Supporting Information

Mesoporous Boron-doped Onion-like Carbon as Long-Life Oxygen Electrode for Sodium-Oxygen Batteries

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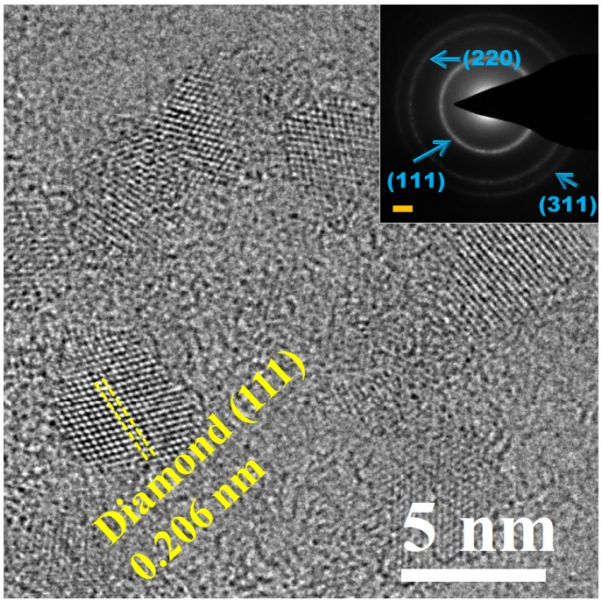

Figure S1. HRTEM image and SAED pattern (inset) of nanodiamond.

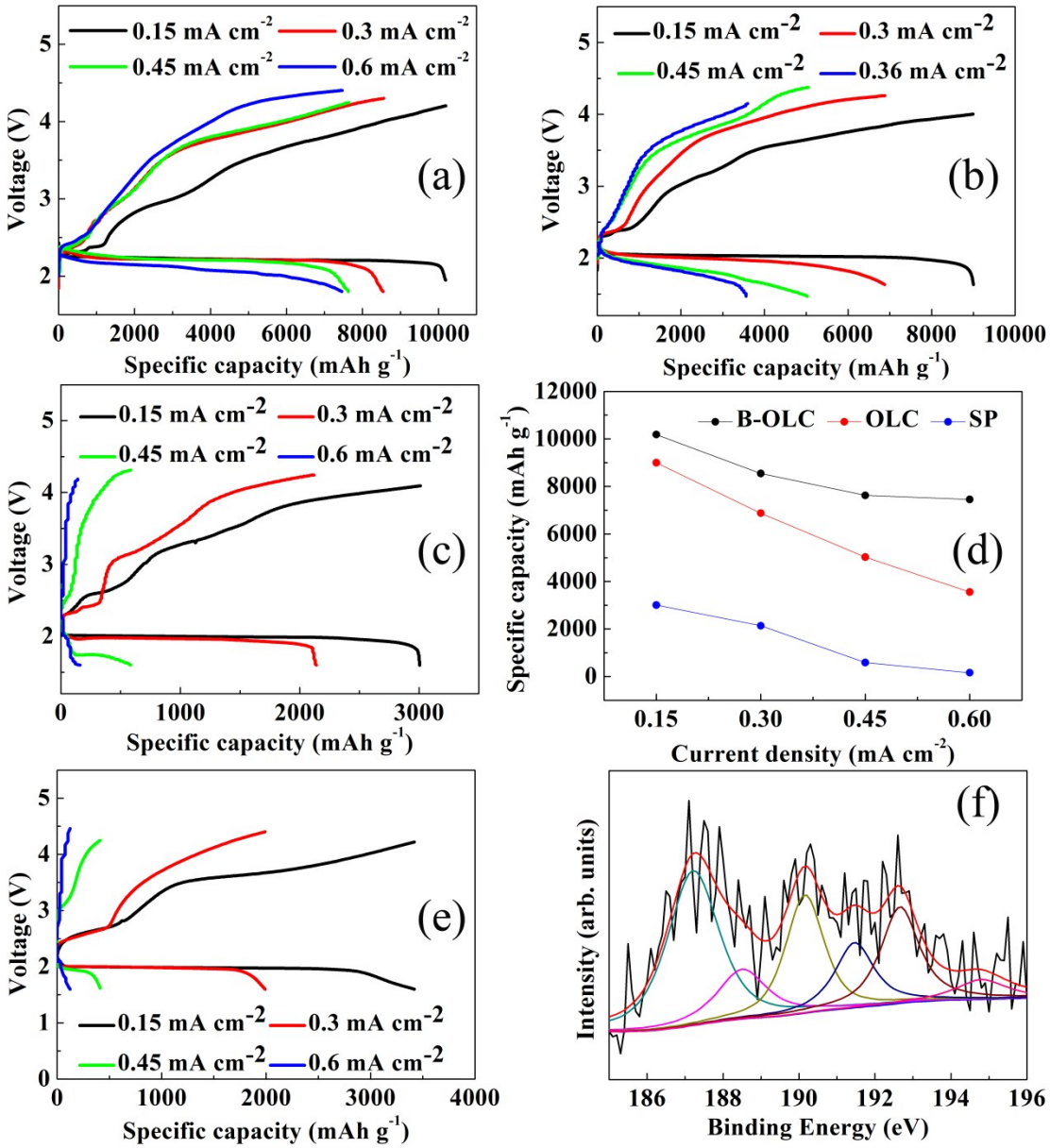

Figure S2. The discharge/charge profiles of the (a) B-OLC; (b) OLC and (c) Super P at various current densities. (d) Comparison of discharge specific capacity of Na-O_2 cells with the three kinds of O_2 electrodes at different current densities. (e) The discharge/charge profiles of the B-Super P at various current densities. (f) B 1s XPS spectra of B-Super P.

