## Supplementary Information

## Microwave-assisted non-aqueous homogenous precipitation of nanoball-like mesoporous $\alpha$ -Ni(OH)<sub>2</sub> as precursor for NiO<sub>x</sub> and its application for pseudocapacitor

Xianqing Tian,<sup>*a*</sup> Changming Cheng,<sup>*b*</sup> Lei Qian,<sup>*a*</sup> Baozhan Zheng,<sup>*a*</sup> Hongyan Yuan,<sup>*b*</sup> Shunping Xie,<sup>*c*</sup> Dan Xiao<sup>\**a,b*</sup> and Martin M. F. Choi<sup>\*\**c*</sup>

<sup>a</sup> College of Chemistry and <sup>b</sup> College of Chemical Engineering, Sichuan University, 29 Wangjiang Road, Chengdu 610064, China. E-mail: <u>xiaodan@scu.edu.cn</u>; Fax: +86-28-85415029; Tel: +86-28-85416029

<sup>c</sup> Department of Chemistry, Hong Kong Baptist University, 224 Waterloo Road, Kowloon Tong, Hong Kong SAR, China. E-mail: <u>mfchoi@hkbu.edu.hk</u>; Fax: +852-34117348; Tel.: +852-34117839

The SC calculated from the CV scan and discharge portion of chronopotentiometric curves is about 60 F g<sup>-1</sup>. The typical mass load of NiO<sub>x</sub>-modified electrode and AC negative electrode is 5 and 55 mg. The balance ratio was calculated using the 60 F g<sup>-1</sup> SC for the AC and 650 F g<sup>-1</sup> SC for the NiO<sub>x</sub> material.



Fig. S1. Typical (A) CV and (B) chronopotentiometric curves of AC negative electrode in 6 M KOH solution.