

Electronic Supplementary Information for:

Spinifex Nanocellulose Derived Hard Carbon Anodes for High-Performance Sodium-Ion Batteries

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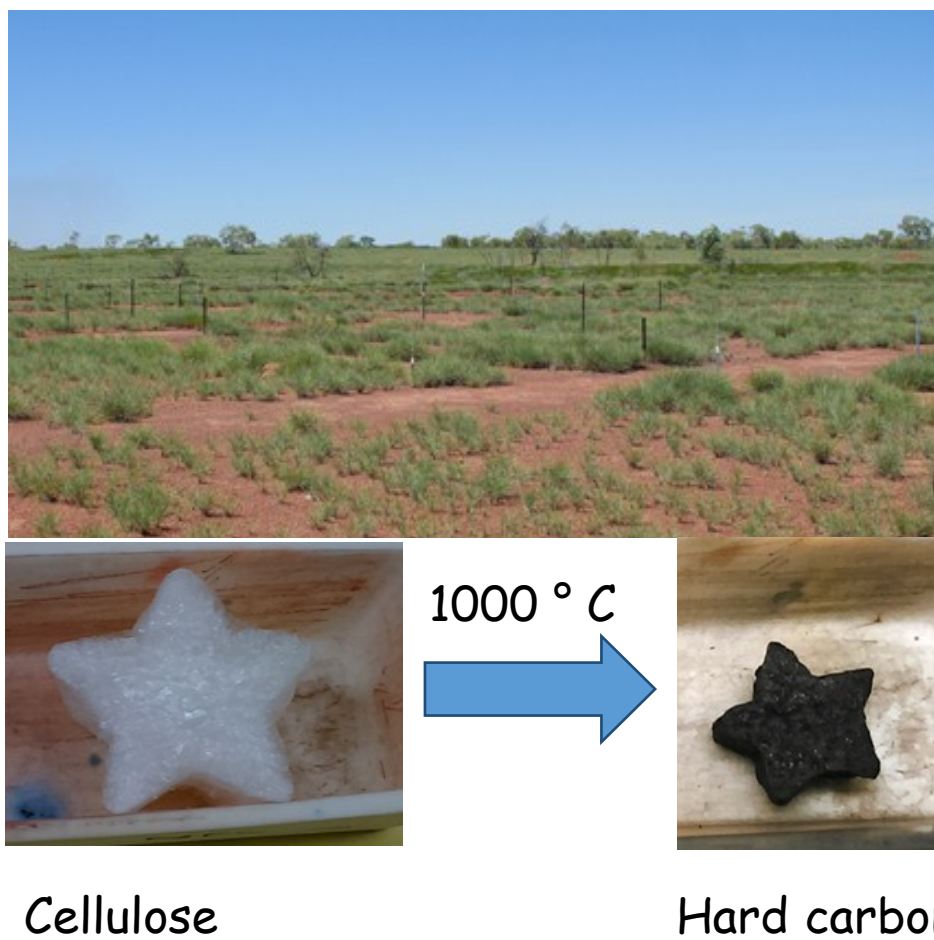


Figure S1. Picture of spinifex grass (top) hummocks growing in the grassland in Camooweal, Queensland, Australia (19.9° S, 138.1° E). Cellulose and hard carbon structures obtained after processing (below).

