

## Electronic Supporting Information

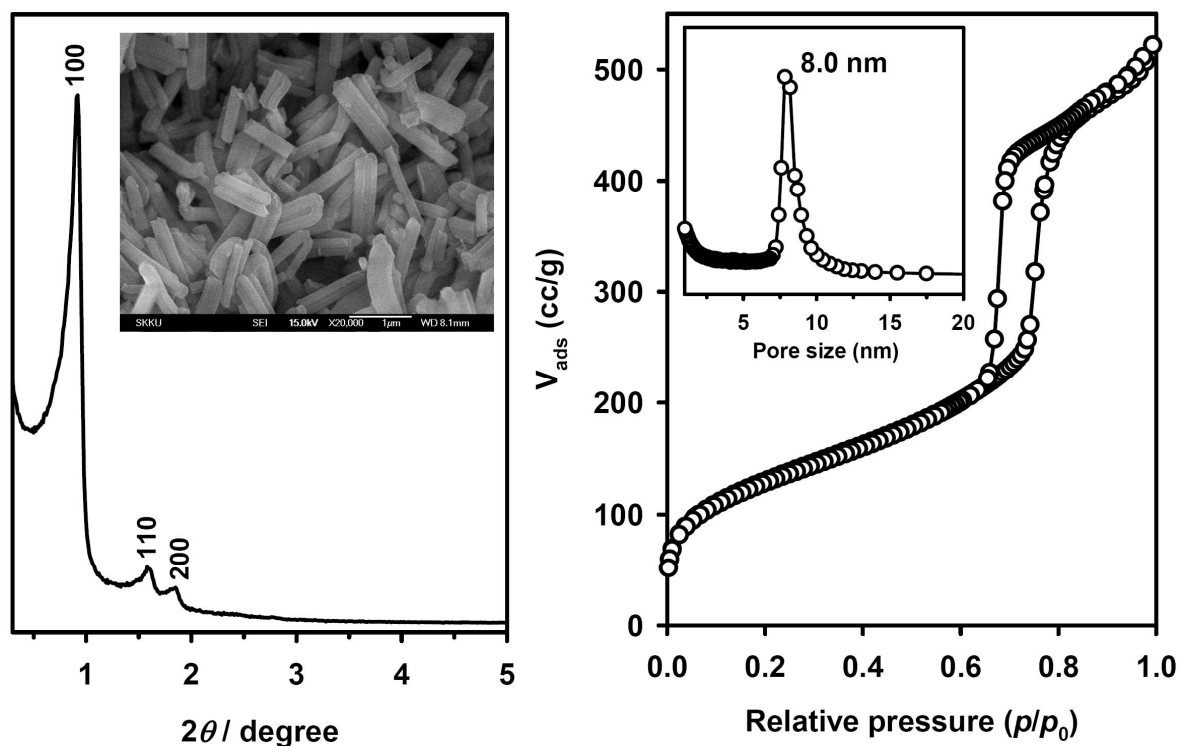
### Nano-propping effect of residual silica species on reversible lithium storage over