

## Supporting Information

### Superior Lithium Storage in 3D Macroporous Graphene Frameworks/SnO<sub>2</sub> Nanocomposite

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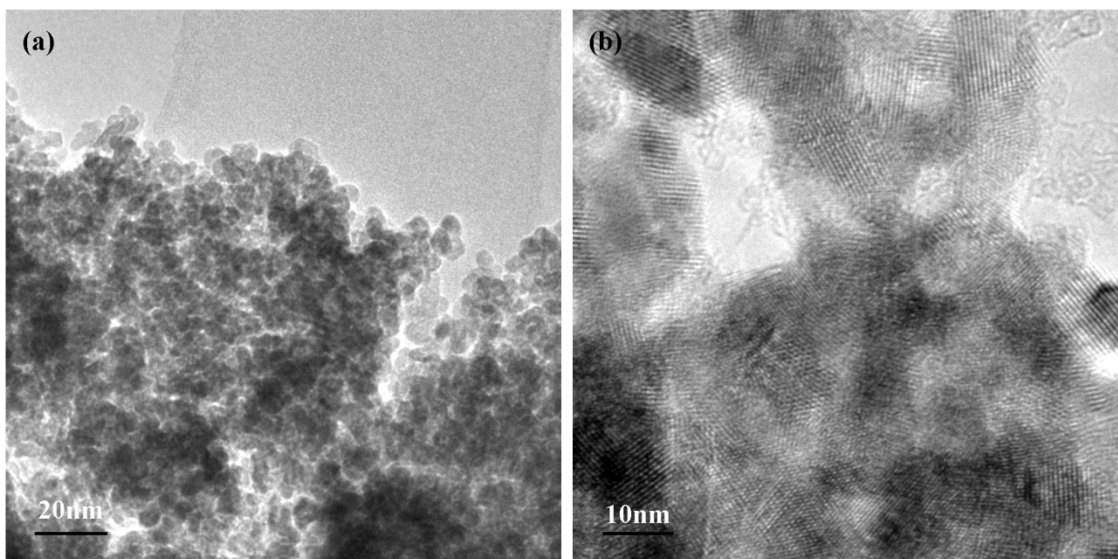
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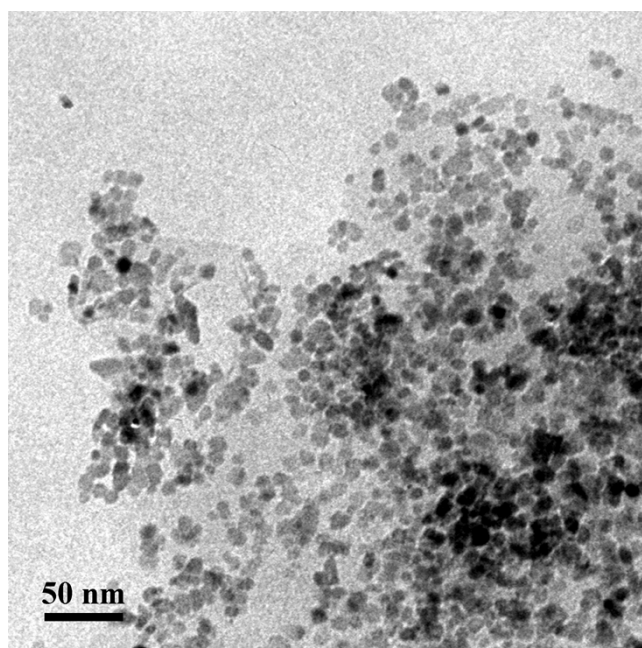
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**Fig. S1** TEM (a) and HRTEM (b) images of SnO<sub>2</sub> nanoparticle, respectively



