**Oxidation of alcohols using clean oxidant TBHP over magnetically retrievable spinels and nano-crystalline perovskite catalysts**

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**Abstract**

The magnetically retrievable MFe2O4 spinels (M = Mn, Co, Ni, Cu, Zn) and nanocrystalline phase pure CeCrO3 oxide were prepared by solid state synthesis. The materials were characterized by techniques such as X-ray diffraction (XRD), High Resolution Transmission Electron Microscopy (HR-TEM), EDX, SEM techniques. The catalytic activity was tested for the oxidation of benzylic alcohols using TBHP as an oxidant. Among the catalyst systems tested, CoFe2O4/TBHP and CeCrO3/TBHP in DMSO were found to be more efficient than the others. Possibility of magnetic separation and reusability make these catalyst systems economically and environmentally viable.



**Bibliography**

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