

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

5543532

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

Kourtakis Kostantinos; Sonnichsen George C
Hockessin, DE, UNITED STATES assigned to E I
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.

5543536

**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.

5559065

COATED CATALYSTS

Lauth Guenter; Hoelderich Wolfgang; Harth Klaus;
Hibst Hartmut Grosskarlbach, GERMANY
assigned to BASF Aktiengesellschaft

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**

Maier Wilhelm Mulheim an der Ruhr,
GERMANY assigned to Studiengesellschaft Kohle
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.

5559261

**METHOD FOR MANUFACTURING
COBALT CATALYSTS**

Sivik Mark Fairfield, OH, UNITED STATES
assigned to The Procter & Gamble Company

A method for manufacturing cobalt complexes having the formula: (*See Patent for Tabular Presentation*) PS said method comprising reacting cobalt (II) acetate having the formula $\text{Co}(\text{OAc})_2 \cdot 4\text{H}_2\text{O}$ with concentrated ammonium hydroxide/ammonium acetate, followed by oxidizing agent (e.g., peroxide).

POLYMERISATION CATALYSIS

5541346

POLYMERIZATION OF, AND DEPOLYMERIZATION TO, CYCLIC ETHERS USING SELECTED METAL COMPOUND CATALYSTS

Drysdale Neville E; Herron Norman Newark, DE, UNITED STATES assigned to E I Du Pont de Nemours and Company

A process for polymerizing oxiranes, oxetanes, oxepanes, dioxolanes, trioxanes, and tetrahydrofurans to their respective polymers by contacting them with a selected metal compound is disclosed; and also a process for depolymerizing polytetrahydrofurans to monomeric tetrahydrofurans by contacting the polymer with a selected metal compound at a temperature of about 100°C to about 250°C. The catalysts may be in solution or part of a heterogeneous solid, and selected organic compounds are used as accelerators in the polymerizations. The polymeric products, some of which are novel, may be used as polyether monomers for further polymerization, as by reaction with isocyanates to produce polyurethanes, and other useful polymers. Some of the polymeric products are relatively high in molecular weight and are suitable for direct use, for instance as spandex fibers.

5541349

METAL COMPLEXES CONTAINING PARTIALLY DELOCALIZED II-BOUND GROUPS AND ADDITION POLYMERIZATION CATALYSTS THEREFROM

Wilson David R; Neithamer David R; Nickias Peter; Kruper W Jac Midland, MI, UNITED STATES assigned to The Dow Chemical Company

Novel Group 4 metal complexes wherein the metal is in the +2 or +4 formal oxidation state containing a cyclic or noncyclic, non-aromatic, anionic, dienyl ligand group bound to M and having a bridged ligand structure, catalytic derivatives of such complexes including novel zwitterionic complexes; and the use thereof as catalysts for polymerizing addition polymerizable monomers are disclosed.

5541350

AMIDO SILYLDIYL BRIDGED CATALYST COMPONENTS, METHODS OF MAKING AND USING

Murata Masahide; Burkhardt Terry J Ohi machi, JAPAN assigned to Exxon Chemical Patents Inc

Disclosed is a mono- or di-amido silyldiyl bridged composition of matter useful as a catalyst component for the homo or copolymerization of olefins.