Supporting Information:

MOFs Derived CoP-decorated Nitrogen-doped Carbon Polyhedrons/Reduced Graphene Oxide Composites for High Performance Supercapacitors

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Figure S1. Digital pictures of the CoP-NPC/RGO composite showing the 3D structure and light weight.

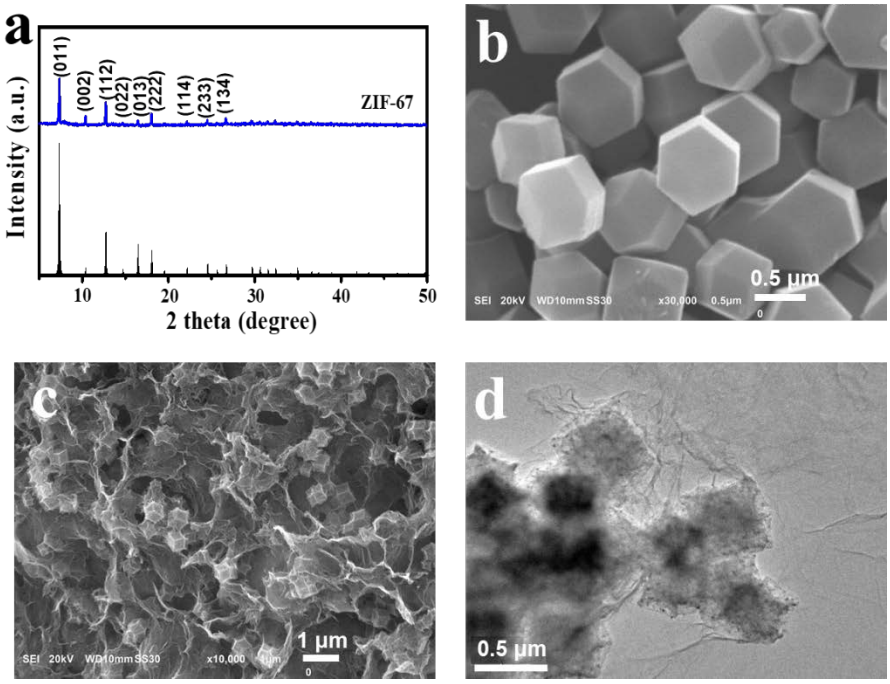

Figure S2. (a) XRD pattern and (b) SEM image of ZIF-67. (c) SEM and (d) TEM images of Co-NPC/RGO.

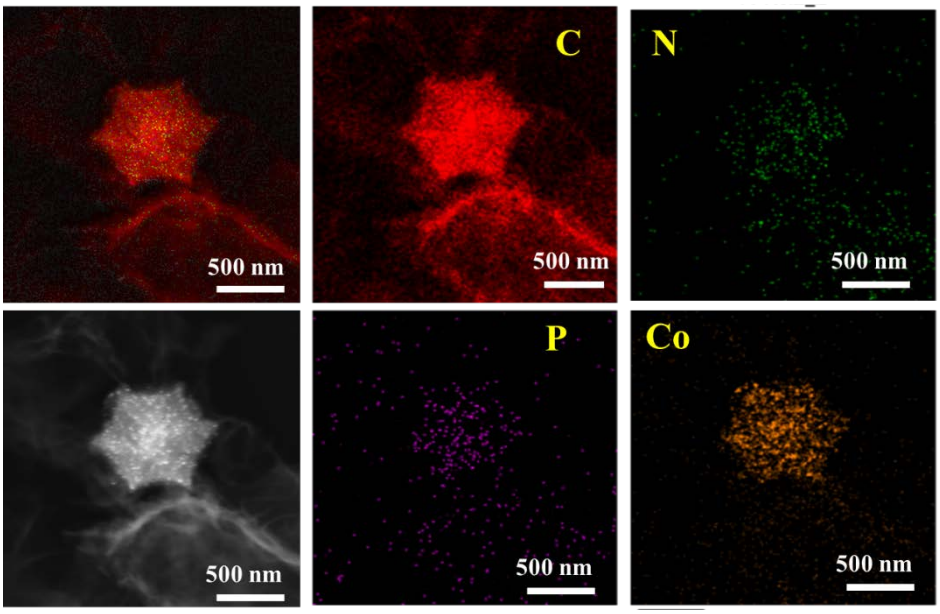

Figure S3. TEM elemental mapping of CoP-NPC/RGO.

