

## Supporting Information

### **Nitrogen/Oxygen Co-doped Carbon Monolithic Electrode Derived from Melamine Foam for High-Performance Supercapacitors**

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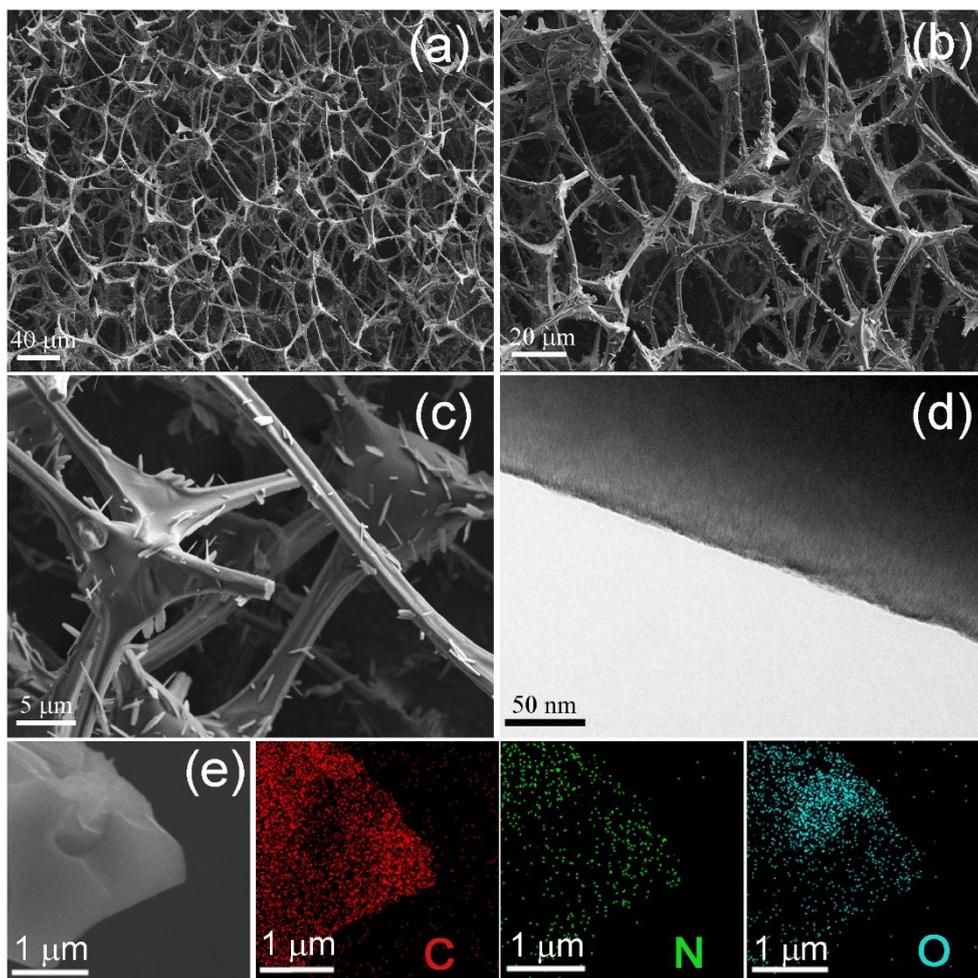
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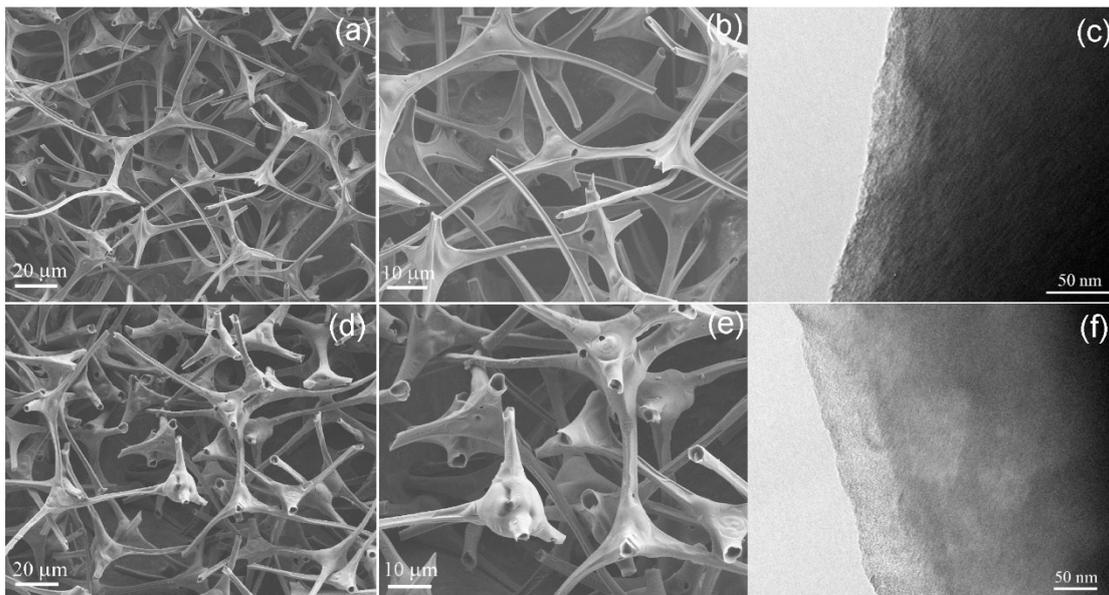
