

Accepted Manuscript

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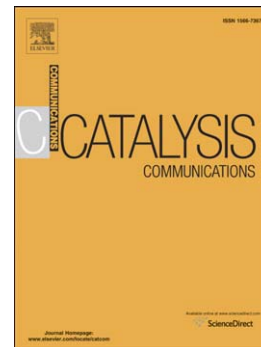
PII: S1566-7367(16)30383-1
DOI: doi:[10.1016/j.catcom.2016.10.027](https://doi.org/10.1016/j.catcom.2016.10.027)
Reference: CATCOM 4832

To appear in: *Catalysis Communications*

Received date: 12 June 2016
Revised date: 21 September 2016
Accepted date: 23 October 2016

Please cite this article as: Gokhan Elmaci, Demet Ozer, Birgul Zumreoğlu-Karan, Liquid phase aerobic oxidation of benzyl alcohol by using manganese ferrite supported-manganese oxide nanocomposite catalyst, *Catalysis Communications* (2016), doi:[10.1016/j.catcom.2016.10.027](https://doi.org/10.1016/j.catcom.2016.10.027)

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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) oxidation without 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 MnO_x-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, MnO_x catalysts, magnetic nanocatalysts

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