

ABSTRACT

A process for producing an aromatic hydrocarbon, comprises heating the hydrocarbon in the presence of a catalyst carrying a molybdenum compound or a rhenium compound on a metallosilicate carrier modified with a silicon compound, a sodium compound or a calcium compound. The silicon compound is a silane compound having a basic group selected from amino, alkylamino and pyridyl groups and an organic group of a size equal to or greater than the pore size of the metallosilicate and selected from trialkoxy and triphenyl groups and the sodium compound or the calcium compound is a compound having an organic group of a size equal to or greater than the pore size of the metallosilicate and selected from crown ether, hexafluoropentanedione and acetylacetonate. The silane compound, the sodium compound or the calcium compound is modified so as to make an oxide thereof by impregnating the metallosilicate carrier with it and subsequently heat-treating it in an oxygen-containing atmosphere.