POLYMERISATION CATALYSIS

5529965

POLYMERIZATION CATALYST SYSTEMS, THEIR PRODUCTION AND USE

Chang Mai Houston, TX, UNITED STATES assigned to Exxon Chemical Patents Inc

This invention is generally directed toward a supported catalyst system useful for polymerizing olefins. The method for supporting the catalyst of the invention provides for a supported mixed metallocene/non-metallocene catalyst useful in a process for polymerizing olefins.

5529966

CATALYST AND PROCESS FOR (CO)POLYMERIZING ALPHA-OLEFINS

Luciani Luciano; Milani Federico; Gila Liliana; Ballato Evelina Ferrara, ITALY assigned to Enichem SpA

A catalyst active in the polymerization of alpha-olefins is formed by: (a) a bis(cyclopentadienyl) bis(amide) derivative of an element of Group IVB of the Periodic Table of the Elements, to be defined by means of the formula: (*See Patent for Chemical Structure*) (I) wherein M represents a metal of Group IVB, each of R1, R2, R3and R4, and Cp have the same meaning as reported in the disclosure, and (b) an aluminoxane co-catalyst. This catalyst finds use in the processes of ethylene and other alpha-olefins polymerization and copolymerization.

5532394

ADDITION POLYMERIZATION CATALYSTS COMPRISING REDUCED OXIDATION STATE METAL COMPLEXES

Rosen Robert K; Nickias Peter N; Devore David D; Stevens James C; Timmers Francis J Sugar Land, TX, UNITED STATES assigned to The Dow Chemical Company

PCT No. PCT/US93/02584 Sec. 371 Date Sep. 2, 1994 Sec. 102(e) Date Sep. 2, 1994 PCT Filed Mar. 19, 1993 PCT Pub. No. WO93/19104 PCT Pub. Date Sep. 30, 1993. Metal complexes useful in the formation of addition polymerization catalysts of the formula: (*See Patent for Chemical Structure*) wherein Cp''' is a cyclopentadienyl group or substituted derivative thereof; Z is a divalent moiety comprising oxygen, nitrogen, phosphorous, boron or a member of Group 4 of the Periodic Table of Elements; Y is a linking group comprising nitrogen, phosphorus, oxygen or sulfur; M is a Group 4 metal in the +3 oxidation state; and L''' is a monovalent anionic stabilizing ligand.

5534472

VANADIUM-CONTAINING CATALYST SYSTEM

Winslow Linda N; Klendworth Douglas D; Menon Raghu; Lynch Michael W; Fields Garry L; Johnson Kenneth W Cincinnati, OH, UNITED STATES assigned to Quantum Chemical Corporation

A vanadium-containing catalyst system particularly suited to the polymerization of blow moldable olefin polymers. The catalyst system includes a supported, first catalyst component prepared by contacting preheated silica, with (1) a compound or complex which includes at least one carbon to magnesium covalent bond and (2) a compound which includes at least one carbon to Group III metal covalent bond. The sequence of contact of the silica with compound or complex (1) and compound (2) is optional. However, unless the compound or complex (1) and the compound (2) contact the silica simultaneously, the product of this contact is next contacted with whichever of compound (1) or (2) does not initially contact the silica. The product of the step of contacting with compounds (1) and (2) is contacted with a vanadium compound which includes at least one halogen atom. Finally, the product of the vanadium compound contacting step is contacted with an alcohol. A second component of the catalyst system is an organoaluminum compound cocatalyst. The catalyst system also includes a halocarbon compound promoter as a third catalyst component.

5534473

CATALYST SYSTEMS FOR PRODUCING BROAD MOLECULAR WEIGHT POLYOLEFIN

Welch M Bruce; Geerts Rolf; Palackal Syriac J; Pettijohn Ted Bartlesville, OK, UNITED STATES assigned to Phillips Petroleum Company

A catalyst system comprising a bridged fluorenyl-containing metallocene, an unbridged metallocene, and a suitable cocatalyst and the use of such catalyst systems to produce olefin polymers. Also novel olefin polymers produced by those processes.

5536690

POLYMERIZATION CATALYSTS

Cloke Frederick G N Brighton, UNITED KINGDOM assigned to BP Chemicals Limited

Novel Group IV or V metal complexes comprise cyclooctatetraene ligands. The complexes are suitable for use as catalysts for the polymerization of olefins and may be supported for use in the gas phase. A preferred complex has the formula: (*See Patent for Chemical Structure*).

5536796

POLYMERIZATION CATALYSTS, THEIR PRODUCTION AND USE

Jejelowo Moses O; Bamberger Robert L Kingwood, TX, UNITED STATES assigned to Exxon Chemical Company

The invention generally relates to a catalyst, particularly a metallocene catalyst and catalyst system useful in the polymerization of olefins into a polymer product. The polymer product has a broad molecular weight distribution, a high molecular weight and a narrow composition distribution and is easily processable.

5536859

ALPHA-OLEFIN CATALYST AND PROCESS

Lin Kaung-Far; Lanier Carroll; Waites William Baton Rouge, LA, UNITED STATES assigned to Amoco Corporation

This invention provides an improved process for the preparation of an aluminum alkyl chain growth