Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Material

Facile design and synthesis of nickel disulfide/zeolitic imidazolate framework-67 composite material with robust cladding structure for high-efficiency supercapacitors

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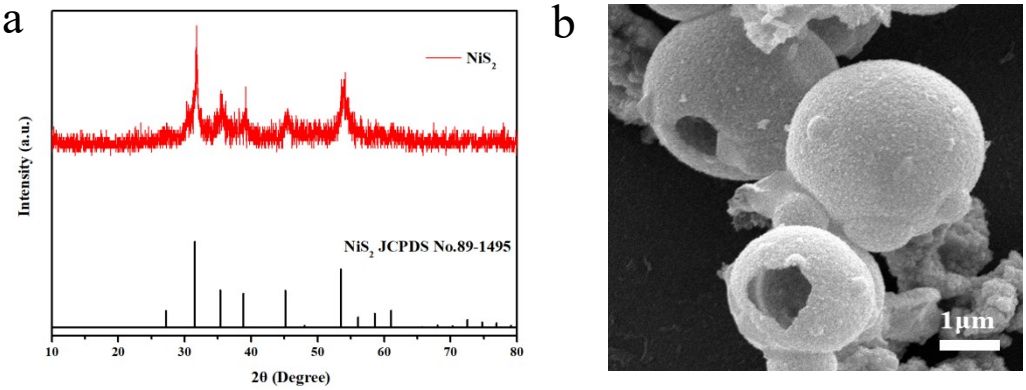

Fig. S1 (a) XRD patterns of NiS_2. (b) SEM image of NiS_2.

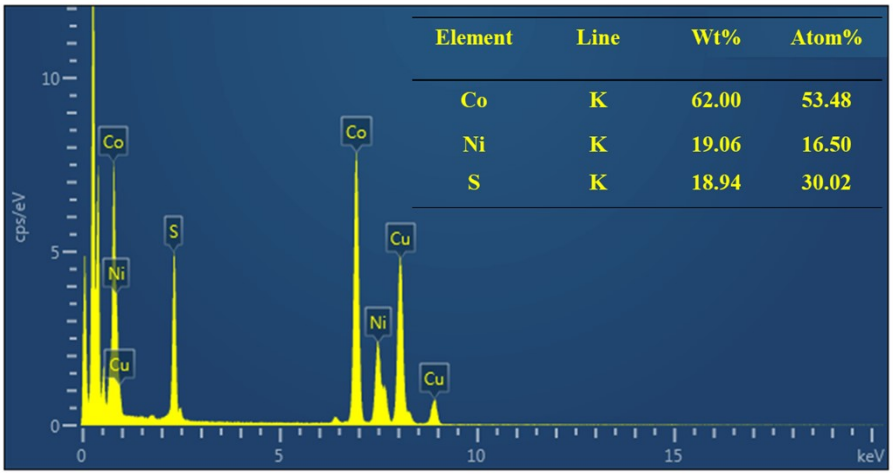

Fig. S2 EDS spectra of 0.5-NiS_2/ZIF-67 composites.

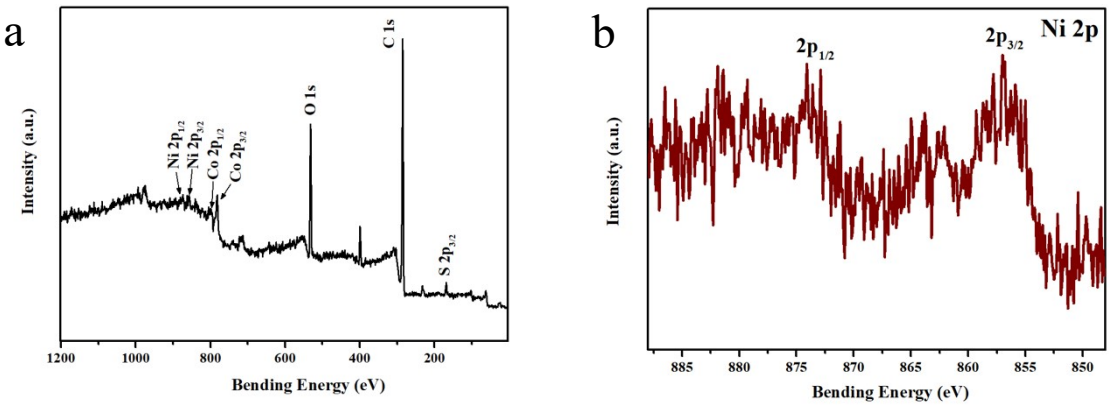

Fig. S3 XPS spectra for 0.5-NiS_2/ZIF-67 (a) and Ni 2p of 0.5-NiS_2/ZIF-67 (b).

