

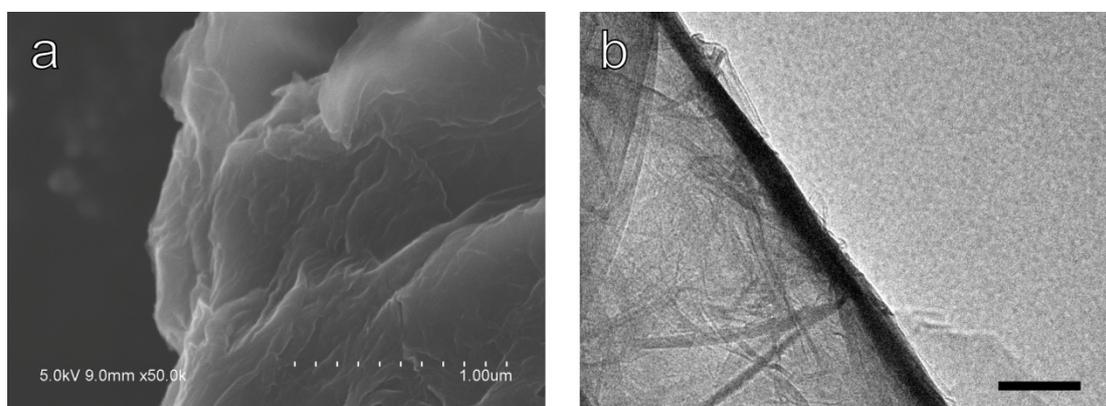
## Supplementary Information

### Synthesis of Hydrophilic poly-*L*-lysine/Graphene hybrid through Multiple Non-Covalent Interactions for Biosensors

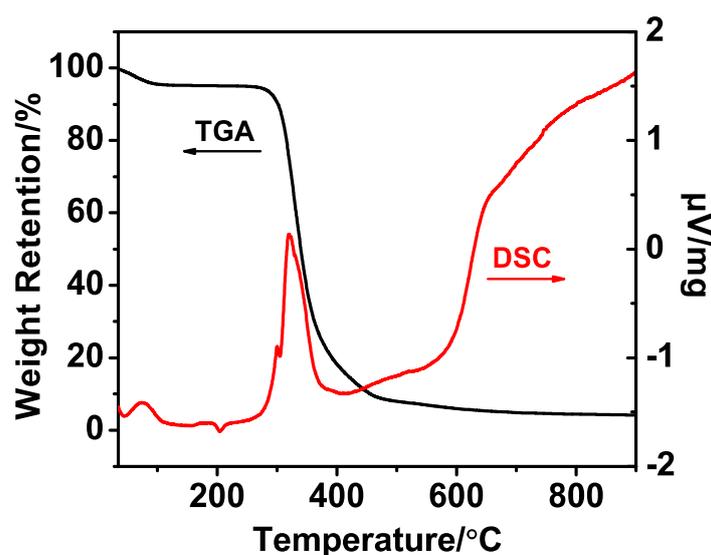
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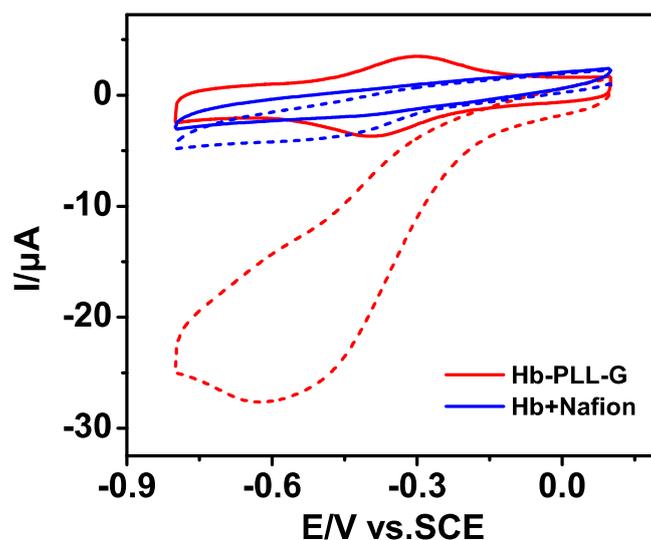
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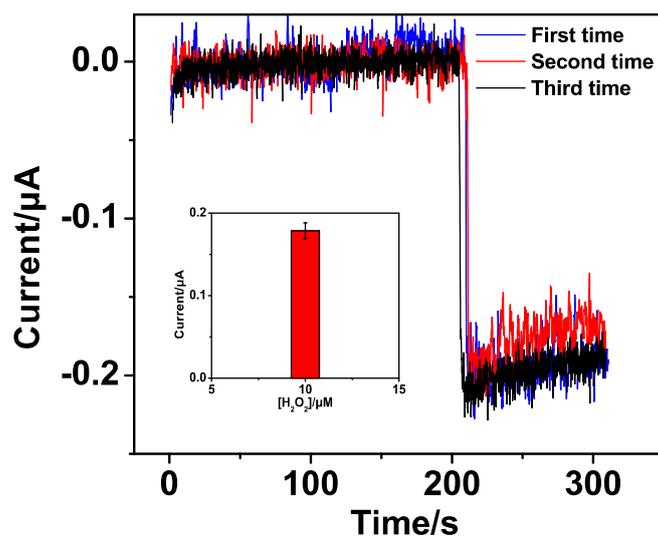
**Fig. S1** SEM (a) and TEM (b) images of the chemically converted graphene with storage of 10 h. Scale bar in (b): 100 nm.



**Fig. S2** TGA (black curve) and DSC (red curve) plots of PLL at a scan rate of 10 °C per minute in N<sub>2</sub> atmosphere.



**Fig. S3** Cyclic voltammograms of the modified electrodes in PBS (20 mM pH=7.0, scan rate 100 mV/s). Hb-PLL-G/GC and Hb+Nafion/GC electrodes in N<sub>2</sub>-saturated PBS before (solid curves) and after (dashed curves) adding 2 mM H<sub>2</sub>O<sub>2</sub>.



**Fig. S4** Three repeated current responses of the Hb-PLL-G/GC electrode at -0.35 V (vs. SCE) with injecting 10 μM H<sub>2</sub>O<sub>2</sub> into 10 mL N<sub>2</sub>-saturated PBS (20 mM, pH=7.0). Inset shows the corresponding standard deviation.