**Supplementary file**

**Design and facile synthesis of defect rich** **C-MoS2/rGO nanosheets for enhanced lithium-sulfur battery performance**

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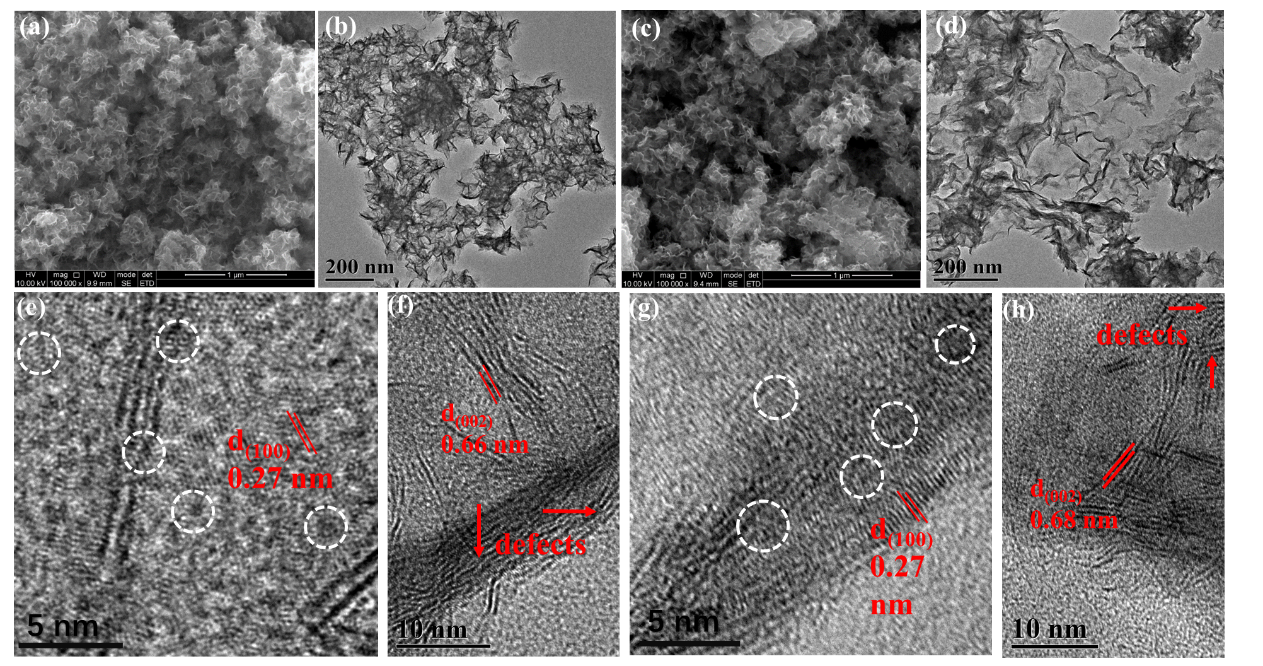


Fig. S1 Morphological images of the C-MoS2/rGO-4 (a) SEM image, (b) TEM image, and (e-f) HRTEM images; Morphological images of the C-MoS2/rGO-8 (c) SEM image, (d) TEM image, (g-h) HRTEM images.

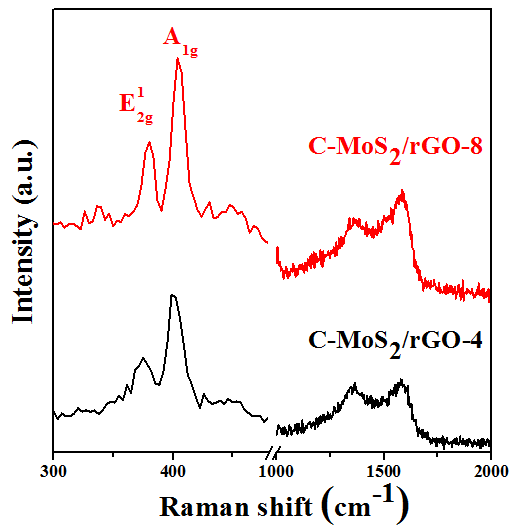


Fig. S2 Raman spectra of C-MoS2/rGO-4 and C-MoS2/rGO-8 composites.

