Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Electronic Supplementary Information for

Highly enhanced electrochemical performance of ultrafine CuO nanoparticles confined in ordered mesoporous carbons as anode materials for sodium-ion batteries

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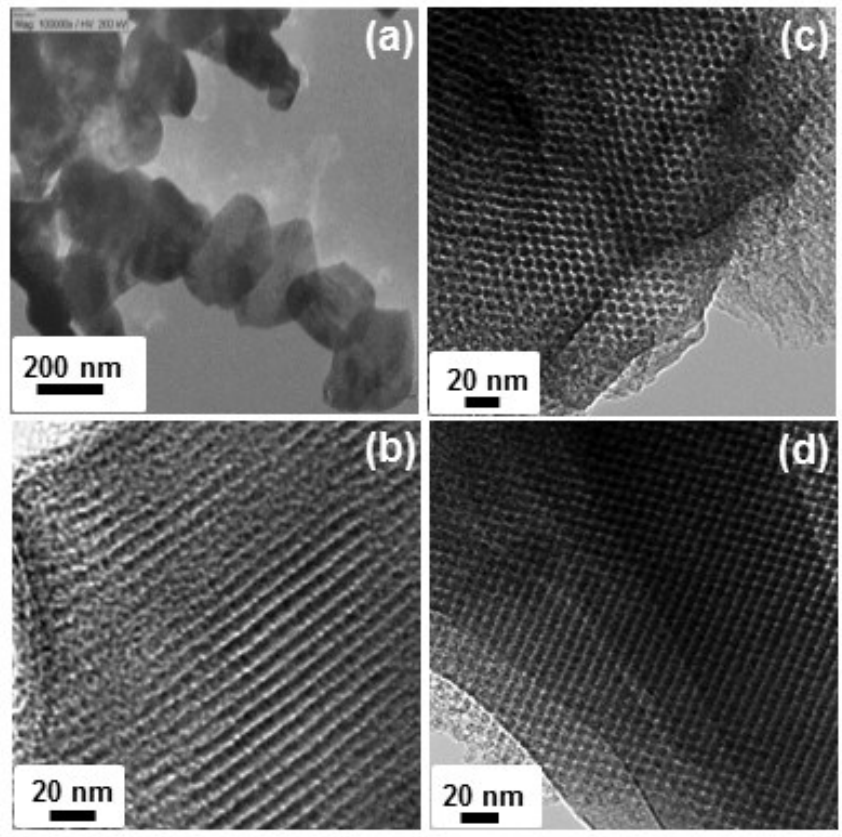

Fig. S1. (a) TEM image of CuO, and HRTEM images of (b) CMK-3 and (c,d) CMK-8.

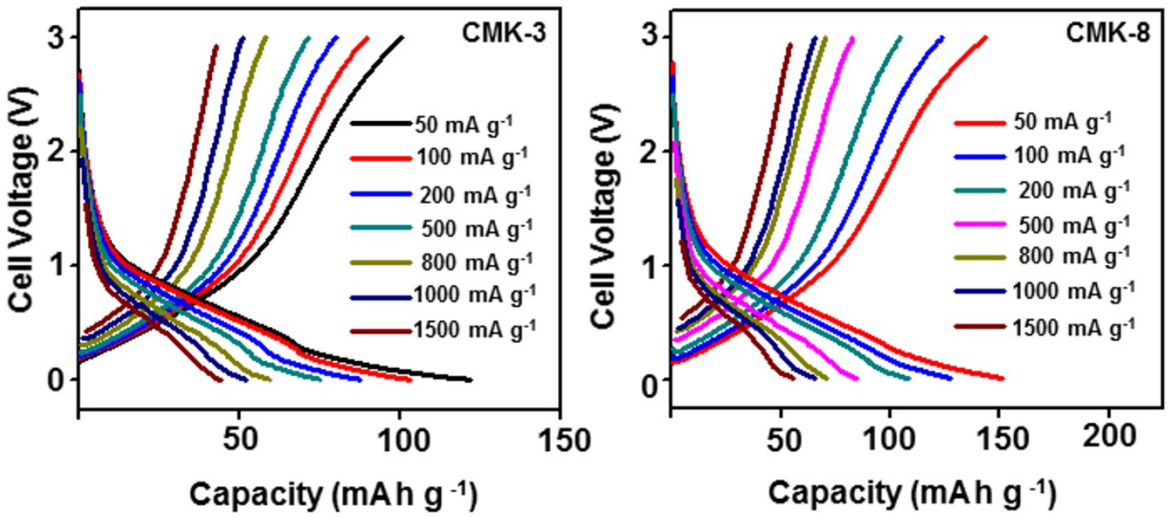

Fig. S2. Charge-discharge curves of pristine CMK-3 and CMK-8 at different current densities.

