Electronic Supplementary Information

**Hematite nanodiscs exposing (001) facet: Synthesis, formation mechanism and application for Li-ion battery**

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Fig. ESI 1 TEM images of Fe$_2$O$_3$ nanodiscs after cycling. The nanodiscs generally maintained the morphology and size after the electrochemical cycling, but their became porous and their smooth surface became rough due to the conversion reaction.