Electronic Supplementary Material (ESI) for RSC Advances.

Ruthenium oxide modified hierarchically porous boron-doped graphene aerogels as oxygen electrode for lithium oxygen batteries

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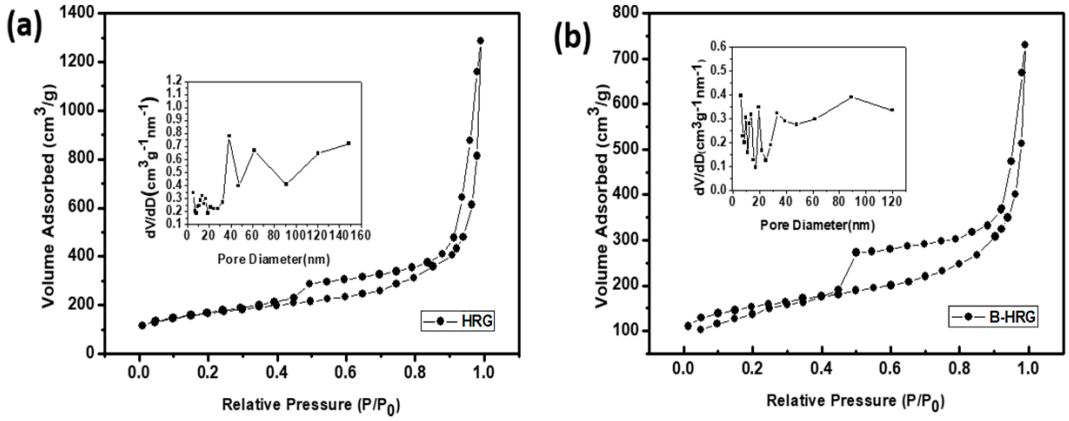

Fig. S1. Nitrogen adsorption-desorption isotherms and the pore size distribution curves (insert) of HRG (a) and B-HRG (b).

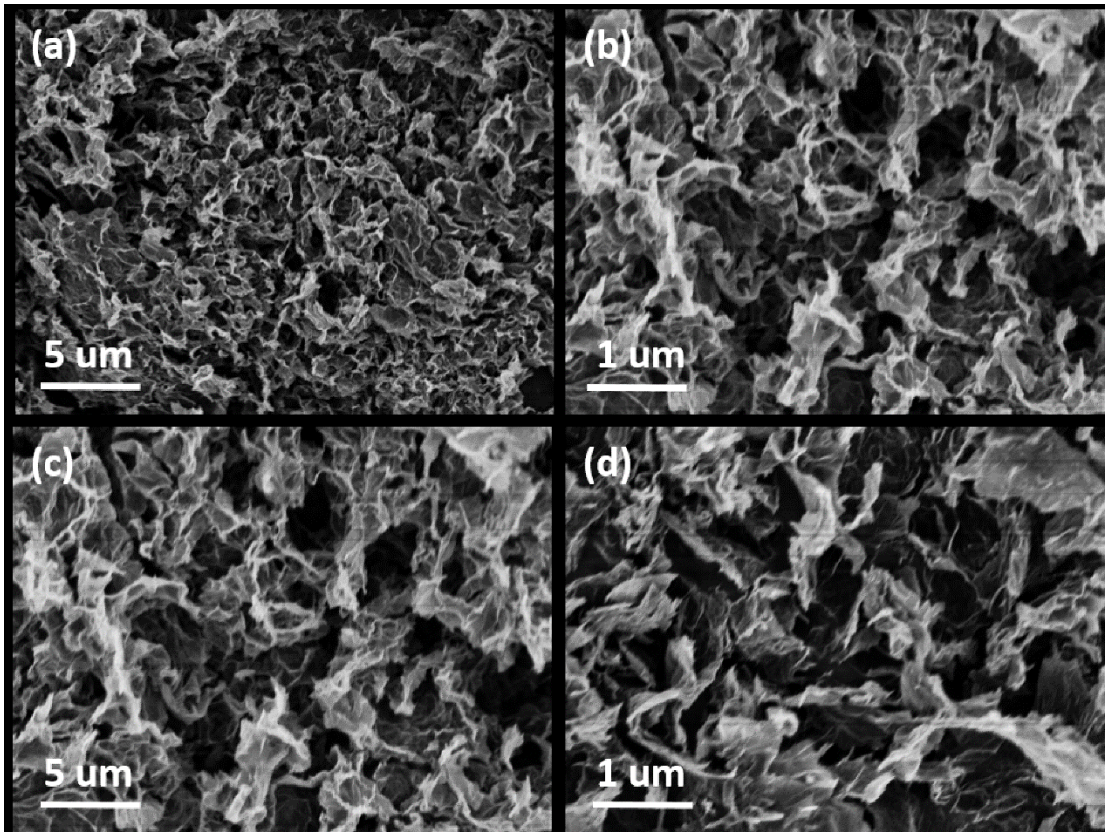

Fig. S2. Low-magnification SEM images of (a) (b) HRG, and (d) (e) B-HRG.

