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Supporting Information

for

Green preparation of CoMoO₄ nanoparticles through a mechanochemical method for energy storage applications

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Figure S1. XRD pattern of pre-CMO.



Figure S2. TGA curve of pre-CMO under air atmosphere.



Figure S3. SEM images of (a, b) CMO-300, (c, d) CMO-400, (e, f) CMO-500, (g, h) CMO-600, and (i, j) CMO-700.



Figure S4. TEM images of (a) CMO-300, (b) CMO-400, (c) CMO-500, (d) CMO-600, and (e, f) CMO-700.



Figure S5. The performance comparison of CMO-300 and nickel foam: (a) CV curves at 100 mV s⁻¹ and (b) GCD curves at a current density of 2 mA cm⁻².



Figure S6. (a) The equivalent circuit and (b) the Bode phase angle plots for CMO-300, CMO-500, and CMO-700.



Figure S7. CV and GCD curves of (a, b) CMO-400, (c, d) CMO-500, (e, f) CMO-600, and (f, h) CMO-700.



Figure S8. TEM images of (a) CMO-r200-300 and (d) CMO-r200-700; CV contrast pictures of (b) CMO-r200-300 *vs* CMO-r600-300 and (e) CMO-r200-700 *vs* CMO-r600-700; CD contrast pictures of (c) CMO-r200-300 *vs* CMO-r600-300 and (f) CMO-r200-700 *vs* CMO-r600-700.



Figure S9. Electrochemical performance of the AC electrode: (a) CV curves at different scan rates; (b) GCD curves at various current densities.



Figure S10. Electrochemical performance of the CMO-300//AC ASC device: (a) CV and (b) GCD curves at various potential windows.



Figure S11. Electrochemical characterization of ASC device: (a) Nyquist plot, and (b) Bode phase angle plot.