Supporting Information for

**Soft-templated LiFePO\textsubscript{4}/mesoporous carbon nanosheets (LFP/meso-CNSs) nanocomposite as the cathode material of lithium ion batteries**

Ruofei Wu, Guofeng Xia, Shuiyun Shen, Fengjuan Zhu, Fengjing Jiang, Junliang Zhang*

Institute of Fuel Cells, MOE Key Laboratory of Power & Machinery Engineering, Shanghai Jiao Tong University, Dongchuan Road 800, 200240, Shanghai, China.

*Email: junliang.zhang@sjtu.edu.cn

**Fig. S1** Thermogravimetric analysis (TGA) curve of LFP/meso-CNSs nanocomposite at a heating rate of 5 °C/min under a flow of air.

**Fig. S2** AFM image of the remaining CNSs obtained by removing LFP from the LFP/meso-CNSs nanocomposite using concentrated HCl solution.
**Fig. S3** Raman spectrum of the remaining CNSs obtained by removing LFP from the LFP/meso-CNSs nanocomposite using concentrated HCl solution.

**Fig. S4** (a) Typical SEM image, (b-c) TEM images of the LFP/mesoporous carbon with the ratio of (70 wt%wt30%), (d) Corresponding EDS spectrum.

**Fig. S5** Rate performance of the bare LFP electrode. The inset is TEM image of the bare LFP.
**Fig.S6** EIS profiles of the bare LFP electrode in freshly assembled test cell and after 3 cycles.

**Fig.S7** Schematic representation of soft-templated LFP/meso-CNSs nanocomposite cathode.