Preparation of Fluorine-Doped, Carbon-Encapsulated Hollow Fe_3O_4 Spheres as Efficient Anode Material for Li-ion Battery

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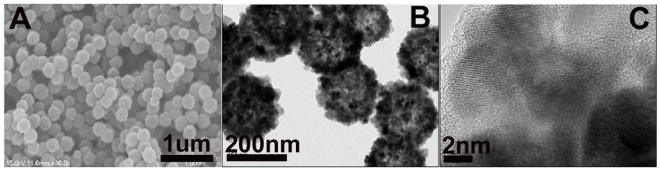

Figure S1. SEM image of the *h*-Fe_3O_4@C (A). TEM image of the *h*-Fe_3O_4@C (B). HRTEM image of the *h*-Fe_3O_4@C (C)

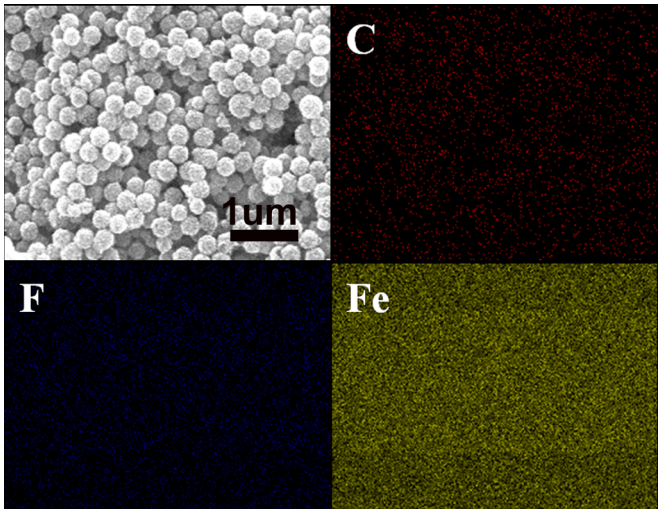

Figure S2. The energy-dispersive X-ray spectroscopy (EDX) elemental mapping of C, F and Fe in the *h*-Fe_3O_4@C/F composite

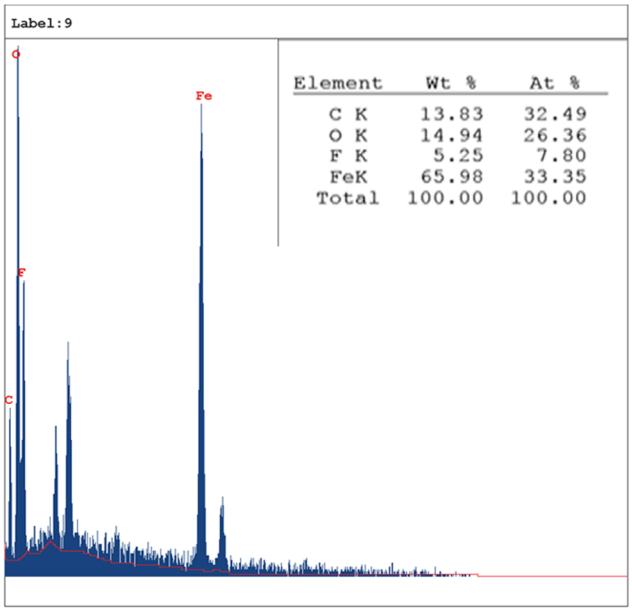

Figure S3. The energy-dispersive X-ray spectroscopy (EDX) spectrum of the *h*-Fe_3O_4@C/F composite

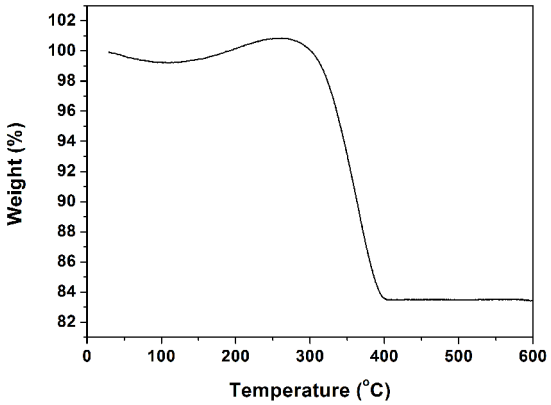

Figure S4. TGA of the *h*-Fe_3O_4@C composite

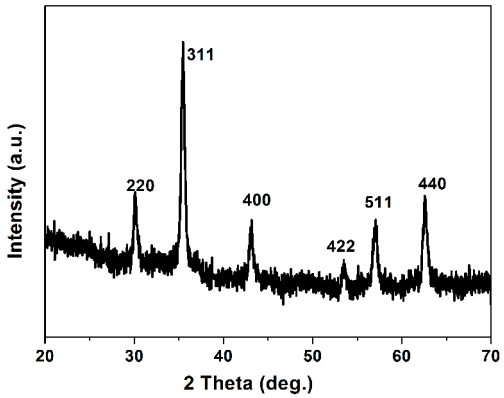

Figure S5. XRD of the *h*-Fe_3O_4@C composite

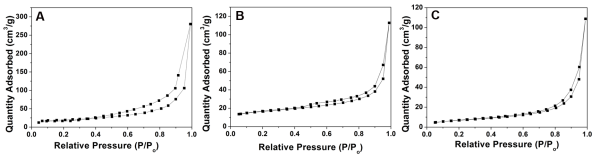

Figure S6. Nitrogen adsorption-desorption isotherm of (A) *h*-Fe_3O_4, (B) *h*-Fe_3O_4@C/F and (C) *h*-Fe_3O_4@C.

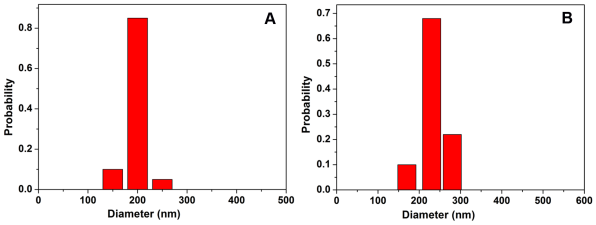

Figure S7. The diameter distributions of the (A) *h*-Fe_3O_4 and (B) *h*-Fe_3O_4@C/F.

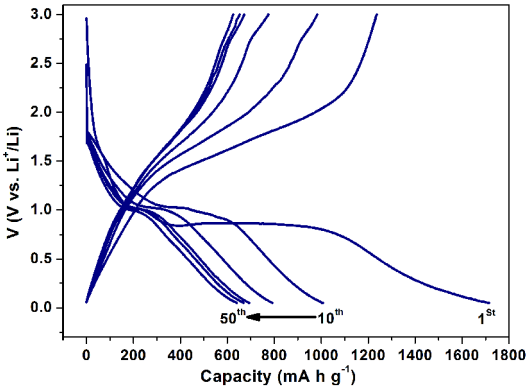

Figure S8. The charge-discharge voltage profiles of the *h*-Fe_3O_4@C composite

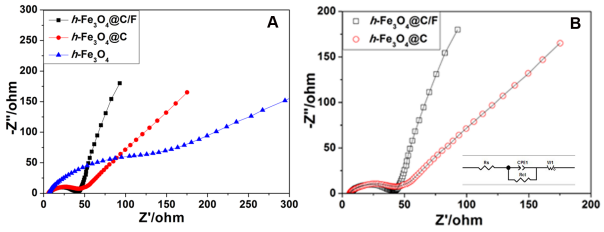

Figure S9. The impedance measures of the *h*-Fe_3O_4, *h*-Fe_3O_4@C and *h*-Fe_3O_4@C/F.