

Accepted Manuscript

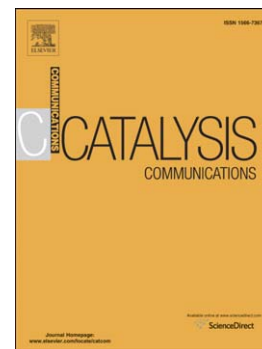
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PII: S1566-7367(13)00192-1
DOI: doi: [10.1016/j.catcom.2013.05.019](https://doi.org/10.1016/j.catcom.2013.05.019)
Reference: CATCOM 3514

To appear in: *Catalysis Communications*

Received date: 3 May 2013
Revised date: 22 May 2013
Accepted date: 22 May 2013



Please cite this article as: Anand S. Burange, Radha V. Jayaram, Rakesh Shukla, Avesh K. Tyagi, Oxidation of benzylic alcohols to carbonyls using tert-butyl hydroperoxide over pure phase nanocrystalline CeCrO₃, *Catalysis Communications* (2013), doi: [10.1016/j.catcom.2013.05.019](https://doi.org/10.1016/j.catcom.2013.05.019)

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**Oxidation of benzylic alcohols to carbonyls using tert-butyl hydroperoxide
over pure phase nanocrystalline CeCrO₃**

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Abstract

Nanocrystalline phase pure CeCrO₃ was synthesized by a two step preparation method. The prepared material was characterized by techniques such as X-Ray Diffraction (XRD), High Resolution Transmission Electron Microscopy (HR-TEM), EDX and SEM analysis. The catalytic activity of CeCrO₃ was investigated for the oxidation of benzylic alcohols to the corresponding carbonyls using TBHP as oxidant. Oxidation of several structurally diverse primary and secondary benzylic alcohols were studied with the CeCrO₃/TBHP catalytic system. The catalyst exhibited significant catalytic activity and selectivity in most of the cases.

Keywords: Selective oxidation, Perovskites, Heterogeneous catalyst, CeCrO₃, benzylic alcohol oxidation.

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