Supplementary Information

Carbon nanotubes reinforced polypyrrole nanowires network as high-performance supercapacitor electrode

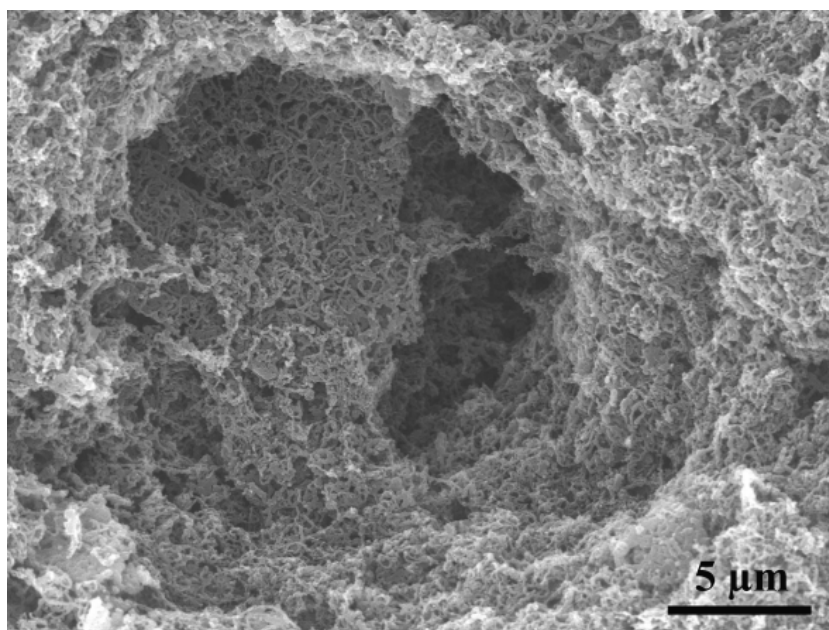Hai Fu, Zhongjie Du, Wei Zou, Hangquan Li and Chen Zhang*

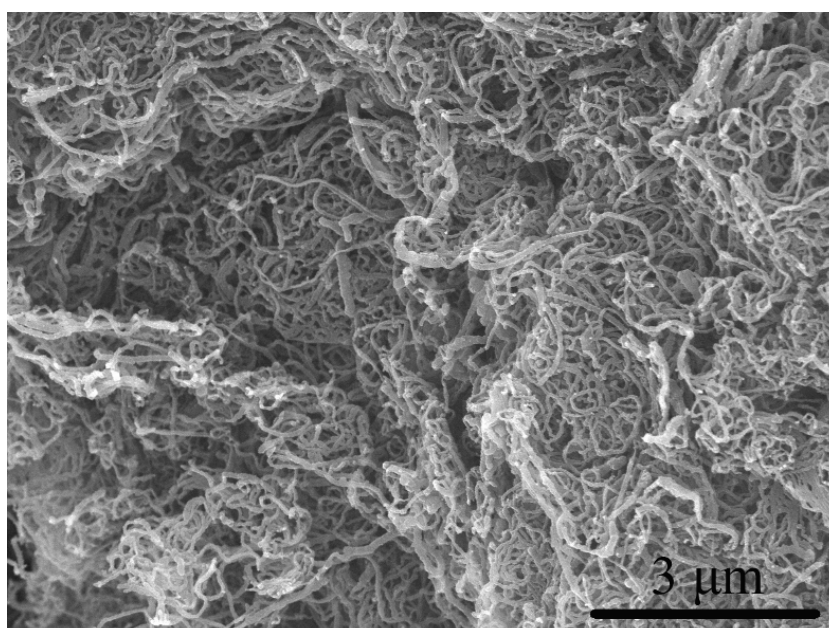**Fig. S1.** SEM image of PPy-NWs network at a low magnification.

