5565594

FERROCENE DIPHOSPHINES AS LIGANDS FOR HOMOGENEOUS CATALYSTS

Spindler Felix; Wirth-Tijani Amina; Landert Heidi Starrkirch Wil, SWITZERLAND assigned to Ciba-Geigy Corporation

Compounds of formula I (*See Patent for Chemical Structure*) (I) wherein R1 is C1-C8alkyl, phenyl or phenyl which is substituted by 1 to 3 C1-C4alkyl or C1-C4alkoxy groups; R2 and R3 are each independently of the other typically C1-C12alkyl, C5-C12cycloalkyl, phenyl, or C1-C4alkyl- or C1-C4alkoxy-substituted C5-C12cycloalkyl, or phenyl which is substituted by one to three identical or different members selected from the group consisting of C1-C4alkyl, C1-C4alkoxy or halogen; R10 and R11 are identical and are typically C1-C12alkyl, C5-C12cycloalkyl, C1-C4alkyl- or C1-C4alkoxy-substituted C5-C12cycloalkyl or phenyl which is substituted by 1 to 3 identical or different members selected from the group consisting of C1-C4alkyl, C1-C4alkoxy or halogen; or R10 and R11 are different and are C1-C12alkyl, C5-C12cycloalkyl, C1-C4alkyl- or C1-C4alkoxy-substituted C5-C12cycloalkyl, phenyl or phenyl which is substituted by 1 to 3 identical or different members selected from the group consisting of C1-C4alkyl, C1-C4alkoxy or halogen, and * denotes a stereogenic carbon atom, in the form of their racemates and diastereoisomers or mixtures of diastereoisomers. Rhodium and iridium complexes with these ligands are suitable for use as homogeneous enantioselective catalysts for the hydrogenation of prochiral compounds containing carbon double bonds or carbon/hetero atom double bonds.

5565596

PROCESS FOR ALKYNE HYDROSILATION USING CYCLOALKENES AS CATALYST MODIFIERS

Roy Aroop K Midland, MI, UNITED STATES assigned to Dow Corning Corporation

An improved process for hydrosilating alkynes with organodihalosilanes and trihalosilanes in the presence of a platinum catalyst selected from a group consisting of platinum halides and reaction product of platinum halides with organosilicon compounds having terminal aliphatic unsaturation. The process uses a cycloalkene comprising about six to 20 carbon atoms as a catalyst modifier to reduce formation of the bis-silated adduct of the alkynes.

5565605

SYNTHESIS OF ARYL CARBOXYLATES BY TRANSESTERIFICATION USING A HETEROGENEOUS MICROPOROUS CATALYST CONTAINING A GROUP IV METAL

Tsuneki Hideaki; Kirishiki Masaru; Watanabe Kenichi; Onda Yoshiyuki Tokyo, JAPAN assigned to Nippon Shokubai Co Ltd

A catalyst for producing an aryl ester, which includes a microporous material containing a metal element belonging to group IV, is described. This catalyst is insoluble and can be used as a heterogeneous catalyst, to produce an aryl ester in high yield with industrial advantages. In order to produce an aryl ester using the catalyst, a carbonate or an aliphatic carboxylate is transesterified with an aromatic hydroxy compound, or an aryl carboxylate is transesterified with a carbonate, or an alkyl aryl

carbonate is disproportionated by transesterification.

5569785

ATTRITION RESISTANT ZEOLITE CATALYSTS FOR PRODUCTION OF METHYLAMINES IN FLUIDIZED BED REACTORS

Kourtakis Konstantinos; Bergna Horacio E; Sonnichsen George C; Corbin David R; Brake Loren D Hockessin, DE, UNITED STATES assigned to E I Du Pont de Nemours and Company

This invention provides an attrition resistant catalyst composition and method for producing such composition. The catalyst is comprised of an acidic zeolite, rho or chabazite, and a particulate binder, kaolin, bentonite, alpha-alumina, or titania, which can be optionally modified by treatment with a compound containing Si, Al, P or B. This invention further provides a process for producing methylamines, preferably dimethylamine, comprising reacting methanol and/or dimethyl ether and ammonia in the presence of a catalytic amount of an attrition resistant catalyst of the invention.

5569795

FLUORINATION CATALYST AND FLUORINATION PROCESS

Tsuji Katsuyuki; Oshiro Kimitaka; Nakajo Tetsuo Kawasaki, JAPAN assigned to Showa Denko K K

A fluorination catalyst comprising indium, chromium, oxygen and fluorine as essential constituent elements thereof. The catalyst is prepared by fluorinating a catalyst precursor comprising indium and chromium elements by bringing it into contact with hydrogen fluoride or a fluorine-containing halogenated hydrocarbon at a temperature of 300° to 500° C. A halogenated hydrocarbon is fluorinated by bringing it into contact with hydrogen fluoride in a gaseous phase in the presence of the catalyst.

5569802

CATALYST, PROCESS FOR THE PREPARATION THEREOF AND PROCESS FOR THE SELECTIVE HYDROGENATION OF UNSATURATED COMPOUNDS

Luml uken Hans-Gerd; Fischer Lothar; Droste Wilhelm; Nowitzki Bernd Marl, GERMANY assigned to Huels Aktiengesellschaft

The present invention relates to a catalyst for the selective hydrogenation of an unsaturated compound, based on a noble metal and/or a noble-metal oxide on an aluminum oxide support, and to a process for the preparation of the catalyst. The present invention further relates to a process for the selective hydrogenation of unsaturated compounds.

5583241

FLUOROALKYL-SUBSTITUTED FERROCENYL DIPHOSPHINES AS LIGANDS FOR HOMOGENEOUS CATALYSTS

Spindler Felix Starrkirch Wil, SWITZERLAND assigned to Ciba-Geigy Corporation

Compounds of formula I (*See Patent for Chemical Structure*) (I) wherein R1 is C1-C8alkyl, phenyl or phenyl which is substituted by 1 to 3 C1-C4alkyl or C1-C4alkoxy groups; R2 is a radical of formula II (*See Patent for Chemical Structure*) (II) wherein R12 is C1-C5alkyl which is partially or completely