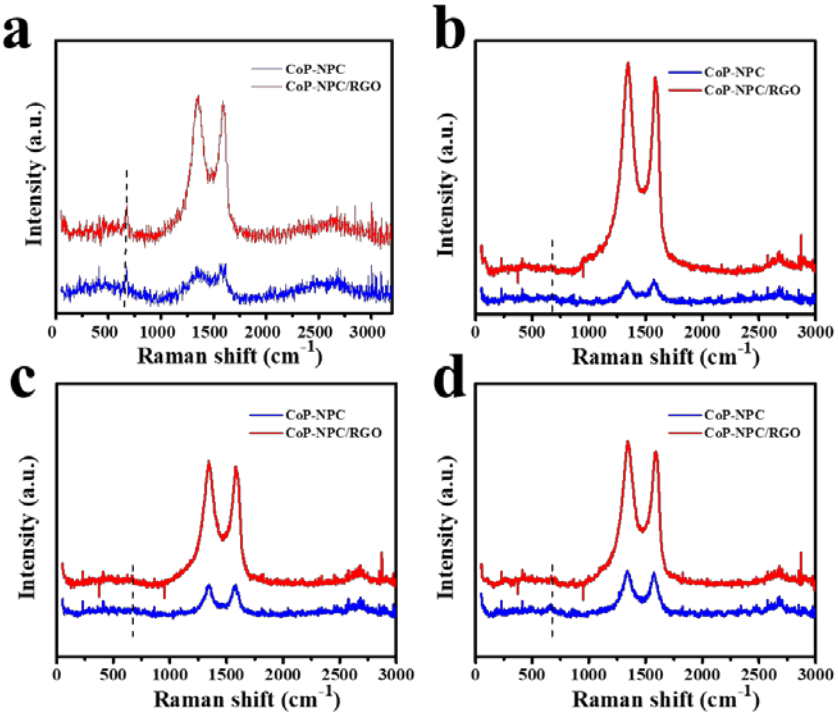

Figure S4. (a-d) Raman spectra of CoP-NPC and CoP-NPC/RGO collected at different areas.

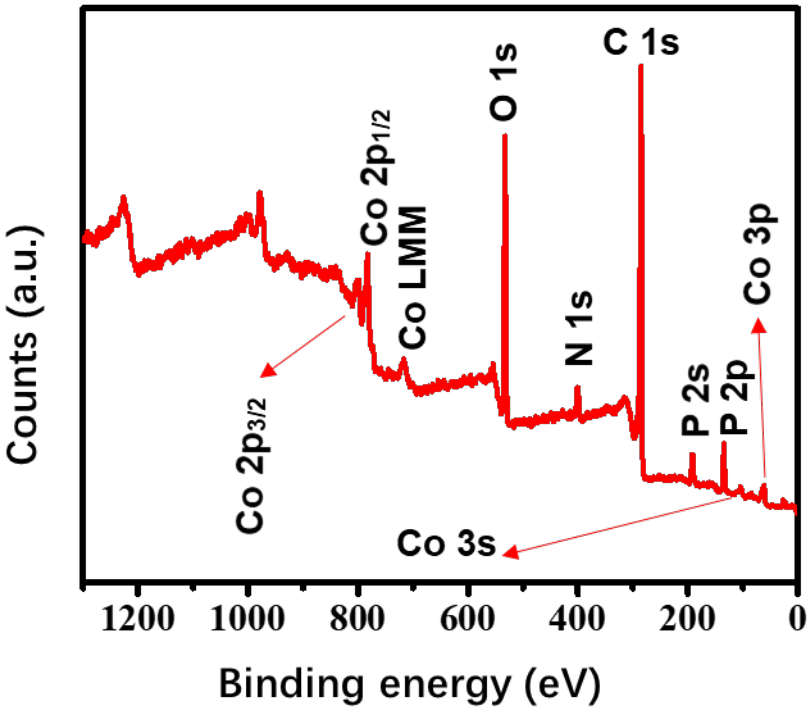

Figure S5. XPS survey spectrum of CoP-NPC.

