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Supporting Information

Structural Reconstituted Calcium Manganate Nanoparticles as High-Performance Cathode for Aqueous Zn-Ion Battery

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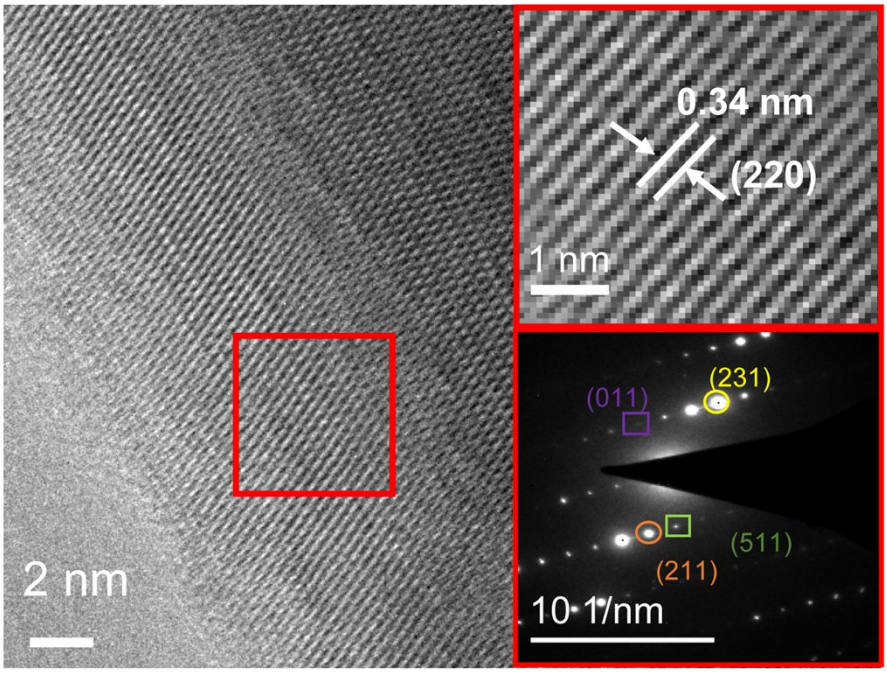

Figure S1. TEM, HRTEM and SAED images of CMO.

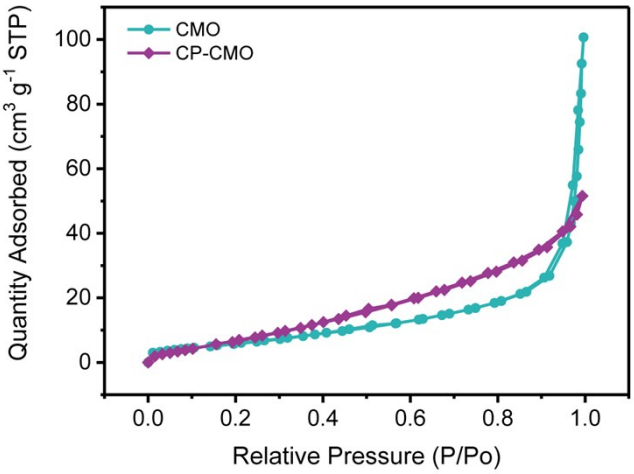

Figure S2. Nitrogen adsorption–desorption isotherms of the CMO and CP-CMO samples.

