عنوان مقاله:

Investigating the Stability of Iron-Molybdenum UnsupportedCatalysts in the Catalytic Conversion Reactionof Methanol to Formaldehyde

محل انتشار:

چهارمین کنفرانس بین المللی فناوری های جدید در صنایع نفت، گاز و پتروشیمی (سال: 1401)

تعداد صفحات اصل مقاله: 7

نویسنده:

Nastaran Parsafard - *Kosar University of Bojnord, Department of Applied Chemistry, North Khorasan, Iran*

خلاصه مقاله:

Today, catalytic processes produce many chemicals. Meanwhile, the catalytic conversion ofmethanol to formaldehyde is of great importance due to the availability and cheapness of methanol, theconvenience and low cost of the production process and the consumption of up to ۴۰ million tons offormaldehyde per year. The catalyst currently used in the industry is an unsupported catalyst of ironand molybdenum, whose exact composition and manufacturing method remain proprietary due to theimportance of the subject. In this research, iron-molybdenum unsupported catalyst with Mo/Feratios=۱.۷,۲,۳ was prepared by co-precipitation method. The results obtained from the reactor testsshow that Mo/Fe=۱.۷ catalyst has the best performance among unsupported catalysts. Checking thestability of catalysts after being under current for ۱۰ hours in relation to this catalyst shows a ۳۰% dropin the conversion of methanol to formaldehyde.

کلمات کلیدی:

Methanol, Formaldehyde, Impregnation, Iron-Molybdenum