

5554753**CATALYTIC ENANTIOSELECTIVE SYNTHESIS OF ALPHA-AMINO ACID DERIVATIVES BY PHASE-TRANSFER CATALYSIS**

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Described are improved processes for the enantioselective synthesis of alpha-amino acids which involve combinations of solvents, highly-mixed and low-temperature reaction conditions, and novel catalysts. Also described are novel catalysts and precursors to alpha-amino acid derivatives.

NEW CATALYST FORMULATIONS**5540833****SULFUR TOLERANT BIMETALLIC ZEOLITIC REFORMING CATALYSTS**

Larsen Gustavo; Haller Gary L; Resasco Daniel E; Durante Vincent New Haven, CT, UNITED STATES assigned to Sun Company Inc (R&M)

New compositions of matter comprise a metal from the group consisting of platinum, rhodium and palladium, a metal from the first row of Group VIII of the Periodic Table and a nonacidic L-zeolite. A preferred composition is Pt-Ni/KL-zeolite. Such catalysts are prepared by coimpregnation of the zeolite with the metals. Methods of using the catalysts in reforming, aromatization or dehydrogenation are provided.

5543374**ISOMERIZATION CATALYST AND USE THEREOF IN ALKANE/CYCLOALKANE ISOMERIZATION**

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A catalyst composition is prepared by a method comprising impregnating alumina with at least one platinum compound, followed by calcining, reducing treatment, and heating with gaseous aluminum chloride and gaseous titanium tetrachloride. The thus-prepared catalyst composition is employed in the isomerization of saturated C4-C8 hydrocarbons (alkanes and/or cycloalkanes), preferably n-butane.

5543379**HYDROGENATION CATALYST, AND A METHOD FOR ITS PREPARATION AND USE, IN PARTICULAR FOR HYDROGENATION AND/OR HYDROGENOLYSIS OF CARBOHYDRATES AND POLYHYDRIC ALCOHOLS**

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A metallic catalyst composition on an inert support, suitable in particular for hydrogenolysis reactions of higher polyhydric alcohols, characterized in that it comprises the following relative to 100 parts of the catalyst: a) 0.5 to 5 weight % ruthenium; b) 1 to 10 weight % of a metal selected from the group consisting of palladium, platinum and rhodium; and c) 0.5 to 2.5 weight % copper, in which the copper content is lower than the content of the metal b). The catalyst is used in particular for producing

lower polyhydric alcohols such as ethanediol, propylene glycol, butanediol and glycerol, by means of hydrogenolysis reaction of higher polyhydric alcohols.

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**CATALYST AND METHOD FOR
VAPOR PHASE OXIDATION OF
ALKANE HYDROCARBONS**

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Du Pont de Nemours and Company

This invention relates to cation substituted catalysts based primarily upon vanadium pyrophosphate, useful in the oxidation of alkane hydrocarbons.

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**MONODENTATE PHOSPHITE AND
NICKEL CATALYST COMPOSITION
FOR MONOOLEFIN
HYDROCYANATION**

Tam Wilson Boothwyn, PA, UNITED STATES
assigned to E I Du Pont de Nemours and Company

Catalyst compositions comprising zero-valent nickel and a monodentate phosphite ligand are provided, with a process for the hydrocyanation of monoolefins using these compositions in the presence of a Lewis acid promoter.

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COATED CATALYSTS

Lauth Guenter; Hoelderich Wolfgang; Harth Klaus;
Hibst Hartmut Grosskarlbach, GERMANY
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A coated catalyst is prepared by depositing an alloy by physical vapor deposition and/or chemical vapor deposition on a molding, at least one alloy component being a metal selected from the group consisting of aluminum, gallium, silicon, germanium, tin, lead, bismuth, yttrium, titanium, zirconium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, iron, cobalt, ruthenium, rhodium, palladium, osmium, iridium, platinum, copper, silver, gold and zinc.

5559259

**PROCESS FOR PRODUCING
POISON-RESISTANT CATALYSTS**

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mbH

The invention relates to a poison-resistant catalytically active microporous membrane to be used for heterogeneously catalyzed reactions, which membrane is characterized in that it is permeable to one of the reactants separated by said membrane, and that it is impermeable to the other reactants and the contaminants contained therein, the molecules of all of which are larger in size than the pore size of the membrane, and to a process for carrying out a heterogeneously catalyzed reaction under conditions preventing the catalyst from being poisoned. This membrane allows to conduct three-phase reactions in a new manner, whereby the reaction gas is directly transported to the active sites.

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**METHOD FOR MANUFACTURING
COBALT CATALYSTS**

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