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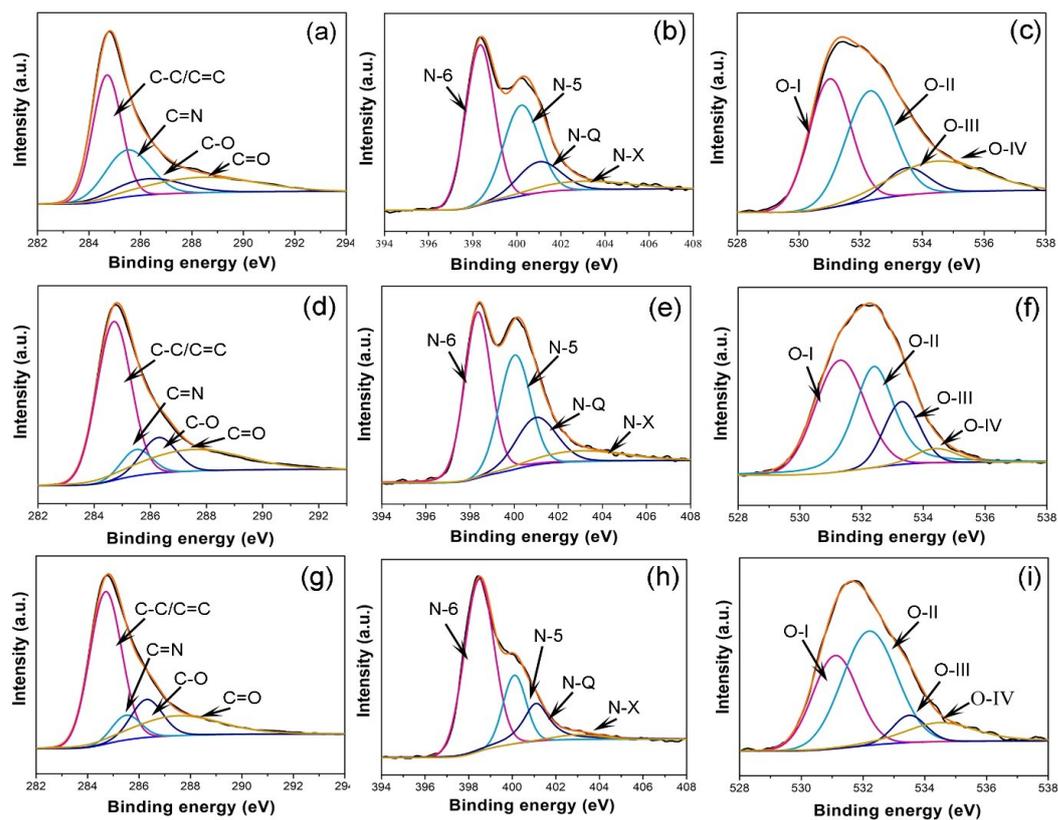
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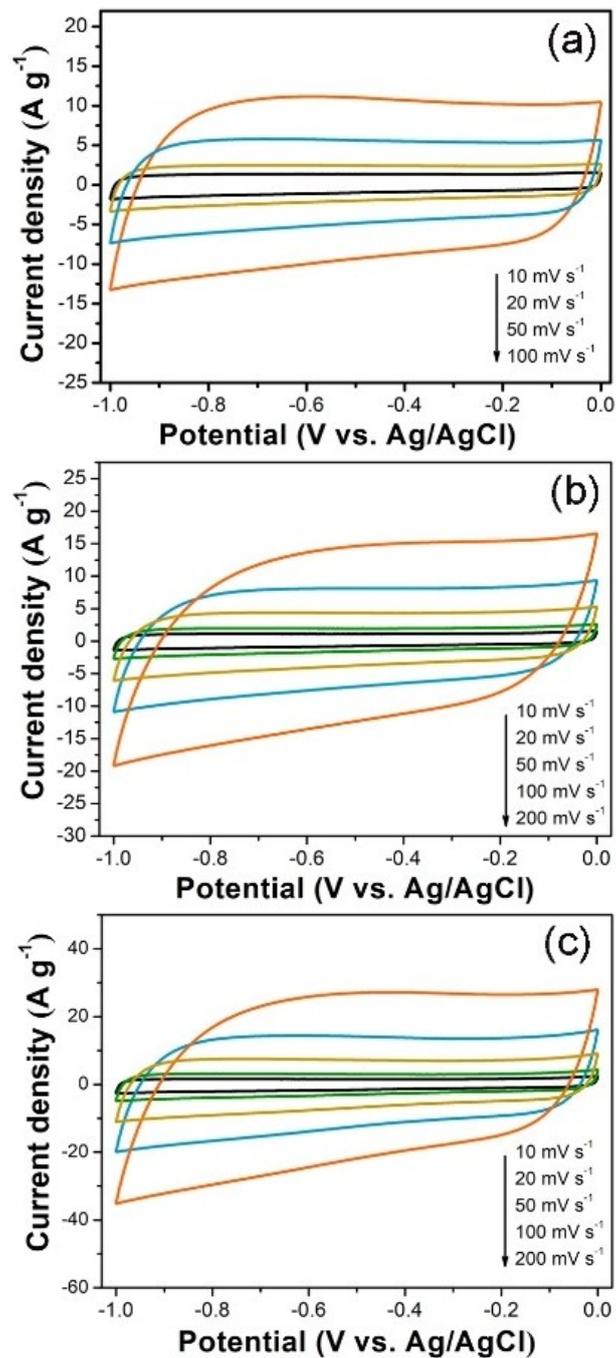
**Fig. S1** (a, b, c) SEM images, (d) TEM image, and (e) element mapping of NOCS-0.