**Fig. S2** TEM image of SnO<sub>2</sub>/RGO nanocomposite.

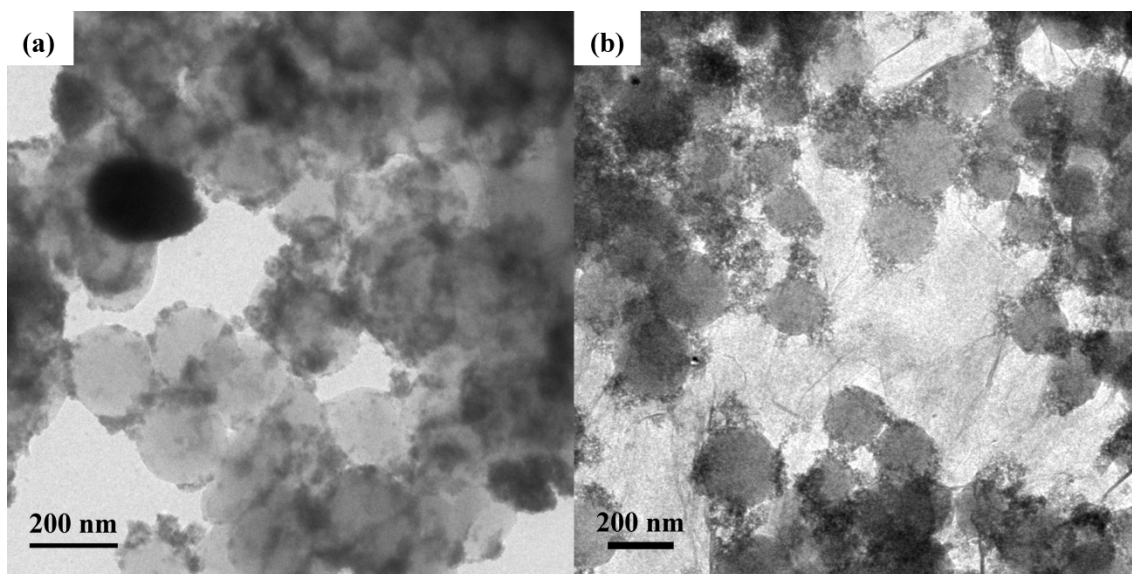


Fig. S3. TEM image of (a) PS@SnO<sub>2</sub> and (b) PS@SnO<sub>2</sub>@GO.

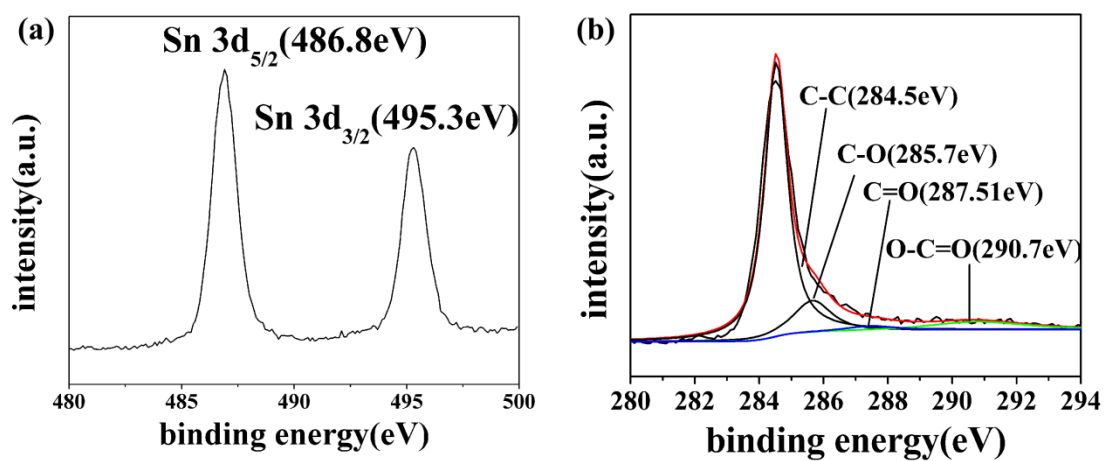
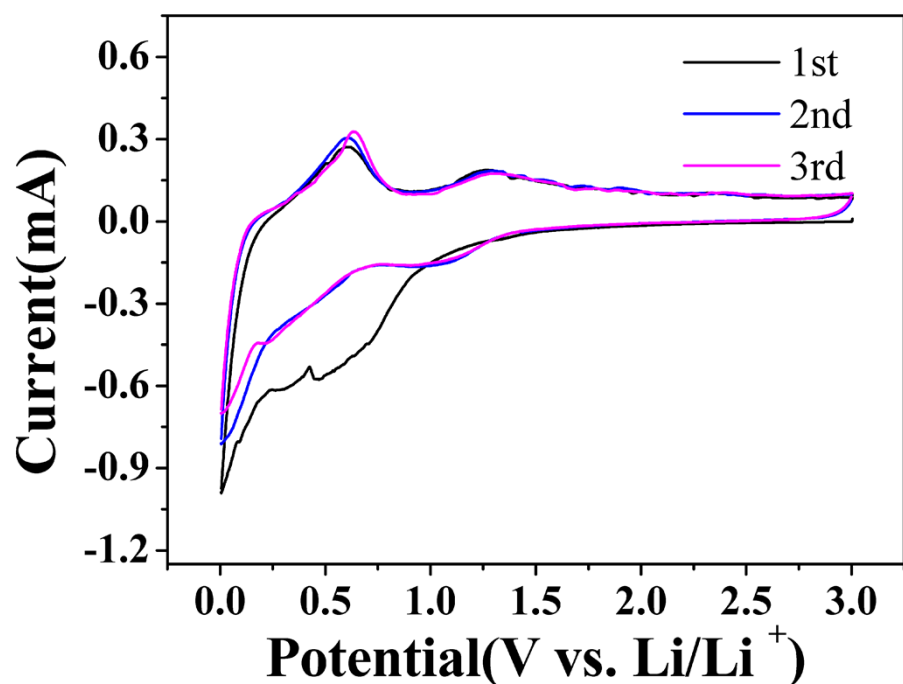