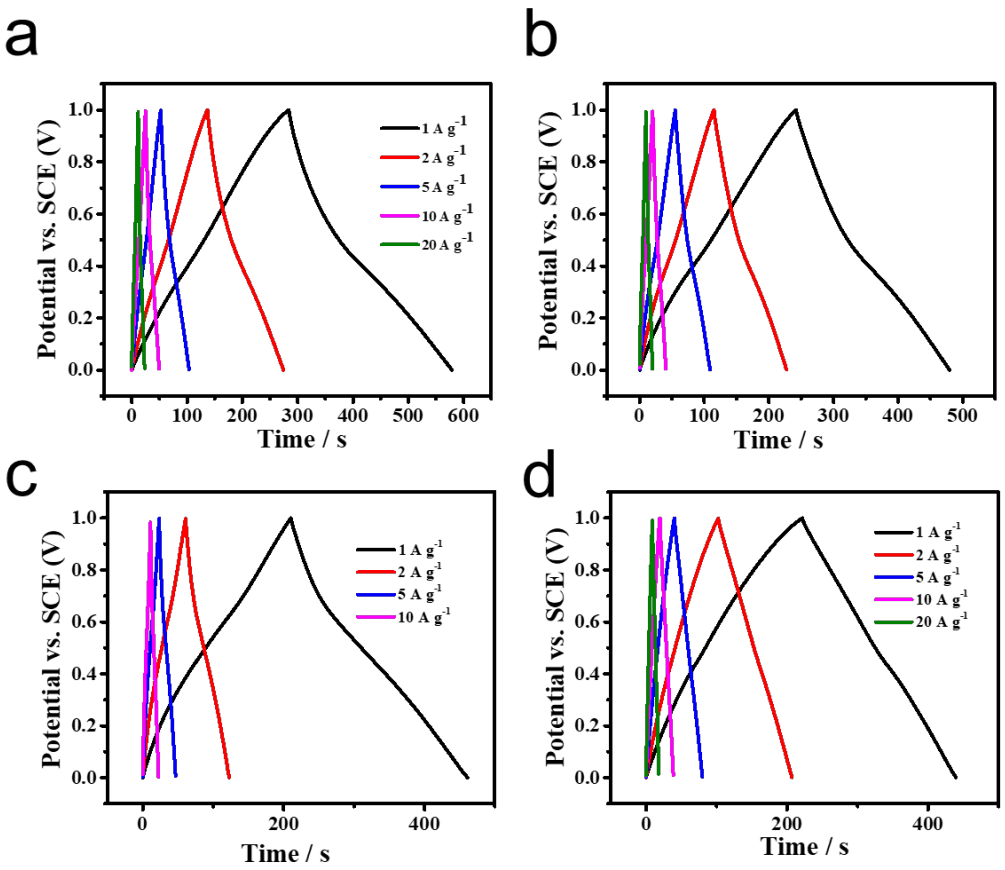

Figure S6. GCD curves of (a) CoP-NPC/RGO-1, (b) CoP-NPC/RGO-2, (c) Co-NPC/RGO and (d) CoP-NPC electrodes at different current densities.

