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Supporting information

Polyaniline/graphene/bacterial cellulose flexible electrodes for supercapacitor

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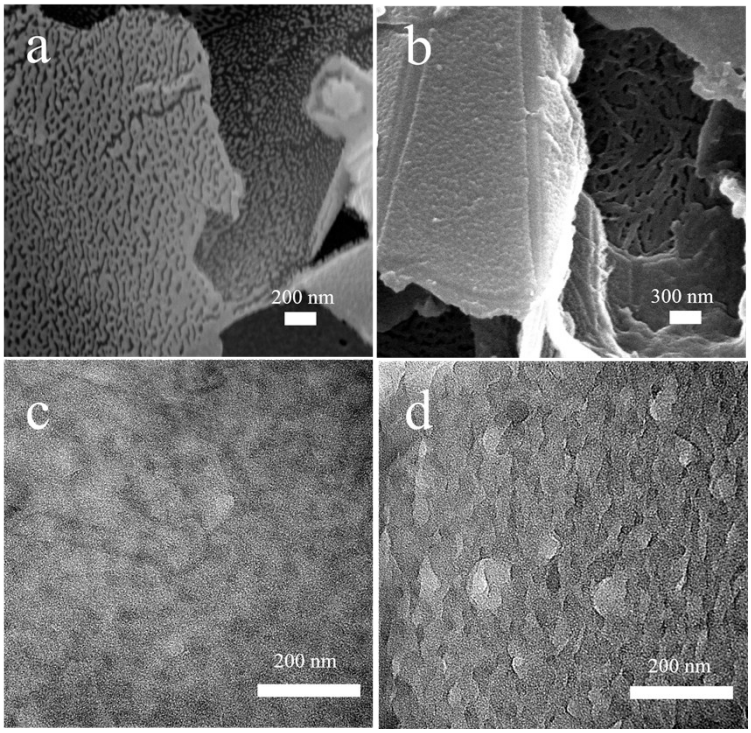

Fig. S1 (a,b) SEM images of (a) $PANL_L$/GN and (b) $PANL_M$/GN. (c,d) TEM images of (c) $PANL_L$/GN and (d) $PANL_M$/GN.

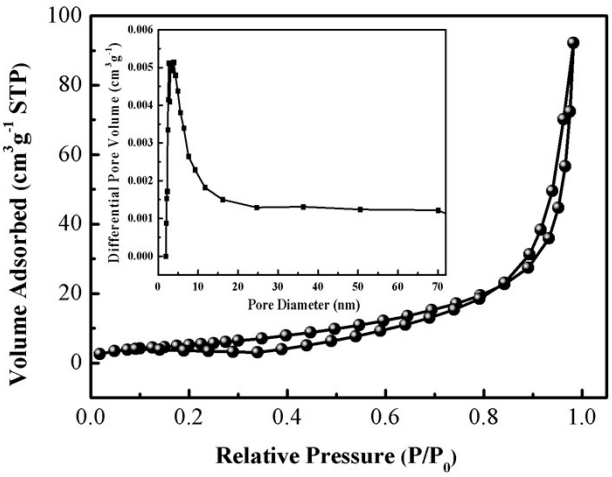

Fig. S2 Nitrogen adsorption-desorption isotherm and Pore size distribution (inset) of $PANI_{-H}$/GN.

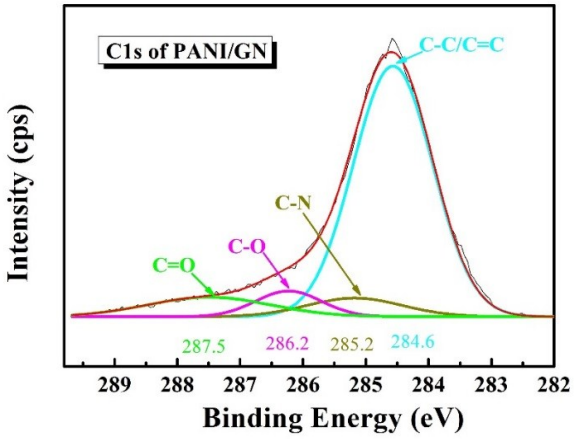

Fig. S3 High–resolution XPS spectra of the deconvoluted C1s spectra of $PANI_{-H}$/GN.

