

Electronic Supplementary Information (ESI)

## Facile synthesis of nickel network supported three-dimensional graphene gel as a lightweight and binder-free electrode for high rate performance supercapacitor application

Haifu Huang, Lianqiang Xu, Yanmei Tang, Shaolong Tang,\* and Youwei Du

The areal specific capacitance was obtained from the discharge process according to the following equation:  $C_s = 2 I / (dV/dt)$ , where  $I$  is the applied current density ( $A\ cm^{-2}$ ), and  $dV/dt$  is the slope of the discharge curve ( $V/s$ ).

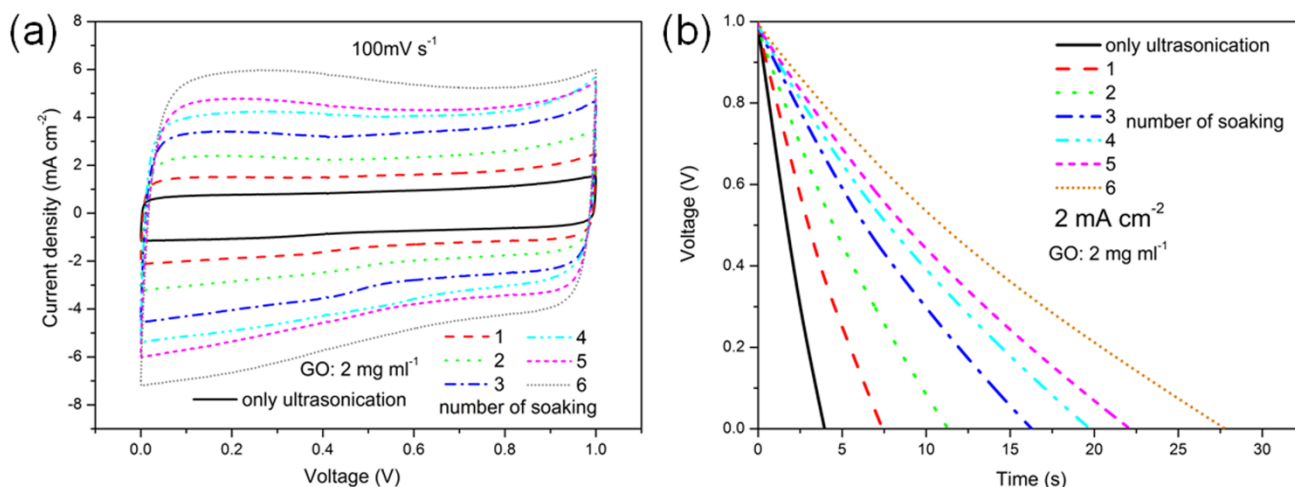


Fig. S1 CV curves and GCD curves of G-gel@NF-1 at different soaking times with  $2\text{ mg ml}^{-2}$  of GO

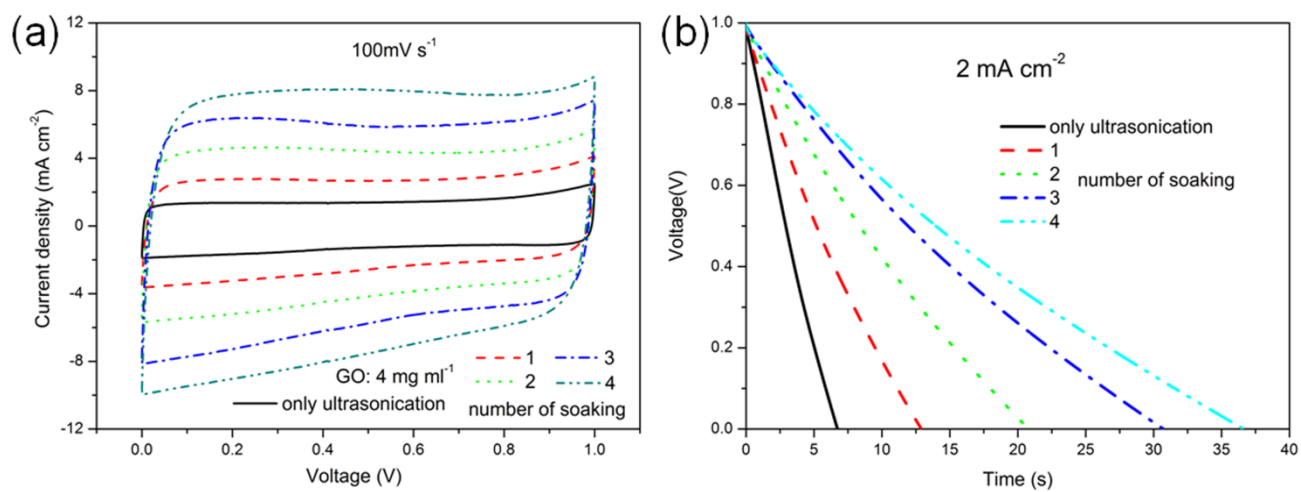


Fig. S2 CV curves and GCD curves of G-gel@NF-1 at different soaking times with 4 mg ml<sup>-2</sup> of GO