

Electronic Supplementary Information for

**Cosurfactant-mediated microemulsion to free-standing hierarchical
CuO arrays on copper substrates as anodes for lithium-ion batteries**

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Fig. S1

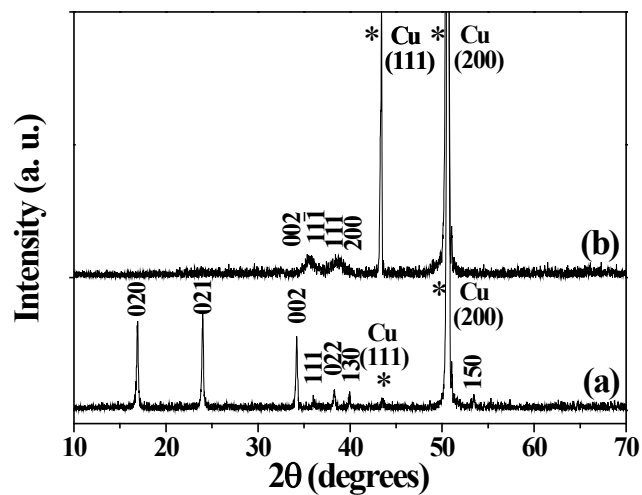


Fig. S1 XRD patterns of (a) Cu(OH)_2 film grown from copper substrate prepared in a water-in-oil AOT/isooctane microemulsion with the molar ratio of $[\text{n-butanol}]/[\text{AOT}] = 2.5$ for 24 h at a $[\text{H}_2\text{O}]/[\text{AOT}]$ mole ratio, $w = 15$, using aqueous ammonia/ H_2O_2 solution, and (b) corresponding black CuO film after thermal dehydration of Cu(OH)_2 precursors in N_2 atmosphere.

Fig. S2

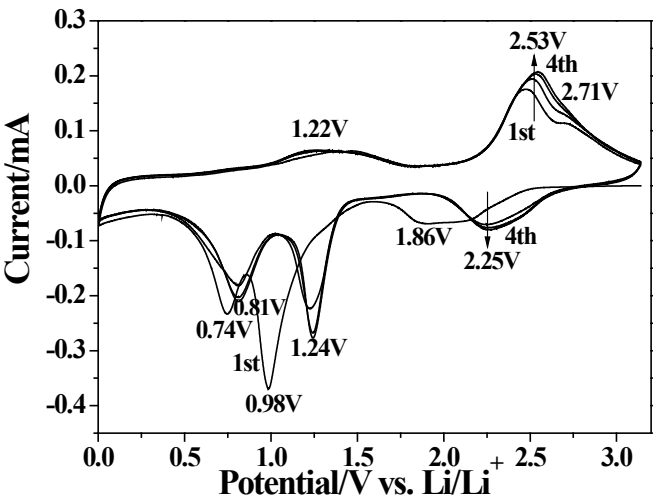


Fig. S2 The cyclic voltammogram curves for CuO cog array electrode at a scan rate of 0.1 mV s⁻¹.