Supporting Information

Honeycomb graphite network confined in biphasic TiO_2 homojunction nanotube as sulfur host for advanced lithium sulfur batteries

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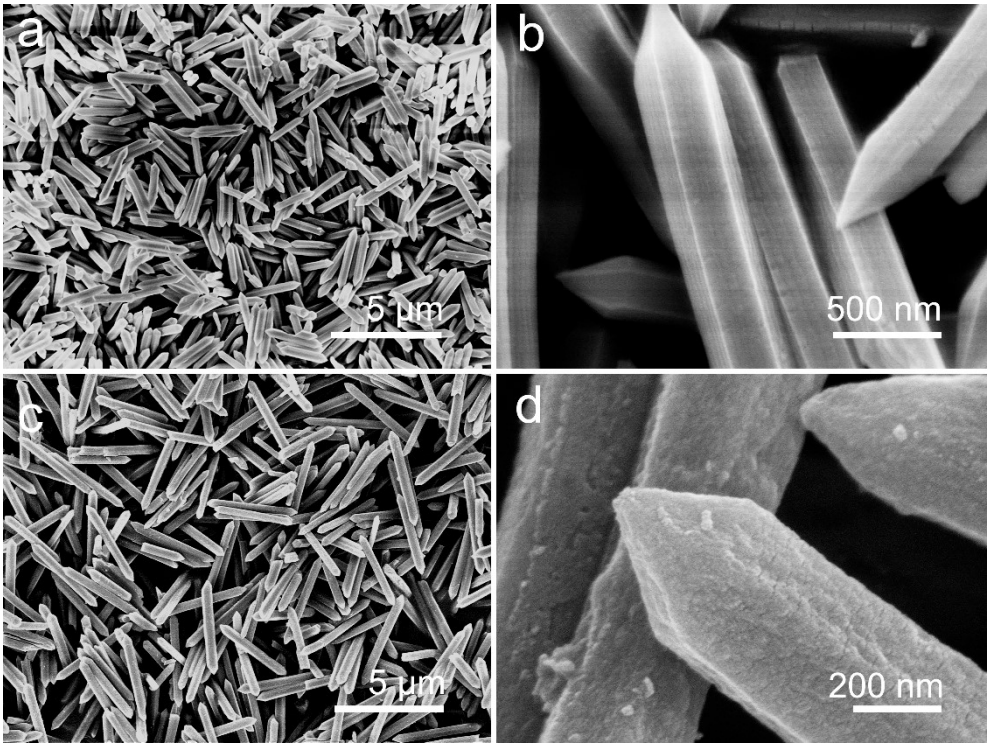

Fig. S1. SEM images of MIL-88A and MIL@TiO_2.