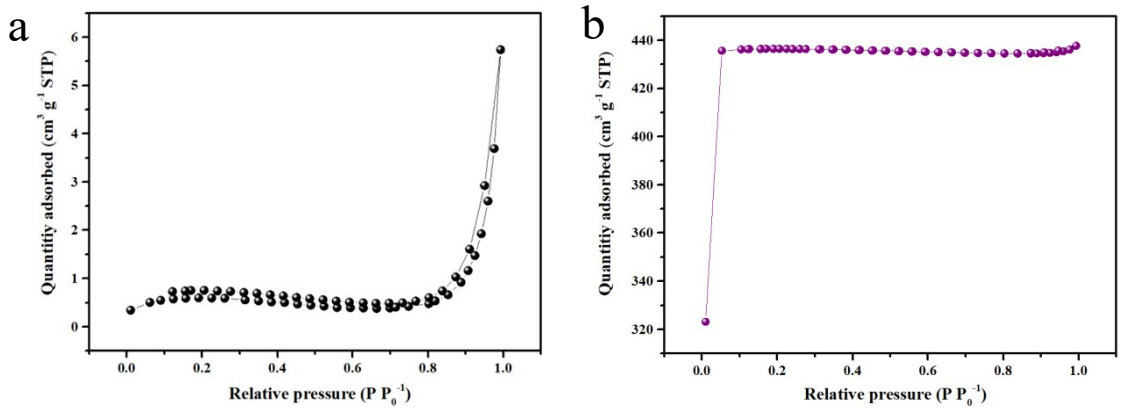

Fig. S4 N_2- adsorption/desorption isotherms of NiS_2 (a) and ZIF-67 (b).

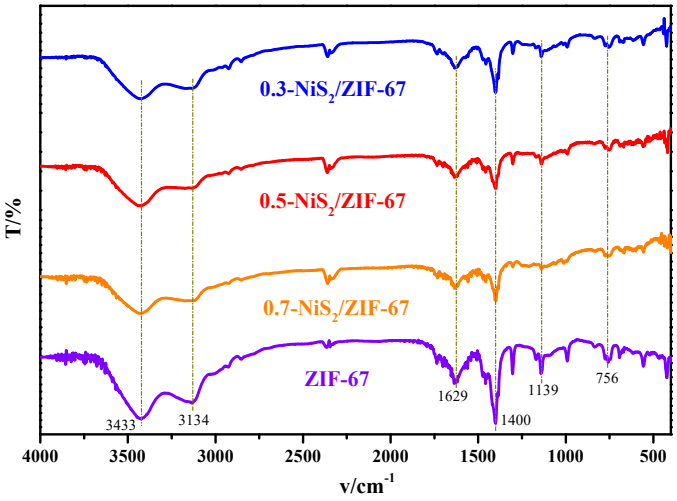

Fig. S5 FT-IR spectra of ZIF-67 and NiS_2/ZIF-67.