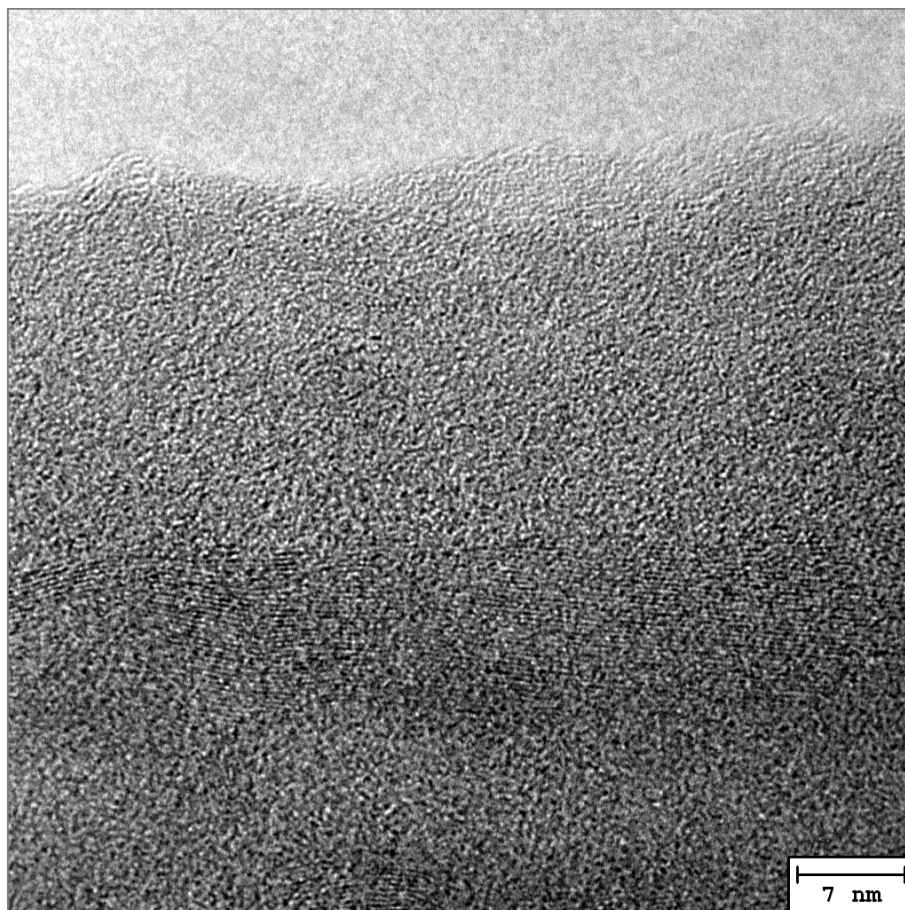**Fig. S2.** SEM image of CPN-1 at a low magnification.

Fig. S3. HR-TEM image of CNT-embedded PPy nanowires network in CPN-1 sample.
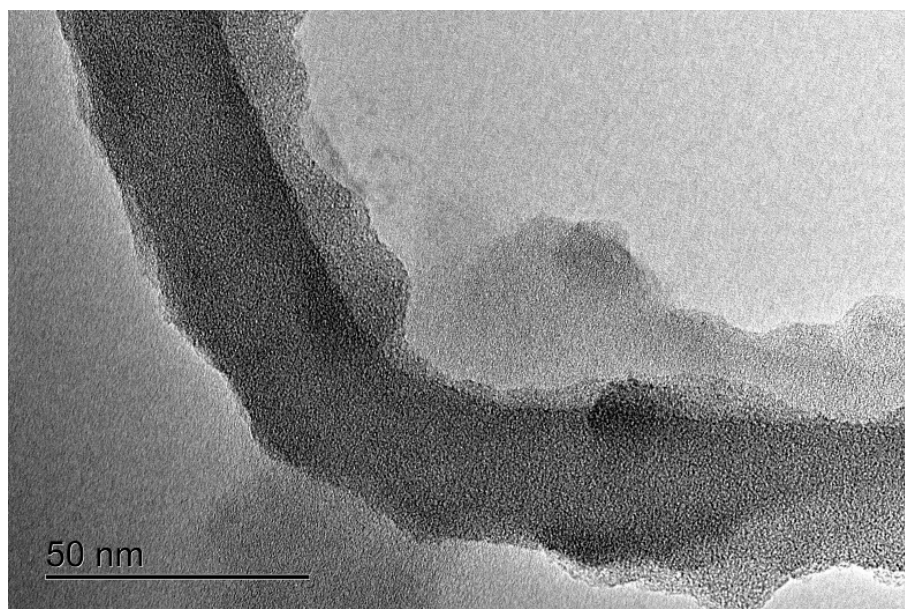

