

## Electronic Supplementary Information

# Nanocomposites of hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) nanospindles with crumpled reduced graphene oxide nanosheets as high-performance anode material for lithium-ion batteries

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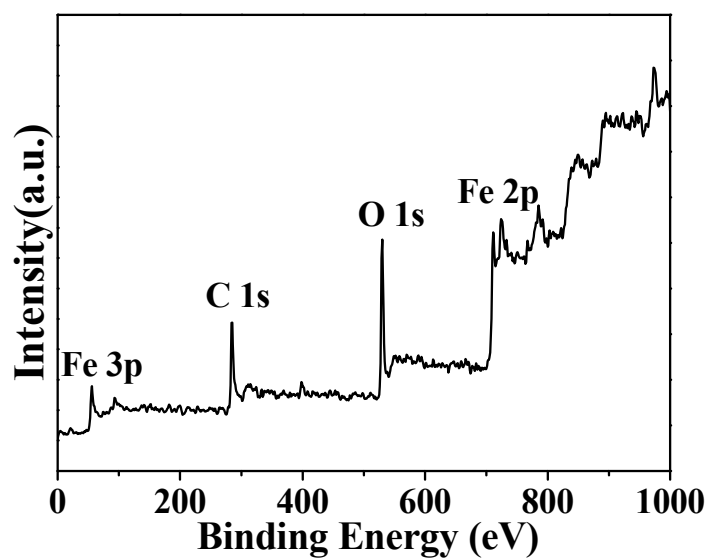


Fig. S1 XPS spectrum of RGO-Fe<sub>2</sub>O<sub>3</sub> nanocomposite.

