REFINERY PROCESSES AND CATALYSTS

5600050

ZEOLITE CATALYST FOR THE LIQUID PHASE ALKYLATION AND TRANSALKYLATION OF BENZENE

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Disclosed is a modified zeolite catalyst for the liquid phase alkylation and transalkylation of benzene comprising 30 to 70% by weight of H-beta zeolite with a silicon to aluminium ratio of 20 to 40; 0.5 to 10% by weight of halogen; and gamma-Al2O3 of the balance. Also disclosed a method for preparing the said catalyst comprising adding a halogen-containing compound to a mixture of H-beta zeolite and a precursor of gamma-Al2O3, forming followed by calcining.

5601698

PROCESS FOR REFORMING HYDROCARBON FEEDSTOCKS OVER A SULFER SENSITIVE CATALYST

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Provided is a process for catalytic reforming a hydrocarbon feedstock containing at least 20 ppbw sulfur. The process comprises passing the hydrocarbon feedstock through at least two serialy connected reforming zones, with each zone containing a highly sulfur sensitive reforming catalyst. The catalyst in the first reforming zone is more frequently regenerated than the catalyst in the second reforming zone. The result is a highly efficient and simplified process for reforming a sulfur contaminated hydrocarbon feedstock. The process basically employs a minor portion of the highly sulfur sensitive reforming catalyst as both the reforming catalyst and a sulfur removal agent.

5601701

PROCESS FOR THE ELIMINATION OF MERCURY FROM HYDROCARBONS BY PASSAGE OVER A PRESULPHURATED CATALYST

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The invention concerns a process for the elimination of mercury from hydrocarbons by passage of the feedstock with hydrogen over a catalyst then bringing the product obtained into contact with a mercury retention bed, the catalyst comprising at least one element selected from the group constituted by iron, nickel, cobalt, molybdenum, tungsten, palladium, wherein at least 5% is in the sulphide state. Any arsenic present in the feedstock is also eliminated. In accordance with the invention, the catalyst is simultaneously presulphurated and reduced. The invention results in a considerable reduction in operation period and high retention efficiency at temperatures between 120°C and 250°C and in the presence of 0-1000 mg of sulphur/kg of feed.