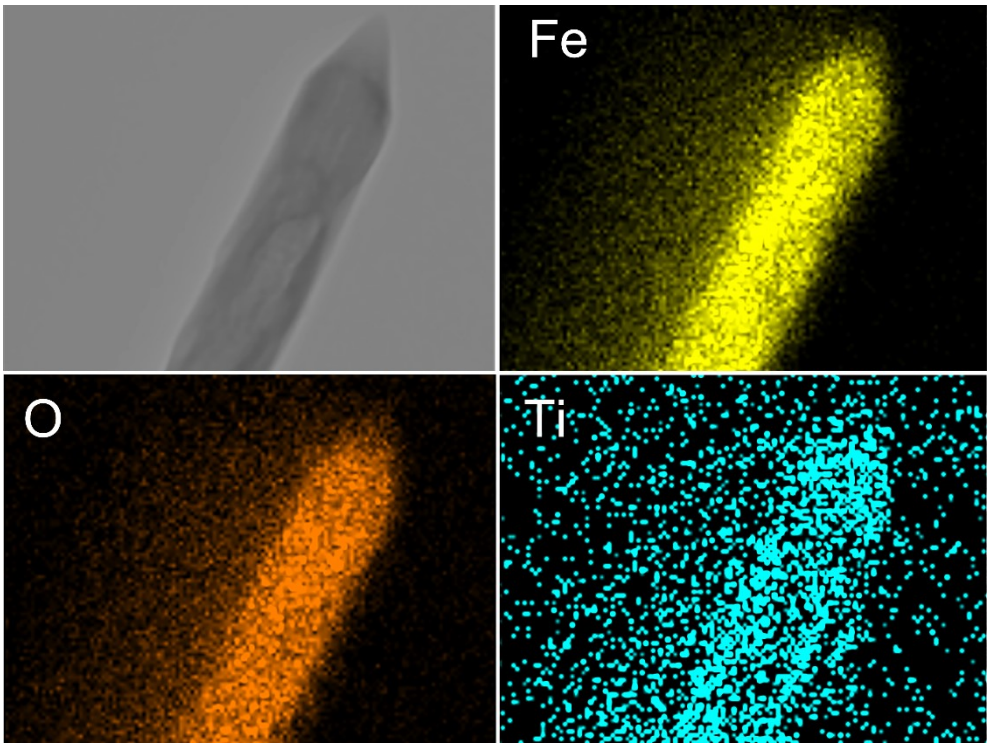

Fig. S2. TEM images and EDS mapping of MIL@TiO_2.

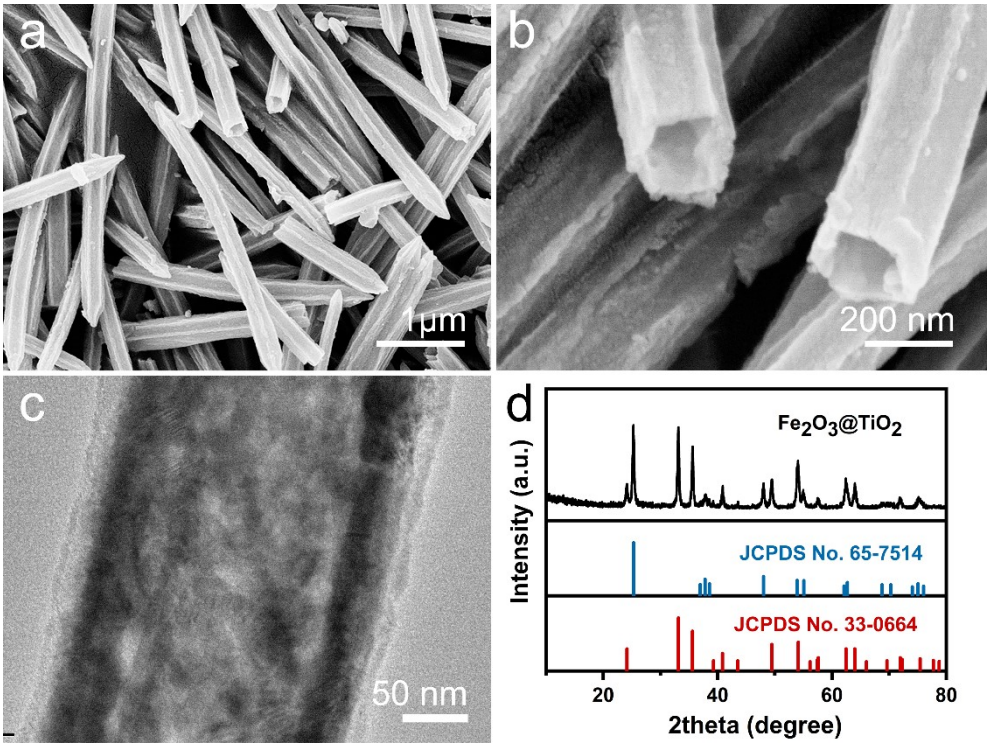

Fig. S3. SEM images (a, b), TEM image (c) and XRD patterns (d) of hollow Fe_2O_3@TiO_2 nanotube.

