

Supplementary Material (ESI) for Chemical Communications

5 **Electronic Supplementary Information for:**  
**Strategic Synthesis of SBA-15 Nanorods**

**Xiulei Ji, Kyu T. Lee, Muguette Monjauze and Linda F. Nazar\***

*University of Waterloo, Department of Chemistry, Waterloo, Ontario, Canada N2L 3G1 E-mail:*

*lfnazar@uwaterloo.ca*

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**1. Apparatus**

X-ray diffraction patterns were collected on a Bruker D8 Analytical X-ray System equipped with a graphite monochromator, and a Ni filter, operating at 40 kV and 30 mA, using Cu-K $\alpha$  (1.54 Å) radiation. SEM images were obtained by using a high resolution LEO 1530 field emission scanning electron microscope. The backscattering detection mode was used to obtain the micrographs. TEM images were taken with a Hatachi HD-2000 scanning transmission electron microscope (STEM) at a voltage of 200 KV with the dark field mode. The N<sub>2</sub> sorption-desorption isotherms were measured at -196 °C by using a GEMINI III 2375 Surface Area Analyzer. All the samples were degassed at 150 °C overnight on a vacuum line before the measurements.

**2. Experimental**

In a typical synthesis, 2 g of Pluronic P123 was dissolved in 360 ml of 2 M HCl at 38 °C. Tetraethylorthosilicate (TEOS, 4.2 g) was added into the above solution with vigorous stirring. The concentrations of P123 and TEOS in the solution are 0.53 wt% and 1.1 wt% respectively, ~ 1/5 of those in conventional syntheses of SBA-15 reported in the literatures.<sup>9-12</sup> The mixture was stirred for 6 h and remained quiescent for 24 h at 38 °C. It was subsequently heated at 100 °C for another 24 h in an autoclave. The as-synthesized SBA-15 was collected by centrifugation, dried and calcined at 550 °C

in air. A series of varying concentrations of P123 and TEOS in 2M HCl were prepared, with the ratio between P123 and TEOS kept the same as above. These were 1/1, 2/5, 1/5, and 1/10 of the concentrations of P123 and TEOS employed in a conventional synthesis of SBA-15. We refer to these SBA-15 materials as SBA-15-1/1, SBA1/2.5, SBA1/5, and SBA1/10.

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