Supporting Information

In-situ growth of ZIF-8-derived ternary $ZnO/ZnCo_2O_4/NiO$ for high performance asymmetric supercapacitors

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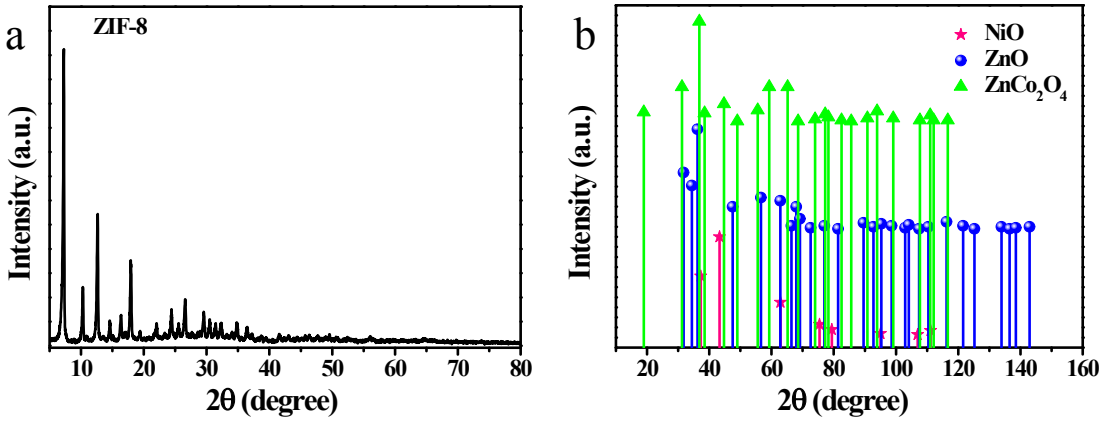

Fig. S1 (a) XRD patterns of the as-prepared ZIF-8; (b) The standard XRD patterns of NiO, ZnO, $ZnCo_2O_4$.

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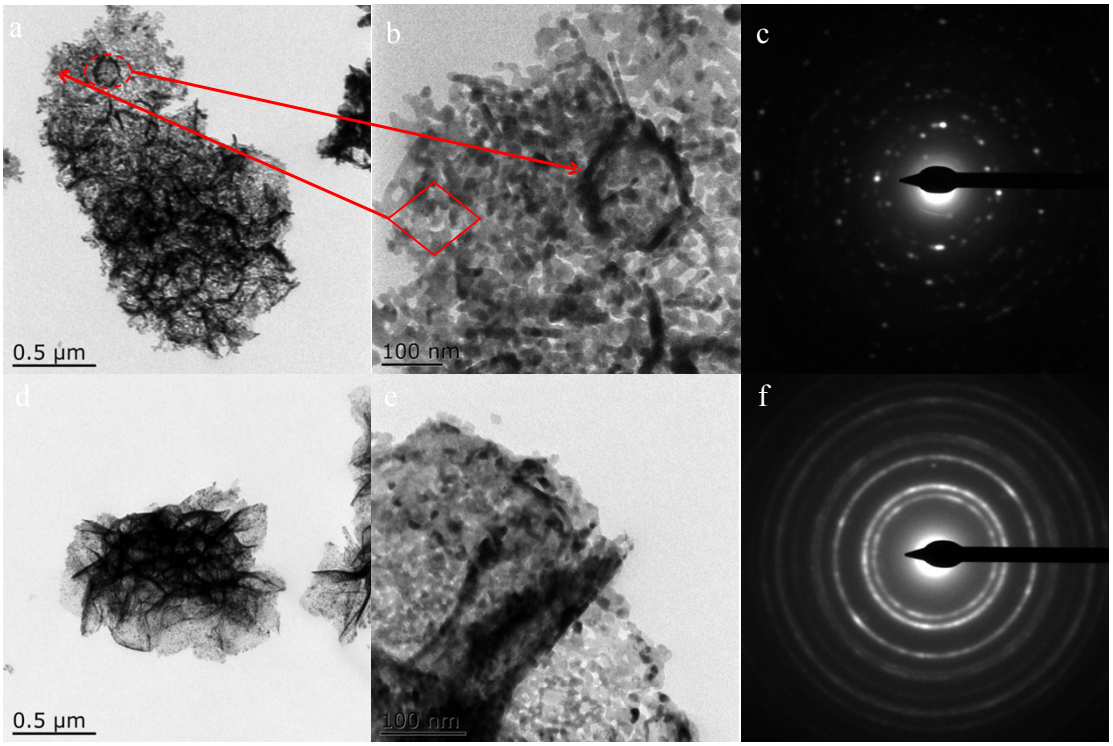

Fig. S2 TEM images of (a,b) ZZ and (d,e) ZN, and the corresponding SAED image (c) ZZ, (f) ZN.