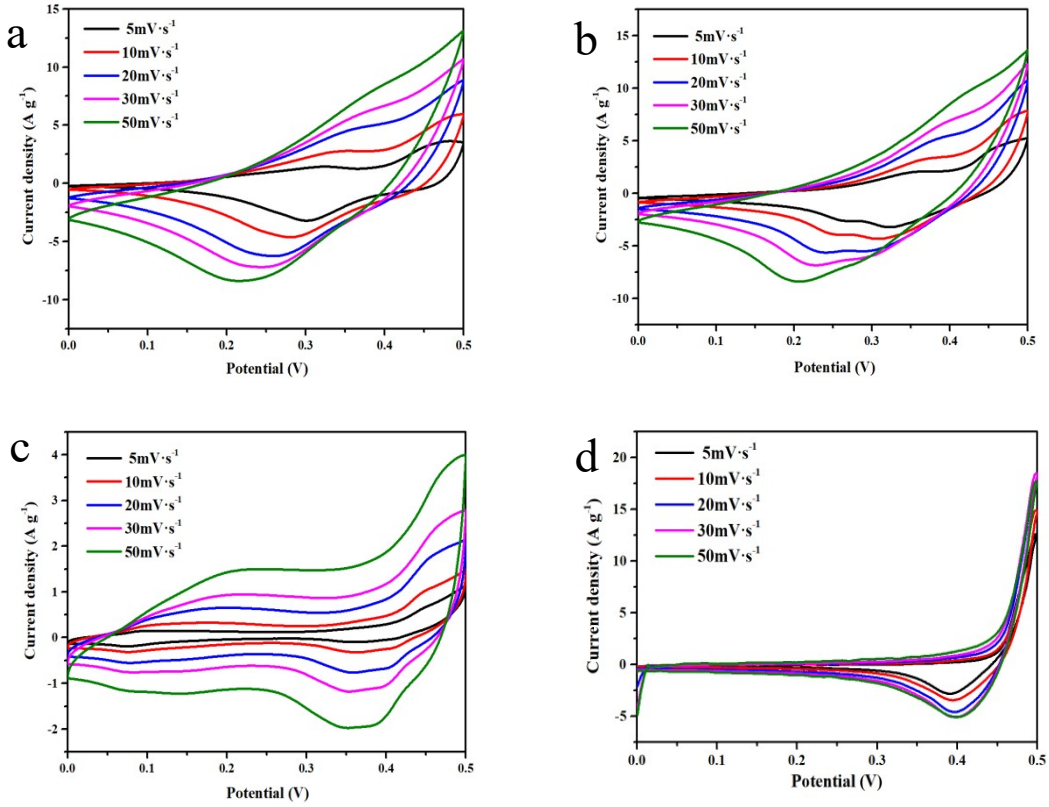

Fig. S6 CV curves of 0.3-NiS_2/ZIF-67 (a), 0.7-NiS_2/ZIF-67 (b), ZIF-67 (c) and NiS_2 (d) at different scan rates.

