## High-performing mesoporous iron oxalate anodes for lithium-ion batteries

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X-ray photoelectron spectroscopy (XPS) was performed with an Axis Ultra (Kratos) spectrometer with monochromatic Al-K $_{\alpha}$  excitation and analyzed using CasaXPS software (Version 2.3.15).

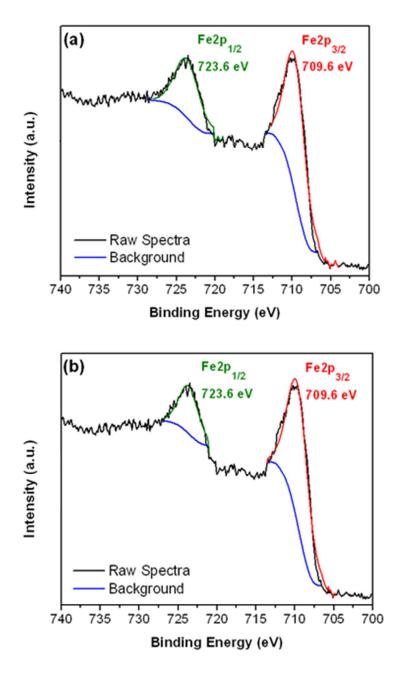


Figure S1. High resolution XPS spectra of (a) A-FeOx-C and (b) A-FeOx-R.

**Supporting Information** 2

Fourier transform infra-red (FT-IR) spectra were obtained for the samples in KBr pellets using a Perkin Elmer Spectrum GX instrument at a resolution of 1 cm<sup>-1</sup>.

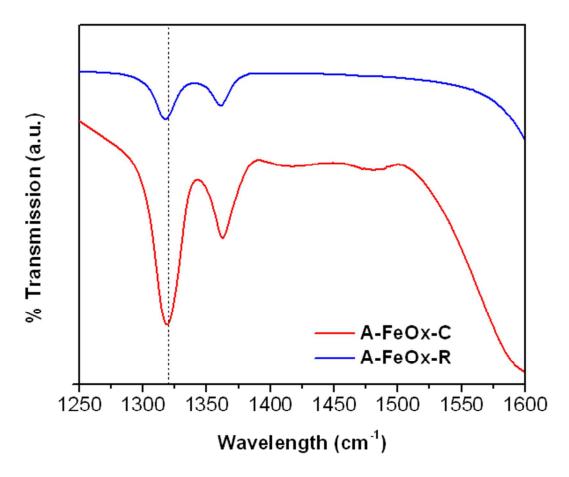


Figure S2. FT-IR spectra of A-FeOx samples both showing the oxalate band at ca. 1320 cm<sup>-1</sup>.

Surface morphology and microstructure of samples were observed by field emission scanning electron microscopy (FE-SEM) using a JEOL 7600F with an accelerating voltage of 15 kV. The irregular rectangular FeOx blocks have width in the range of  $0.6-1.5\mu m$  and length in the range of  $0.8-3\mu m$ .

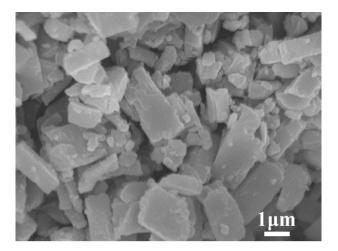


Figure S3. FE-SEM micrograph showing as synthesized FeOx using distilled water only.