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Supporting Information for

High-performance rechargeable zinc-based dual-ion batteries

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Fig. S1. Electrochemical window measurement of 1 M Zn(TFSI)₂/Pyr₁₄TFSI 2wt% ES by linear sweep voltammetry (LSV).



Fig. S2. Long-term cycling performance of ZDIB at 2C in the different voltage window for 100 cycles.



Fig. S3. SEM image of charged Zn anode, scale bar 2 μ m (Inset is the EDX profile and elemental composition) and EDX mapping of the surface of a charged Zn anode in the ZDIB after 500 cycles.



Fig. S4. XRD profiles of the Zn foil before and after 500 cycles in the ZDIB.



Fig. S5. SEM images of the graphite cathode before (a) and after 500 cycles (b) in the ZDIB.



Fig. S6. XRD profiles of the graphite cathode before and after 500 cycles in the ZDIB.



Fig. S7. SEM image of ball-milled CMS. The inset shows the bulk material of CMS.



Fig. S8. XRD pattern of ball-milled CMS.



Fig. S9. Raman pattern of ball-milled CMS.