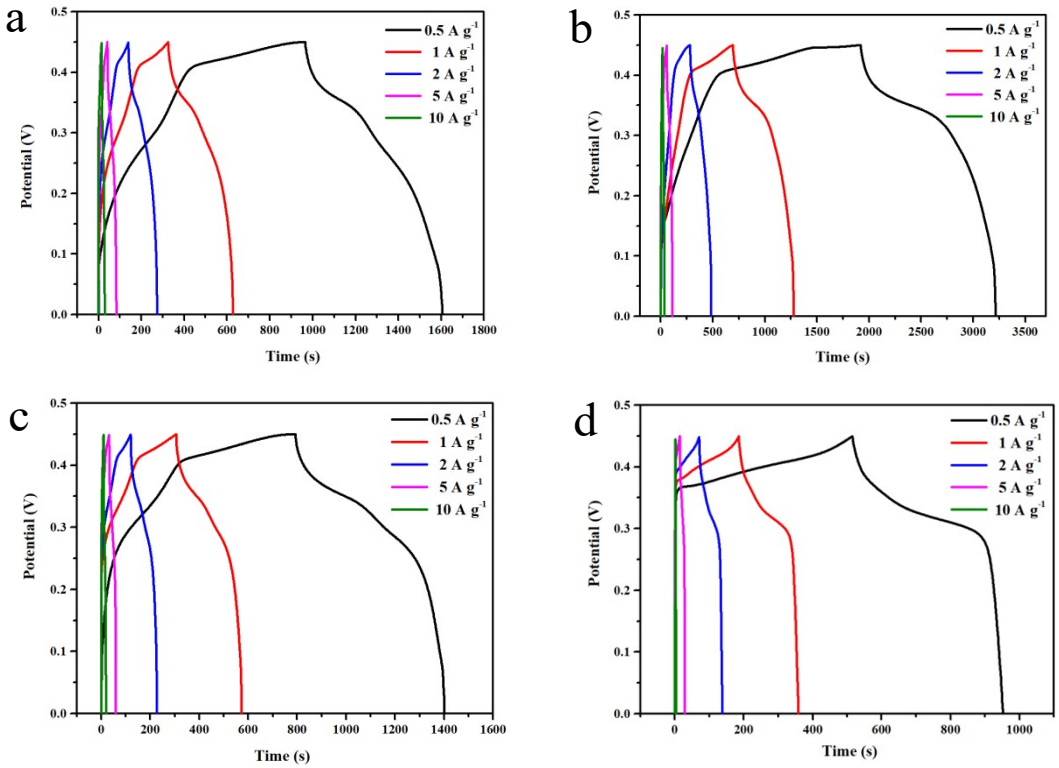

Fig. S7 GCD curves of 0.3-NiS_2/ZIF-67 (a), 0.5-NiS_2/ZIF-67 (b), 0.7-NiS_2/ZIF-67 (c) and NiS_2 (d) at different current densities.

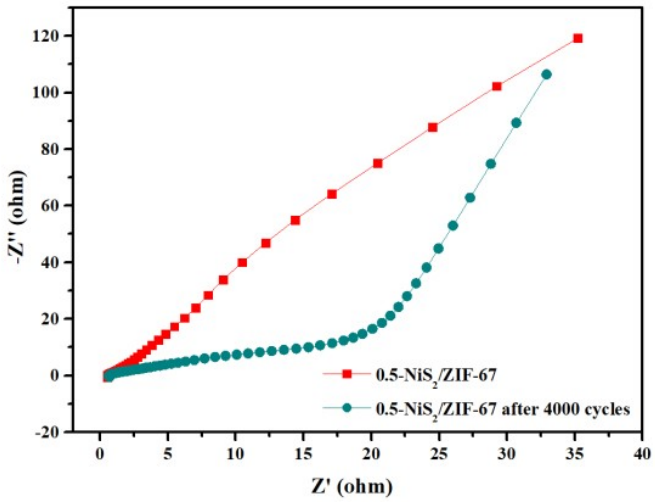

Fig. S8 Nyquist plots of 0.5-NiS_2/ZIF-67 composites and 0.5-NiS_2/ZIF-67 after 4000 cycles.

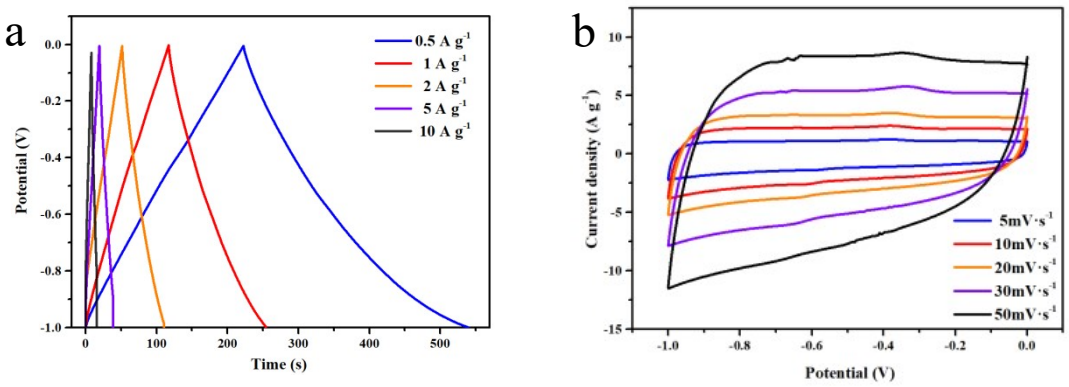

Fig. S9 (a) GCD curves and (b) CV curves of AC tested in the 2M KOH.

Table S1 specific capacitances of the as-prepared electrode materials at different current densities.

Electrode materials	Specific capacitance (F g^{-1})				
	Current density (A g^{-1})				
	0.5	1	2	5	10
0.3-NiS_2/ZIF-67	723.3	672.0	590.2	462.2	320.0
0.5-NiS_2/ZIF-67	1442.2	1297.8	911.1	604.4	391.1
0.7-NiS_2/ZIF-67	674.4	593.8	476.4	302.2	177.8
NiS_2	496.0	384.0	298.7	142.2	35.6
ZIF-67	80.0	74.7	64.0	53.3	35.6