Electronic Supplementary Information for

2D Hybrid anode based on SnS Nanosheet bonded with graphene to Enhance Electrochemical Performance for Lithium-Ion Batteries

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Fig.S1. XPS spectra of SnS NS/RGO composites:(a) survey; (b) C 1s; (c) Sn 3d and (d) S 2p.



Fig.S2. (a) low and (b) high-magnification SEM images of the as-synthesized nanoflowers.



Fig.S3. Thermogravimetric analysis (TGA) of SnS NS/RGO S1 and S2.



Fig.S4. Cyclic performance of the SnS NS/RGO S1 hybrid at current density of 100, 200, and 500mA/g for 100 cycles.

Material	Morphology	Specific capacity(mAh/g)	Ref.
SnS	nanorods	422(20 th at 150 mA/g)	19
SnS	nanoflowers	580(30 th at 50mA/g)	13
SnS	rectangular nanosheets	550(5 th at 100mA/g)	14
SnS	nanobelts	436(30 th at 1/6C)	15
SnS	Nanosheet(CVD growth)	580(50 th at 50mA/g)	17
SnS/MWCNT	nanosheets	520(60 th at 100mA/g	12
S			
SnS/MWCNT	nanoparticles	450(60th at 100mA/g)	12
S			
SnS/graphene	nanoparticles	535(50 th at 50mA/g)	18

Table S1 Morphology and specific capacities of based materials as anode materials for LIBs

1C=782 mA/g, MWCNTs is Multi-walled carbon nanotubes.