

The effects of redispersion treatment of Pt-Sn/Al₂O₃ catalyst

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The loss of active surface area produced by sintering is an important cause of catalyst deactivation during industrial operation and this is very important in the case of metal catalysts. The present work reports on the effects of Pt redispersion with O₂ and different amounts use of HCl/H₂ gas mixture treatment are based of the Pt-Sn/Al₂O₃ catalyst . Pt-Sn catalyst supported on -alumina was prepared. And then propane dehydrogenation experiment by using Pt-Sn/ -alumina was performed at 620 with hydrogen gas and propane gas. The effects of redispersion treatment of Pt-Sn catalyst for propane dehydrogenation to propylene have been investigated by reaction test and some physicochemical characterization like CO chemisorption, X-ray diffraction (XRD), X-ray photoelectron spectroscopy (XPS).