Christoph Edison, NJ, UNITED STATES assigned to Exxon Chemical Patents Inc

A supported Lewis acid catalyst system for catalyzing hydrocarbon conversion reactions including cationic polymerization, alkylation, isomerization and cracking reactions is disclosed, wherein the catalyst system comprises an inorganic oxide support having immobilized thereon a least one strong Lewis acid comprising at least one metal salt of a strong Bronsted acid wherein the metal is selected from the group consisting of aluminum, boron gallium, antimony, tantalum, niobium, yttrium, cobalt, nickel, iron, tin, zinc, magnesium barium strontium, calcium, tungsten, molybdenum and the metals of the lanthanide series and wherein the strong Bronsted acid is selected from the group consisting of mineral and organic acids stronger than 100% sulfuric acid.

5612270

AMMONIUM TREATED SELECTIVATED ZEOLITE CATALYST

Beck Jeffrey S; Stern David L Princeton, NJ, UNITED STATES assigned to Mobil Oil Corporation

There is provided zeolite catalyst, which is first selectivated with a siliceous material and then treated with an aqueous solution comprising ammonium or organoammonium ions under ion exchange conditions.

5618772

METHOD FOR PRODUCING CATALYST

Suda Akihiko; Ukyo Yoshio; Sobukawa Hide; Kandori Toshi; Fukui Masayuk Aichi, JAPAN assigned to Kabushiki Kaisha Toyota Chuo Kenkyusho

A method for producing a catalyst having high catalytic activity even at high temperatures of 1200°C or higher. Fine alumina particles, of which 50% by weight or more have a particle size of 100 nm or less, are mixed with a catalytic component and a substance of inhibiting the sintering of fine alumina particles to form a slurry mixture. This slurry is dried and then calcined to obtain a porous catalyst. The fine alumina particles in the porous catalyst have a large specific surface area even at high temperatures and therefore the porous catalyst maintains its high catalytic activity even at high temperatures of 1200°C or higher.

5624543

AQUEOUS PHASE PRODUCTION OF HYDROGEN PEROXIDE AND CATALYSTS FOR USE THEREIN

Guillet James; Kohler Kevin; Friedman Gad Don Mills, CANADA assigned to Peroxco Incorporated

Hydrogen peroxide is produced by a process which uses as catalyst a polymer which has anthraquinone/anthrahydroquinone groups attached to it,and which exhibits differential solubility in water. The polymer is water soluble under one set of conditions, e.g. temperature range, but insoluble under another set of such conditions. Accordingly, the polymer bound anthrahydroquinone groups are oxidized in aqueous solution to form anthraquinone groups and hydrogen peroxide, which dissolves in the aqueous medium. Then the conditions, e.g. temperature, are changed to precipitate the polymer, which can readily be separated off, ready for re-use.

5624879

METHOD OF PREPARING ISOMERIZATION CATALYST

Smith Robert S; McMahon Steven L Houston, TX, UNITED STATES

This invention provides a method of preparing an