

carbonate is disproportionated by transesterification.

5569785

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

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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

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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.

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

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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

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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 is a radical of formula II (*See Patent for Chemical Structure*) (II) wherein R12 is C1-C5alkyl which is partially or completely