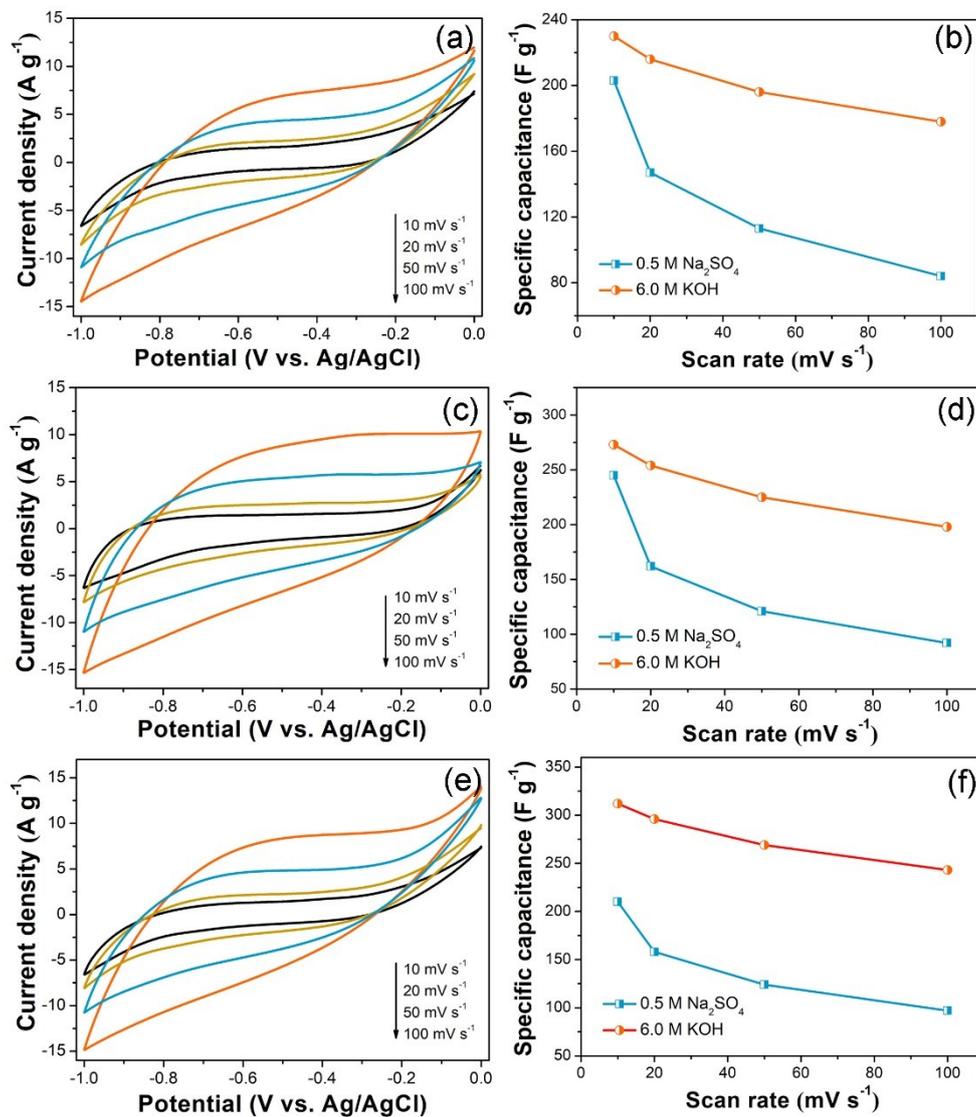
**Fig. S2** SEM and TEM images for (a, b, c) NOCS-1/20 and (d, e, f) NOCS-1/5.



