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Supporting Information

## Metallic Nickel-Cobalt Phosphide/Multilayer Graphene composite for high-performance Supercapacitors

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Materials	Electrolyte	3-electrode/ 2-electrode	Current density(A/g)	Specific capacitance(F/g)
CoP <sup>1</sup>	6M KOH	3	1	449.4F/g
PrGO/NiCoP <sup>2</sup>	ЗМ КОН	3	1	2586.9F/g
Ni <sub>2</sub> P@5%GR <sup>3</sup>	ЗМ КОН	3	1	672.4F/g
Ni <sub>8</sub> Co <sub>1</sub> P <sup>4</sup>	ЗМ КОН	3	1	1448F/g
P-CSs@Ni <sub>1</sub> Co <sub>2</sub> PNSs <sup>5</sup>	2M KOH	3	1	1040.3F/g
CoP <sup>6</sup>	6M KOH	3	1	560F/g
Ni <sub>2</sub> P-Ni@NC@G <sup>7</sup>	ЗМ КОН	3	1	2335.5F/g
This work	ЗМ КОН	3	1	1419.6

Table S1. Comparison of Specific capacitance data in the literature with the current data from this work.



Figure S1. Coulombic efficiency versus cycle number of NiCoP/MLG at a current density of 5 A/g.

Table S2. Comparison of performance of the device with other existing studies in the literature

Device	I (A/g)	C (F/	g) E (WI	h/kg) P (	(W/kg)
NiCoP@NF//AC8		1 13	3 27	647	
NiCoP/NiCo-OH3	0//PC <sup>9</sup>	1	150	34 7	75
NiCoP nanoplates/	/Gr <sup>10</sup>	2	43.8 mAh/g	g 32.9	1301
CoP//NG <sup>11</sup>	0.5	68.8	21.4	373	
P-CSs@Ni <sub>1</sub> -Co <sub>2</sub> -P	NSs//A	AC <sup>5</sup> 1	52.8	16.5	750
AC//Ni <sub>8</sub> -Co <sub>1</sub> -P <sup>4</sup>	1	89	31.6	270	
NiCoP@C@LDHs	s//AC <sup>12</sup>	1	135.8	48.3	800
This work	1	103	32.19	741.65	;



Figure S2. Capacitance retention at a function of cycle number at 3 A  $g^{-1}$ 

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