Electronic Supplementary Information (ESI)

The investigation of the electrochemically supercapacitive performances of mesoporous $CuCo_2S_4$

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Table. S1 Comparison of the electrochemical performances of the as-prepared mesoporous $CuCo_2S_4$ nanoparticles with previously reported ternary and binary metal sulfides/oxides nanostructures.

Sample	Specific capacitance	Rate capacity retention	Cycling capacity retention	Electrolyte	Reference
$CuCo_2O_4$ nanostructures	338 F g^{-1} at 1 A g^{-1}	26% (from 1 to 50 A g^{-1})	96% (1000 cycles at 2 A g^{-1})	3 M KOH	[S1]
$CuCo_2S_4$ nanoparticles	5030 F g^{-1} at 20 A g^{-1}	27.1% (from 20 to 70 A g^{-1})	79.5% (2000 cycles at 70 A g^{-1})	polysulfide	[S2]
$Zn_{0.76}Co_{0.24}S$ nanostructures	486.2 F g^{-1} at 2 A g^{-1}	65.4% (from 2 to 20 A g^{-1})	86.4% (2000 cycles at 5 A g^{-1})	1 M KOH	[S3]
Nanoparticle-like CuS	371 F g^{-1} at 1 A g^{-1}	/	/	2 M KOH	[S4]
NiS_2 nanostructures	695 F g^{-1} at 1.25 A g^{-1}	22.7% (from 1.25 to 12.5 A g^{-1})	93.4% (3000 cycles at 1.25 A g^{-1})	3 M KOH	[S5]
Porous $ZnCo_2O_4$ nanoparticles	457 F g^{-1} at 1 A g^{-1}	80.5% (from 1 to 20 A g^{-1})	97.9% (1500 cycles at 2 A g^{-1})	6 M KOH	[S6]
$CoNi_2S_4$ nanoparticles	1169 F g^{-1} at 1 A g^{-1}	60.1% (from 1 to 5 A g^{-1})	49% (2000 cycles at 4 A g^{-1})	3 M KOH	[S7]
CoS_2 nanodendrite	323.05 F g^{-1} at 0.5 A g^{-1}	65.3% (from 0.5 to 8 A g^{-1})	80.22% (3000 cycles at 4 A g^{-1})	2 M KOH	[S8]
Mesoporous $MnCo_2O_4$ nanostructure	346 F g^{-1} at 1 A g^{-1}	/	88% (2000 cycles at 5 A g^{-1})	6 M KOH	[S9]
Nanostructured $NiCo_2O_4$	671 F g^{-1} at 1 A g^{-1}	53.2% (from 1 to 20 A g^{-1})	98% (7000 cycles at 1 A g^{-1})	1 M KOH	[S10]
Mesoporous $CuCo_2S_4$ nanoparticles	752 F g^{-1} at 2 A g^{-1}	47.9% (from 2 to 100 A g^{-1})	98.1% (5000 cycles at 3 A g^{-1})	2 M KOH	This work

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