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### Supporting Information

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#### Flexible, high performance wet-spinning graphene fiber supercapacitors

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#### Formulas used in this report:

For CV calculation:  $C_a = A/(v^*u^*s)$ 

- A: integration of all CV curve.
- v: scan rate.
- u: potential drop.

s: surface area of one single fiber.

For galvanostatic charge and discharge calculation:  $C_a=2*(t_2-t_1)*I/(u *s)$ 

t2: ending time of the discharge curve of the cycle.

- t1: starting time of the discharge curve of the cycle.
- I: current.
- u: potential drop.
- s: surface area of one single fiber.

#### **Figures for supporting:**



Figure S1: CV curves for N<sub>2</sub>H<sub>4</sub>-GFSs at different scan rates.



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Figure S2: Galvanostatic charge and discharge curve for  $N_2H_4$ -GFSs at 0.1 mA/cm<sup>2</sup>.



Figure S3: Galvanostatic charge and discharge curve for HI-GFSs at 0.25 µA/cm.

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**Figure S4:** Photographs of flexible GFSs at different bending angles. a) 0 °, b) 90 °, c) 180 °.



Figure S5: Galvanostatic charge and discharge curve for 20 cm long HI-GFSs at 1µA.