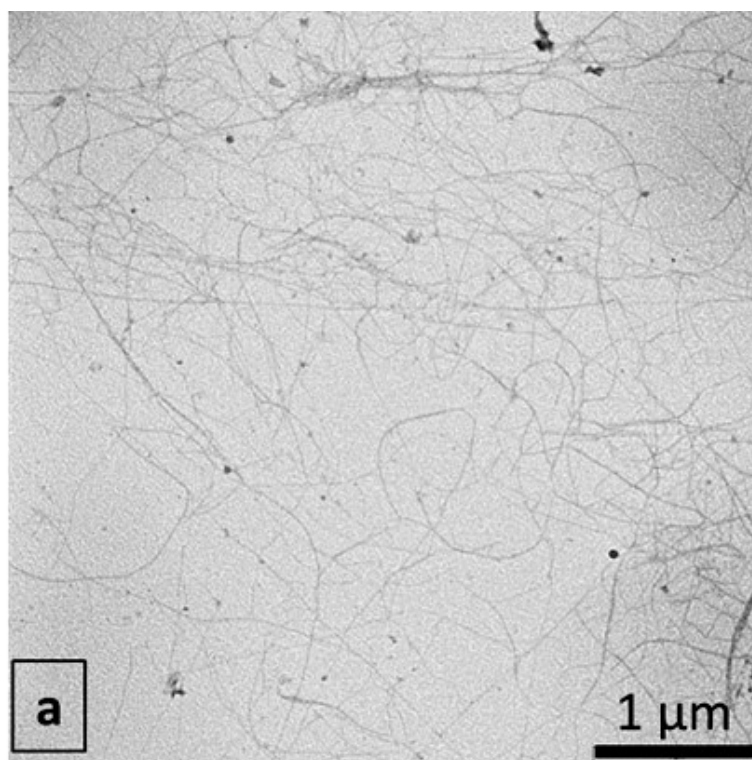


Figure S2. TEM images of suspension of bleached spinifex grass derived cellulose nanofibers.

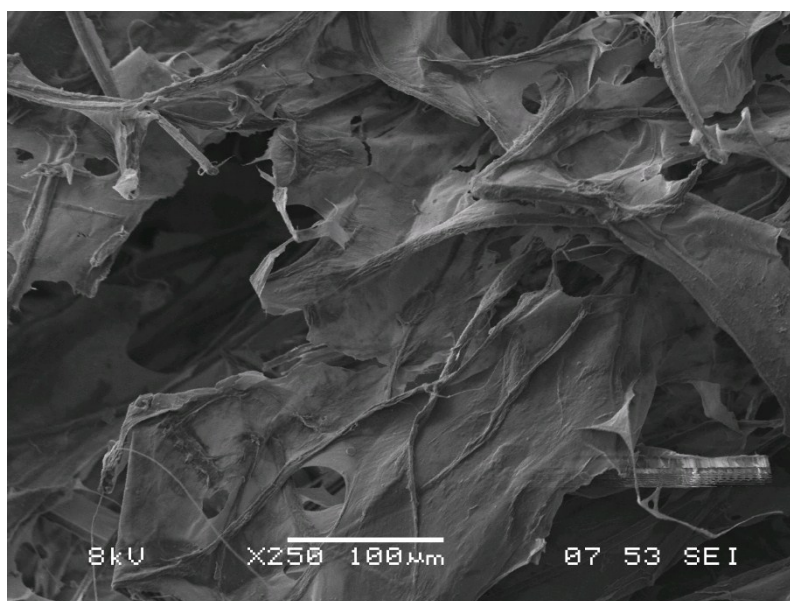


Figure S3. FESEM images of spinifex grass derived nanocellulose sheets after freeze-drying.

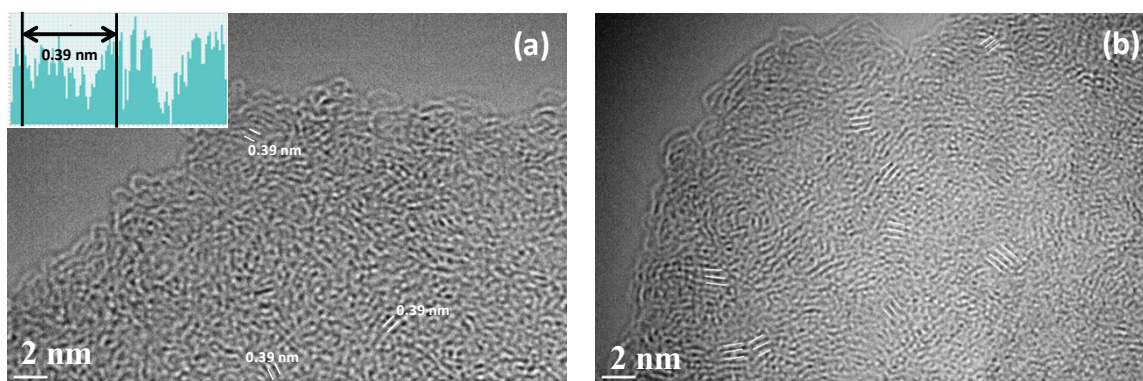


Figure S4. High-resolution TEM (inset: interlayer d-spacing of graphite (002) plane).