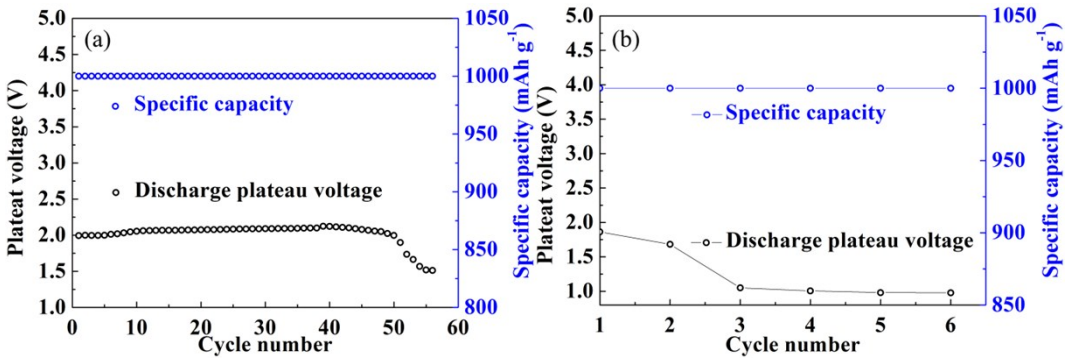

Figure S3. half-capacity voltage vs. cycle number for Na-O_2 batteries with (a) OLC and (b) Super P at a current density of 0.3 mA cm^{-2}.

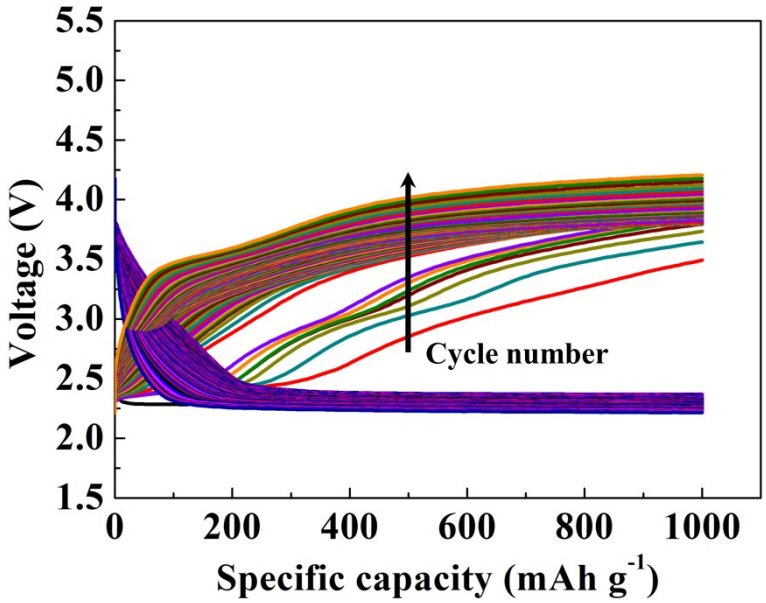

Figure S4. Consecutive restricted discharge and charge curves of Na-O_2 battery using B-OLC oxygen electrode at a current density of 0.3 mA cm^{-2}.

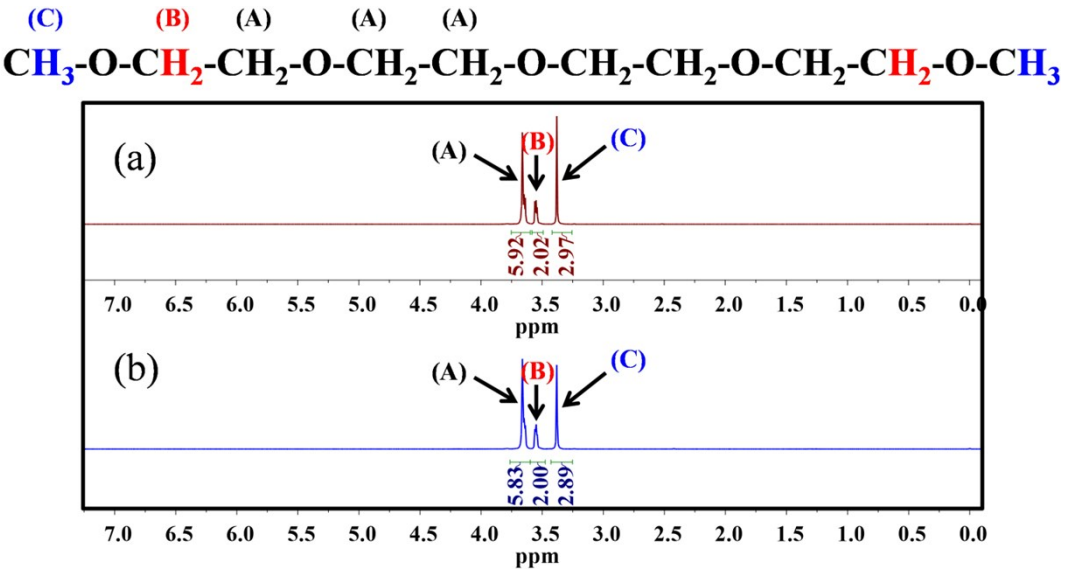

Figure S5. ^{1}H NMR spectra of 1 M LiTFSI in TEGDME electrolyte (a) before and (b) after cycling.