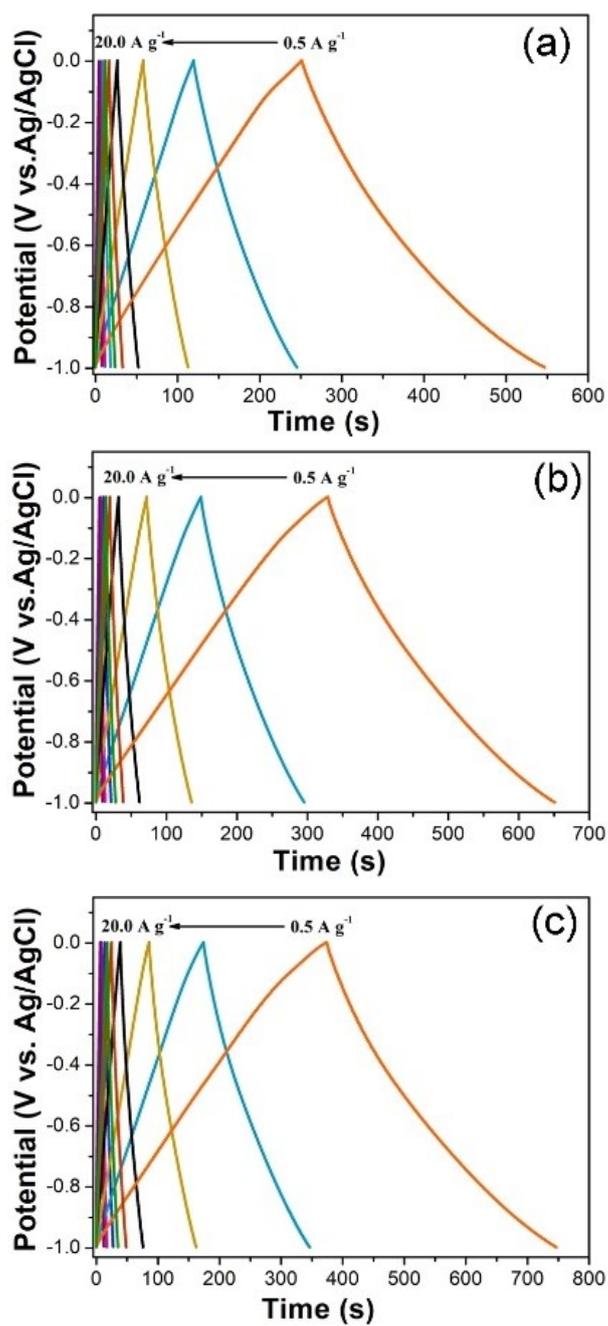
**Fig. S3** Peak-fitting XPS spectra of (a, d, g) C1s, (b, e, h) N1s, and (c, f, i) O1s for (a, b, c) NOCS-0, (d, e, f) NOCS-1/20, and (g, h, i) NOCS-1/5.