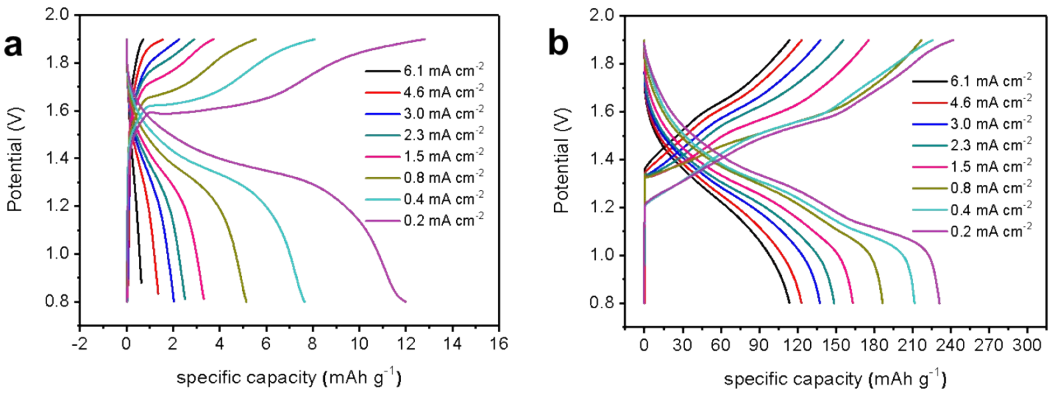

Figure S3. GCD curves under different current densities of (a) CMO and (b) CP-CMO electrodes.

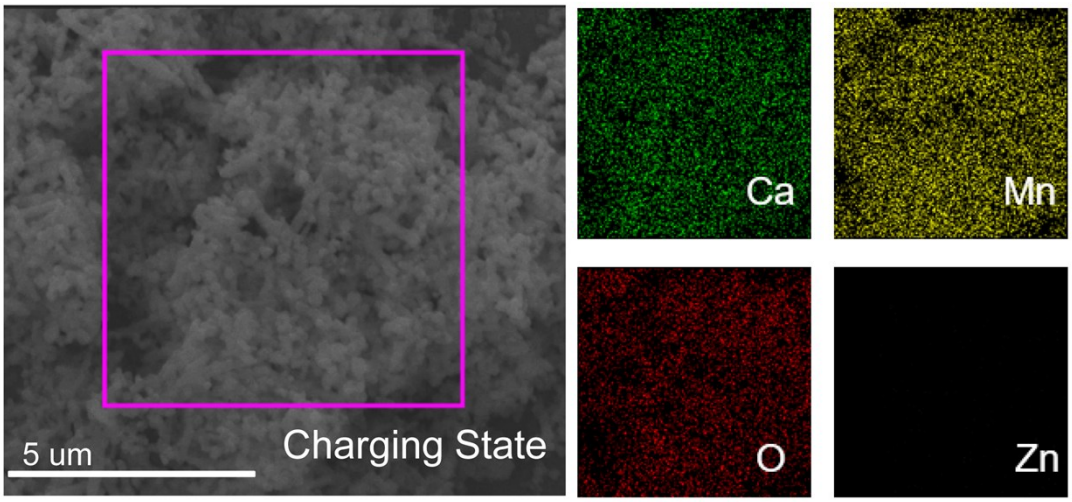

Figure S4. The EDS mapping results of CP-CMO at full charging state (1.9 V).

