Supporting Information

A SnO₂/Reduced Graphene Oxide Interlayer Mitigating Shuttle Effect of

Li-S Batteries

Nana Hu,^a Xingshuai Lv,^b Ying Dai,^b Linlin Fan,^c Dongbin Xiong^c and Xifei Li^{a c*}

^aTianjin International Joint Research Centre of Surface Technology for Energy Storage Materials, College of Physics and Materials Science, Tianjin Normal University, Tianjin 300387, China

E-mail: xfli2011@hotmail.com

^bSchool of Physics, State Key Laboratory of Crystal Materials, Shandong University, 250100 Jinan, PR China

^cInstitute of Advanced Electrochemical Energy, Xi'an University of Technology, Xi'an 710048, China.

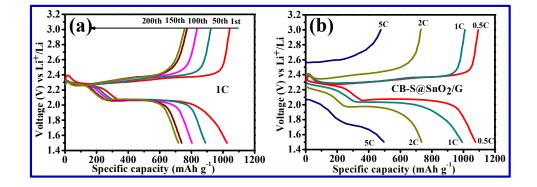


Figure S1 (a) Typical galvanostatic charge–discharge profiles of the CB-S@SnO₂/rGO cathode at 1C in different cycles; (b) Galvanostatic charge–discharge profiles of the CB-S@SnO₂/rGO cathode at various current rate.

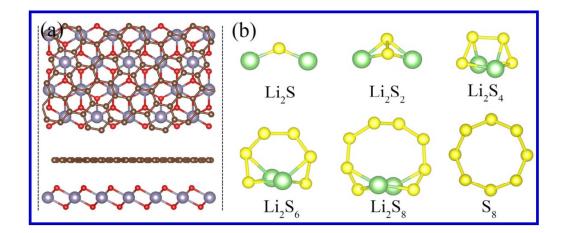


Figure S2 (a) Top view of fully optimized structure of the SnO_2/rGO composite; (b) Fully optimized molecular structures of isolated Li_2S_n (n=1, 2, 4, 6, 8) and S_8 clusters in the ground states, respectively. Here, the yellow, green, brown, red and gray spheres represent the S, Li, C, O and Sn atoms, respectively.