

## Nanocups-on-Microtubes: a Unique Host Towards High-Performance Lithium Ion Batteries

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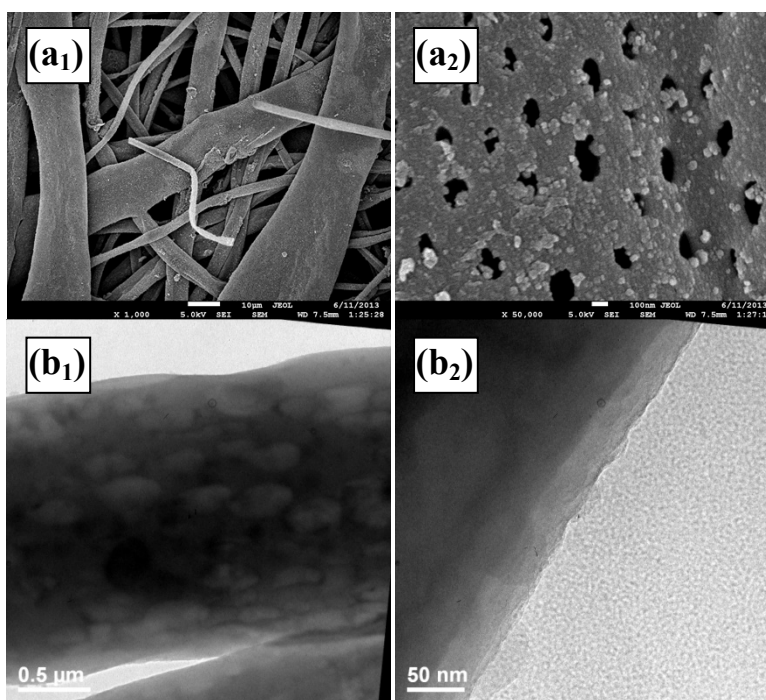
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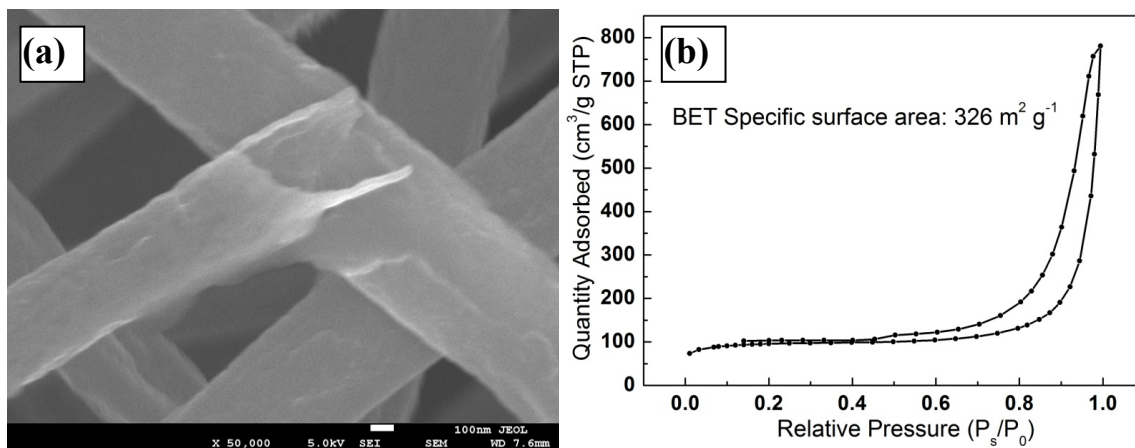
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**Fig. S1.** (a<sub>1</sub> and a<sub>2</sub>) FESEM and (b<sub>1</sub> and b<sub>2</sub>) TEM images of polydopamine (PDA)-coated PS porous nanofibers, showing the fibrous morphology as well as the successful coating.



**Fig. S2.** (a) The morphology and (b) Brunauer-Emmett-Teller (BET) isotherm curve of the C-PDA hollow nanofibers, indicating the BET specific area of about 326 m<sup>2</sup> g<sup>-1</sup>. The C-PDA hollow nanofibers were prepared through coating PDA onto solid PS nanofibers followed by annealing. The coating and annealing condition was the same as that used to obtain C-PDA nanocups.