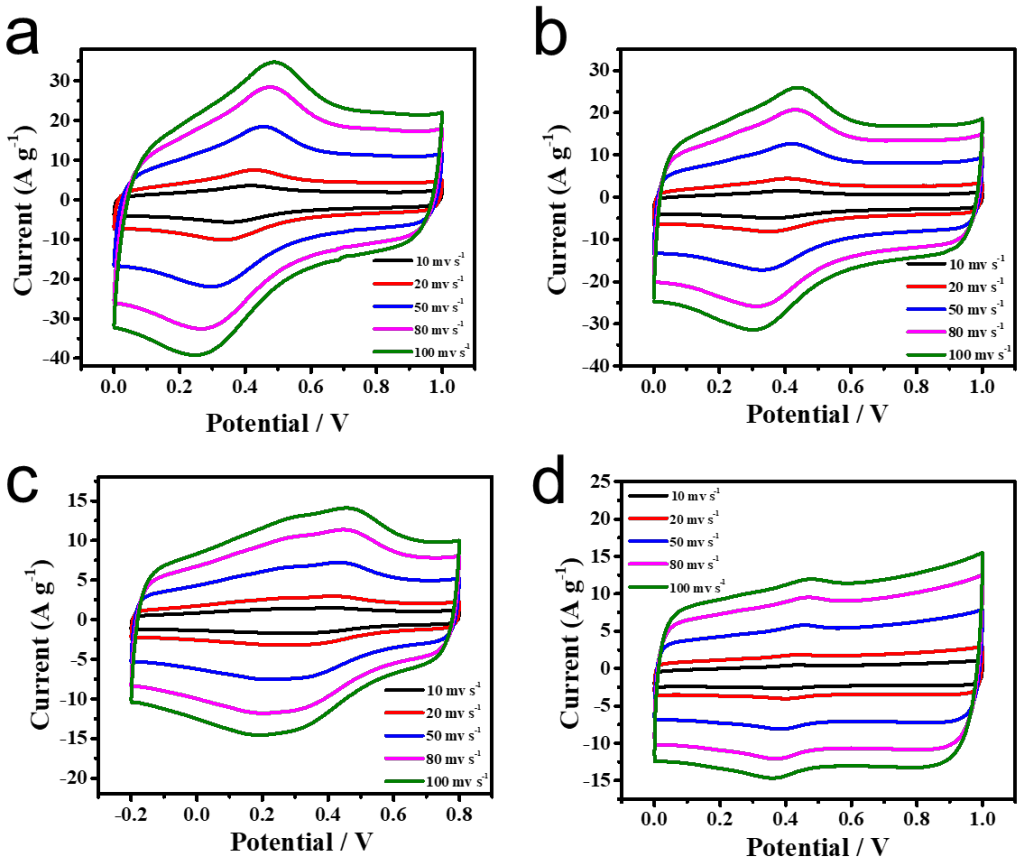

Figure S7. The CV curves of the as-prepared electrode materials of (a) CoP-NPC/RGO-1, (b) CoP-NPC/RGO-2, (c) Co-NPC/RGO and (d) CoP-NPC at various scan rates ranging from 10 to 100 mV s^{-1}.

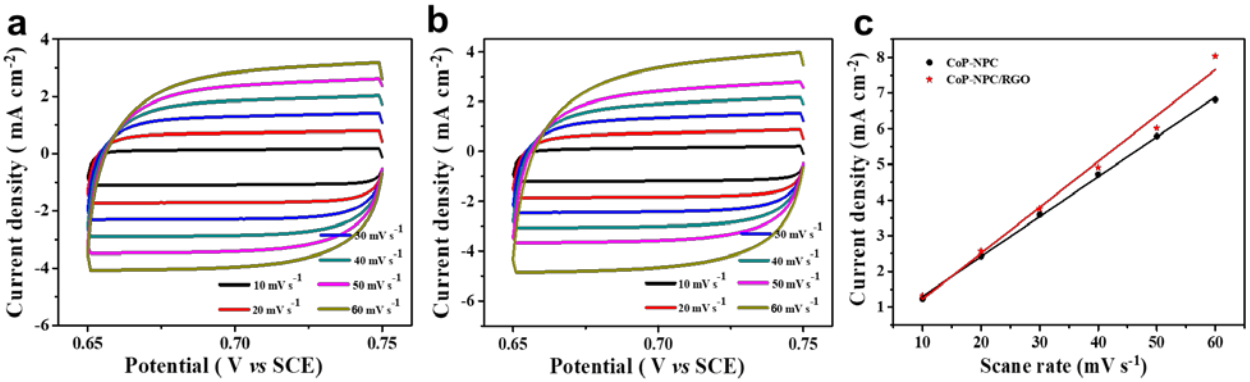

Figure S8. The CV curves of (a) CoP-NPC and (b) CoP-NPC/RGO at different scanning rates; (c) Double layer capacitance (C_{dl}) values obtained by plotting the current density vs scanning rate at 0.70 V.

