

Ordered mesoporous Co_3O_4 as highly active catalyst for low temperature CO-oxidation†

Harun Tüysüz, Massimiliano Comotti and Ferdi Schüth*

Received (in Cambridge, UK) 27th May 2008, Accepted 10th July 2008

First published as an Advance Article on the web 25th July 2008

DOI: 10.1039/b808815b

Cubic ordered mesoporous Co_3O_4 , prepared *via* the nanocasting pathway using KIT-6 as hard template, was found to be an excellent catalyst for low temperature CO oxidation, with the activity clearly depending on surface area and pore systems of the catalysts.

areas, we studied the catalytic activity of nanocast Co_3O_4 in CO-oxidation and the dependence of the catalytic activity on the porosity of the samples. Ordered mesoporous Co_3O_4 with different textural parameters was prepared *via* the nanocasting pathway. The catalytic performance of these materials was in the same range as that of the best reported materials with