

morphology of substantially regular polyhedra having an even number of from 10 to 18 face surfaces, are well suited as support substrate for olefin polymerization catalysts.

5599761

**IONIC METALLOCENE CATALYST
COMPOSITIONS**

Turner Howard W Houston, TX, UNITED STATES assigned to Exxon Chemical Patents Inc

An ionic catalyst system component comprising a water-stable anion having a plurality of lipophilic radicals covalently coordinated to and shielding a central, formal charge bearing metal or metalloid atom, in which the lipophilic radicals of the anion include substituted aromatic radicals useful for polymerizing olefins, diolefins, or acetylenically unsaturated monomers, either alone or in combination with each other or with other polymerizable monomers is disclosed. A method of using the anion to stabilize ionic catalyst systems during polymerization is also disclosed.

5599762

**USE OF GLYCOL ETHER
COMPOUNDS FOR THE
PRODUCTION OF POLYOLEFIN
CATALYSTS AND SUPPORTS**

Denton Dean Baltimore, MD, UNITED STATES assigned to W R Grace & Co-Conn

Glycol ether compounds such as glycol ethers and glycol ether esters are used as azeotropic distillation solvents for conversion of inorganic oxide hydrogels to xerogels by removal of water. These compounds are especially useful to make chromium-containing catalysts for production of high melt index polyolefins at reduced cost

compared to known azeotropic solvents.

5599887

**CHROMIUM CATALYST
COMPOSITIONS AND ETHYLENE
POLYMERIZATION PROCESSES
THEREWITH**

Badley Rickey D; Rollmann Kent W; McDaniel Max P Dewey, OK, UNITED STATES assigned to Phillips Petroleum Company

This invention provides a chromium catalyst system that comprises (a) a support that comprises silica, wherein said support has a surface area to pore volume relationship as follows (*See Patent for Tabular Presentation*) PS wherein said f(SA) is (*See Patent for Tabular Presentation*) PS and (b) a hexavalent chromium compound; wherein the surface concentration of said hexavalent chromium on said support is from 0.25 to 1 hexavalent chromium atoms per square nanometer. Another embodiment of this invention provides a process to homopolymerize ethylene, or copolymerize ethylene with a comonomer, said process comprises polymerizing ethylene with the above chromium catalyst composition.

5600055

**IMMOBILIZED LEWIS ACID
CATALYSTS**

Chung Tze-Chian; Chen Frank J -; Stanat Jon E; Kumar Alok State College, PA, UNITED STATES assigned to Exxon Chemical Patents Inc

Immobilized Lewis Acid catalyst comprising polymer having at least one Lewis Acid immobilized within the structure therein, said polymer having monomer units represented by the structural formula: (*See Patent for Chemical