Abstract

As a part of our fundamental studies on the acid function of catalysts for hydrocracking, alumina-pillared montmorillonite catalysts were prep. and characterized by temp.-programmed desorption with NH3 from sulfided catalysts (TPD-S) and temp.-programmed redn. of sulfided catalysts (TPR-S). The TPD-S and TPR-S characteristics of catalysts thus obtained have been compared with the activities of cumene cracking in a pulse-type micro reactor. Com. hydrocracking catalysts were also characterized with similar methods and the performance of cumene cracking was tested. TPD, TPR profiles and cumene cracking activity changed after sulfiding of alumina-pillared montmorillonite. Both the chem. property changes by the heat treatment and the sulfur species adsorbed on the surface allow us to alter its acid property and cumene cracking activity as well.