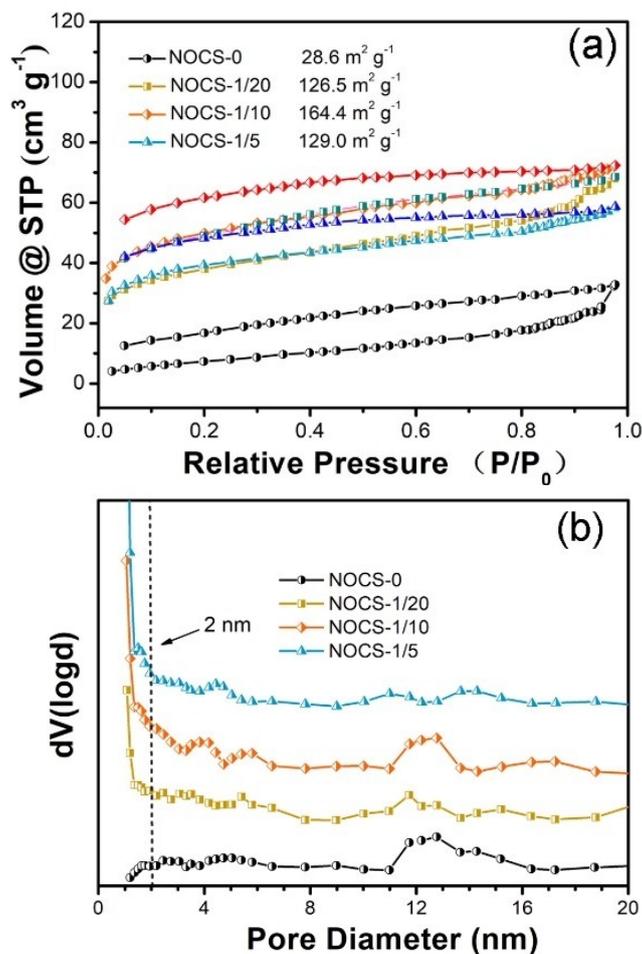
**Fig. S4** CV curves for (a) NOCS-0, (b) NOCS-1/20, and NOCS-1/5 at different scan rates in 6.0 M KOH.



**Fig. S5** CV curves for (a) NOCS-0, (c) NOCS-1/20, and (e) NOCS-1/5 at different scan rates in 0.5 M Na<sub>2</sub>SO<sub>4</sub>. Comparison of specific capacitances for (b) NOCS-0, (d) NOCS-1/20, and (f) NOCS-1/5 in 6.0 M KOH and 0.5 M Na<sub>2</sub>SO<sub>4</sub>.



**Fig. S6** GCD curves for (a) NOCS-0, (b) NOCS-1/20, and NOCS-1/5 at different current densities (0.5, 1.0, 2.0, 4.0, 6.0, 8.0, 10, 15, and 20 A g<sup>-1</sup>) in 6.0 M KOH solution.