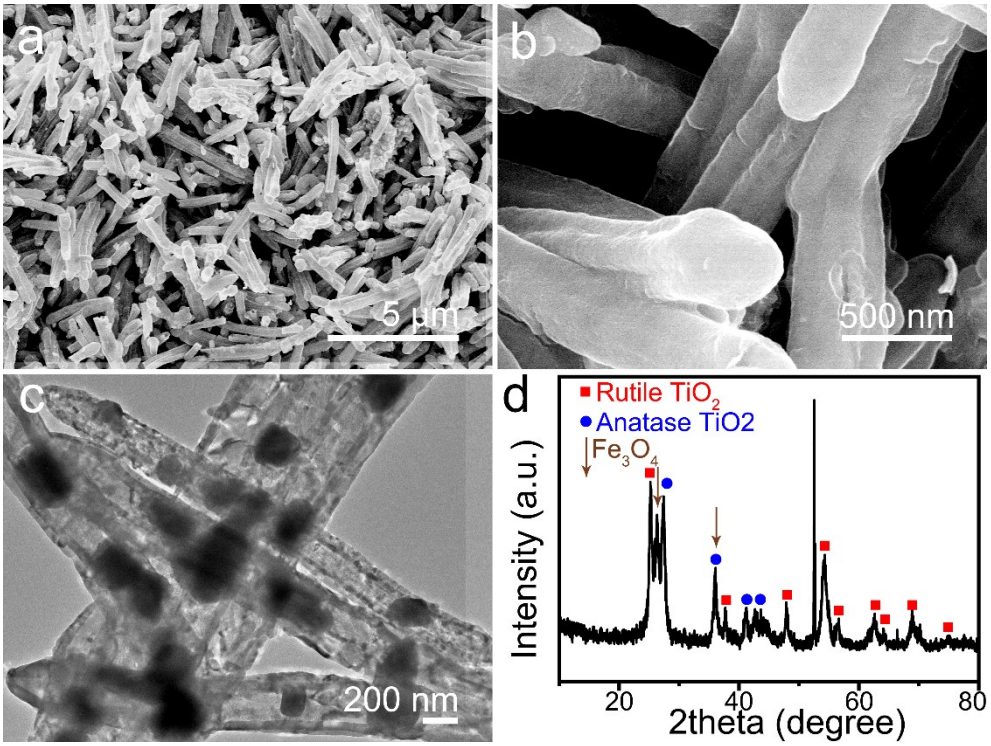

Fig. S4. SEM images (a, b), TEM image (c) and XRD patterns (d) of HGN-Fe_3O_4@TiO_2@C.

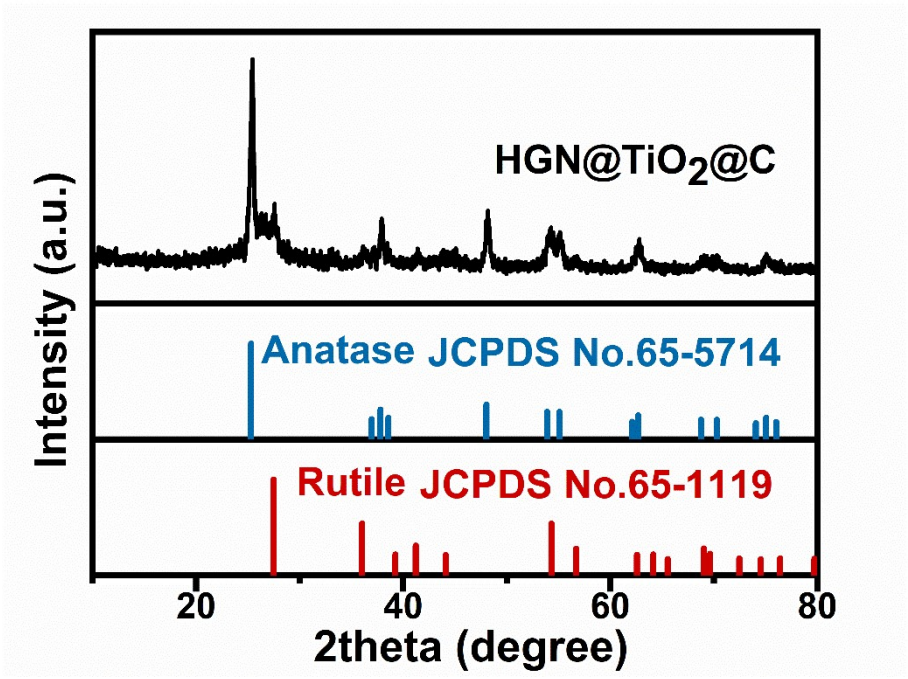

Fig. S5. XRD patterns of HGN@TiO_2@C.

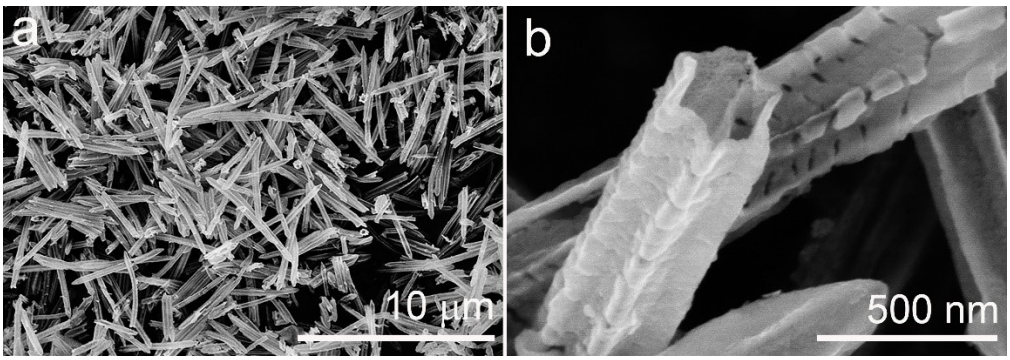

Fig. S6. SEM images of TiO_2@C composite.

