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**Ultra-high Li storage capacity demonstrated by hollow
carbon capsules with hierarchical nanoarchitecture†**

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Supporting Information

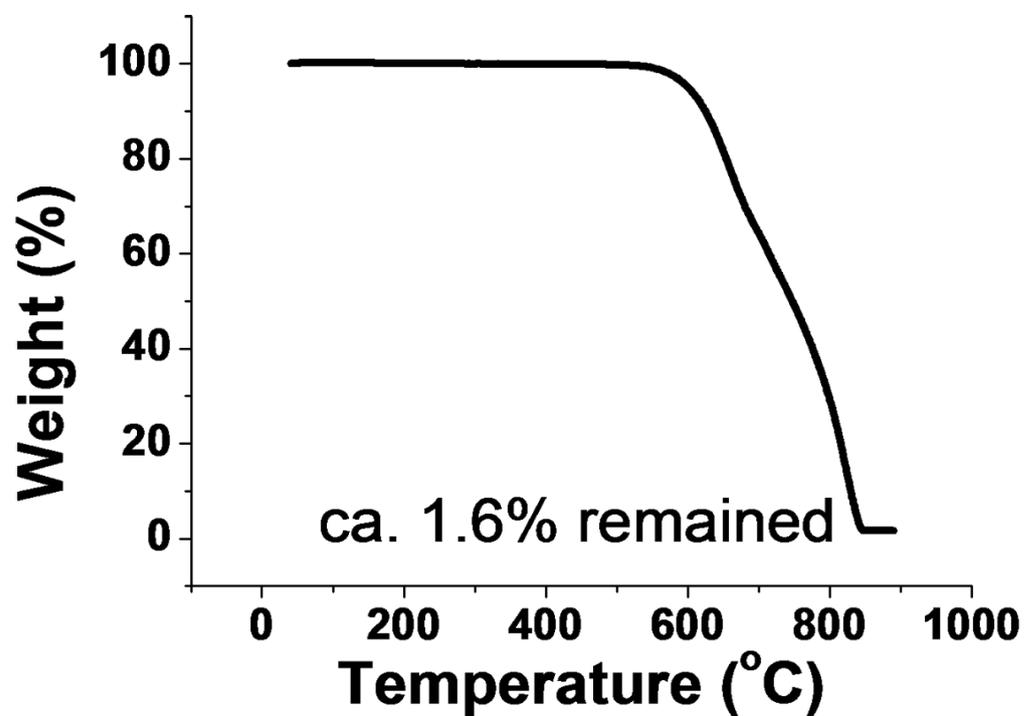


Fig. S1 Thermogravimetric analysis curves for the HCMSC.

