

## Supporting Information

### Wood Outlasts Graphite: Revolutionary Birch-Based Bio-Carbon Anodes for Long-Life Lithium-Ion Batteries

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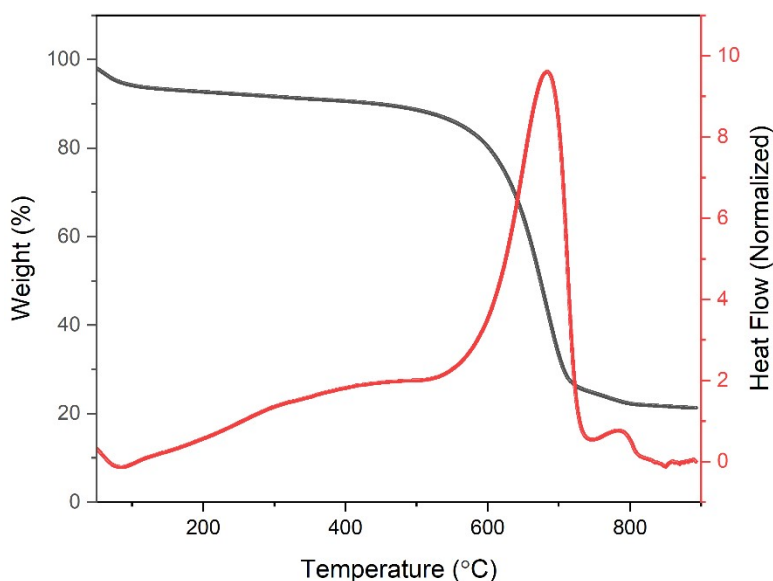