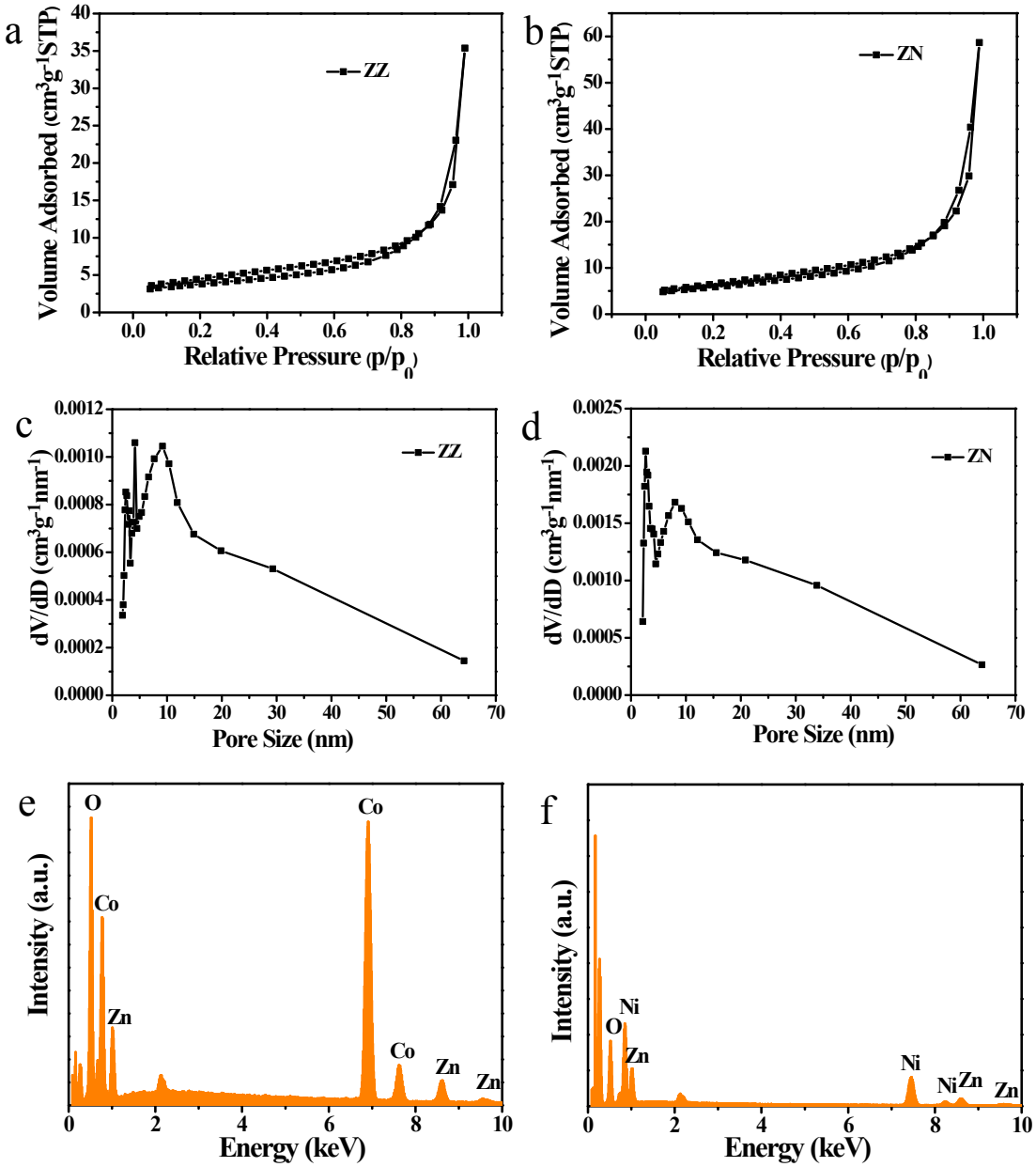

Fig. S3 N_2 adsorption-desorption isotherm curves of (a) ZZ and (b) ZN, the pore size distribution curves of (c) ZZ and (d) ZN, Energy-dispersive spectroscopy (EDS) of (e) ZZ and (f) ZN.

