

Surface impregnated catalyst, process for the production thereof, and use thereof for the preparation of vinyl acetate. The invention relates to Pd/K/Au, Pd/K/Ba or Pd/K/Cd supported catalysts built up in the form of an outer layer, the production thereof and also the use thereof for preparing vinyl acetate from ethylene, acetic acid and oxygen in the gas phase. The catalysts specified are produced by impregnating the support particles, while mixing intimately, with a solution of salts of the corresponding elements and then drying the support particles immediately, with the dynamic viscosity of the solution being at least 0.003 Pa*s and the solution volume in impregnation being from 5 to 80% of the pore volume of the support particles.

5559072

NOX REMOVAL CATALYST AND METHOD OF PURIFYING EXHAUST GAS BY USING THE SAME

Itoh Takashi; Kosaki Yukio; Chonan Takeshi; Matsuda Takashi; Kanno Yasuharu; Wakabayashi Masao; Nakamura Makoto Ichikawa, JAPAN assigned to N E Chemcat Corporation; Sumitomo Metal Mining Co Ltd

A NO_x removal catalyst resistant to high temperatures, comprising an activated alumina wherein the specific surface area measured by the nitrogen adsorption method is 120 m²/g or more, the bulk density measured by the mercury porosimetry is 0.60 g/cm³ or more, and the skeleton density measured by the mercury porosimetry is 1.80 g/cm³ or less and silver carried on said activated alumina. When said catalyst or a structure having said catalyst coated on a substrate is brought in contact with exhaust gas from an internal combustion engine that is operated at a lean fuel/air ratio, such as a lean-burn engine, NO_x can be removed efficiently within a quite short contact time.

CATALYTIC HYDROCARBON

5552357

CATALYST MODIFICATION FOR SHAPE SELECTIVE HYDROCARBON CONVERSIONS

Lago Rudolph M; Marler David O; McCullen Sharon B; Olson David Yardley, PA, UNITED STATES assigned to Mobil Oil Corporation

A process for shape selective hydrocarbon conversion involves contacting a hydrocarbon feedstream under conversion conditions with a catalytic molecular sieve which has been modified by treatment with an amino silane polymer while molecular sieve acid sites are protected. When the process is toluene disproportionation, a toluene feedstream may also contain a second silicon source which is a high p-xylene selectivating agent. The invention also includes the modification method and the shape selective catalyst which results from the modification.

5552363

HALOGEN RESISTANT HYDROGENATION PROCESS AND CATALYST

Pannell Richard B; 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.

5554274

MANUFACTURE OF IMPROVED CATALYST

Degnan Thomas F; Klocke Donald J; Rubin Mae Moorestown, NJ, UNITED STATES assigned to Mobil Oil Corporation

This invention relates the use of a catalyst composition having the structure of ZSM-5 and a matrix material, which has been manufactured by a new and useful method, for organic compound, e.g., hydrocarbon compound, conversion. The organic compound conversion processes described include catalytic cracking, gasoline hydrofinishing, toluene disproportionation, xylene isomerization, and ethylbenzene production.

5554573

RANEY-TYPE CATALYSTS FOR THE HYDROGENATION OF HALONITROAROMATIC COMPOUNDS

Cordier Georges; Damon Jean-Pierre; Fouilloux Pierre; Marion Philippe Francheville, FRANCE assigned to Rhone-Poulenc Chimie

Halonitroaromatic compounds, e.g., 3-chloro-4-fluoronitrobenzene, are selectively hydrogenated into the corresponding haloaromatic amines, in the essential absence of hydrodehalogenation, by reacting same with

hydrogen in the presence of a catalytically effective amount of a novel Raney-type catalyst composition consisting essentially of an alloy of nickel, aluminum and molybdenum, Ni/Al/Mo, the Al/Mo ratio by weight thereof being equal to or greater than 1.

5554574

METHOD FOR PREPARING COPPER-CONTAINING HYDROGENATION REACTION CATALYST AND METHOD FOR PRODUCING ALCOHOL

Tsukada Kiyoshi; Hattori Yasuyuki; Mimura Taku Wakayama, JAPAN assigned to Kao Corporation

A copper-containing hydrogenation reaction catalyst is prepared by reducing a precursor of a copper-containing catalyst usable in hydrogenation reaction with hydrogen gas or a mixture of hydrogen and an inert gas by liquid phase reduction in a stream of a solvent in the temperature range of from 50° to 140°C. An alcohol is produced using the catalyst thus obtained in a fixed bed continuous reaction system.

5554778

RUTHENIUM HYDROGENATION CATALYSTS

Beatty Richard; Paciello Rocco Newark, DE, UNITED STATES assigned to E I Du Pont de Nemours and Company

The invention relates to a novel ruthenium complex having the formula $Ru(\eta^3-C_6H_8-PCy_2)(PCy_3)Cl$, wherein Cy is cyclohexyl; its use in the preparation of $RuHCl(H_2)(PCy_3)_2$ and $RuH_2(H_2)_2(PCy_3)_2$; and the use of the complexes as catalysts in