Figure S1 TGA and DTGA of BCAM

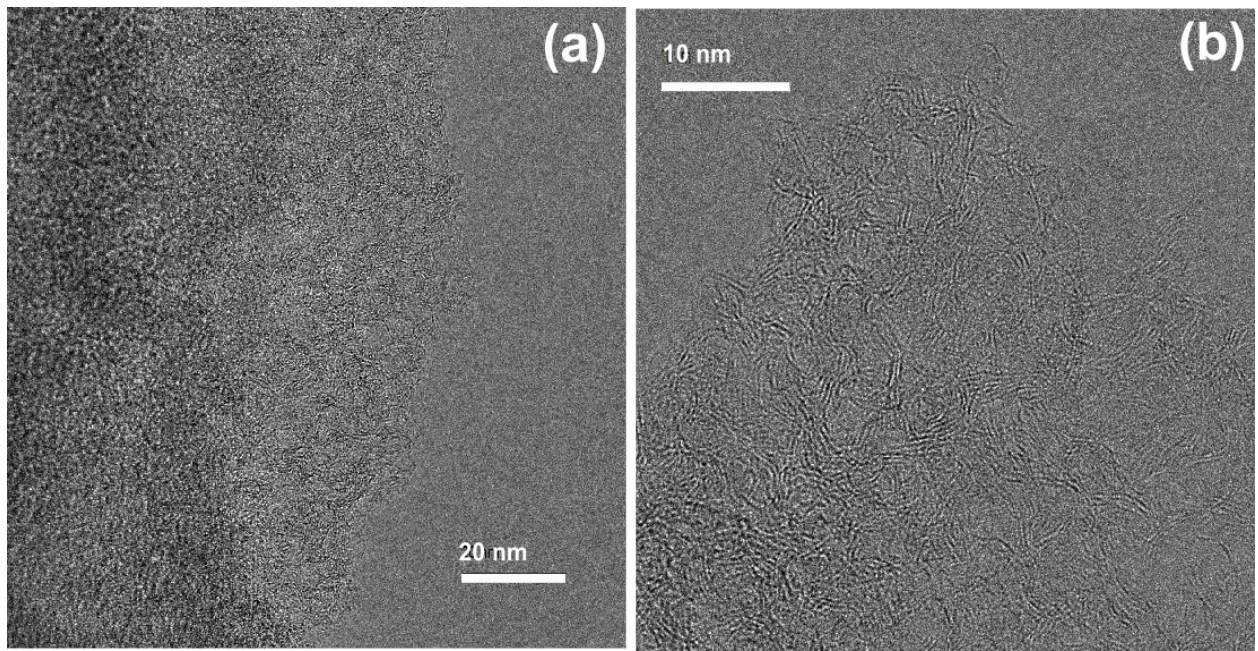


Figure S2 (a) TEM and (b) HRTEM of the BCAM

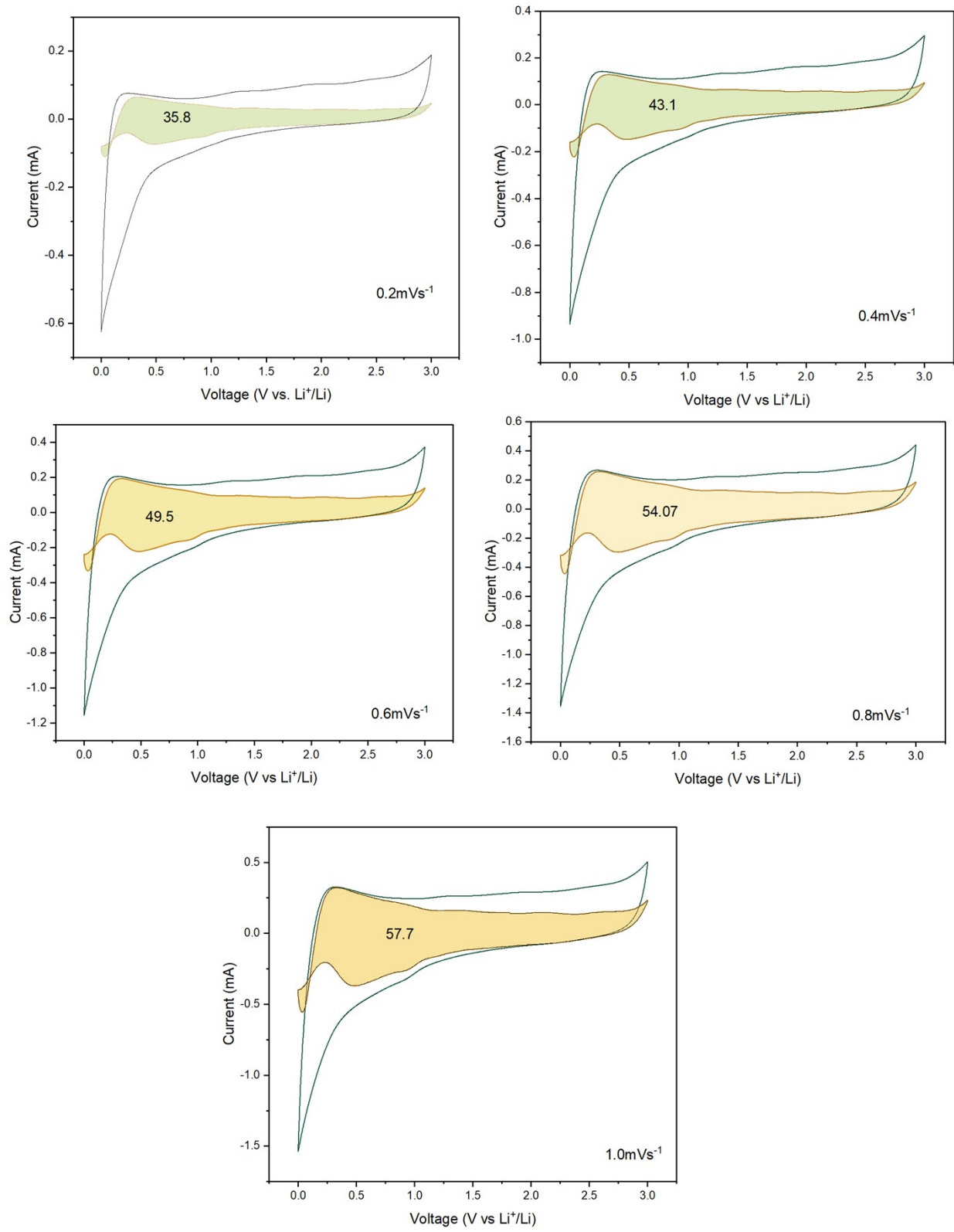


Figure S3 Capacitive and diffusion-controlled capacitance contribution of BCAMs at scan rates of 0.2, 0.4, 0.6, 0.8 and 1 mVs<sup>-1</sup>

