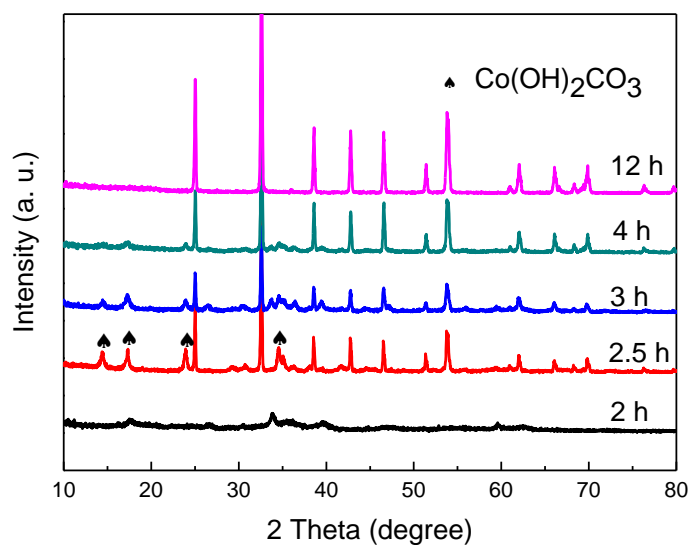


## Supporting Information

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

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**Figure S1.** XRD patterns of the  $\text{CoCO}_3$  crystals prepared at different reaction times.

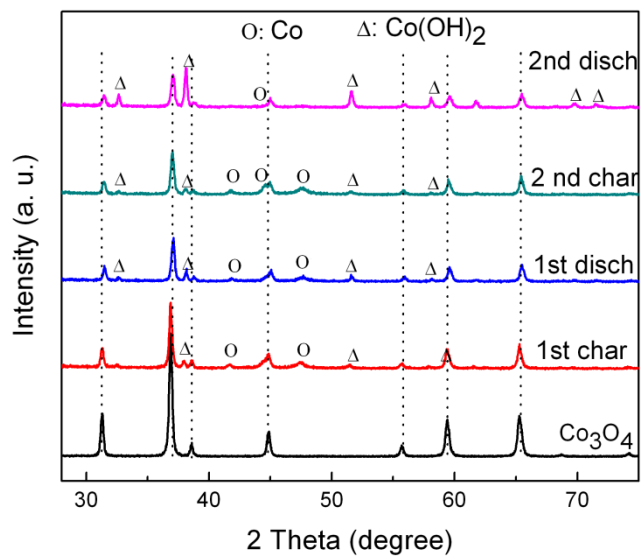
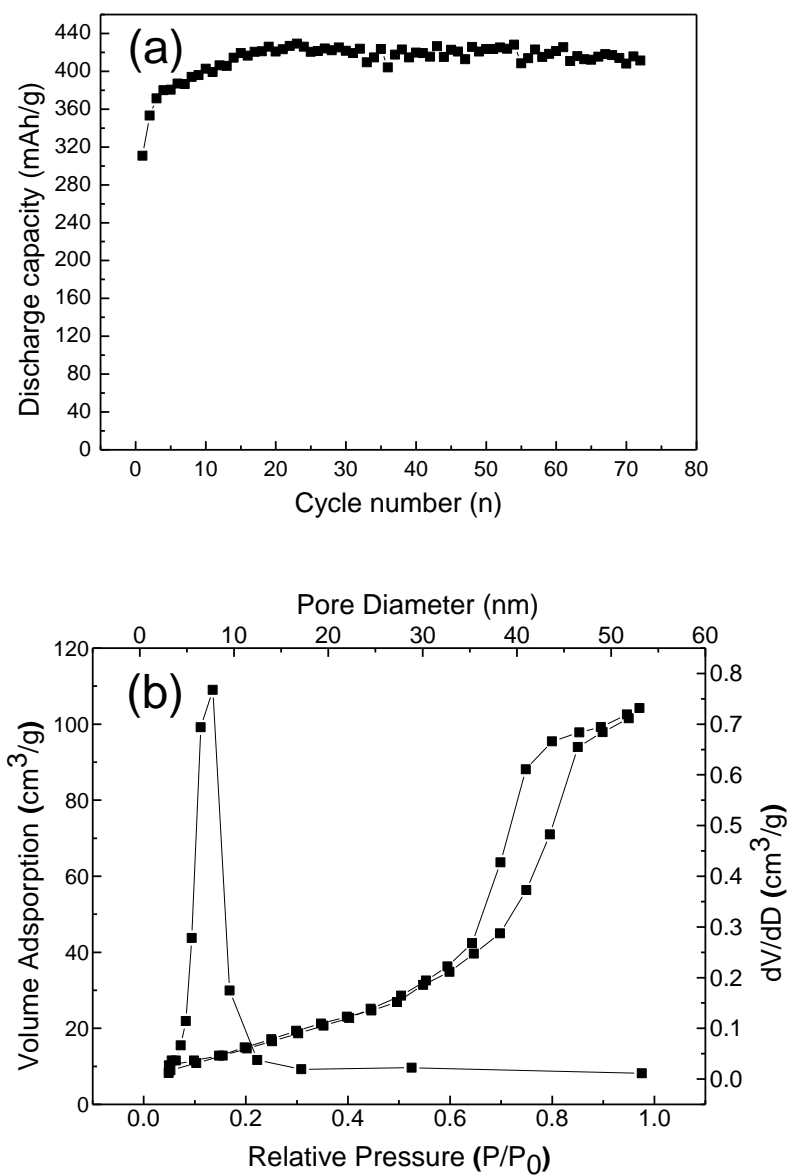


Figure S2. Enlarged XRD patterns of sample S4-5 at different charged-discharged states.



**Figure S3.** (a) Cycle life of sample S4-4 (EG/H<sub>2</sub>O=4/1, 400 °C) electrode at a current density of 100 mA g<sup>-1</sup>; (b) N<sub>2</sub> adsorption-desorption isotherm and BJH pore-size distribution plot of sample S4-4.