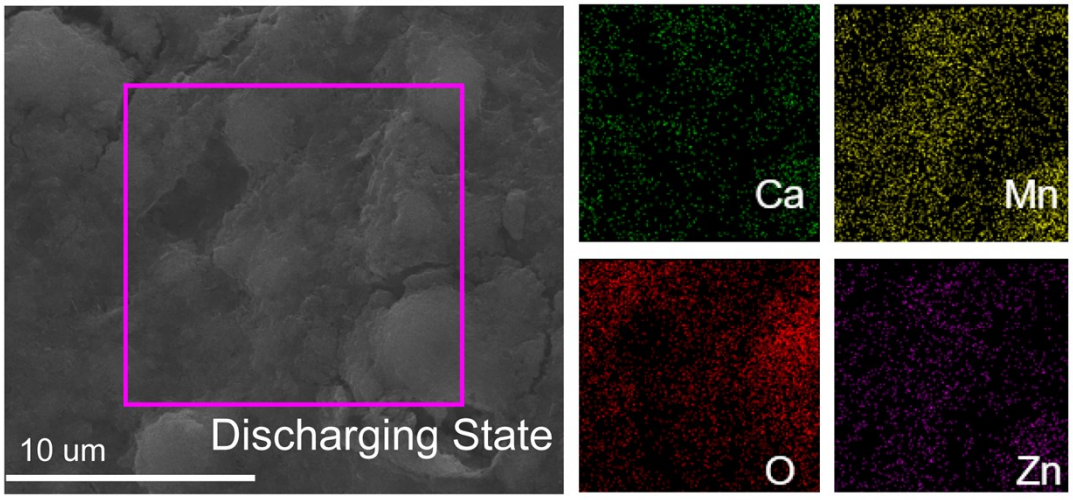

Figure S5. The EDS mapping results of CP-CMO at full discharging state (0.8 V).

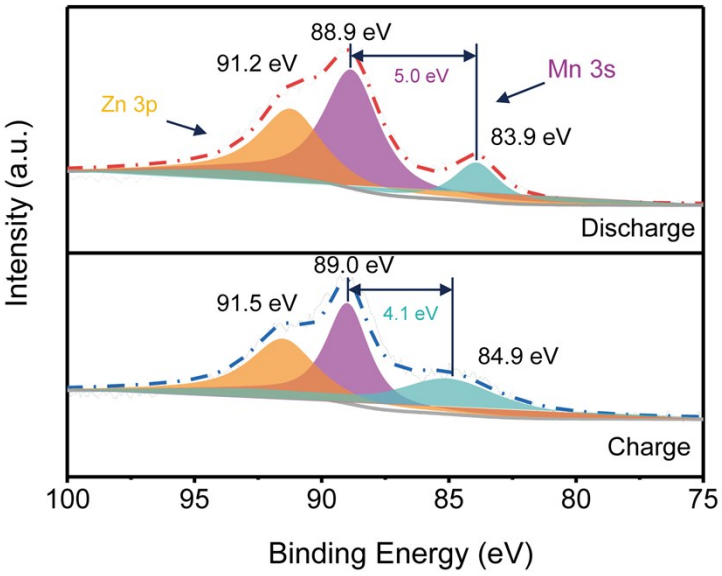

Figure S6. Mn 3s XPS spectra of CP-CMO in fully charged and discharged state.

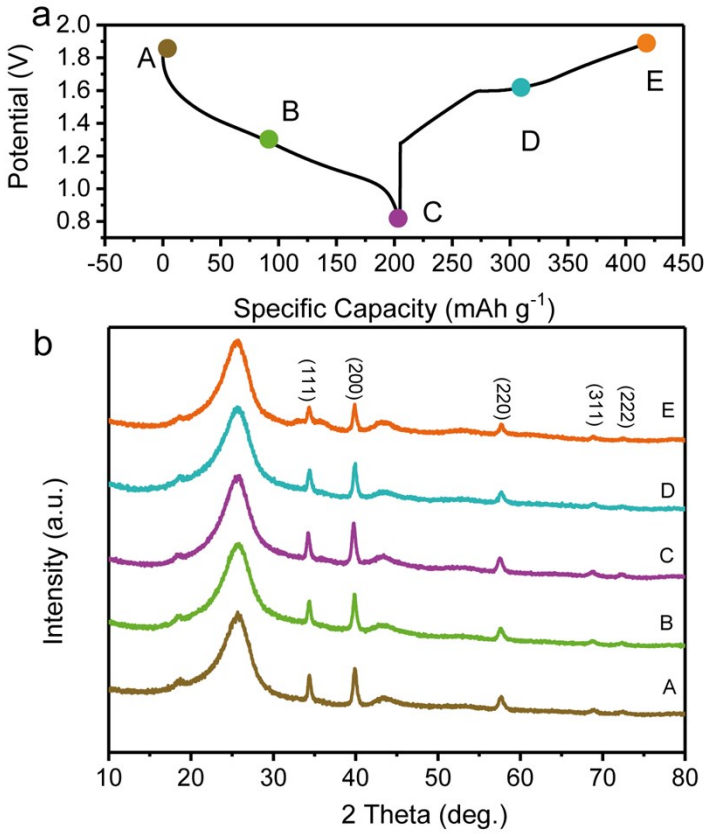

Figure S7. (a) The GCD profile of CP-CMO at 0.44 mA cm^{-2}. (b) Ex-situ XRD patterns of CP-CMO.

