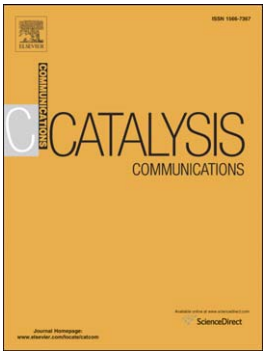

Liquid phase aerobic oxidation of benzyl alcohol by using manganese ferrite supported-manganese oxide nanocomposite catalyst

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LIQUID PHASE AEROBIC OXIDATION OF BENZYL ALCOHOL BY USING MANGANESE FERRITE SUPPORTED-MANGANESE OXIDE NANOCOMPOSITE CATALYST

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ABSTRACT: This study illustrates for the first time the performance of nano-manganese ferrite supported-manganese oxide catalyst in benzyl alcohol (BzOH) oxidationwithout employing any oxidizing agent other than the air present in the reactor. The magnetic catalyst displayed moderate activity but 100 % selectivity in conversion to benzaldehyde (BzH) under mild conditions. Compared to the other heterogeneous MnOx-based systems, the catalyst deserves attention in that an enhancement of the activity can be achieved by tuning the core-shell composition which plays a synergistic role in the catalytic reaction.

*Keywords:*Benzyl alcohol, alcohol oxidation, heterogeneous catalysis, MnOx catalysts, magnetic nanocatalysts

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