

Figure S1

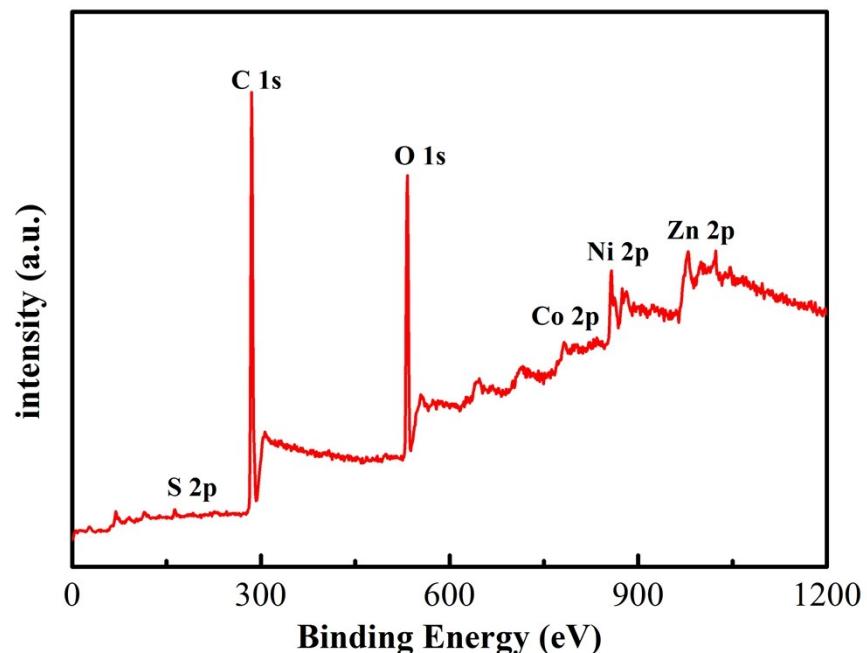


Figure S1. The XPS survey curve of $\text{ZnCo}_2\text{S}_4@\text{Ni}(\text{OH})_2$

Figure S2

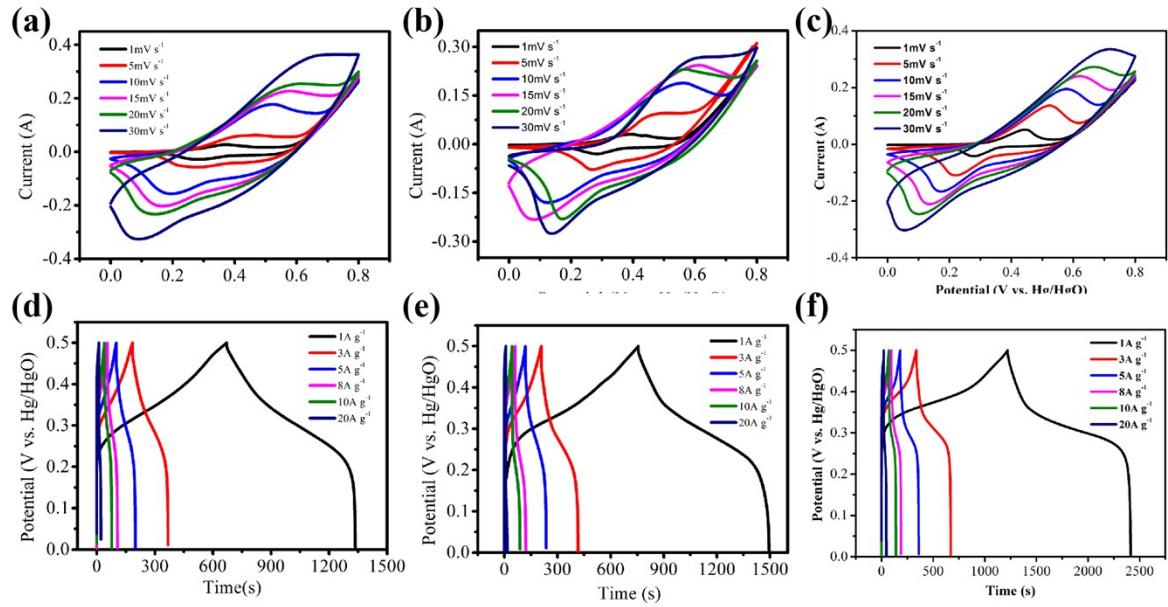


Figure S2. CV and GCD curves of ZnCo_2O_4 , ZnCo_2S_4 and $\text{ZnCo}_2\text{S}_4@\text{Ni(OH)}_2$ electrodes at

different scan rates and different current densities.

Table S1

Materials	Electrolyte Type	Energy density	Power density	Ref
Ni–Co–O@//MnO ₂ /AC	Aqueous	13.3 Wh kg ⁻¹	7.5 kW kg ⁻¹	¹
NiCo ₂ O ₄ //AC	Aqueous	11.6 Wh kg ⁻¹	5.22 kW kg ⁻¹	²
Ni-Co-S//AC	Aqueous	21.6 Wh kg ⁻¹	0.1349 kW kg ⁻¹	³
r-CoNi ₂ S ₄ //AC	Solid state	55.4 Wh kg ⁻¹	8 kW kg ⁻¹	⁴
CoFe ₂ O ₄ //NG	Aqueous	23 Wh kg ⁻¹	0.79 kW kg ⁻¹	⁵
ZnCo ₂ O ₄ @Ni _x Co _{2x} (OH) _{6x} //AC	Solid state	26.2 Wh kg ⁻¹	0.5118 kW kg ⁻¹	⁶
NiCo ₂ O ₄ -MnO ₂ //AG	Aqueous	9.4 Wh kg ⁻¹	0.175 Wh kg ⁻¹	⁷
MoS ₂ -based SCs	Aqueous	5.42 Wh kg ⁻¹	0.128 Wh kg ⁻¹	⁸
Ni-Co-Fe hydroxide	Aqueous	3.89 Wh kg ⁻¹	1.25 Wh kg ⁻¹	⁹
Ni(OH) ₂ //AC	Aqueous	12.6 Wh kg ⁻¹	1.67 Wh kg ⁻¹	¹⁰
NiCo ₂ S ₄ //AC	Aqueous	27.2 Wh kg ⁻¹	0.87 kW kg ⁻¹	¹¹
ZnCo₂S₄@Ni(OH)₂//AC	Aqueous	44Wh kg⁻¹	0.83 kW kg⁻¹	*

Note:  Refers to this work

Table S1. Comparison of energy density with other asymmetric supercapacitors.**References:**

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