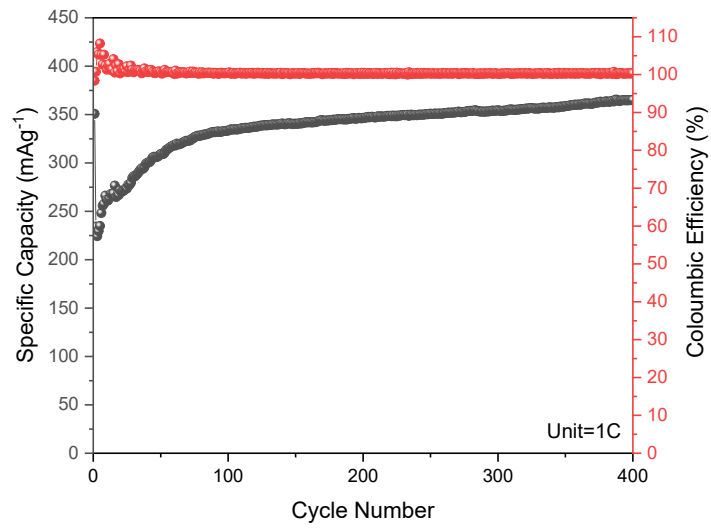


Figure S4. Long cycle performance of graphite at 1C for 400 cycles

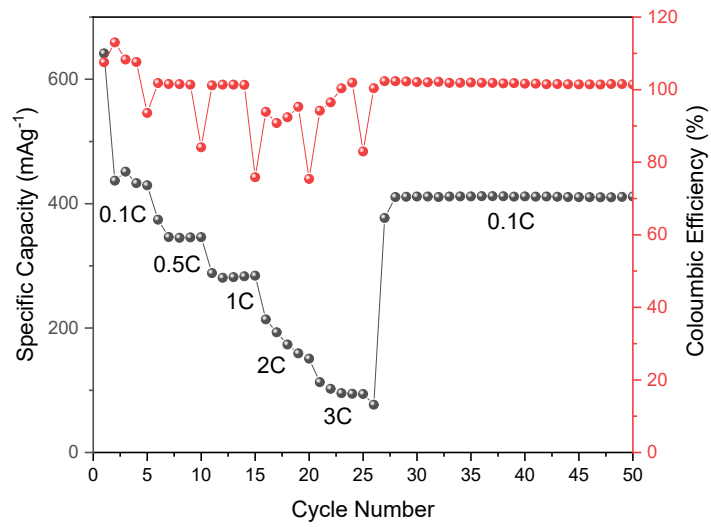


Figure S5 Shows the Rate performance of Graphite

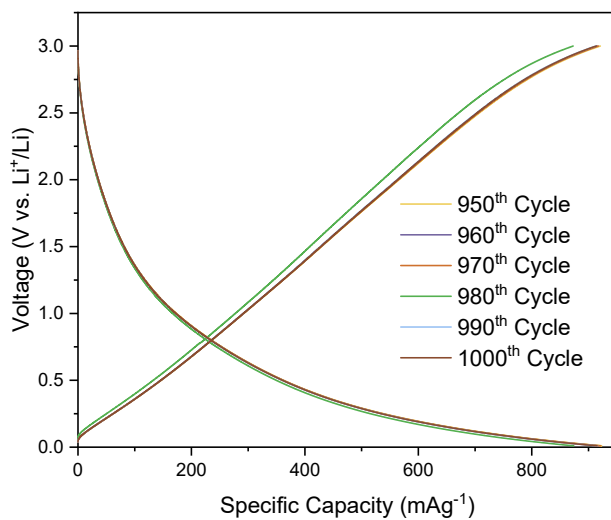


Figure S6 show charge-discharge curves for BCAM electrode at 1C.

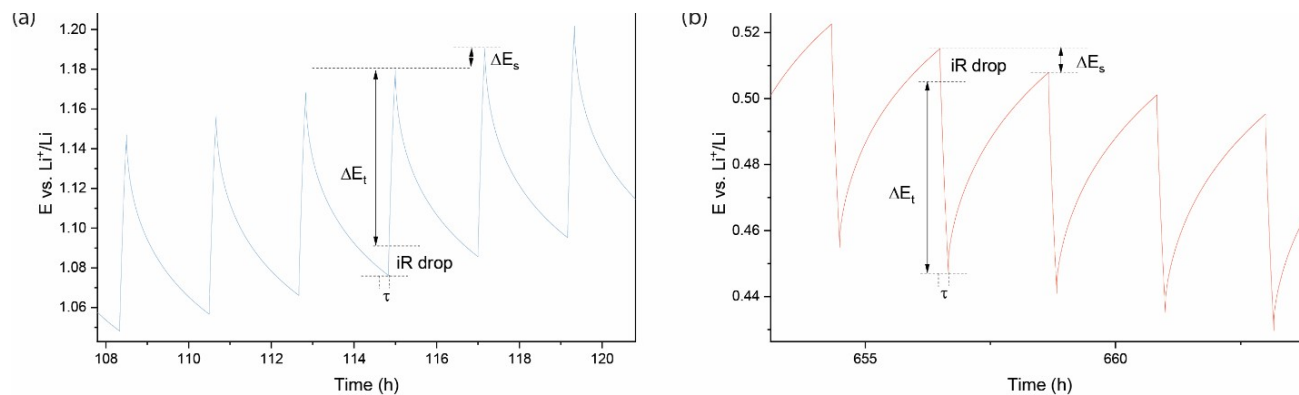


Figure S7. current step during (a)charge and (b)discharge in GITT curve