Supporting Information

Morphology control of CoCO$_3$ Crystals and Their Conversion to mesoporous Co$_3$O$_4$ for Alkaline Rechargeable Batteries Application

Hongmei Du, Lifang Jiao,* Qinghong Wang, Qingna Huan, Lijing Guo, Yuchang Si, Yijing Wang, and Huatang Yuan

Institute of New Energy Material Chemistry, Key Laboratory of Advanced Energy Materials Chemistry (MOE), Nankai University, Tianjin 300071, P.R. China, Tel.: +86 22 23498089; fax: +86 22 23502604; E-mail: jiaolf@nankai.edu.cn.

Figure S1. XRD patterns of the CoCO$_3$ crystals prepared at different reaction times.
Figure S2. Enlarged XRD patterns of sample S4-5 at different charged-discharged states.
Figure S3. (a) Cycle life of sample S4-4 (EG/H$_2$O=4/1, 400 °C) electrode at a current density of 100 mA g$^{-1}$; (b) N$_2$ adsorption-desorption isotherm and BJH pore-size distribution plot of sample S4-4.