

Supporting Information for

Amorphous monodispersed hard carbon micro-spherules derived from biomass as a high performance negative electrode material for sodium-ion batteries

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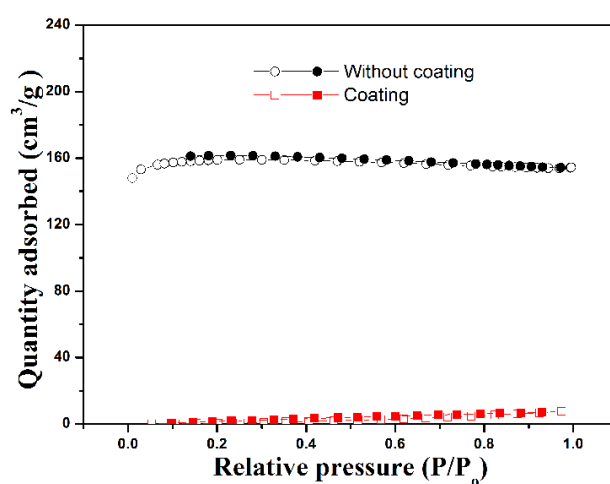


Figure S1. Nitrogen adsorption and desorption isotherm curves of HCS1000 with and without soft carbon coating.

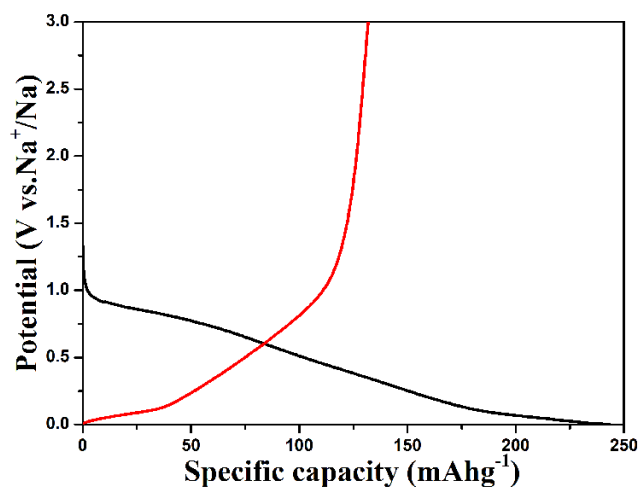


Figure S2. Discharge and charge curves for the 1st cycle of HCS1000 without soft carbon coating.

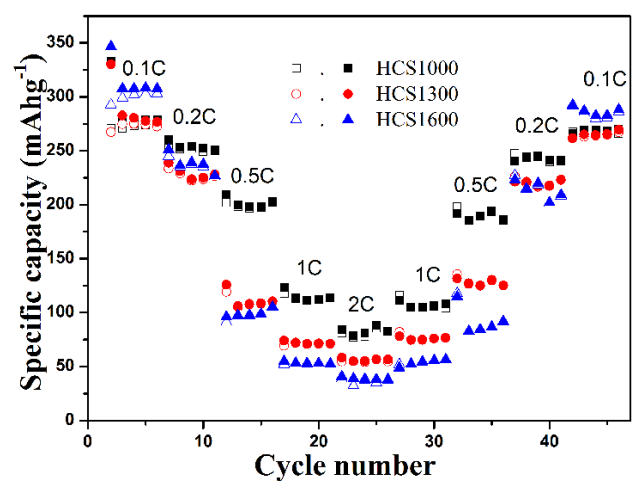


Figure S3. Rate performance of HCS electrodes.

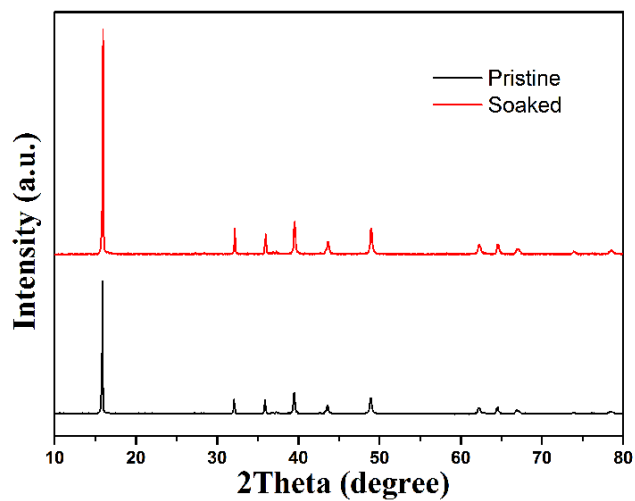


Figure S4. XRD patterns of the P2- $\text{Na}_{2/3}\text{Ni}_{1/3}\text{Mn}_{2/3}\text{O}_2$ sample before and after soaking into water. It can be seen that the XRD patterns do not change for both samples, indicating this P2 layered oxide is very stable in water.

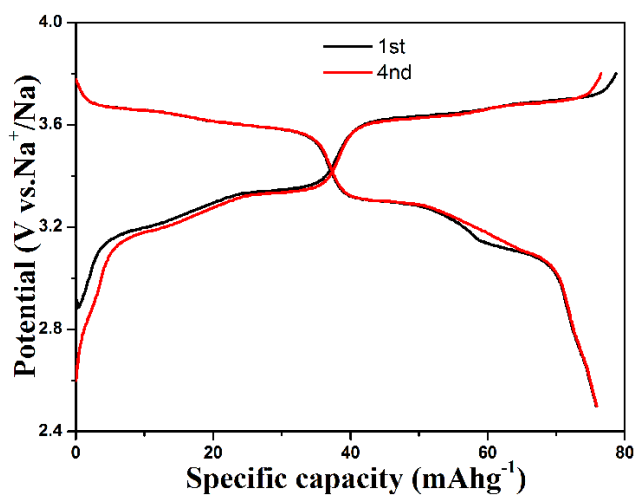


Figure S5. Charge and discharge curves for the 1st and 4th cycles of P2- $\text{Na}_{2/3}\text{Ni}_{1/3}\text{Mn}_{2/3}\text{O}_2$.