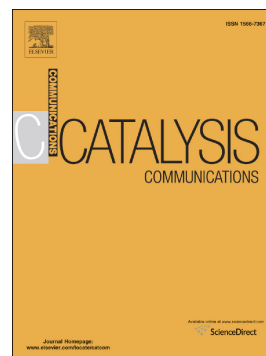


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Tailored mesoporous silica supports for Ni catalysed hydrogen production from ethanol steam reforming

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Abstract

Mesoporous silica supported Ni nanoparticles have been investigated for hydrogen production from ethanol steam reforming. Ethanol reforming is structure-sensitive over Ni, and also dependent on support mesostructure; three-dimensional KIT-6 possessing interconnected mesopores offers superior metal dispersion, steam reforming activity, and on-stream stability against deactivation compared with a two-dimensional SBA-15 support.

Keywords

Hydrogen production; ethanol steam reforming; nickel; nanoparticles; mesoporous materials

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