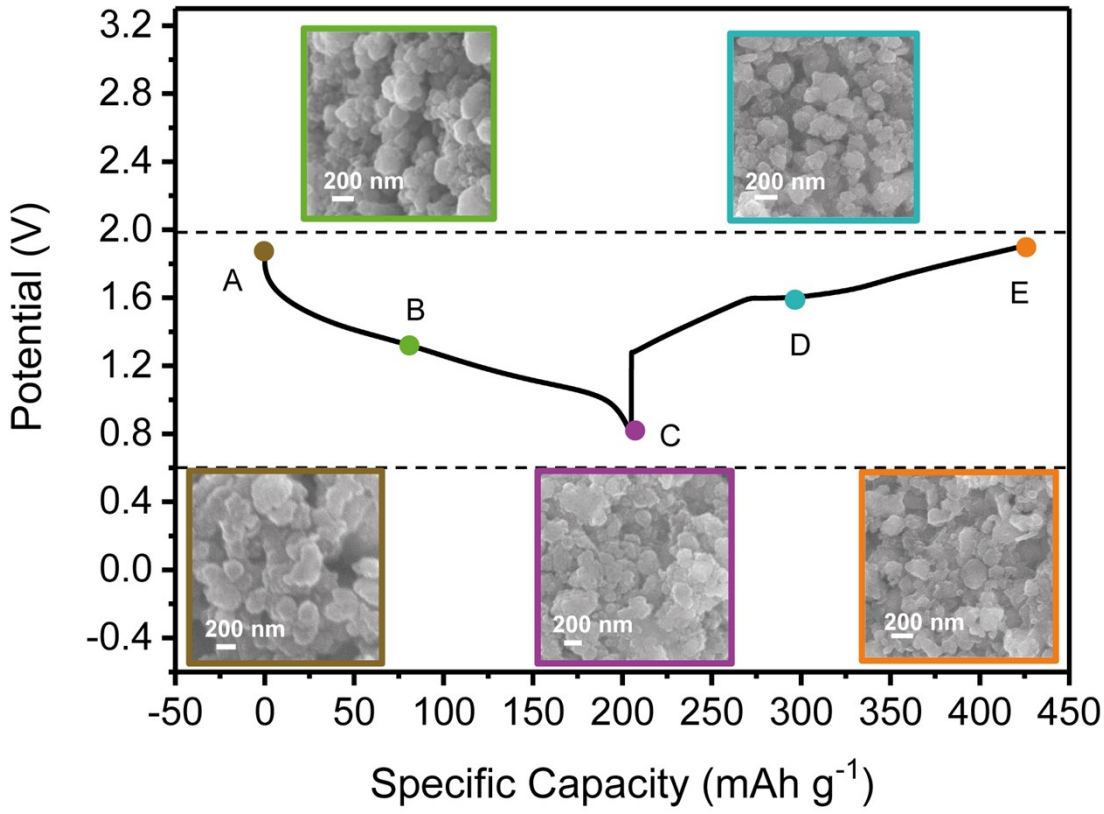

Figure S8. The GCD profile of CP-CMO at 0.44 mA cm^{-2}, the insets show the SEM for different state during the charging and discharging process.