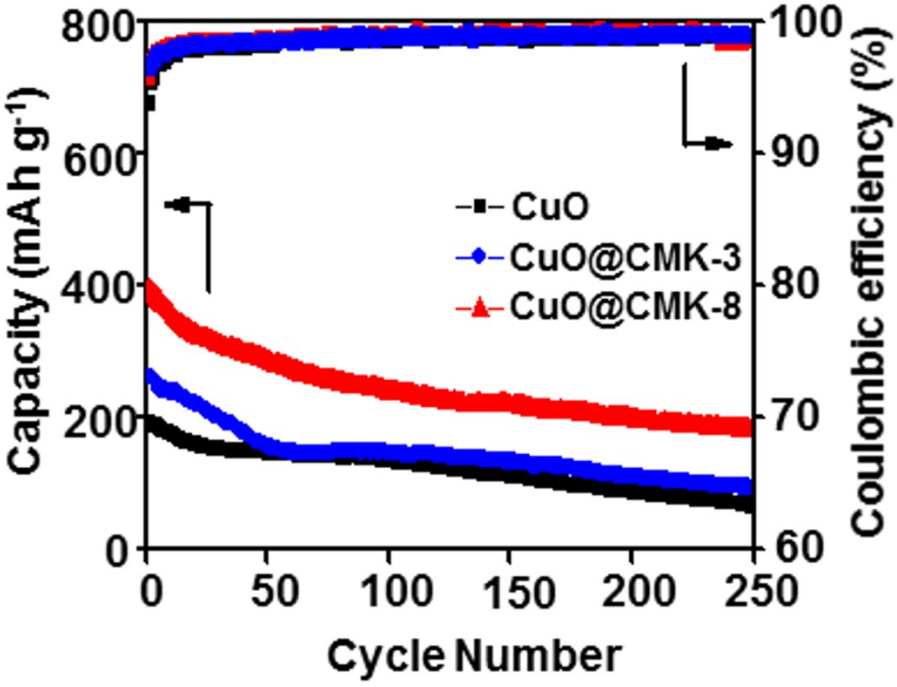

Fig. S3. Cyclic performance of CuO, CuO@CMK-3, and CuO@CMK-8 at a current density of 2000 mA g^{-1}.