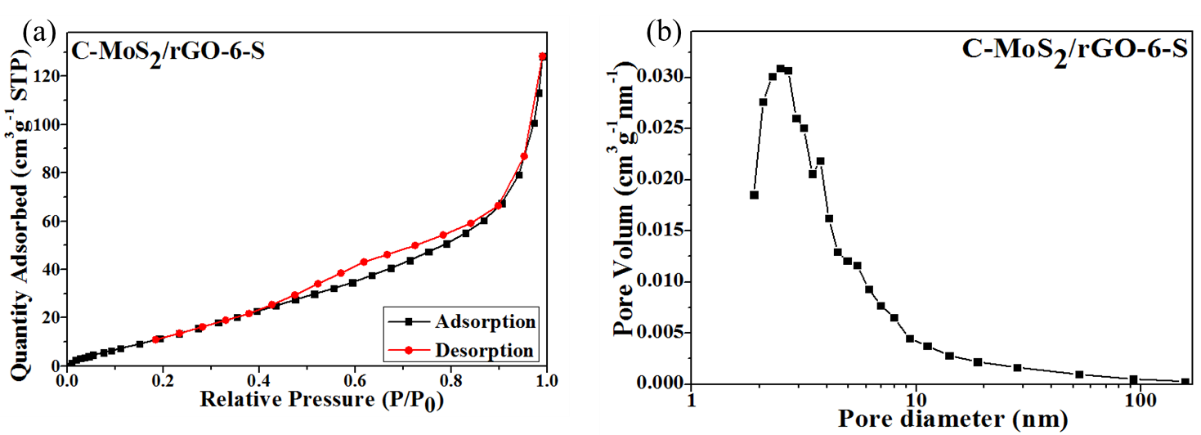


Fig. S3 (a) N2 adsorption/desorption isotherms and (b) corresponding pore size distributions of C-MoS2/rGO-6-S composite.

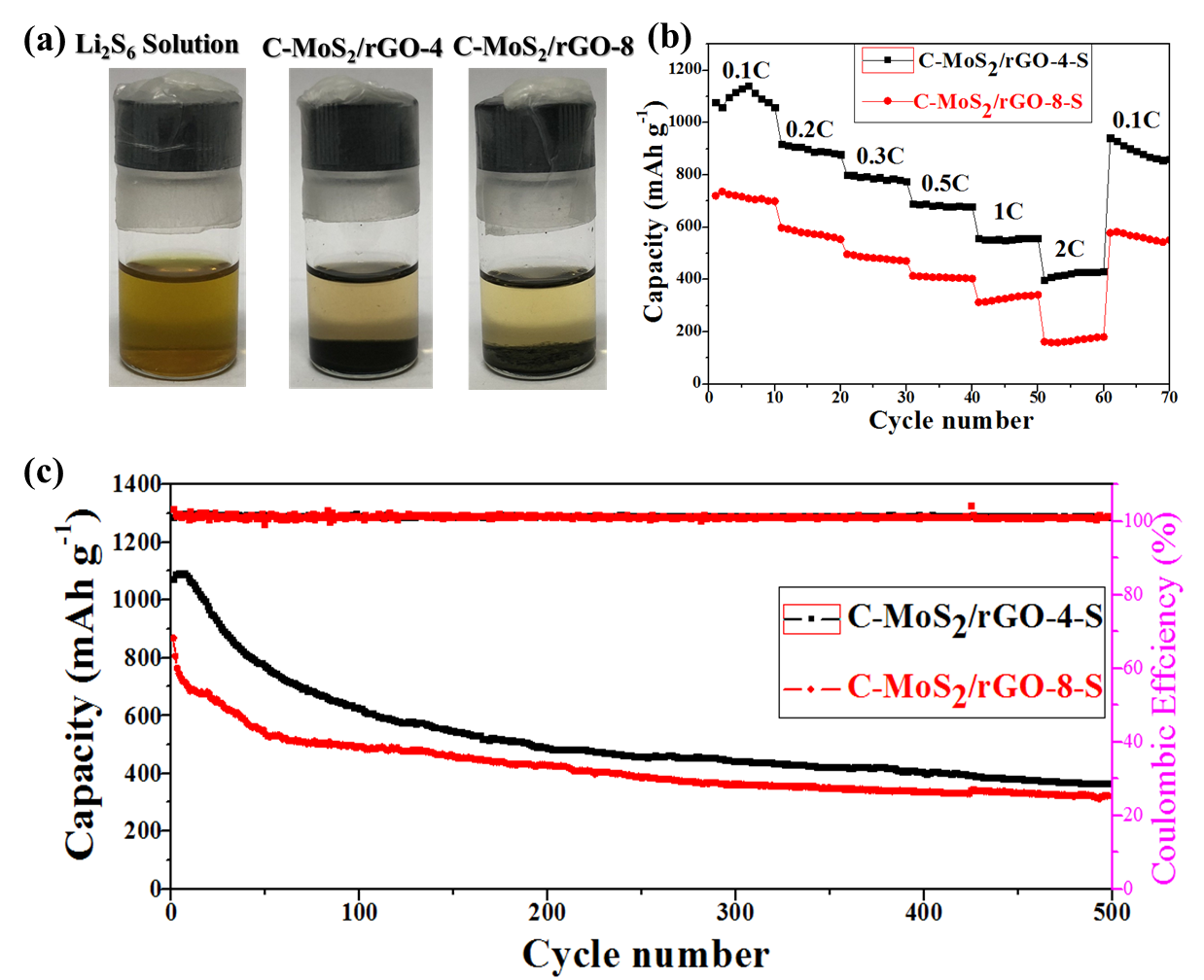


Fig. S4 (a) Photos of the Li2S6 solution after 12 h adsorption experiments with same amount of C-MoS2/rGO-4 and C-MoS2/rGO-8 composites. (b) and (c) Rate performances at different current densities and long-term cycling performance of at 0.2C of C-MoS2/rGO-4 and C-MoS2/rGO-8 composites.