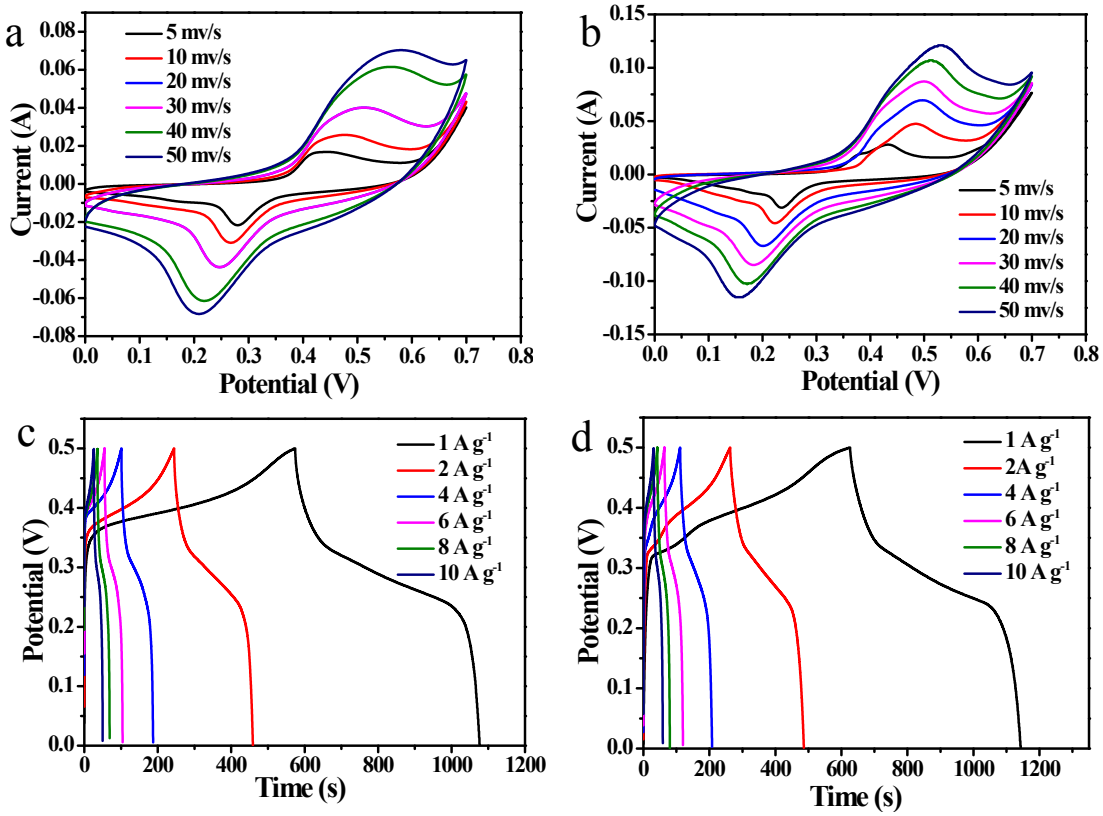

Fig. S4 (a) CV curves of ZZN-1 at different scan rates; (b) CV curves of ZZN-3 at different scan rates; (c) GCD curves of ZZN-1 at different current densities; (d) GCD curves of ZZN-3 at different current densities.

