

Synthesis of mesoporous alumina by nanocasting with flat disk type SBA -15

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Mesoporous alumina has been synthesized by nanocasting using flat disk type SBA -15 as a hard template and Aluminium isopropoxide as a cheap Al precursor. Flat disk type SBA -15 consists of stacked pore walls and the synthesized mesoporous alumina is expected to have the same texture and morphology to the template. The characteristics of mesoporous alumina was investigated by X-ray diffraction (XRD), transmission electron microscopy (TEM), Fourier transform infrared spectroscopy (FT-IR), Brunauer - Emmett -Teller (BET) and N₂ adsorption-desorption isotherm. The present study demonstrates the useful way of the synthesizing mesoporous alumina with narrow pore size distribution and large surface area.