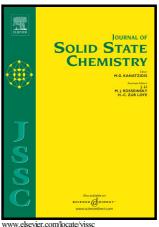
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Nano Sheets, Needles And Grains-like CuO/γ-Al₂O₃ Catalysts' Performance In

Carbon Monoxide Oxidation

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Abstract

This research deals with the preparation, characterization and shape dependent

performance of copper oxide nanomaterials (CuO NMs) in simple carbon monoxide (CO)

oxidation catalysis. Uniform and high purity rice grains-like, needle-like and sheet-like CuO

NMs were achieved by adopting different experimental conditions. The shape selective CuO

NMs were physically mixed and re-pelletized with γ -Al₂O₃ thus 1 wt.% CuO/ γ -Al₂O₃ catalyst

was prepared. The catalysts exhibited good surface area (186-190 m² g⁻¹), crystallinity, thermal

stability and metal dispersion. The performance of various shape CuO/γ-Al₂O₃ catalysts in CO

1

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