

halide and/or at least one quaternary phosphonium halide, at least one aluminum halide, at least one aromatic hydrocarbon and optionally an aluminium organometallic compound.

5550307

**INCREASED DIMER YIELD OF
OLEFIN OLIGOMERS THROUGH
CATALYST MODIFICATIONS**

Hope Kenneth D; Ho Ting C; Cupples Barrett L
Kingwood, TX, UNITED STATES assigned to
Chevron Chemical Company

An oligomer is made by contacting an olefinic monomer with a catalyst comprising boron trifluoride, an alcohol alkoxylate, and a ketone. In one embodiment, the olefinic monomer is a straight-chain, alpha-olefinic monomer containing from 8 to 12 carbon atoms, the alcohol alkoxylate is 2-ethoxyethanol, the ketone is methyl ethyl ketone, and the oligomer product has a kinematic viscosity at 100°C of less than 1.7 cSt. Before removal of unreacted monomer, the oligomer product is at least 50 wt. % dimer, at least 80 wt. % dimer plus trimer, and less than 3.25 wt. % tetramer and greater.

5552358

**POLYMERIZATION CATALYST
SYSTEMS, THEIR PRODUCTION AND
USE**

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STATES assigned to Exxon Chemical Patents Inc

This invention is generally directed toward a supported catalyst system useful for polymerizing olefins. The method for preparing the catalyst system of the invention provides for an optionally supported, metallocene catalyst component which when utilized in a polymerization process exhibits

improved reactor operability.

5552359

**COMPONENTS AND CATALYST FOR
THE POLYMERIZATION OF OLEFINS**

Morini Giampier; Barino Luisa; Scordamaglia Raimondo; Barbassa Elisabetta; Baruzzi Giovanni Pavia, ITALY assigned to Montell North America Inc

Disclosed are catalyst components for the polymerization of olefins which include magnesium halide in active form, and, supported thereon, a titanium halide or titanium halogen alcoholate and an electron-donor compound selected from the group diamines of formula (*See Patent for Chemical Structure*) (I) wherein the radicals R1 to R10 are the same or different and are hydrogen or C1-C18 hydrocarbon radicals, with the proviso that at least one of the R7 and R8 radicals and at least one of the R9 and R10 radicals are not hydrogen. Also, disclosed are catalysts obtained from the catalyst components and an Al-alkyl compound, as well as catalysts obtained by reaction of an Al-alkyl compound and a diamine of formula (I) with a solid catalyst component including a titanium halide or a titanium halogen alcoholate, and an electron-donor compound having particular characteristics of extractability with Al-triethyl, supported on magnesium halide in active form.

5552501

**METHOD FOR THE RAPID FREE
RADICAL POLYMERIZATION OF
ACRYLAMIDE CO-POLYMERS USING
TETRAMETHYLAMINE CATALYSTS**

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A method for the accelerated free radical copolymerization of acrylamide monomers and diacetone acrylamide monomers in an aqueous solution to form copolymers which may be combined with photosensitizers and utilized in the color picture tube or photoengraving industries as a polymeric component of the light sensitive photoresists comprises admixing an aqueous acrylamide and diacetone acrylamide monomer solution with an effective amount of a free radical initiator and an effective amount of a tetramethylamine catalyst to form a mixture and maintaining the mixture at ambient temperature until the polymerization is complete. A 0.1 to 15% weight solution of the two monomers having an acrylamide to diacetone acrylamide weight ratio of between about 0.4:1 to 100:1 is completely polymerized in less than an hour when the weight ratio of free radical initiator to monomers is between about 1:6 to 1:300 and the weight ratio of tetramethylamine catalyst to monomers is about 1:20 and 1:400. The preferred tetramethylamine catalyst is N,N,N',N'-tetramethylethylenediamine (TEMED) and the preferred free radical initiator is ammonium persulfate.

5552506

**ORGANOPOLYSILOXANES,
MODIFIED WITH ACRYLATE
GROUPS IN THE PRESENCE OF A
RHODIUM CATALYST**

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AG

Organopolysiloxanes, which terminally, laterally or both have at least one group of the formula (*See Patent for Chemical Structure*) $\text{SiCH}_3\text{CHOCO}$, and/or SiCHCHOCOC well as at least one acrylate group, linked over a bridge element to this group,

is obtained by hydrosilylation of organopolysiloxanes with at least one SiH group by compounds, which have at least two acrylate groups, in equimolar amounts at a temperature of 60° to 130°C in presence of rhodium catalysts. The rhodium catalysts cause a 1,2 addition to take place during the addition reaction between polyacrylates and hydrogen siloxanes.

5552514

**ACID CATALYZED PROCESS FOR
PREPARING AMINO ACID
POLYMERS**

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and Haas Company

The present invention relates to an acid catalyzed thermal polycondensation process for producing amino acid polymers. More specifically, amino acid polymers are produced by thermally condensing a mixture of one or more amino acids and optionally one or more polyfunctional monomers, using an acid catalyst, while maintaining an intimate admixture. Processing techniques useful for maintaining an intimate admixture include adding to the mixture one or more processing aids, using mechanical means, and combinations thereof. The amino acid polymers produced by this process are useful as cleaning and detergent additives; fertilizer and pesticide additives; personal care product additives; dispersants for inorganic particulates, aqueous emulsions, and drilling muds; and water treatment and oil production operation additives as corrosion and scale inhibitors.