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掺杂Cr助剂的Pt/USY催化剂上正庚烷异构化反应研究(英文)

Hydroisomerization of n-Heptane over Pt/USY Catalysts Promoted by Cr Additive

中文关键词：加氢异构化　正庚烷　助剂　USY　Pt

英文关键词：hydroisomerization　n-heptane　promoter　USY　platinum

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中文摘要：

英文摘要：

The Pt-supported USY zeolite catalysts doped with Cr, Al or Zn were prepared by impregnation, and characterized by XRD, low temperature nitrogen physisorption, H_2-chemisorption and IR spectroscopy of the pyridine adsorption. Catalytic activities were evaluated via the hydroisomerization of n-heptane with an atmospheric fixed-bed reactor. The Pt dispersion and acidity of the Pt-supported USY catalyst were influenced by the addition of the promoters. The Pt-supported catalysts promoted by Cr, Al or Zn, especially by Cr, were catalytically much more stable and exhibited much higher catalytic activity and selectivity for isomerization of n-heptane than the catalysts without the dopant. Both the conversion and selectivity are discussed in relation with the physicochemical properties of catalysts.

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