

## **A Green Strategy for Preparation of Honeycomb-like Silicon Composite with Enhanced Lithium Storage Properties**

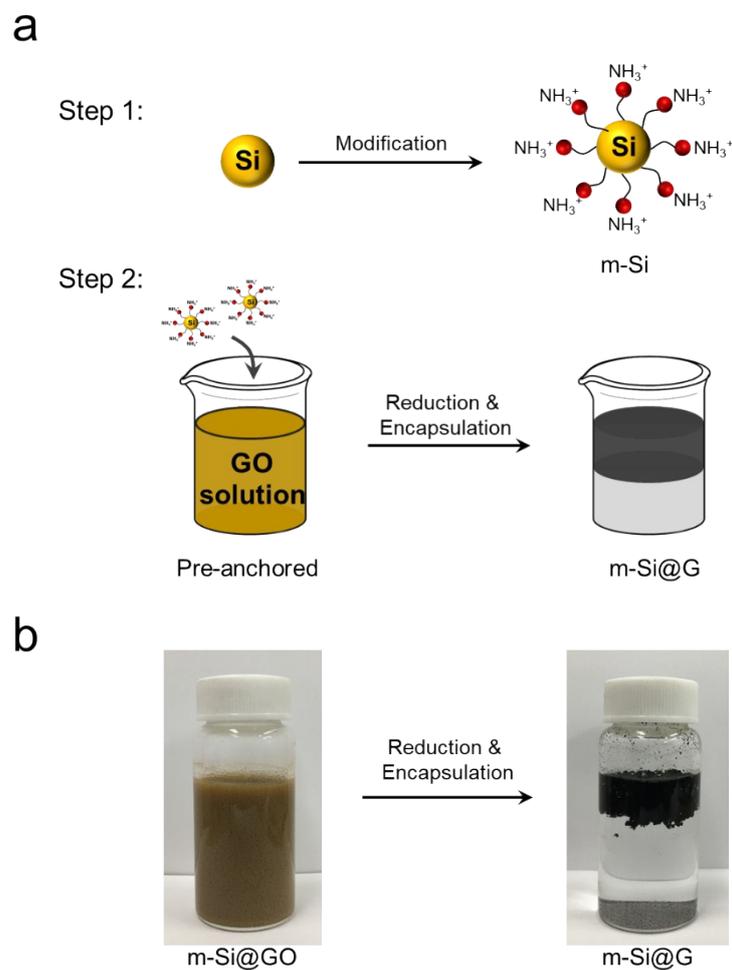
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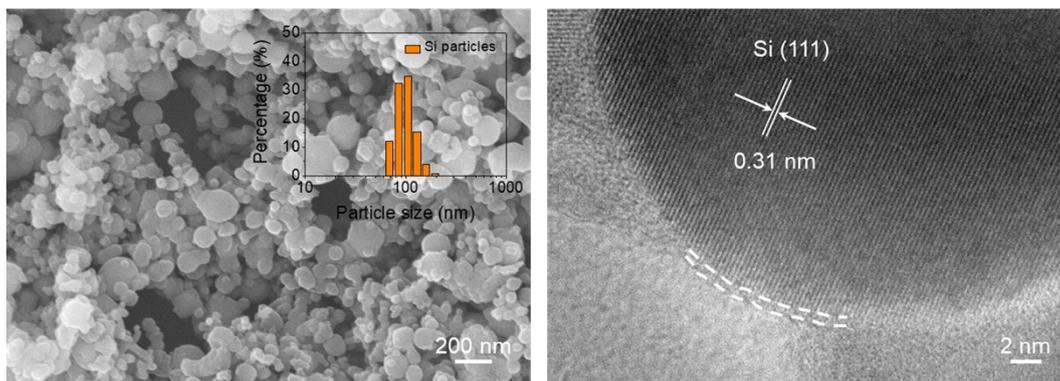
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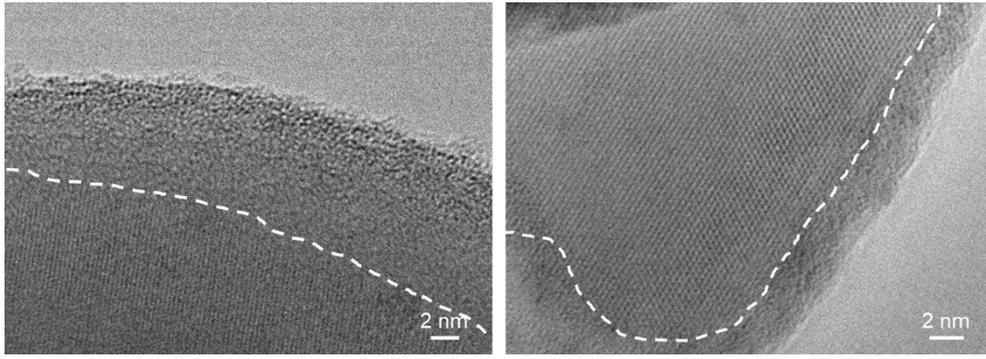
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**Fig. S1.** (a) Schematic illustration of the reduction procedure by nascent hydrogen from the reaction of Al with HCl; and (b) optical images of m-Si@GO and m-Si@G.