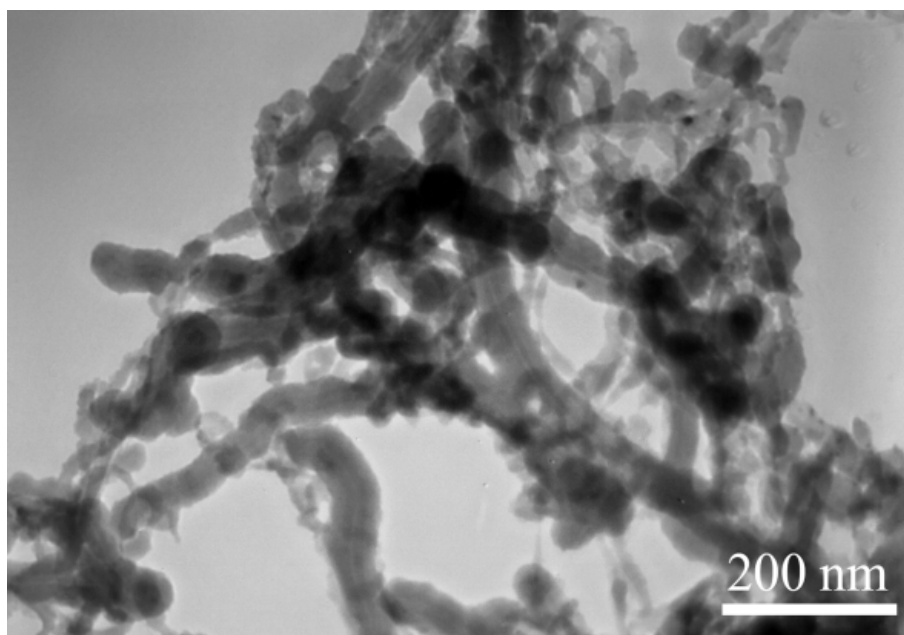**Fig. S4.** TEM image of a single PPy nanowire in CPN-1 sample.
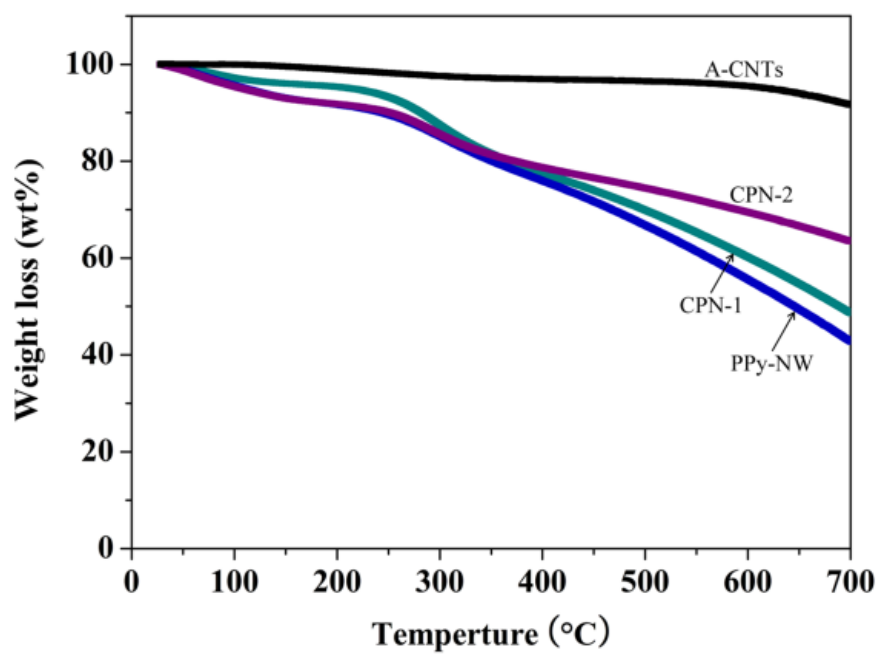
Fig. S5. TEM image of CPN-2 sample.

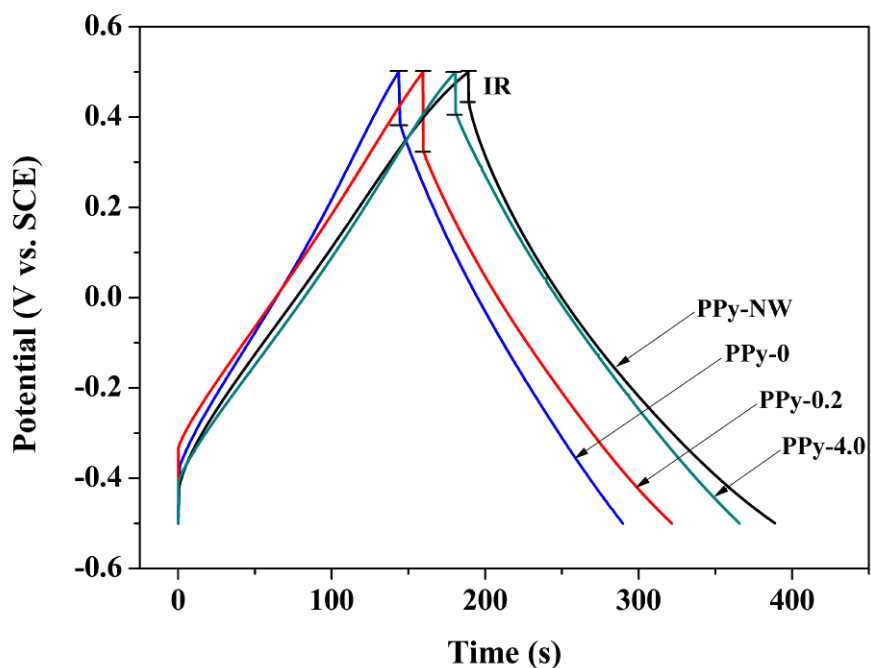**Fig. S6.** TG curves of PPy-NW, CPN-1, CPN-2, and A-CNTs.