highly ordered mesoporous $\text{SnO}_2$ materials

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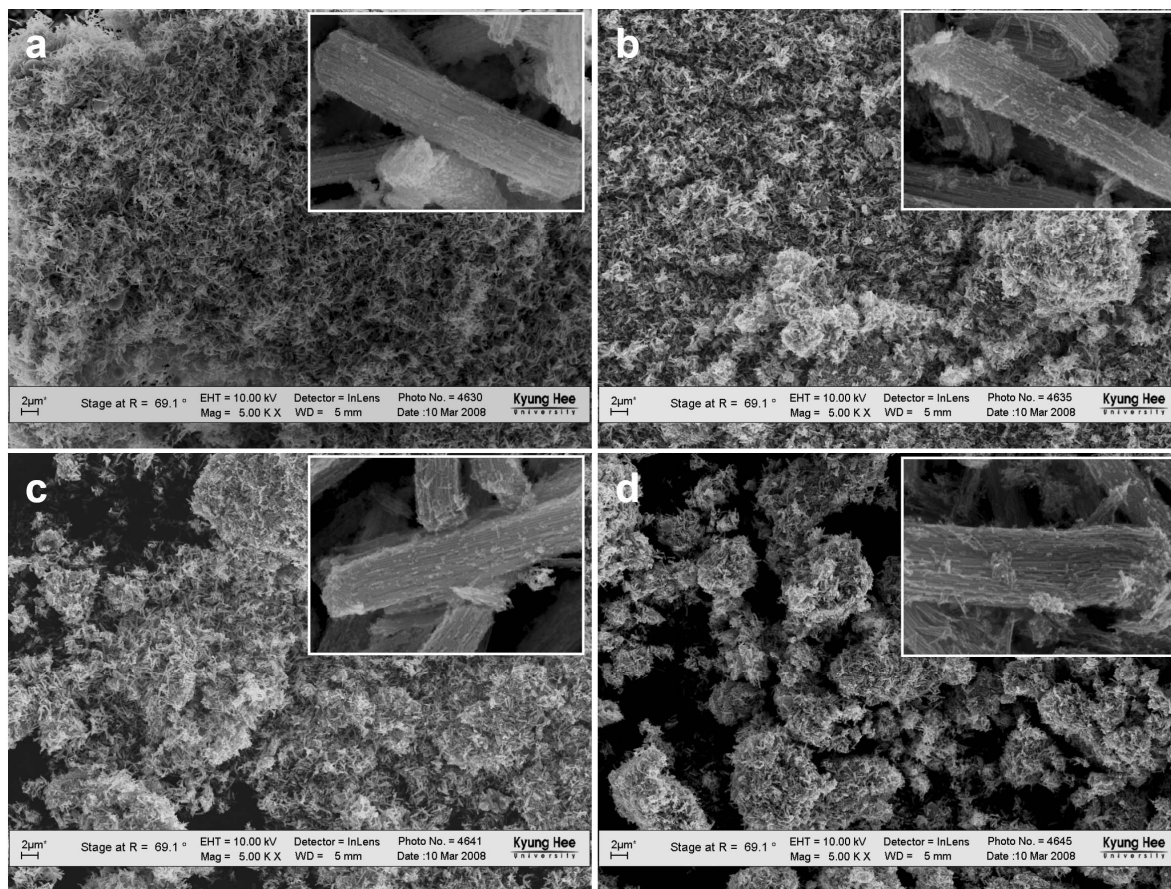
