Electronic Supplementary Information

Highly efficient capacitive deionization of brackish water with manganese vanadate nanorod decorated reduced graphene oxide electrode

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Figure S1. EDS spectrum and elemental mapping of Mn, V, O, and C elements in MVO@rGO nanocomposites.



Figure S2. The N_2 adsorption-desorption curves of pure MVO and rGO.



Figure S3. Comparison of cyclic voltammetric (CV) curves of MVO, MVO@rGO and rGO at 100 mV s⁻¹.



Figure S4. (a) GCD curves of MVO using different current densities, and (b) specific capacitances of MVO and MVO@rGO based on GCD curves at different current densities of 0.5 - 10 A g⁻¹.



Figure S5. The energy consumption (EC) and specific electrosorption capacity (SEC) of MVO@rGO nanocomposite for removal of 500 mg L⁻¹ NaCl as a function of potential ranging from 0.8 to 1.4 V.



Figure S6. The SEM image of MVO@rGO after after 50 charging-discharging cycles.



Figure S7. The change in solution pH during 5 cycle of charging-discharging process at voltages of 1.2 V for electrosorption and 0 V for regeneration.