Fig. S7. Representative galvanostatic charge/discharge curves at a 1 A g^{-1} of current density of PPy-0, PPy-0.2, PPy-NW, and PPy-4.0 electrodes.

Table S1. Comparison of PPy-0, PPy-0.2, PPy-NW, and PPy-4.0 electrodes for specific capacitance (C_m) and IR drop at a 1 A g^{-1} of current density.

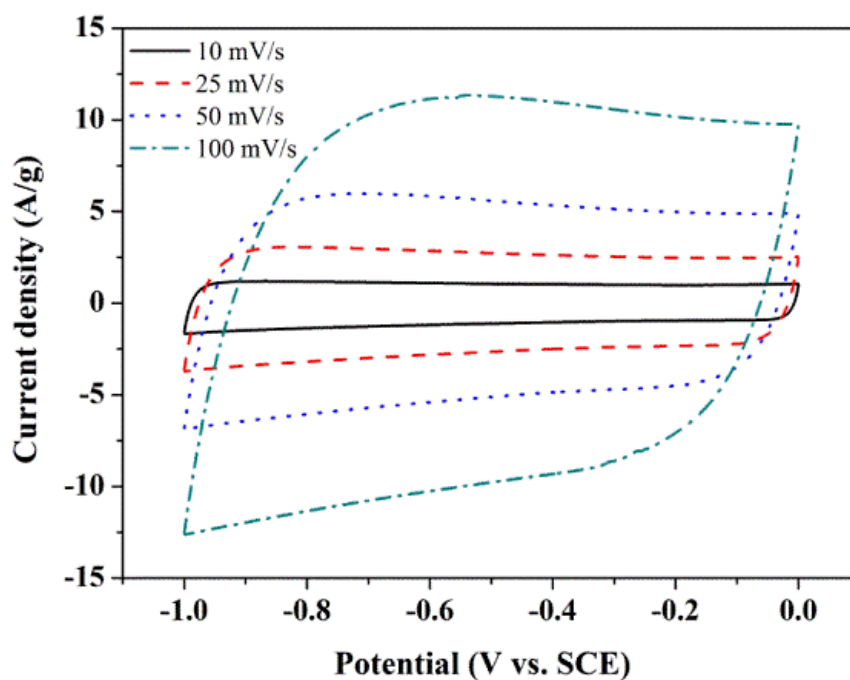| Samples	PPy-0	PPy-0.2	PPy-NW	PPy-4.0
C_m/F g^{-1}	147	163	201	186
IR/v	0.115	0.174	0.059	0.088

Fig. S8. Cyclic voltammograms of AC electrode at the different scan rates in 1 mol L^{-1} KCl solution.
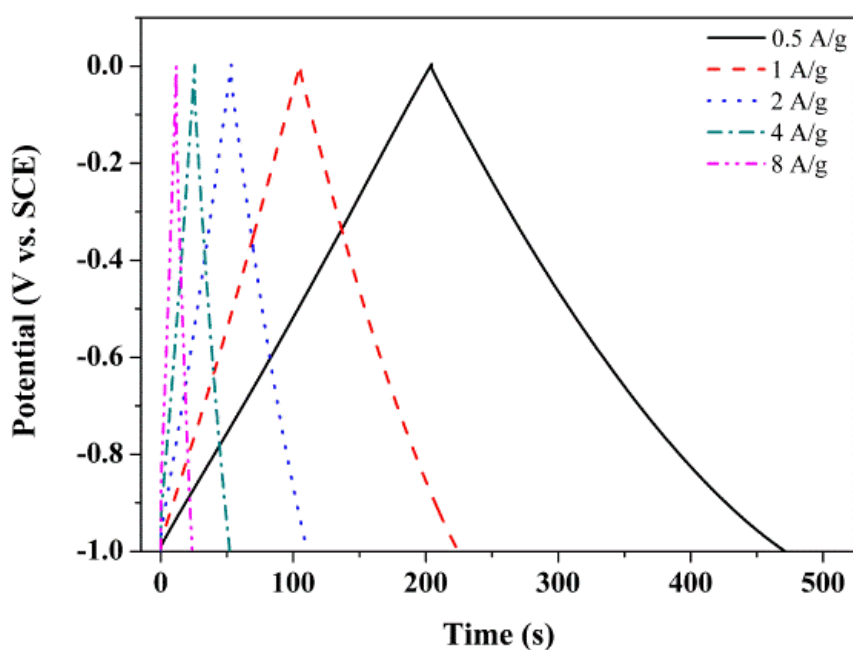

Fig. S9. Galvanostatic charge/discharge curves of AC electrode at the different current densities.