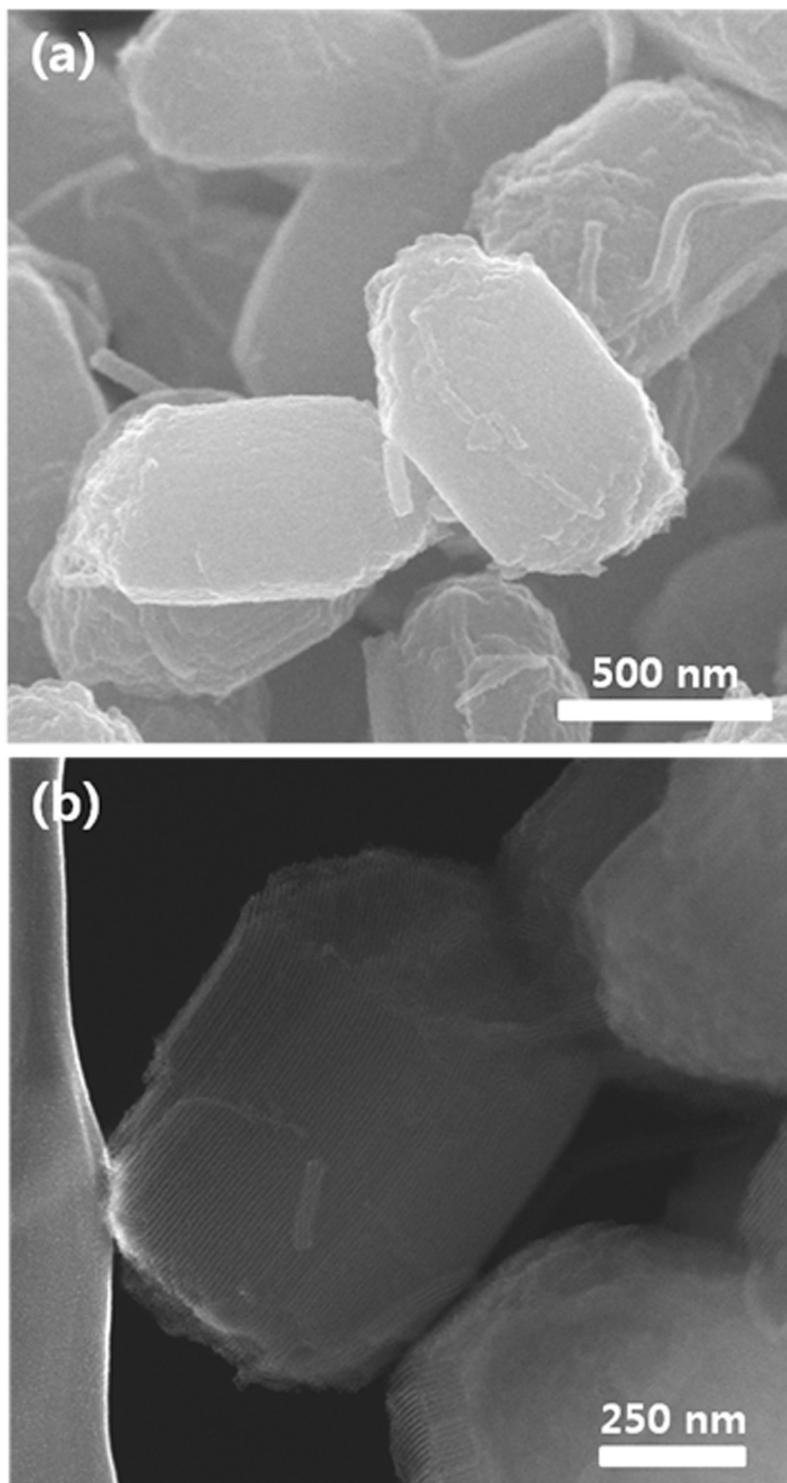


Fig. S2 Representative SEM (a) and UHR-SEM (b) images for CMK-3.

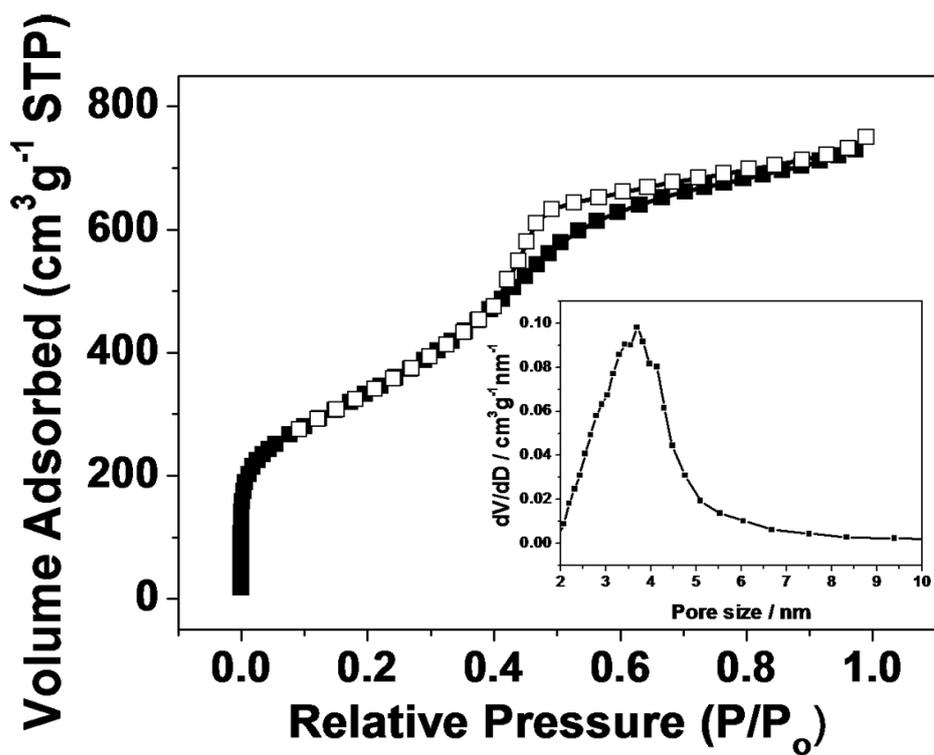


Fig. S3 Typical nitrogen adsorption-desorption isotherms at -196 °C and the derived PSD for CMK-3.

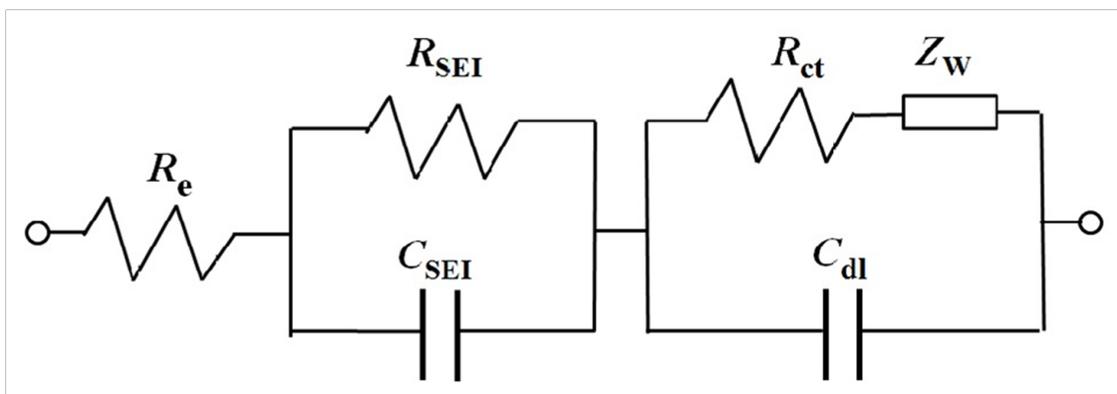


Fig. S4 Equivalent circuit proposed for analysis of Nyquist plots of HCMSC and CMK-3 electrode/electrolyte interfaces. R_e , R_{SEI} , C_{SEI} , R_{ct} , Z_w and C_{dl} stand for the electrolyte resistance, the resistance and the capacitance of the surface film, the charge-transfer resistance, the Warburg impedance related to the diffusion of lithium and the double-layer capacitance, respectively.