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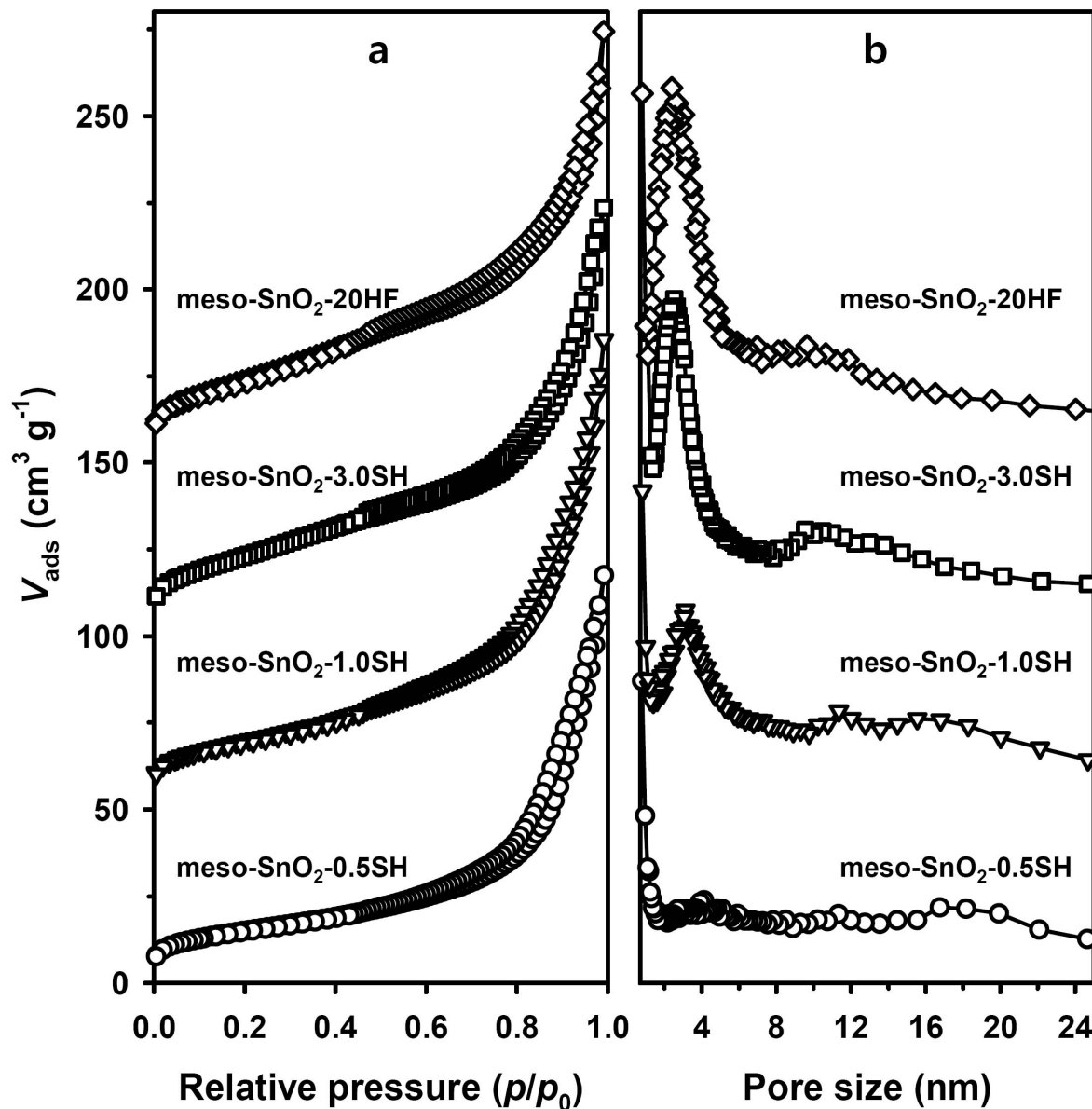
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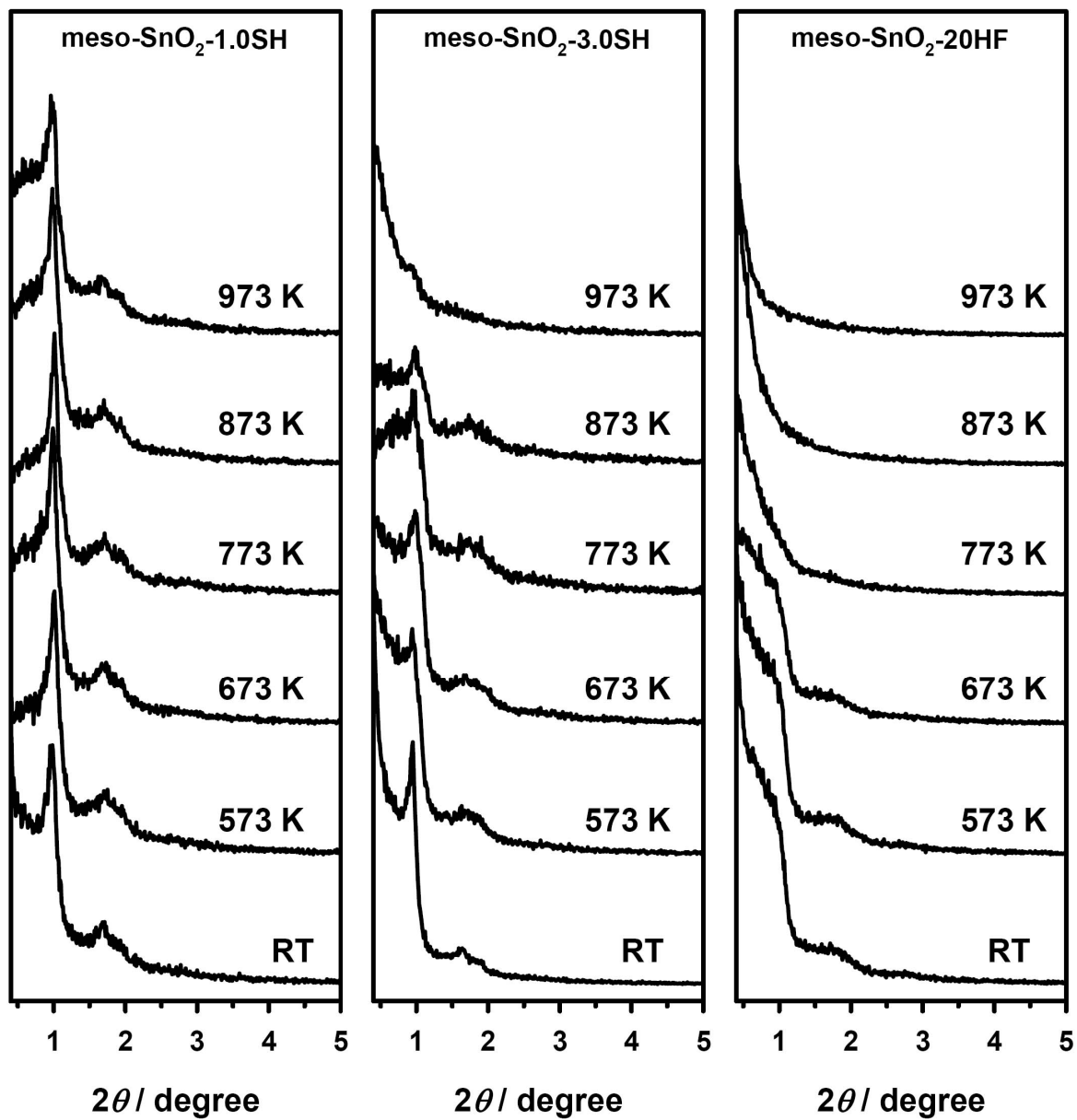
**Fig. S1** XRD pattern, SEM image,  $\text{N}_2$  adsorption-desorption isotherm and BJH pore size distribution curve for the mesoporous silica template, SBA-15.



