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## SUPPLEMENTAL INFORMATION

### Tailored Recovery of Carbons from Waste Tires for Enhanced

#### Performance as Anodes in Lithium-Ion Batteries

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Figure S1. Powder X-ray diffraction data of control carbon (upper) and tailored carbon (lower) collected on an Empyrian diffractometer employing Cu  $K_{\alpha}$  radiation. Data are shown as the square-root of intensity to highlight weak reflections. The star (\*) indicate positions of quartz lines, and the cross (†) indicates a position of the most intense reflection (002) of 2H graphite. Additional weak reflections are present that have not been identified.



Figure S2. Raman spectrum of control carbon (left) and tailored carbon (right) collected with a WITec Raman spectrometer with a 512 nm laser excitation. The modes at 1590 and 1360 cm<sup>-1</sup> correspond to, respectively, the G (ordered) and D (disordered) bands.



**Figure S3**. TEM images of graphite carbon showing multiple layered structure (a) and the corresponding Selected Area Electron Diffraction pattern (b).