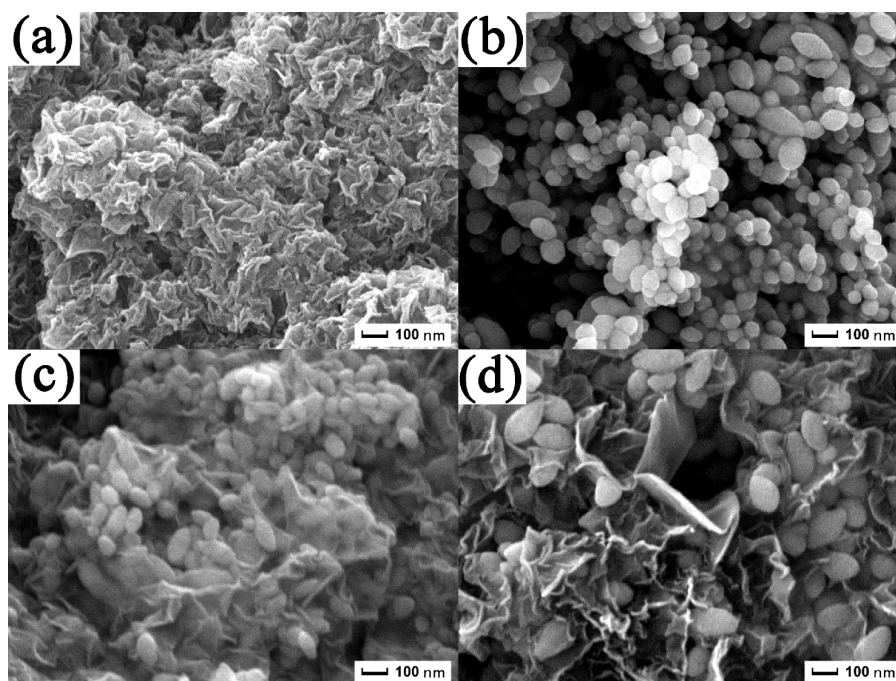
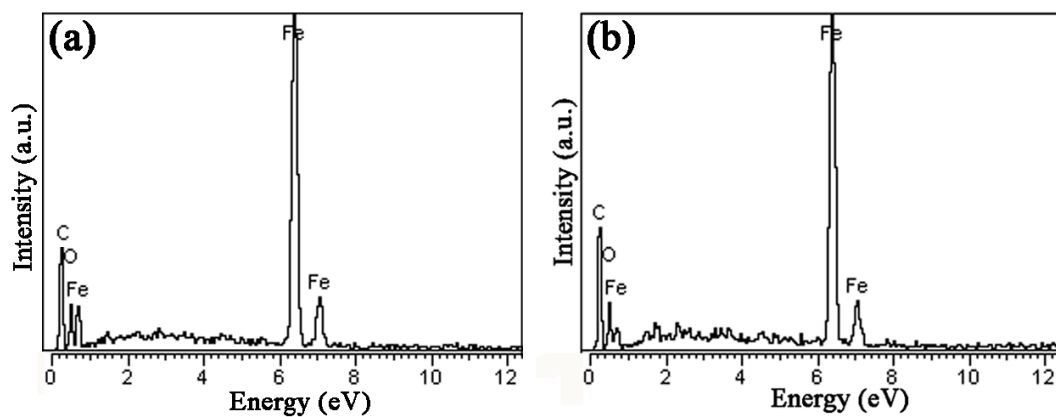
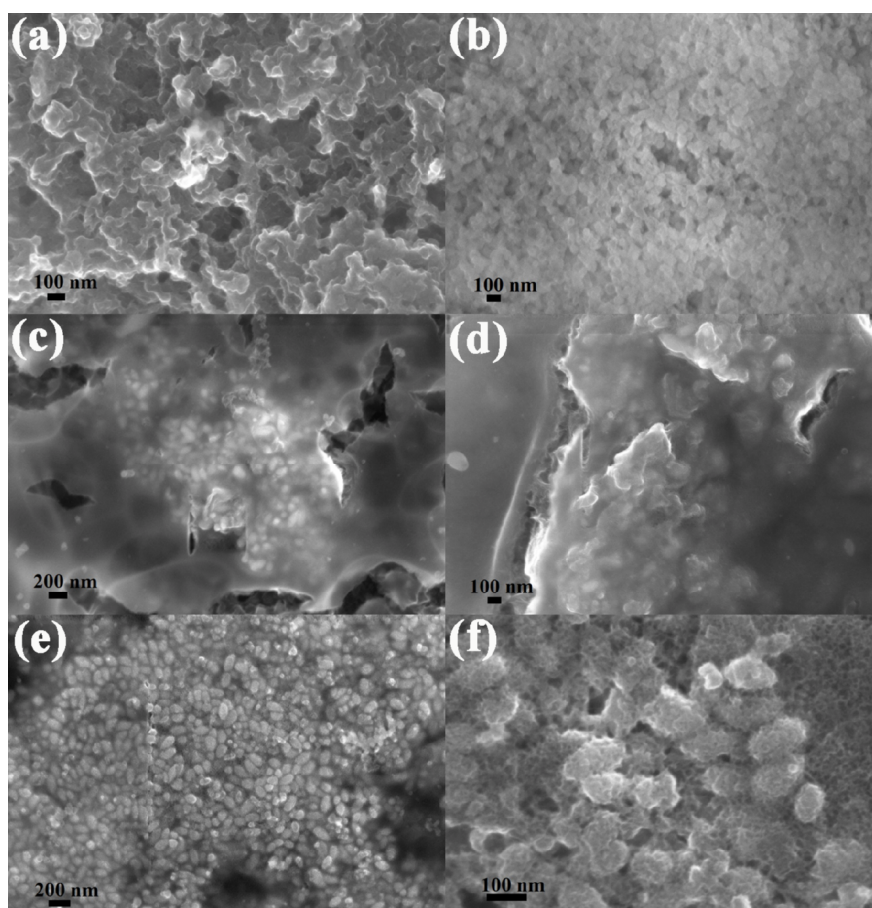


Fig. S2 High-magnification FESEM images of (a) RGO, (b) bare Fe<sub>2</sub>O<sub>3</sub>, (c) RGO-Fe<sub>2</sub>O<sub>3</sub>-H and (d) RGO-Fe<sub>2</sub>O<sub>3</sub>-L nanocomposites.



**Fig. S3** EDS spectra of (a) RGO-Fe<sub>2</sub>O<sub>3</sub>-H and (b) RGO-Fe<sub>2</sub>O<sub>3</sub>-L nanocomposites.



**Fig. S4** SEM images of (a) bare RGO nanosheets, (b) bare Fe<sub>2</sub>O<sub>3</sub> nanospindles, (c,d) RGO-Fe<sub>2</sub>O<sub>3</sub>-L, (e,f) RGO-Fe<sub>2</sub>O<sub>3</sub>-H after 100 cycles.