

Supporting Information

Design and synthesis of MOFs-derived CuO/g-C₃N₄ composites with octahedral structure as advanced anode materials for asymmetric supercapacitors with high energy and power densities

Ziyang Zhu¹, Chuanying Wei¹, Di Jiang¹, Xinru Wu¹, Xiaohui Guan¹, Min Lu^{1*}, Guang-Sheng Wang^{2*}

¹ *School of Chemical Engineering, Northeast Electric Power University, Jilin 132012, PR China*

² *School of Chemistry, Beihang University, Beijing 1000191, PR China*

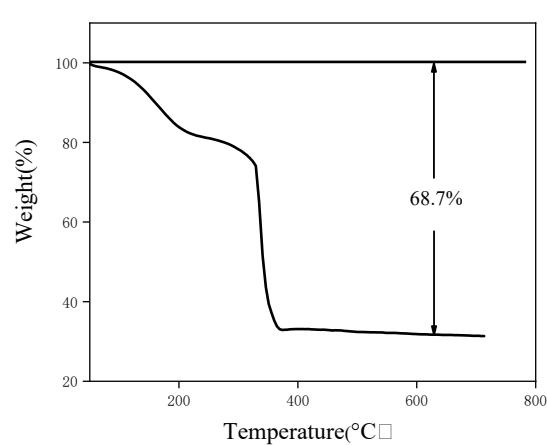
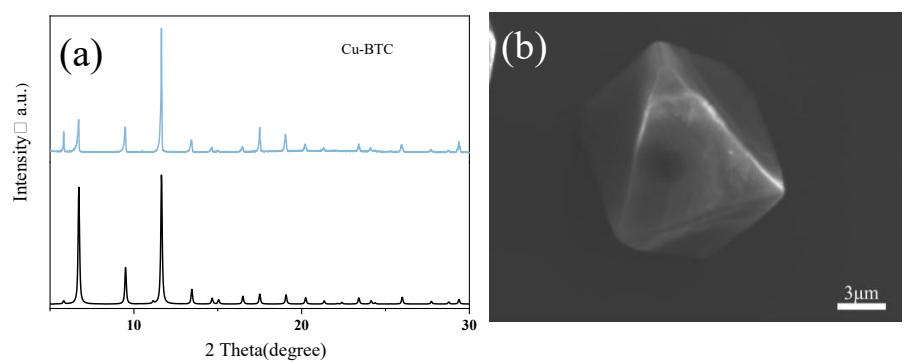


Fig. S2. Thermogravimetric analysis (TGA) curve of as-prepared Cu-btc MOFs under oxygen atmosphere with a ramp of $10\text{ }^{\circ}\text{C min}^{-1}$.

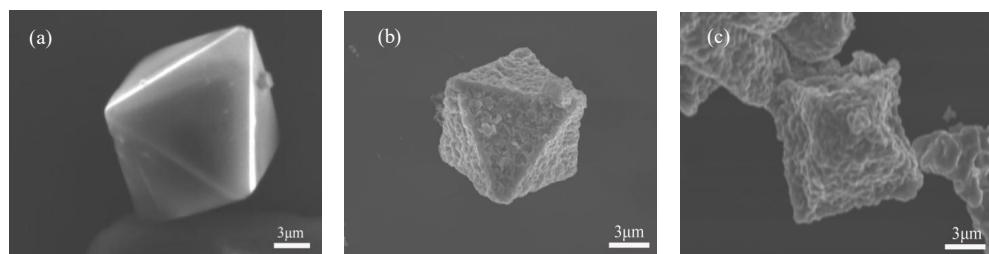


Fig. S3. SEM images of CuO obtained at different calcination temperatures: (a) $300\text{ }^{\circ}\text{C}$; (b) $400\text{ }^{\circ}\text{C}$; (c) $600\text{ }^{\circ}\text{C}$.

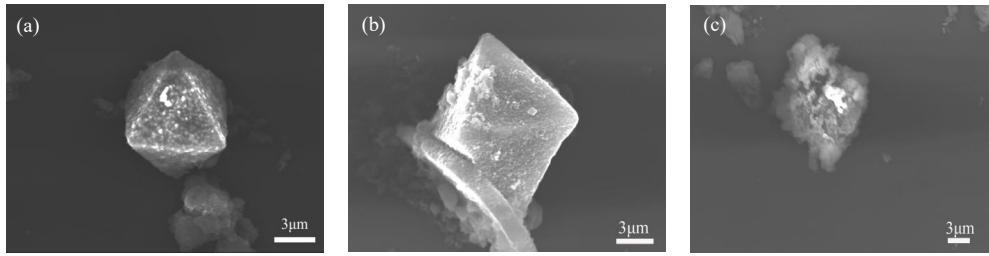


Fig. S4. SEM images of CuO/g-C₃N₄ with different mass ratios: (a) CuO/g-C₃N₄-0.25; (b) CuO/g-C₃N₄-0.75; (c) CuO/g-C₃N₄-1.0.

