Journal of the Japan Petroleum Institute
The Japan Petroleum Institute

ONLINE ISSN : 1349-273X
PRINT ISSN : 1346-8804

Journal of the Japan Petroleum Institute
Vol. 50 (2007) , No. 4 pp.227-228

[PDF (195K)] [References]

Pretreatment of MFI Type Zeolites with Ethylene to Enhance Their Catalytic Activities for Dehydration of Ethanol

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(Received: March 26, 2007)

The effects of the pretreatment of various types of zeolites such as H-ZSM5, H-mordenite, H-beta, HY and gallosilicate with ethylene on their activities for the dehydration of ethanol at low temperatures ranging from 473 K to 503 K were investigated. The activities of MFI type zeolites were enhanced by their pretreatment with ethylene, whereas the activities of the other zeolites were not improved.

Keywords: MFI type zeolite, Pretreatment, Ethylene, Dehydration, Ethanol

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To cite this article:
Isao Takahara, Masahiro Saito, Hiromi Matsuhashi, Hirofumi Aritani, Megumu Inaba and Kazuhisa Murata, *Journal of the Japan Petroleum Institute*, Vol. **50**, No. 4, p.227 (2007) .

doi:10.1627/jpi.50.227
JOI JST.JSTAGE/jpi/50.227