A versatile supported cobalt (II) complex for heterogeneously catalysed processes: conventional vs microwave irradiation protocols

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Characterisation

Nitrogen Adsorption Measurements. Measurements were carried out at 77 K using an ASAP 2010 volumetric adsorption analyzer from Micromeritics. The samples were outgassed for 2 h at 100 °C under vacuum ($p < 10^{-2}$ Pa) and subsequently analyzed. The linear part of the BET equation (relative pressure between 0.05 and 0.22) was used for the determination of the specific surface area. The pore size distribution was calculated from the adsorption branch of the N₂ physisorption isotherms and the Barret-Joyner-Halenda (BJH) formula. The cumulative mesopore volume V_{BJH} was obtained from the PSD curve.

Powder X-ray diffraction patterns (XRD) were recorded on a Bruker AXS diffractometer with CuK α (λ =1.5418 Å), over a range from 1° to 6°, using a step size of 0.02° and counting time per step of 1 s.



Figure S1. Isotherm profile of Co/SBA-15 material. Inset corresponds to the pore size distribution found in the material.



Figure S2. XRD pattern comparison of Co/SBA-15 fresh (discontinuous black line) and five times reused Co/SBA-15 (red line) in the microwave-assisted oxidation of benzyl alcohol to benzaldehyde.