## **Supporting Information**

Double-shelled Hollow SnO<sub>2</sub>/Polymer Microsphere as A Highcapacity Anode Material for Superior Reversible Lithium Ion Storage

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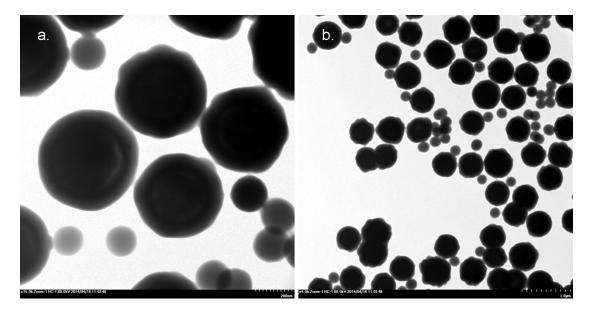


Figure S1 TEM images: a and b) Irregular P(EGDMA-*co*-MAA) phase with different magnifications.

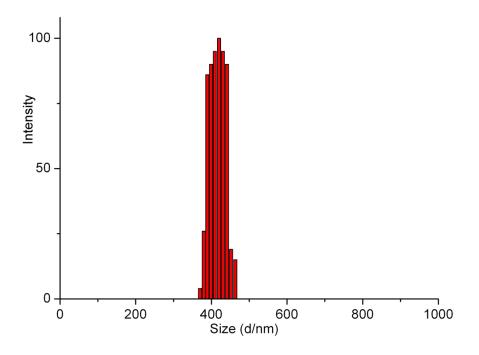


Figure S2 Dynamic light scattering of hollow SnO<sub>2</sub>/P(EGDMA-*co*-MAA) microspheres (35.3 wt% of SnO<sub>2</sub>).

The Dynamic light scattering data in Figure S2 implied good dispersion of the resultant hollow  $SnO_2$ /polymer microspheres with diameters ranging from 370 to 463 nm and an average diameter of 418 nm in water. It confirmed the good swelling properties of polymer shell.

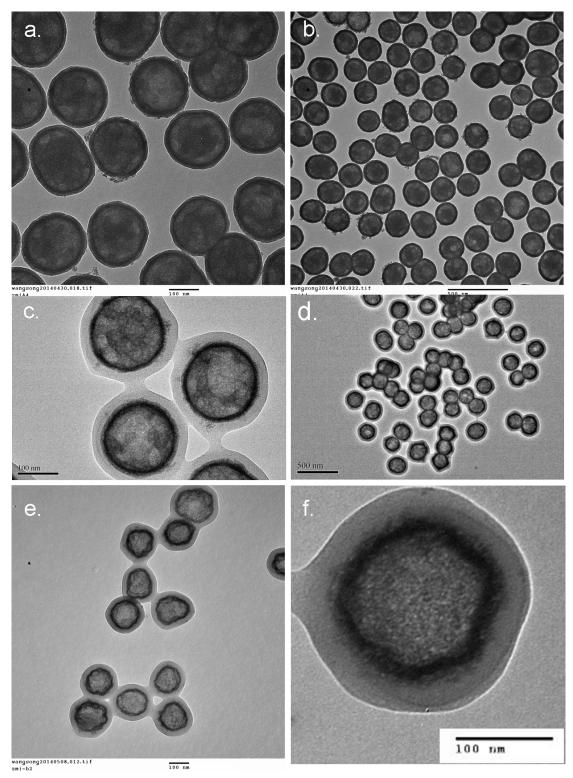


Figure S3 TEM images: a and b) MPS-modified  $SiO_2/SnO_2$  ( $SiO_2/SnO_2$ -MPS) microspheres ( $SnO_2$  shell thickness is 24 nm, the same thickness as the other TEM images in Figure S3 for microspheres containing  $SnO_2$ ); c and d)  $SiO_2/SnO_2$ /polymer microspheres with different magnifications; e and f) hollow double-shelled  $SnO_2$  microspheres.

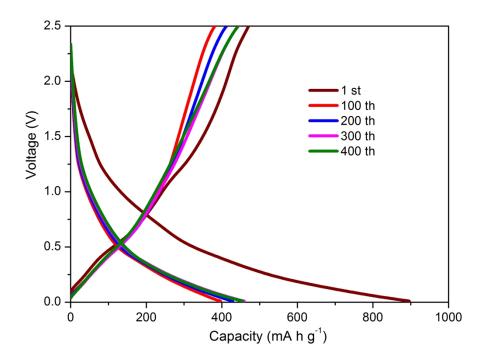


Figure S4 Charge-discharge profiles at the 1<sup>st</sup>, 100<sup>th</sup>, 200<sup>th</sup>, 300<sup>th</sup>, 400<sup>th</sup> of doubleshelled hollow SnO<sub>2</sub>/P(EGDMA-*co*-MAA) with 49.5 wt% of SnO<sub>2</sub> as anode.