

The present invention relates to a polynuclear metallocene compound of the formula I (*See Patent for Chemical Structure*) (I) a process for their preparation and their use as a catalyst for olefin polymerization.

5587439

**POLYMER SUPPORTED CATALYST
FOR OLEFIN POLYMERIZATION**

DiMaio Anthony-J Maineville, OH, UNITED STATES assigned to Quantum Chemical Corporation

The present invention is directed to a supported metallocene catalyst useful in the polymerization of alpha-olefins which is obtained by tethering a metallocene catalyst component to the surface of a particulate, functionalized copolymeric support material.

5591815

**ZIRCONIUM AND
HAFNIUM-CATALYZED
POLYMERIZATION OF
METHYLENECYCLOPROPANE**

Marks Tobin J; Yang Xinmin; Jia Li Evanston, IL, UNITED STATES assigned to Northwestern University

A polymer having a repeating unit of (*See Patent for Chemical Structure*) and a method for preparing it through Zr-catalyzed polymerization of methylenecyclopropane is disclosed.

5597935

**SYNTHESIS OF
ANSA-METALLOCENE CATALYSTS**

Jordan Richard F; Diamond Gary Iowa City, IA, UNITED STATES assigned to University of Iowa Research Foundation

A process of preparing in high yield ansa-metallocene complexes and rac ansa-metallocene complexes by reacting an ansa-bis-cyclopentadiene compound with a metal amide complex.

ENVIRONMENTAL CATALYSIS

5565091

**CATALYST COMPOSITION
MANUFACTURING METHOD AND
SULFUR-CONTAINING
HYDROCARBON
HYDRODESULFURIZATION
METHOD USING THE SAME
CATALYST COMPOSITION**

Iino Akira; Iwamoto Ryuichiro; Mitani Tsuyoshi Sodegaura, JAPAN assigned to Idemitsu Kosan Co Ltd; Petroleum Energy Center

PCT No. PCT/JP94/00222 Sec. 371 Date Oct. 14, 1994 Sec. 102(e) Date Oct. 14, 1994 PCT Filed Feb. 15, 1994 PCT Pub. No. WO94/17910 PCT Pub. Date Aug. 18, 1994. By mixing an alumina gel suspension prepared by dispersing alumina gel in pure water in an alumina concentration of 0.1 to 12% by weight, with an aqueous metal salt solution wherein a compound of a Group VIA metal and a compound of a Group VIII metal are dissolved, and then evaporating water to dry while stirring the mixture, the metal component can be loaded effectively on the alumina gel to a sufficiently high loading quantity, and active catalyst compositions

useful as catalysts being superior in functions, such as activities, to the conventional hydrogenation catalysts are easily obtainable. Sufficiently desulfurized hydrocarbons are obtainable by allowing the catalyst compositions to contact sulfur-containing hydrocarbons in the presence of hydrogen.

5565092

**HALOGEN RESISTANT
HYDROGENATION PROCESS AND
CATALYST**

Pannell Richard; Maroie Serge M J P Kingwood, TX, UNITED STATES assigned to Exxon Chemical Patents Inc

A process has been developed for decolorizing (and/or hydrogenating, and/or dehalogenating) a halogen containing unsaturated feedstock and/or polymeric resins. The process has the advantage of being substantially less affected by prolonged exposure to halogen contaminants and impurities than typical hydrogenation catalysts. A novel catalyst comprising (a) one or more metals selected from the group consisting of the metals in Group 8, Group 9 Group 10 and mixtures thereof; (b) one or more promoters selected from the group consisting of oxides of the elements in Group 1, Group 2, the Lanthanides group, the Actinides group and mixtures thereof; and (c) a support has also been developed.

5565401

**CATALYST COMPRISING AN
ASSEMBLY OF AT LEAST ONE WIRE
AND ITS USE IN COMBUSTION OR IN
POST-COMBUSTION**

Le Page Jean-Francois; Mabilon Gil Rueil Malmason, FRANCE assigned to Institut Francais du Petrole

The invention relates to a catalyst comprising an assembly of at least one wire that comprises, in % weight, between 60 and 90% iron, and between 10 and 25% chromium, at least one metal selected from the group formed by platinum, rhodium, palladium, ruthenium, iridium, gold and silver having been deposited on the assembly, the outside contour of the cross-section of the wire being included in a ring whose area is between a circle with a 90 mum diameter and a circle with a 5 mm diameter, the length of the wire being at least equal to 20 cm, and the assembly being mechanically integral, the wire having been subjected to a prior depositing of aluminum, in a proportion going up to 10% by weight in relation to the weight of the wire, followed by a redrawing. A preferred assembly corresponds to a knitted structure in the shape of a sock.

5569455

**EXHAUST GAS CATALYTIC
PURIFIER CONSTRUCTION**

Fukui Isao; Takahashi Masamitsu; Ihara Kazunori; Murakami Hiroshi; Tanaka Tetsuhiro; Miyaura Shinobu; Kuroda Shinichi; Hiraishi Masahiro; Inoue Koji Uji, JAPAN assigned to Shimadzu Corporation; Mazda Motor Corporation

Method of forming a catalytic bonding layer by chemical vapor deposition (CVD) onto carrier structures including internal combustion engine exhaust system and catalytic converter components, in order to bond a catalyst layer thereto, thereby providing a structure wherein additionally the bonding layer can be energized to promote catalytic conversion-activating preheating of the catalyst. In an electromagnetic induction catalytic preheating system, a ceramic lattice or a metallic network can form the base structure of the catalytic converter, wherein at least the latter is encompassed by an electrical/thermal insulating layer; around either