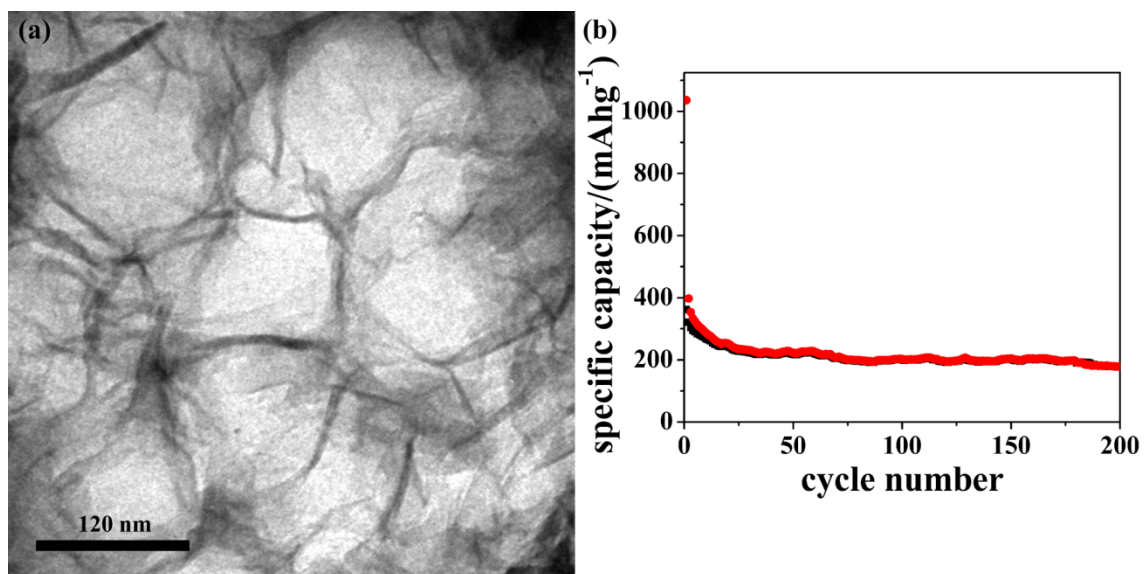
Fig. S4 Sn 3d (a) and C 1s (b) XPS spectra of 3D SnO<sub>2</sub>/GFs.



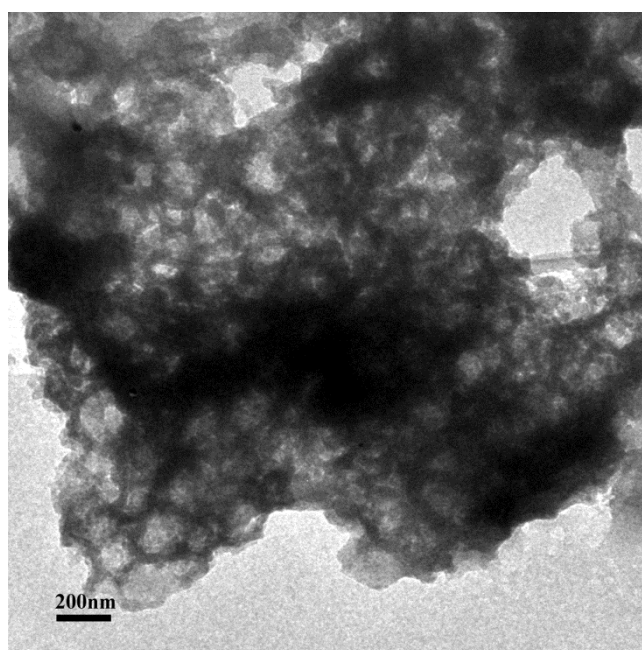
ode.

Sample	Capacity [ $\text{mAh g}^{-1}$ ]	Current density [ $\text{mA g}^{-1}$ ]
Graphene-based $\text{SnO}_2$ (Ref 30)	848 after 50 cycles	78
$\text{SnO}_2$ /GNS (Ref 33)	570 after 30 cycles	50
3D $\text{SnO}_2$ /GFs (Ref 33)	830 after 70 cycles	100
Graphene-based $\text{SnO}_2$ (Ref 37)	558 after 50 cycles	264
$\text{SnO}_2$ /RGO (this work)	670 after 100 cycles	100
3D $\text{SnO}_2$ /GFs (this work)	1244 after 50 cycles	100

**Table S1** Performance comparison of Graphene-based  $\text{SnO}_2$ , 3D  $\text{SnO}_2$ /GFs reported recently with  $\text{SnO}_2$ /RGO, 3D  $\text{SnO}_2$ /GFs in this work.



**Fig. S6** (a) TEM image of 3D GFs. (b) capacity retention of the 3D GFs electrode at a current density of  $1000 \text{ mAg}^{-1}$ .



**Fig. S7** TEM image of a fully charged (3.0V) 3D  $\text{SnO}_2/\text{GFs}$  nanocomposite electrode after 50 cycles at a current density of  $100 \text{ mA}^{-1}$ .