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Supporting information

Carbon-coated α-Fe2O3 Nanostructures for Efficient Anode of Li-ion Battery

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Fig. S1: XRD patterns of carbon coated α -Fe₂O₃ nanostructures and the SS substrate.



Fig. S2: Cross-section SEM image of carbon-coated α -Fe₂O₃ film on the SS substrate.



Fig. S3: TEM image of carbon-coated α -Fe₂O₃.



Fig. S4: (a) XPS survey spectra of carbon-coated α -Fe₂O₃ nanostructures. (b) High-resolution Fe 2p XPS spectra of the sample. (c) High-resolution O 1s XPS spectra of the sample. (d) High-resolution C 1s XPS spectra of the sample.



Fig. S5: Cycling performance of carbon-coated α -Fe₂O₃ electrode at the rate of 0.2C,

0.5C and 1C between 0.01 and 3.00~V.