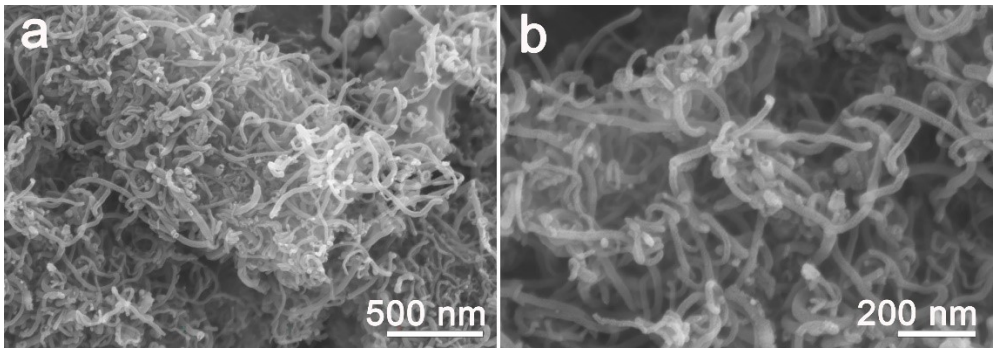

Fig. S7. SEM images of NCNT.

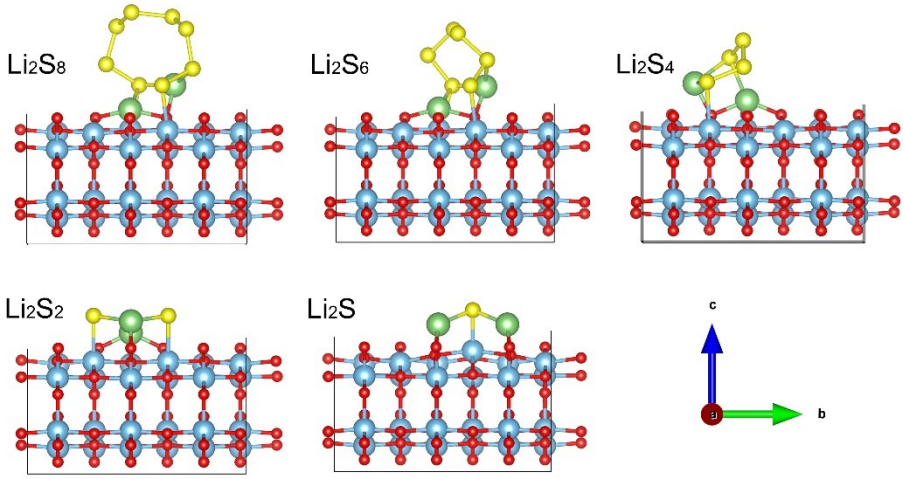

Fig. S8. The optimized adsorption conformations of various sulfur species on anatase TiO_2.