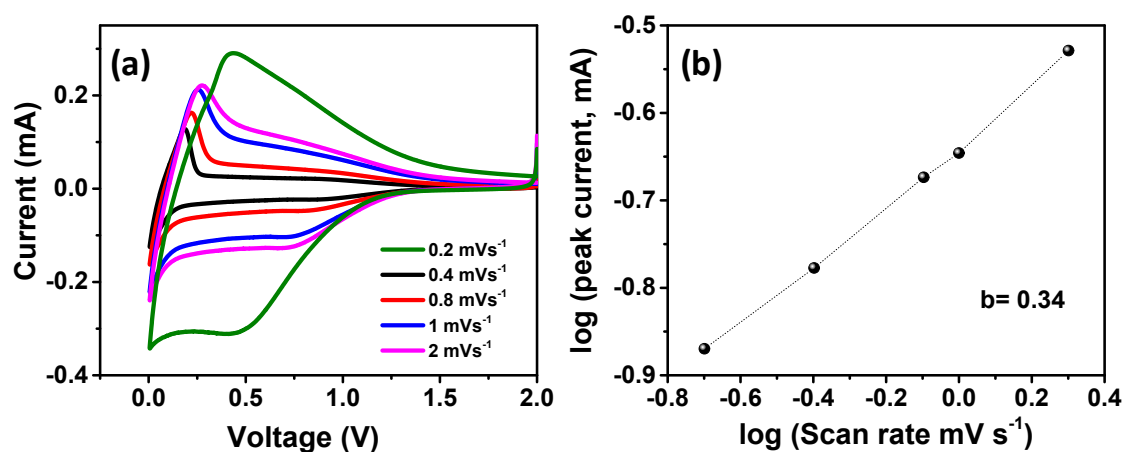


Figure S5. Kinetic analysis of NDC electrode tested against sodium: (a) CV curves at different scan rates and (b) log (scan rate)-log (peak current) profiles.

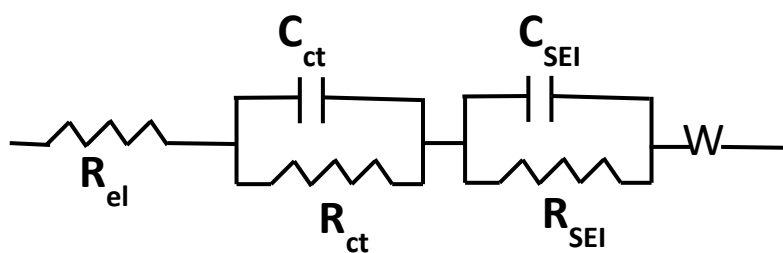


Figure S6. Equivalent circuits used to simulate the electrochemical impedance spectra results.

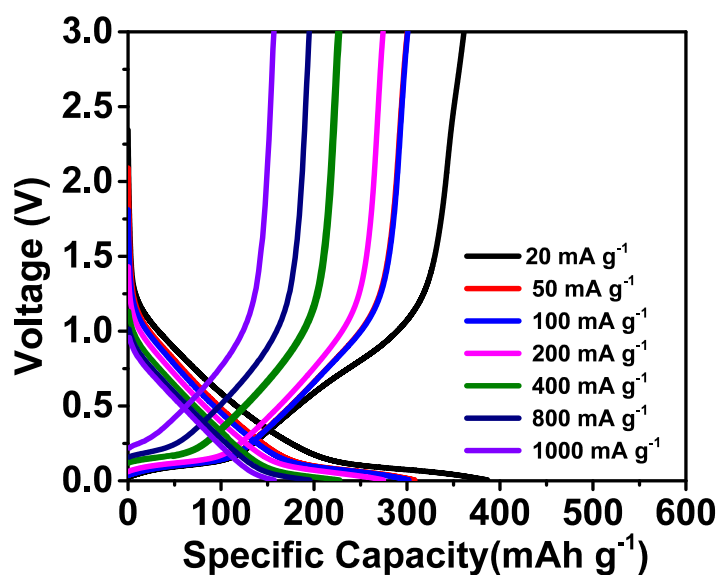


Figure S7. Charge-discharge curves at different rates for NDCs tested against sodium.