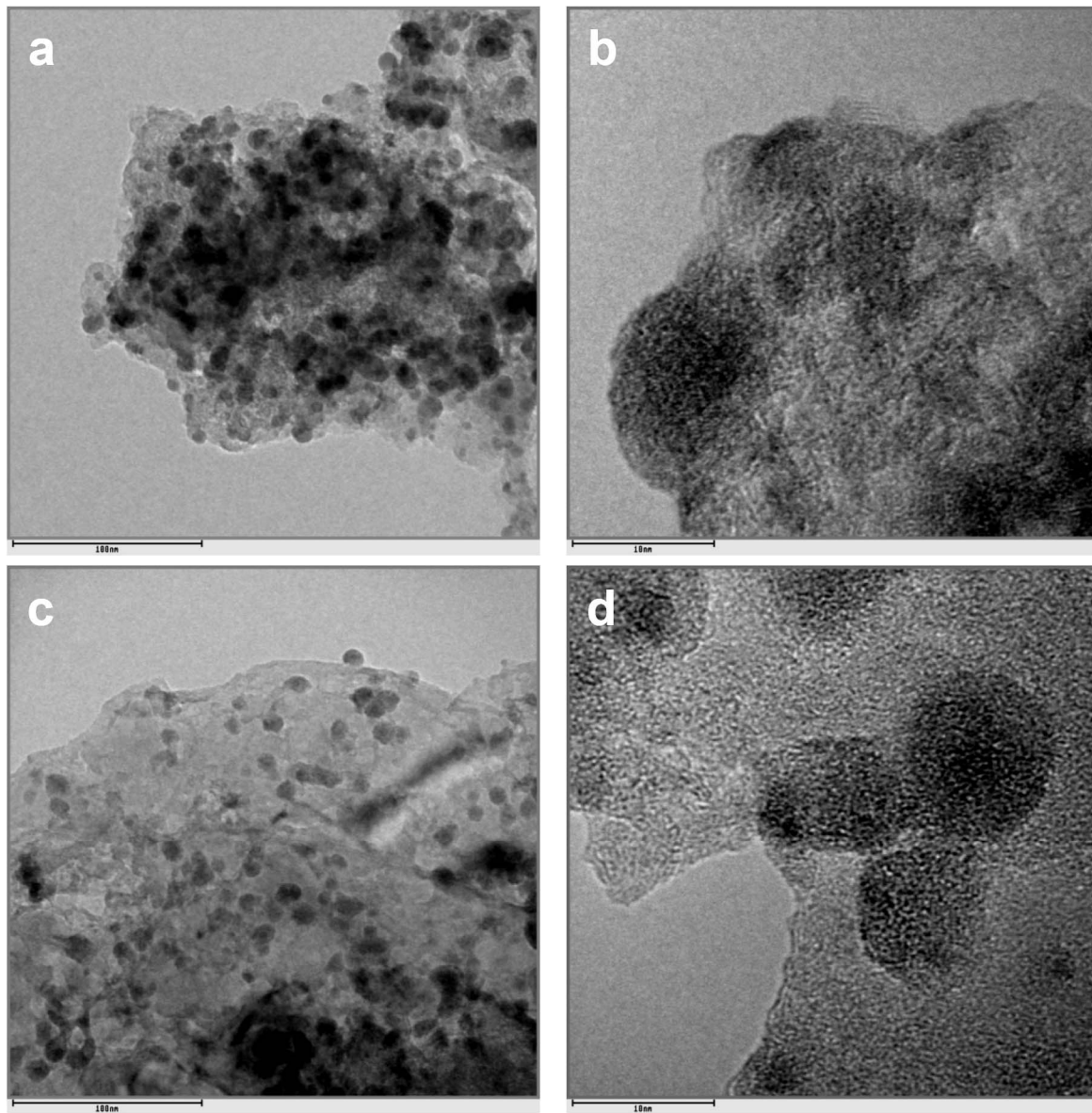
**Fig. S2** SEM images of meso-SnO<sub>2</sub> materials: (a) meso-SnO<sub>2</sub>-0.5SH, (b) meso-SnO<sub>2</sub>-1.0SH, (c) meso-SnO<sub>2</sub>-3.0SH, and (d) meso-SnO<sub>2</sub>-20HF.



**Fig. S3** (a) N<sub>2</sub> adsorption-desorption isotherms and (b) the corresponding BJH pore size distribution curves for the meso-SnO<sub>2</sub> materials. The isotherms were vertically shifted by 50, 100 and 150  $\text{cm}^3/\text{g}$  STP, respectively, for the clarity of data.



**Fig. S4** XRD patterns of meso-SnO<sub>2</sub> materials after the heat-treatments at the desired temperatures for 2 hrs.



**Fig. S5** TEM images of (a,b) meso-SnO<sub>2</sub>-20HF and (c,d) meso-SnO<sub>2</sub>-3.0SH materials obtained from the electrode after 50<sup>th</sup> cycles.