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Graphene based linear tandem micro-supercapacitors

We demonstrate the printable fabrication of new-type planar graphene-based linear tandem micro-supercapacitors (LTMSs) on diverse substrates with symmetric and asymmetric configuration, high-voltage output, tailored capacitance and outstanding flexibility. The resulting graphene-based LTMSs consisting of 10 single device present a high-voltage output of 8 V, the layer by layer graphene/conductive polymer-based LTMSs show enhanced capacitance and the asymmetric LTMSs exhibit higher output voltage and energy density. This work offers numerous opportunities for one-step scalable fabrication of flexible tandem energy storage devices.

References

- [1] X. Shi, Z.-S. Wu, J. Qin, S. Zheng, S. Wang, F. Zhou, C. Sun and X. Bao, *Adv. Mater.* 29 (2017), 1703034.

Figures

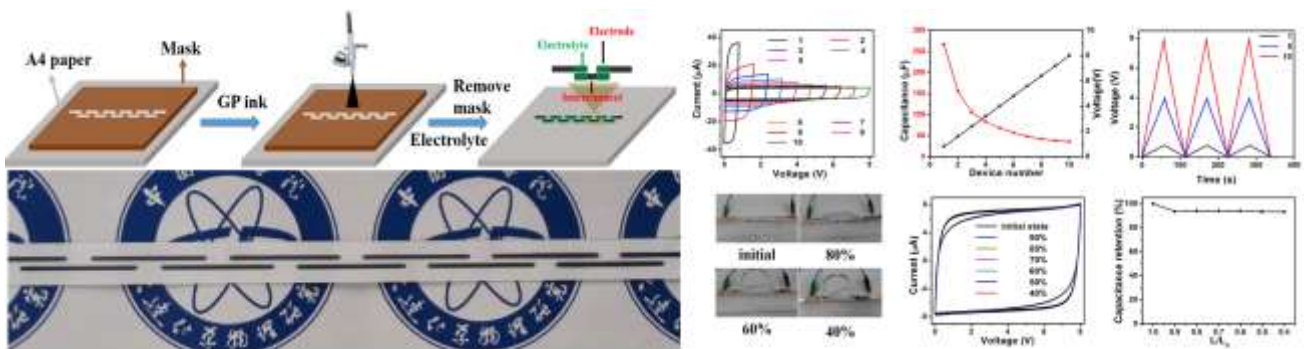


Figure 1: Fabrication schematic and electrochemical performances of graphene based linear tandem micro-supercapacitors consisting of 10 single device.

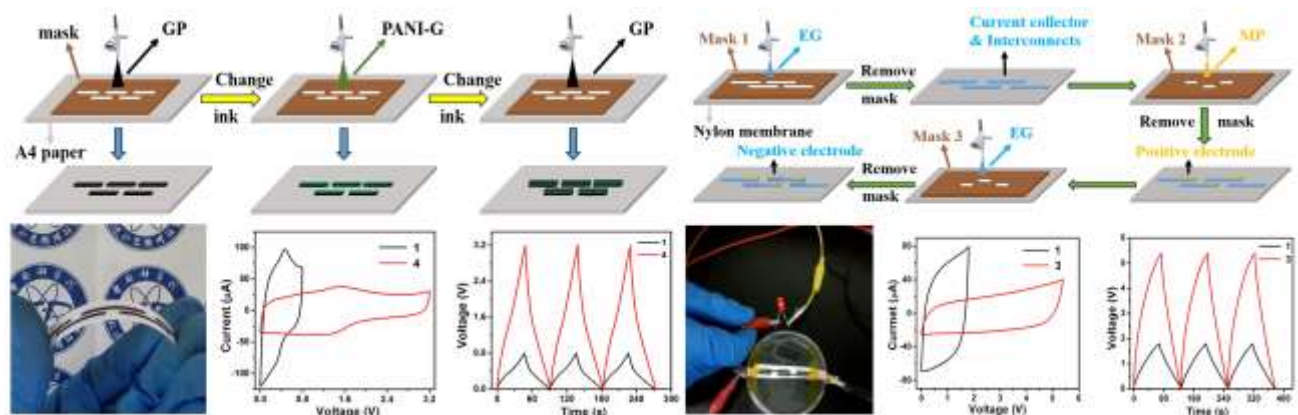


Figure 2: Fabrication schematic and electrochemical performances of high-capacitance and asymmetric graphene based linear tandem micro-supercapacitors.