

FINE CHEMICALS**5565594****FERROCENE DIPHOSPHINES AS
LIGANDS FOR HOMOGENEOUS
CATALYSTS**

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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**

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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**

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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