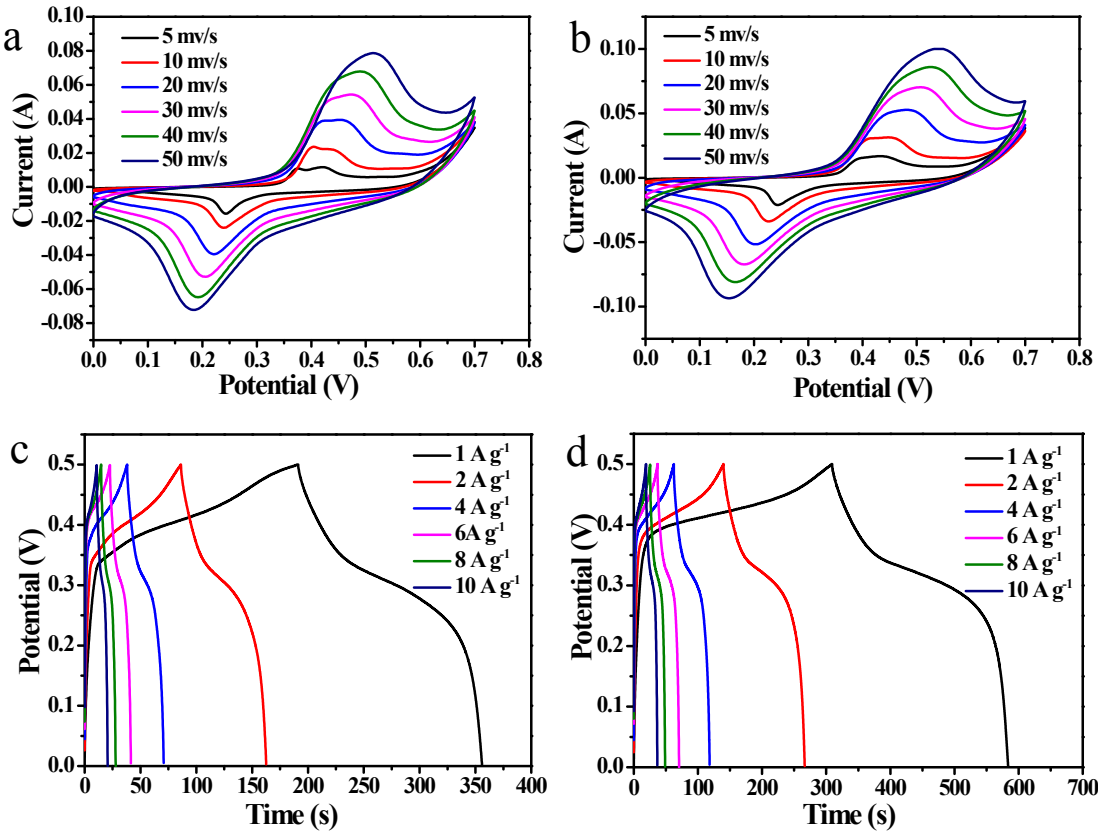

Fig. S5 (a) CV curves of ZZ at different scan rates; (b) CV curves of ZN at different scan rates; (c) GCD curves of ZZ at different current densities; (d) GCD curves of ZN at different current densities.

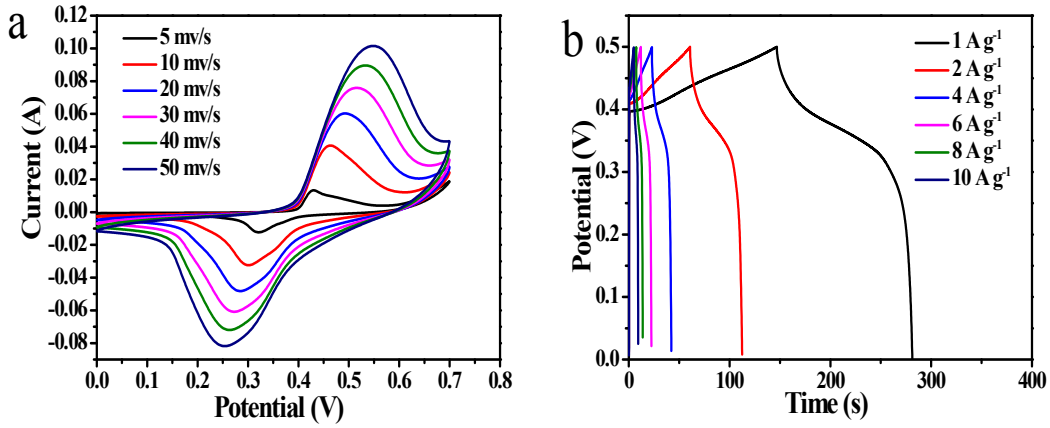

Fig. S6 (a) CV curves of ZIF-8 at different scan rates; (b) GCD curves of ZIF-8 at different current densities.

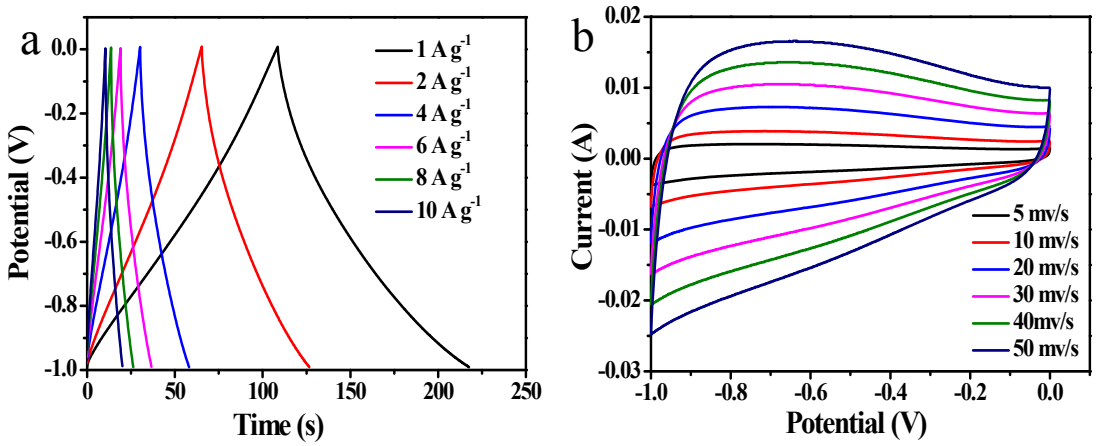

Fig. S7 (a) GCD curves of AC at different current densities; (b) CV curves of AC at different scan rates.