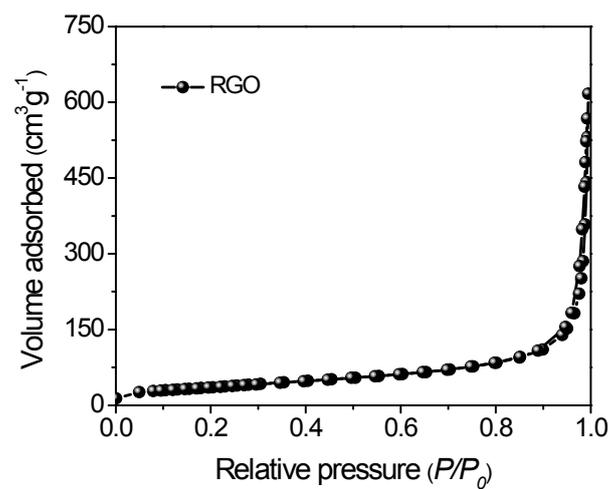


**Fig. S2.** SEM (a) and HRTEM images of naked Si.

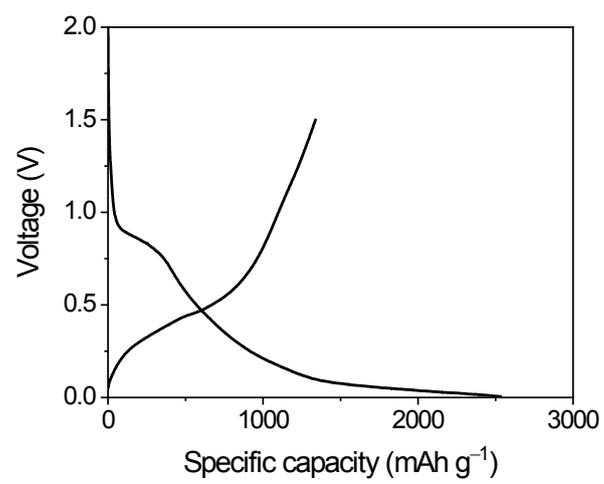


**Fig. S3.** HRTEM images of m-Si.

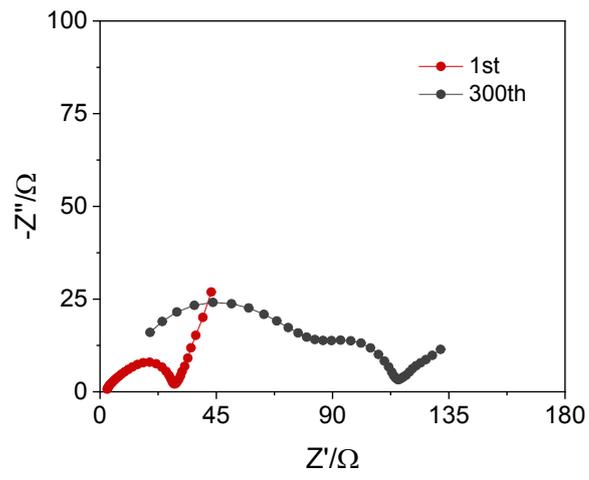
Due to the etching-deposition process, the thickness of the amorphous shell was much thicker than naked Si.



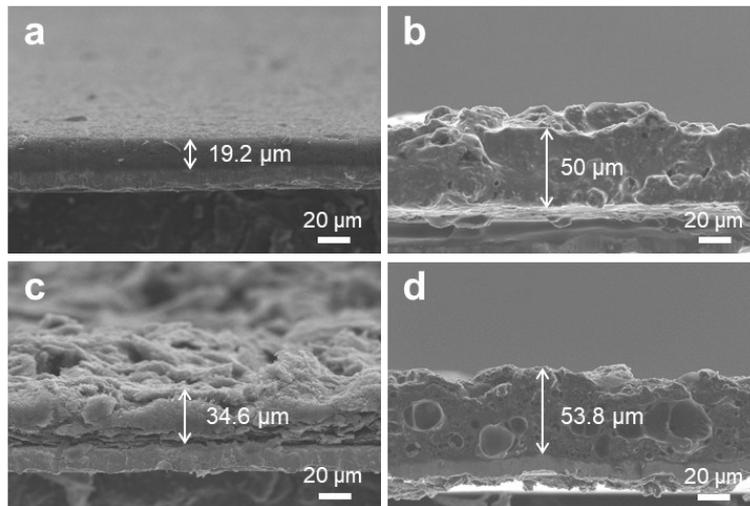
**Fig. S4.** Nitrogen adsorption/desorption isotherms of RGO.



**Fig. S5.** Initial charge-discharge profile of m-Si@G.



**Fig. S6.** Nyquist plots of m-Si@G at initial first cycle and after cycling.



**Fig. S7.** SEM results of n-Si and m-Si@G composite electrode. (a, c) before and (b, d) after cycles, respectively.