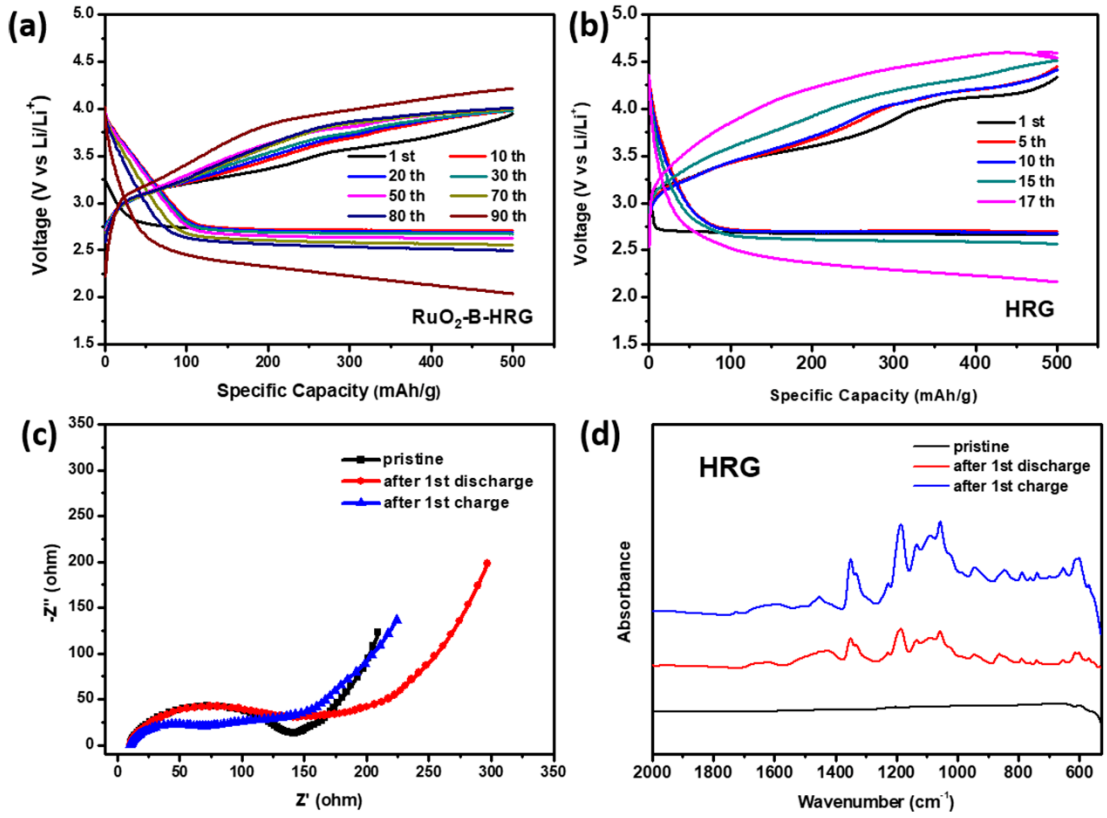

Fig. S3. (a) Rate capacities of the Li–O_2 battery based on HRG/KB at different current

densities. (b) the discharge-charge curves of HRG/KB electrode with a fixed capacity of 500 mAh g^{-1} at a current density of 0.1 mA cm^{-2}.(c) Electrochemical impedance spectra and (d) FTIR spectra of HRG /KB electrode in the first cycle at current density of 0.05 mA/cm^2.

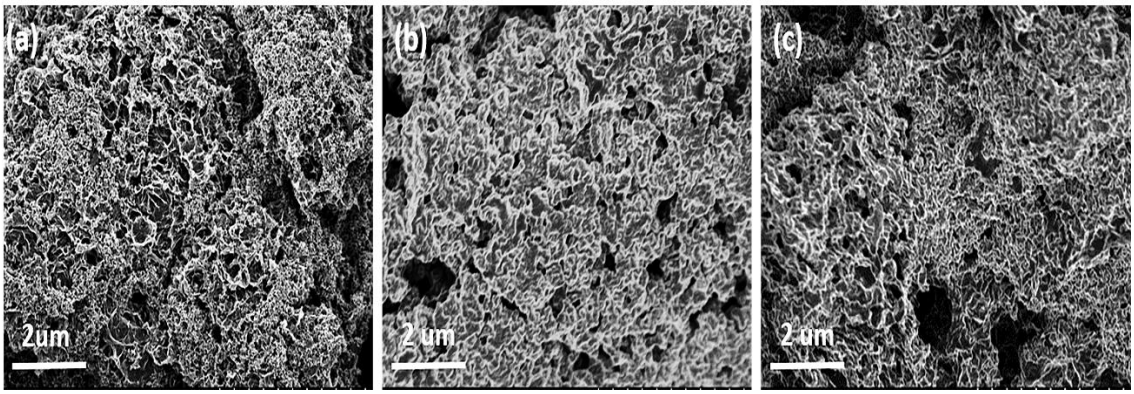

Fig. S4. SEM images of the HRG/KB electrode (a) pristine, (b) after the first discharge process, (c) after the first charge process.