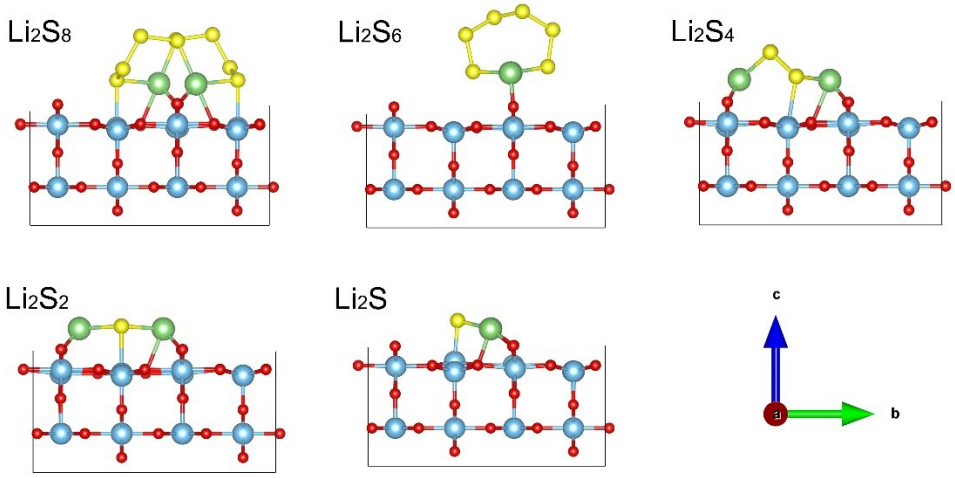

Fig. S9. The optimized adsorption conformations of various sulfur species on rutile TiO_2.

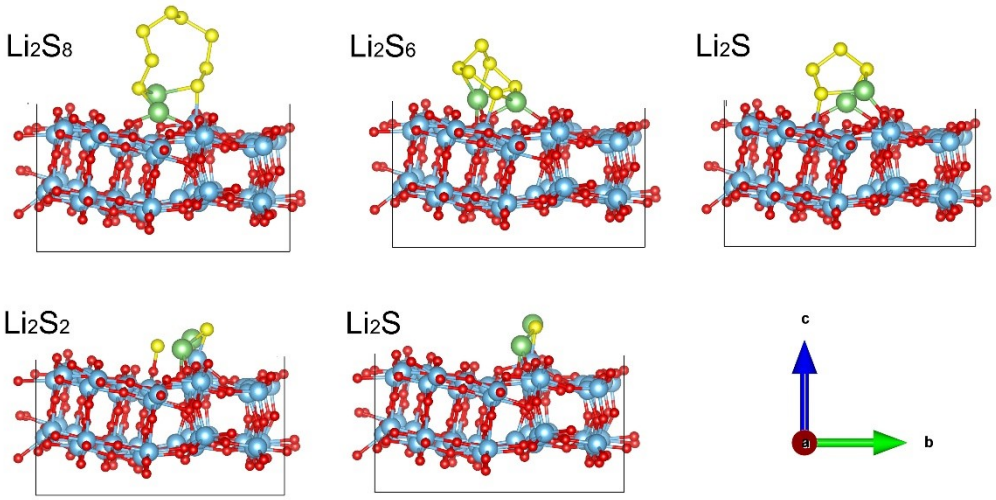

Fig. S10. The optimized adsorption conformations of various sulfur species on anatase/rutile TiO_2.

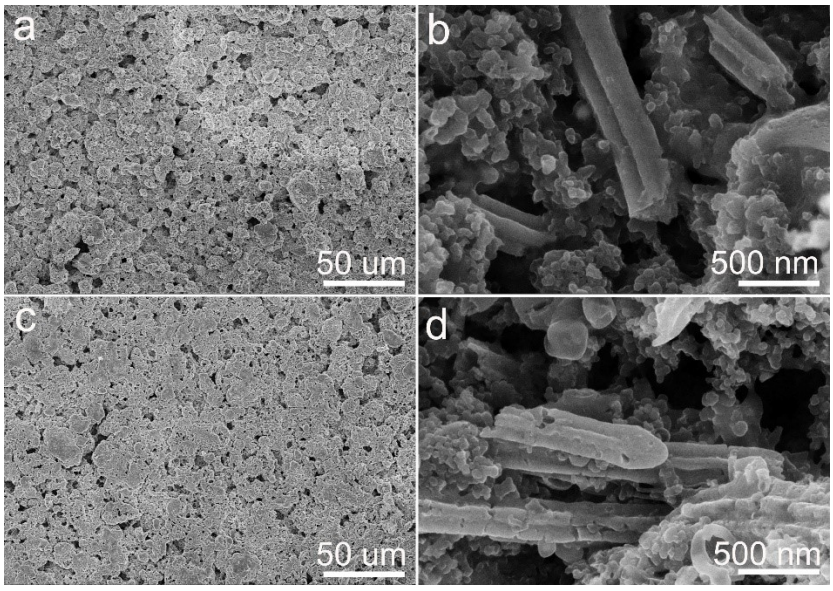

Fig. S11. (a, b) SEM images of HGN@TiO_2@C/S electrode before 200 cycles at the high current density of 1.0 C. (c, d) SEM images of HGN@TiO_2@C/S electrode after 200 cycles at the high current density of 1.0 C.