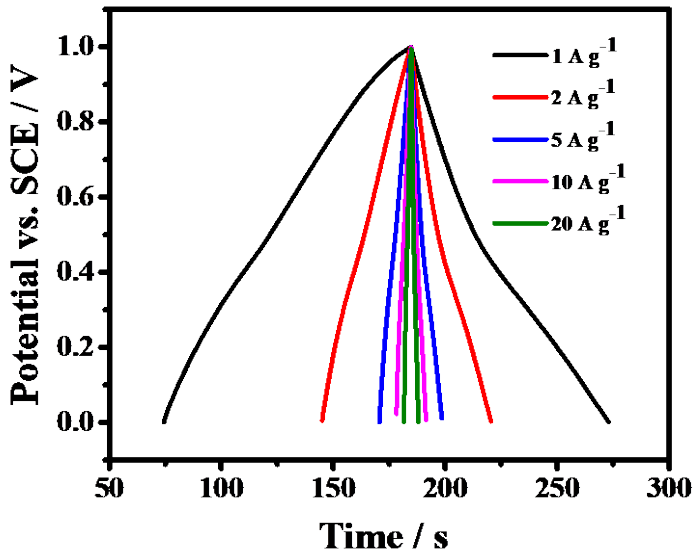

Figure S9. Electrochemical performances of CoP-NPC/RGO based symmetric supercapacitor measured in a 2032 coin-type system. Charge-discharge curves at different current densities.

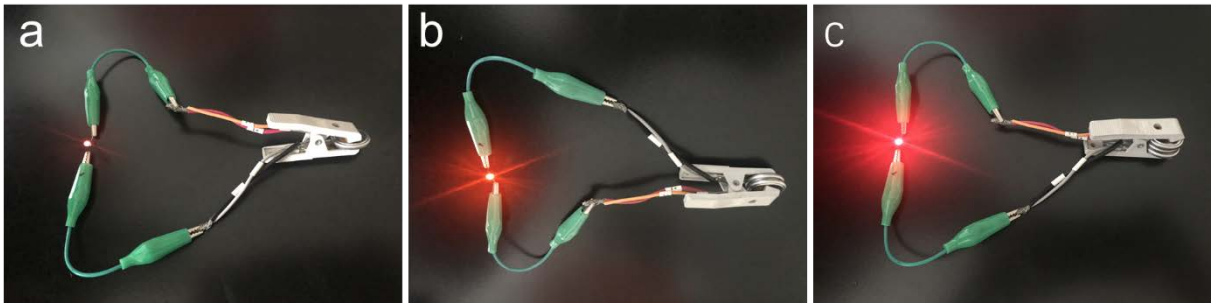

Figure S10. The digital pictures of the different numbers of coin-type cells light up the LED light.

Table 1. A comparison of the specific capacitances between the as-prepared CoP-NPC/RGO and other MOFs-derived electrode materials reported previously.

Sample	Electrolyte solution	Specific Capacitance	Refs.
N-doped porous carbon	1 M H_2SO_4	305 F g^{-1} at 1 A g^{-1}	34
Co/Zn-ZIF-derived NPC	0.5 M H_2SO_4	286 F g^{-1} at 2.5 A g^{-1}	35
TE-MOF5 derived NPC	6 M KOH	271 F g^{-1} at 0.25 A g^{-1}	36
MOF-2 derived NPC	1 M H_2SO_4	170 F g^{-1} at 1 A g^{-1}	37
NiO/Co_3O_4 hybrids	6 M KOH	405 F g^{-1} at 1 A g^{-1}	38
R- Co_3O_4	1 M KOH	329 F g^{-1} at 1 A g^{-1}	39
Co-BDC derived Co_3O_4	2 M KOH	137.2 F g^{-1} at 0.5 A g^{-1}	40
CoP-350 °C	6 M KOH	427.6 F g^{-1} at 1 A g^{-1}	41
CoP/CC	6 M KOH	342.8 F g^{-1} at 1 A g^{-1}	42
CoP-NPC/RGO	1 M H_2SO_4	**466 F g^{-1} at 1 A g^{-1}**	**This work**