

## Supporting Information

### A simple approach towards one-dimensional mesoporous carbon with superior electrochemical capacitive activity†

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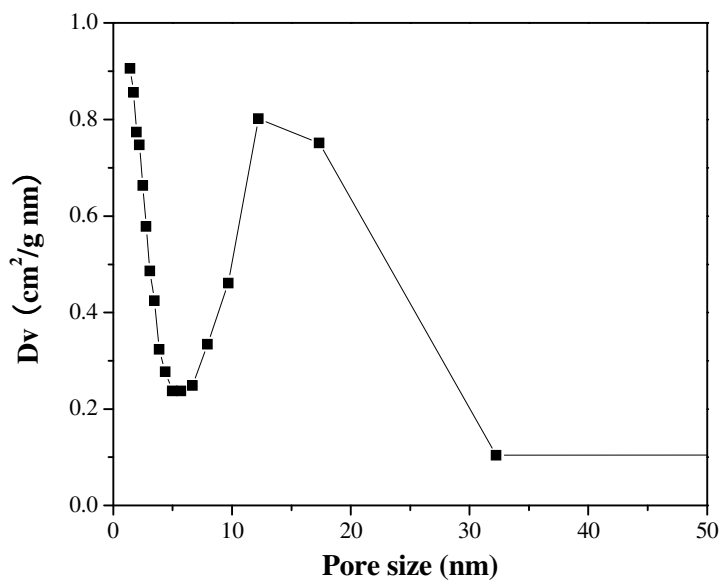
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#### Electrochemical Characterization

Anodic alumina membranes (AAO) were purchased from Whatman International Ltd. The average pore size of the membranes was around 200 nm and the length was 60  $\mu\text{m}$ . The membranes were washed in ethanol solution, followed by mild sonication for 5 min and then dried under vacuum. An AB<sub>2</sub>-type functionalized cyclopentadienone was synthesized according to procedures described elsewhere<sup>1</sup> and then dissolved in dichloromethane (30 mg ml<sup>-1</sup>). The solution was then impregnated into the AAO membrane. All heat treatments were carried out in quartz slides under argon atmosphere in an electric furnace. The template-free samples were washed with water and ethanol, dried under vacuum, and submitted for SEM and TEM measurements. SEM measurements were performed on a LEO 1530 field emission electron microscope. Transmission electron microscopy characterization was conducted on a Philips EM 420 electron microscope at an operating voltage of 120 KV.

Electrochemical measurements were conducted on an EG&G potentiostat/galvanostat Model 2273 instrument. A conventional cell with a three-electrode configuration was used throughout this study. Working electrode was prepared by thin film electrode method.<sup>2</sup> Briefly, 5 mg as-prepared mesoporous

nanocarbons were dispersed in 1 ml 0.05 wt% Nafion solution by ultrasonification for 30 min. Then 25  $\mu\text{l}$  dispersion was transferred onto a mirror-polished glassy carbon electrode. A platinum foil was applied as a counter electrode with a standard Ag/AgCl electrode as a reference electrode



**S-Figure 1: Pore size distribution of the 1D nanocarbons**

**Reference:**

1. L. Zhi, J. Wu, J. Li, M. Stepputat, U. Kolb and K. Müllen, *Adv. Mater.*, 2005, **17**, 1492.
2. T. J. Schmidt, H. A. Gasteiger, G. D. Staeb, P. M. Urban, D. M. Kolb, R. J. Behm, *J. Electrochem. Soc.*, 1998, **145**, 2354.