2005, Volume 17

Wenjiang Li and Marc-Olivier Coppen*: Synthesis and Characterization of Stable Hollow Ti-Silica Microspheres with a Mesoporous Shell



Figure 3. (a) SEM images of the hollow microspheres after calcination at 700 $^{\circ}$ C, (b, c) crushed hollow silica spherical particles, and (d) crushed hollow microsphere prepared using an increased concentration of TEOS.



Figure 4. Adsorption–desorption isotherm of nitrogen at 77 K on the calcined samples (A) and the corresponding BJH pore size distribution. Inset B, calculated from the adsorption branch; inset C, calculated from the desorption branch. The corresponding specific surface area, pore volume, and most frequent pore diameter of the discussed sample are 479 m²/g, 0.29 cm³/g, and 2.4 nm, respectively.



Figure 5. TEM image of a crushed, calcined spherical particle.

Please note the following corrections to this article (*Chem. Mater.* **2005**, *17*, 2241–2246). Figures 3–5 are incorrect. The correct versions are displayed here.

The N_2 adsorption and desorption isotherms of the hollow spheres are shown in Figure 4A. The adsorption branch of the isotherm increases smoothly and is most representative of the pore size distribution (derived from the BJH model in inset B). The desorption branch, on the other hand, shows two steps, but only the first peak is significant: the pronounced peak just below 4 nm in inset C is an artifact¹⁵ as a result of the sudden emptying of larger mesopores containing liquefied N₂.

CM059998T

10.1021/cm059998t Published on Web 07/22/2005