Electronic Supplementary Information:

Flexible graphene/polyaniline composite paper for high-performance supercapacitor

Huai-Ping Cong\textsuperscript{a,b}, Xiao-Chen Ren\textsuperscript{a}, Ping Wang\textsuperscript{a} and Shu-Hong Yu\textsuperscript{a,*}

\textsuperscript{a} Prof. Dr. S. H. Yu, Dr. Huai-Ping Cong, Mr. Xiao-Chen Ren, Ms. Ping Wang, Division of Nanomaterials & Chemistry, Hefei National Laboratory for Physical Sciences at Microscale, Department of Chemistry, the National Synchrotron Radiation Laboratory, University of Science and Technology of China, Hefei 230026, P. R. China
E-mail: shyu@ustc.edu.cn, Fax: 0086 551 63603040

\textsuperscript{b} School of Chemical Engineering, Hefei University of Technology, Anhui Key Laboratory of Controllable Chemical Reaction & Material Chemical Engineering, Hefei, Anhui 230009, P. R. China

\textbf{Fig. S1} SEM images with different magnifications of the cross section of the graphene paper.
**Fig. S2** XRD patterns of GO powder and graphene paper.

**Fig. S3** (a) XPS spectrum of graphene paper. (b) Core-level C1s XPS spectrum of graphene paper. (c) XPS spectrum of graphene/PANI paper. (d) Core-level C1s XPS spectrum of graphene/PANI paper.
**Fig. S4** SEM images of the surface of the graphene/PANI composite papers with different electropolymerization times. (a) 2 min; (b) 5 min; (c) 10 min; (d) 15 min.

**Fig. S5** Recorded current response during the electropolymerization process.
**Fig. S6** Galvanostatic charge-discharge curves at different current densities. (a) graphene paper; (b) PANI film on the Pt electrode.