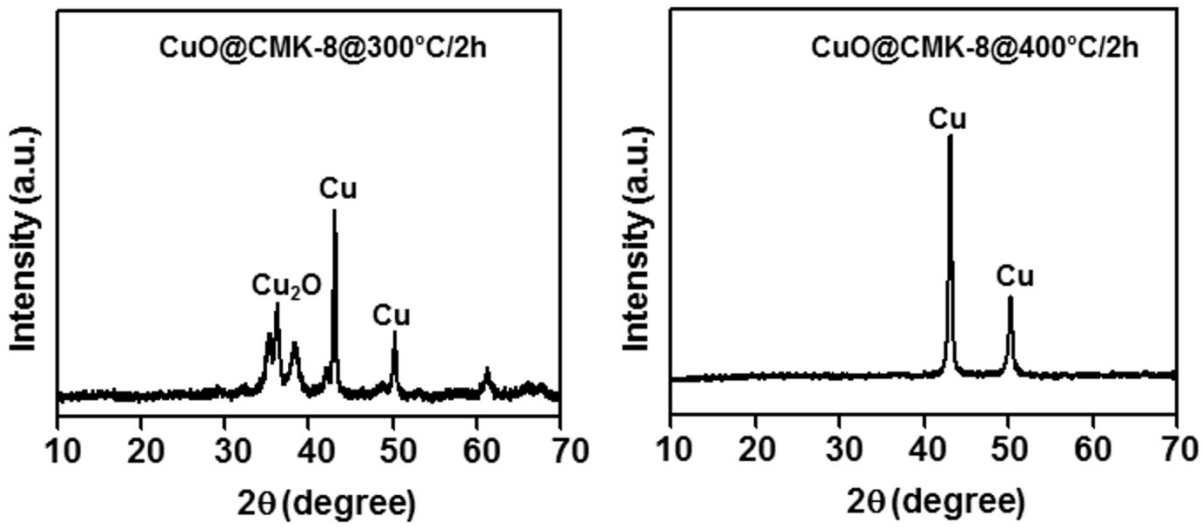

Fig. S4. XRD patterns of CuO@CMK-8 thermally treated at 300 °C (left) and 400 °C (right) for 2 h.

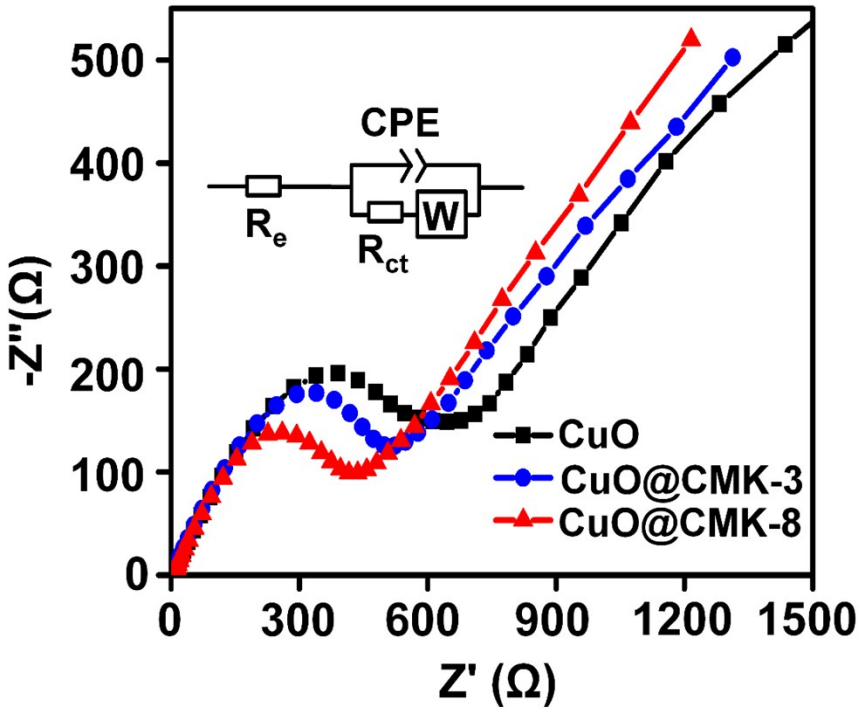

Fig. S5. EIS spectra of pristine CuO nanoparticles, CuO@CMK-3 and CuO@CMK-8 electrodes before cycling.

Table S1. Charge-discharge capacities of pristine CuO, CuO@CMK-3 and CuO@CMK-8 electrodes at different current densities.

C-rate ($mA\ g^{-1}$)	CuO ($mA\ h\ g^{-1}$)	CuO@CMK-3 ($mA\ h\ g^{-1}$)	CuO@CMK-8 ($mA\ h\ g^{-1}$)
20	425[a]/448[b]	509/553	709/768
50	368/377	455/470	667/695
100	326/335	418/420	581/593
200	292/300	391/401	546/568
500	259/262	368/373	515/534
800	234/234	323/326	482/502
1000	221/221	298/300	448/459
1500	197/196	278/284	409/428
20	401/411	497/514	699/721

[a] Charge capacity; [b] Discharge capacity

Table S2. Charge-discharge capacities of CMK-3 and CMK-8 electrodes at different current densities

C-rate (mA g^{-1})	CMK-3 (mA h g^{-1})	CMK-8 (mA h g^{-1})
50	101[a]/122[b]	143/151
100	90/103	123/126
200	80/88	105/108
500	71/75	83/83
800	60/62	70/71
1000	51/52	64/65
1500	43/44	55/56

[a] Charge capacity; [b] Discharge capacity