عنوان مقاله:
New Method of Corrosion in Isomerization Units

محل انتشار:
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خلاصه مقاله:
Naphtha isomerization is one of the reactions present in catalytic conversion process of heavy naphtha. The catalyst is highly active at ۸۰-۱۰۰ °C; however, due to corrosion, environmental issues, and the lack of appropriate selectivity, it has not been commonly used. In addition, since naphtha conversion catalysts act at ۳۲۰-۴۵۰ °C and at this temperature isomerization is not appropriately done, the catalyst did not show good activity in isomerization of light alkanes. The presence of a known concentration of HCl on the catalyst surface will cause the Bronsted places to have stability and maintain the catalytic activity during the reaction. In this research study, the conditional contract arrangement was utilized to extract the relevant knowledge in isomerization for ۳ major factors: H۲/HC, optimum pH and acidic site in catalyst. Results revealed that, the best range of temperature of light Naphtha in feed was less ۳۰ °C, pressure of recycle gas was more than ۳۵ bar, the H۲/HC was less than ۰.۰۵, conditions of feed (temperature was less than ۳۵ °C, pressure was more than ۱۹ bar), optimum pH was less than ۵.۵ and the ratio of metal and acidic site in catalyst was under ۶.

کلمات کلیدی:
Chlorine, Feed, Isomerization Unit, corrosion