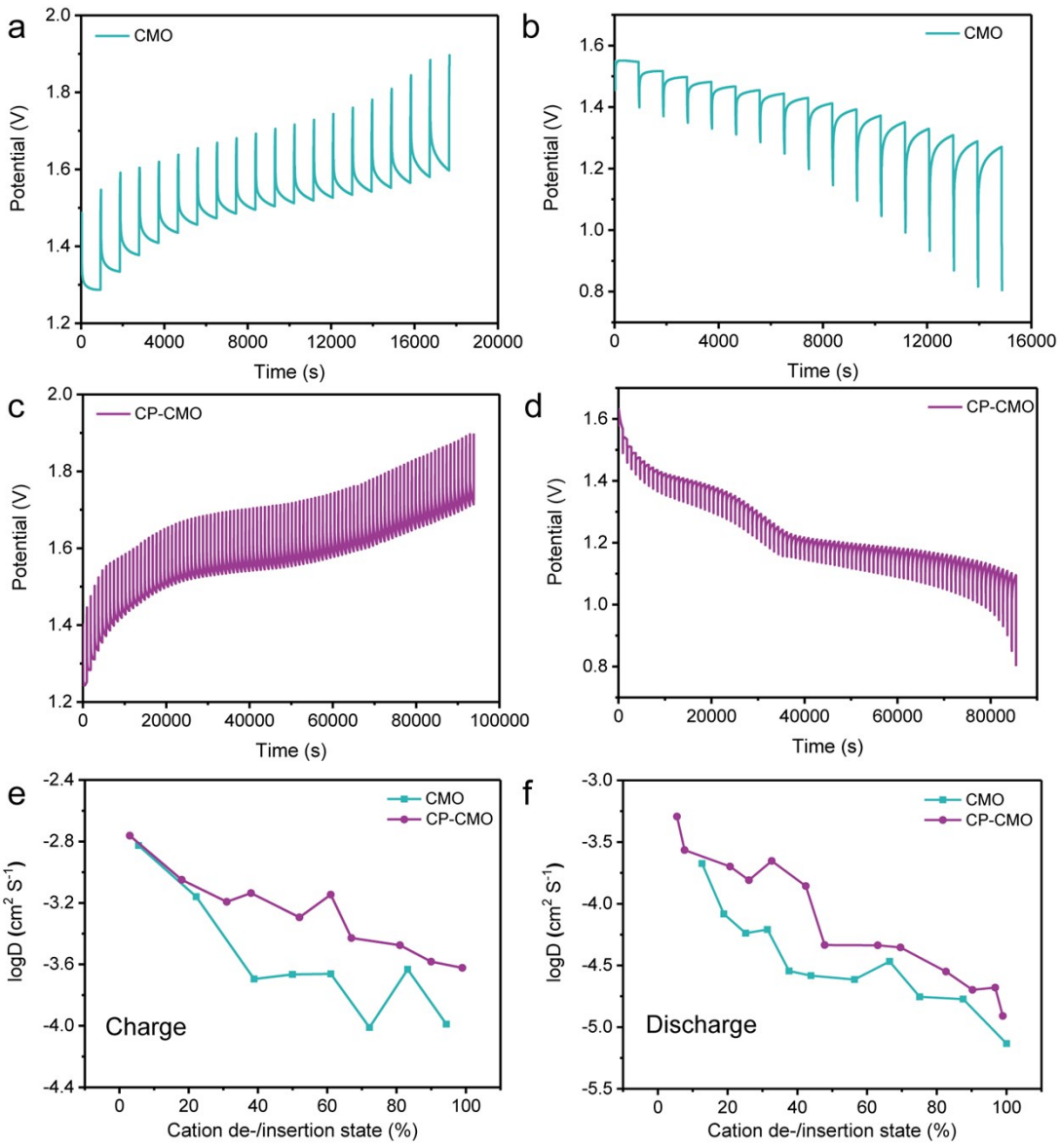

Figure S9. (a-d) Charge–discharge GITT curves for the CMO and CP-CMO at a current density of 0.44 mA cm^{-2}. (e-f) The corresponding Zn diffusion coefficients as a function of Zn insertion state of two samples.