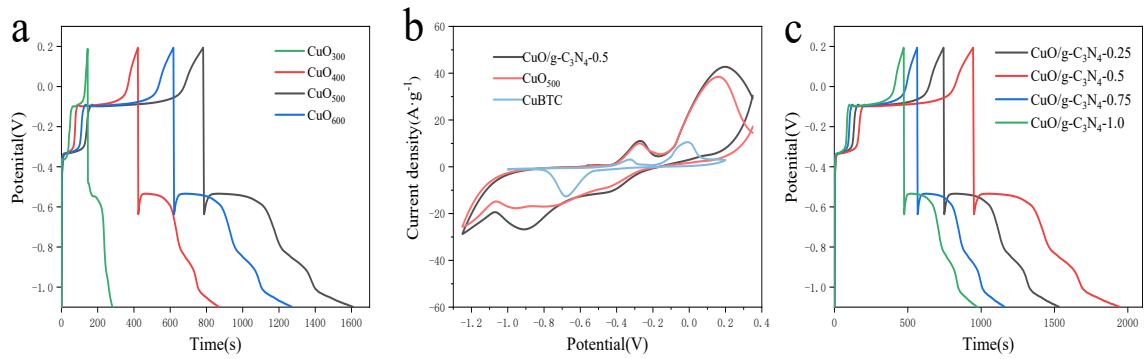


Fig. S5. (a) GCD curves of CuO at different current densities; (b) CV curves of CuO/g-C₃N₄-0.5, CuO₅₀₀ and CuBTC at a scan rate of 10 mV·s⁻¹; (c) GCD curves of CuO/g-C₃N₄ at different current densities.

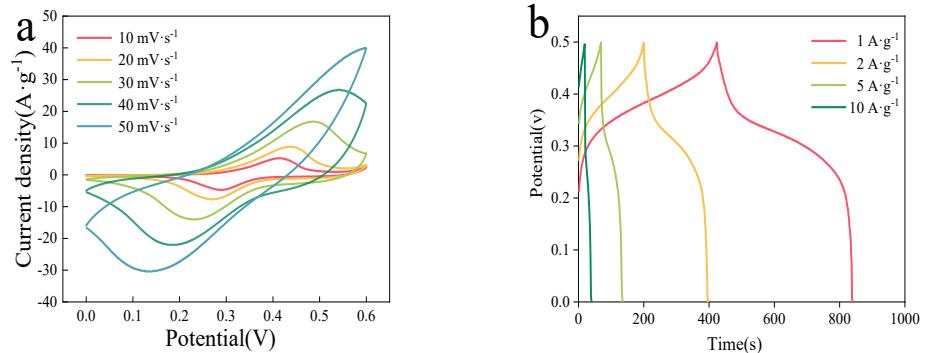


Fig. S6. (a) CV curves of NiCoMOF at scan rates of 10-50 mV·s⁻¹; (b) GCD curves of NiCoMOF at different current densities .

Fig. S7. (a) SEM image of CuO/ g-C₃N₄ material after 3000 cycles; (b) SEM enlargement of CuO/ g-C₃N₄ material after 3000 cycles.

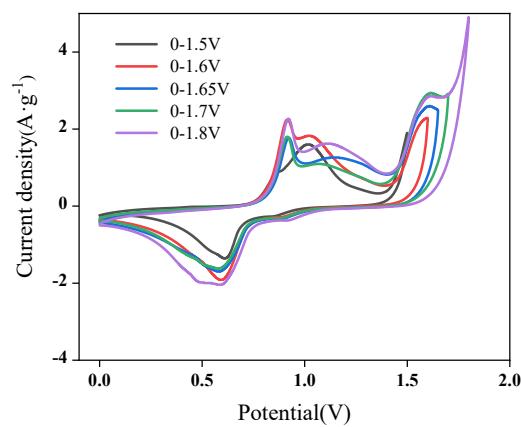


Fig. S8. CV curves of the NiCoMOF//CuO/g-C₃N₄ ASC tested at a scan rate of 10 mV s⁻¹ with different voltage windows.