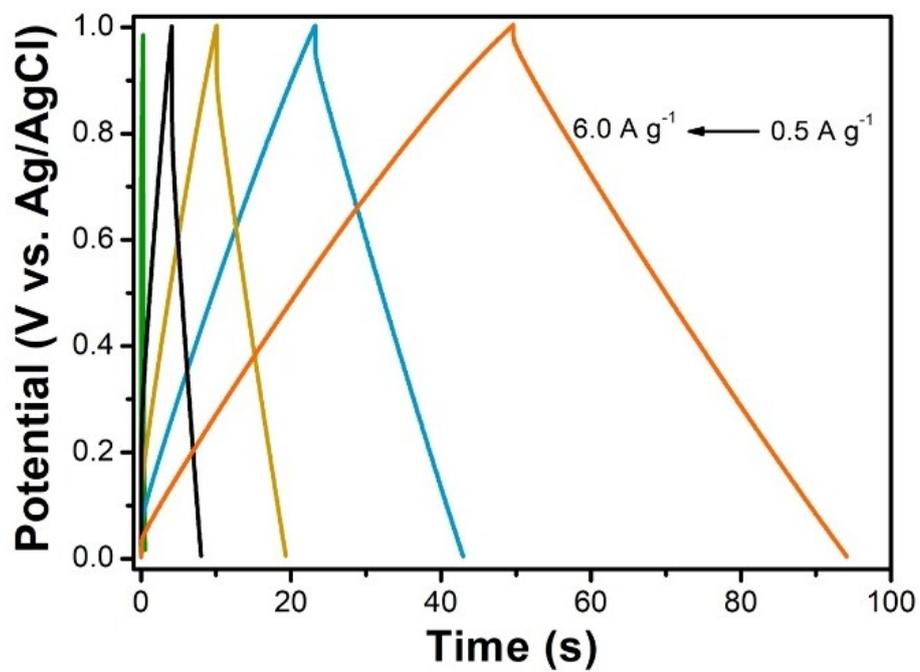


**Fig. S7** (a) N<sub>2</sub> adsorption/desorption isotherms and (b) BJH pore size distributions for NOCS-0, NOCS-1/20, NOCS-1/10, and NOCS-1/5.

**Table S1.** Pore structure parameters from N<sub>2</sub> adsorption/desorption isotherms.

Samples	<sup>a</sup> S <sub>total</sub> m <sup>2</sup> g <sup>-1</sup>	<sup>b</sup> S <sub>macro+meso</sub> m <sup>2</sup> g <sup>-1</sup>	S <sub>micro</sub> m <sup>2</sup> g <sup>-1</sup>	<sup>c</sup> V <sub>total</sub> cm <sup>3</sup> g <sup>-1</sup>	<sup>d</sup> V <sub>micro</sub> cm <sup>3</sup> g <sup>-1</sup>
NOCS-0	28.6	28.6	0	0.054	0
NOCS-1/20	126.5	54.6	71.9	0.105	0.036
NOCS-1/10	164.4	50.7	113.7	0.113	0.057
NOCS-1/5	129.0	39.8	89.2	0.090	0.044

<sup>a</sup>The total surface area (S<sub>total</sub>) and the surface area of micro-pores (S<sub>micro</sub>) were obtained from multipoint Brunauer–Emmett–Teller (BET) plots and V–t plots, respectively. <sup>b</sup>The surface area of the meso-/macro-pores (S<sub>meso+macro</sub>) was acquired by subtracting S<sub>micro</sub> from S<sub>total</sub>. <sup>c</sup>The total porevolume (V<sub>total</sub>) was determined at P/P<sub>0</sub> = 0.98, and <sup>d</sup>the micro-pore volume (V<sub>micro</sub>) was calculated from the V–t plot.



**Fig. S8** Galvanostatic charge-discharge curves of an all-solid-state supercapacitor assembled by NOCS-0 monolithic electrodes (current densities: 0.5, 1.0, 2.0, 4.0, and 6.0 A g<sup>-1</sup>).



**Fig. S9** The photograph of a red LED light illuminated by three NOCS-1/10 supercapacitors in series.