Supporting Information for

Ball-in-Cage Nanocomposites of Metal-Organic Frameworks and Three-Dimensional Carbon Network: Synthesis and Capacitive Performance

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Figure S1 (a) Nitrogen sorption isotherms and (b) the pore size distributions of the BIC-25 and BIC-50.



Figure S2 (a) CV plots of ZIF-67 electrode at different scan rates from 5 mv s⁻¹ to 100 mv s⁻¹. (b) FT-IR spectra of pure ZIF-67 and the ZIF-67 electrode before and after charge process. (c) GCD curves of ZIF-67 electrode at different current densities. (d) Specific capacitances of ZIF-67 calculated from GCD curves.



Figure S3 (a) CV curves at different scan rates and (b) GCD curves at different current densities of 3DCN electrode.



Figure S4 (a) CV curves at different scan rates and (b) GCD curves at different current densities of BIC-25 electrode.



Figure S5 (a) CV curves at different scan rates and (b) GCD curves at different current densities of BIC-50 electrode.



Figure S6 Electrochemical performance characteristic of the BIC-0 measured in two-electrode system using 1M KOH as electrolyte. (a) CV curves at different scan rates. (b) GCD curves and (c) specific capacitance at different current densities. (d) The cycle performance at a current density of 2 A g^{-1} . (e) Nyquist impedance plot. Inset of (e) is the enlarge EIS plot at the high-frequency region. (f) Ragone plots.