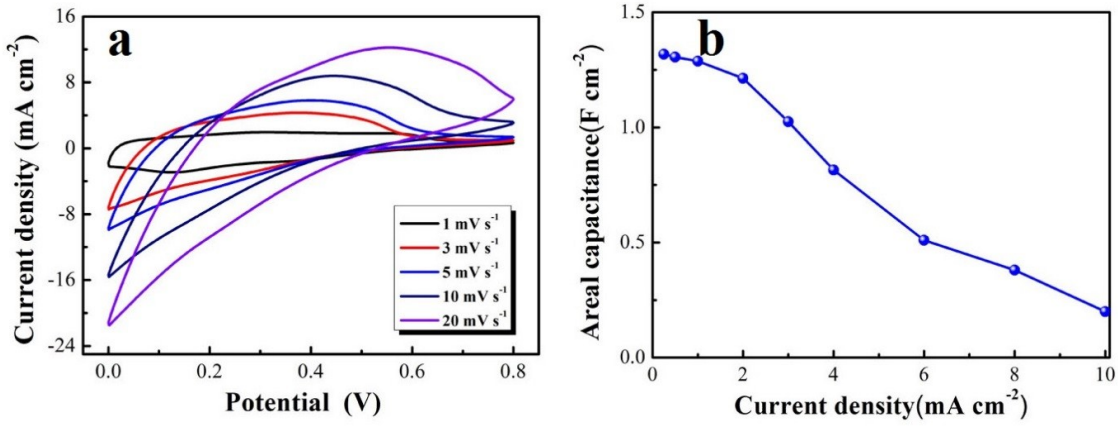

Fig. S4 (a) CV curves of $PANI_{-H}$/GN/BC symmetric supercapacitor measured at different scan rates.

(b) Areal capacitance at different current densities.

Table S1. Literature on flexible electrodes and flexible supercapacitors

Flexible materials	Mass /mg cm^{-2}	Capacitance /mF cm^{-2}	Capacitance /F g^{-1}	Cycle performance	Ref.
PANI/Carbon cloth electrode		787.4 (approach 0 mV s^{-1})	189.73	95 % after 10000 cycle	1
PANI/Au/Paper electrode	2	800 (1 mA cm^{-2})			2
CNT/PANI hydrogel electrode		680 (1 mA cm^{-2})			3
CNT/PANI hydrogel supercapacitor		184.6 (1 mA cm^{-2})			3
SWCNT/Cellulose/PANI electrode		330 (0.2 mAcm^{-2})	533	79 % after 1000 cycle	4
PANI/PVA hydrogel electrode	4	2320 (1 A g^{-1})		86 % after 1000 cycle	5
PANI/RGO/Graphite sheet electrode		1360	491	86 % after 3000 cycle	6
RGO/PANI supercapacitor		23		100% after 3000 cycle	7
PANI/Graphite nanosheets electrode	1	355.6 (0.5 mA cm^{-2})	355.6		8
PANI/Graphite supercapacitor	2	77.8 (0.1 mA cm^{-2})		83 % after 10000 cycle	8
PANI/RGO/Cellulose supercapacitor		5.86 (0.0043 mA cm^{-2})		78.3% after 1000 cycle	9
PANI/Co-MOF/carbon cloth electrode	4	2146（10 mV s^{-1}）	371	80% after 2000 cycle	10
PANI/RGO film		718	431	74 % after 500 cycle	11
PANI/GN/BC electrode	12.9	4160 (1 mA cm^{-2})	452.2	91.5 % after 2000 cycle	**This work**
PANI/GN/BC supercapacitor	12.9	1320 (0.25 mA cm^{-2})		90.2 % after 2000 cycle	**This work**

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