Electronic Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting Information for:

Synthesis of Porous Hollow Fe_3O_4 Beads and Their Applications in Lithium Ion Batteries

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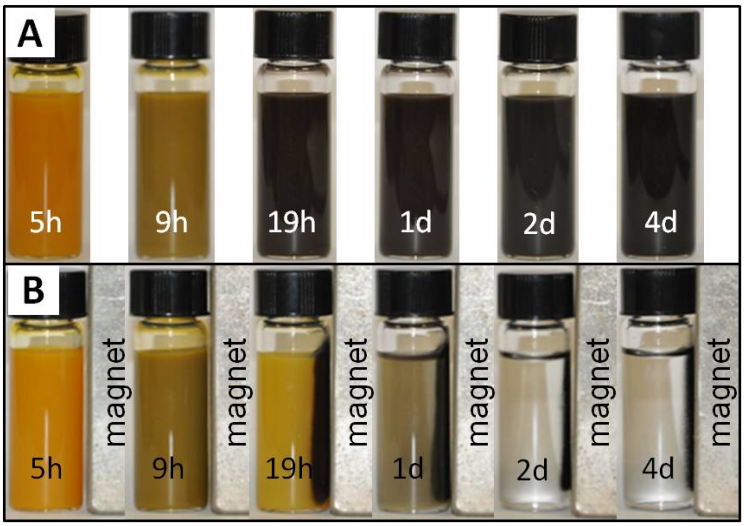


Figure S1. Digital images of (A) products in ethanol obtained at different reaction intervals, and (B) products in ethanol obtained at different reaction intervals under a magnetic field.

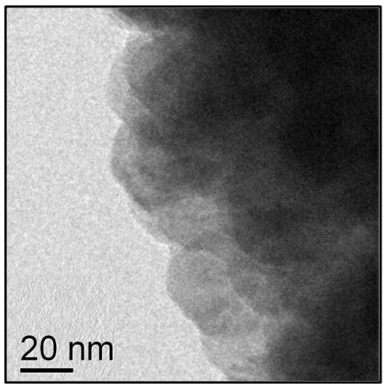
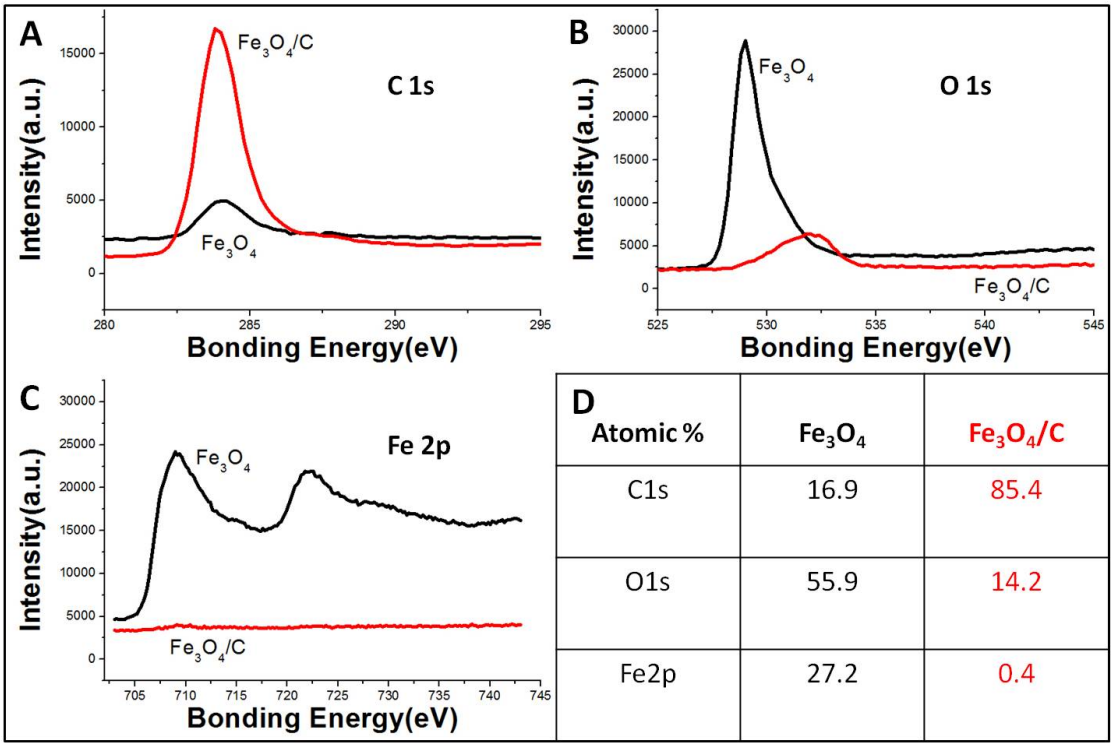


Figure S2. TEM images of the surface of a bare Fe_3O_4 bead.



D Atomic %	Fe_3O_4	Fe_3O_4/C
C1s	16.9	85.4
O1s	55.9	14.2
Fe2p	27.2	0.4

Figure S3. XPS spectra of (A) C 1s, (B) O 1s and (C) Fe 2p of bare Fe_3O_4 beads (black lines) and Fe_3O_4/C beads (red lines). (D) Relative atomic percentage for Fe_3O_4 and Fe_3O_4/C beads.

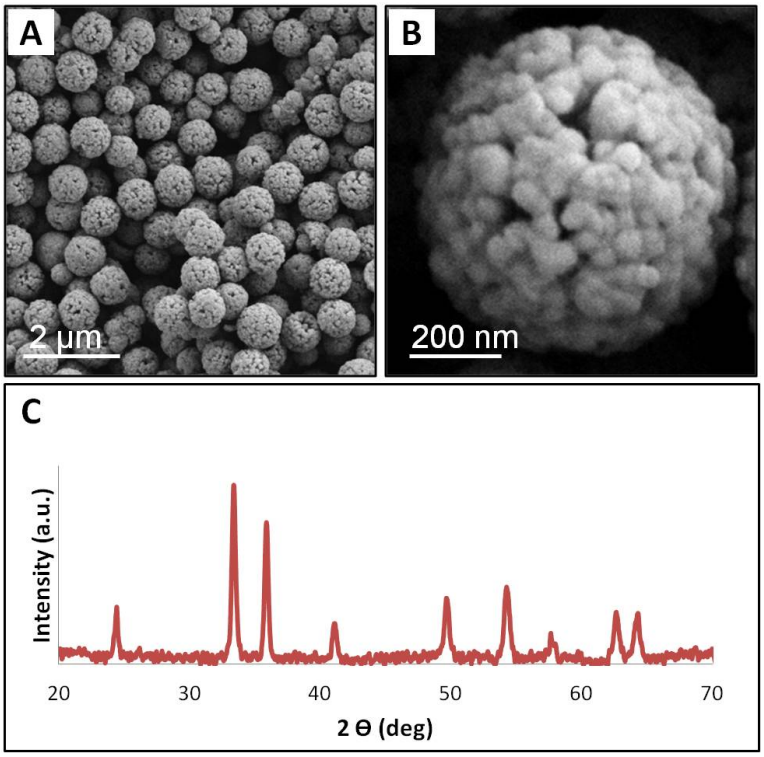


Figure S4. (A, B) SEM images and (C) corresponding XRD pattern of the as-obtained α-Fe_2O_3 beads.

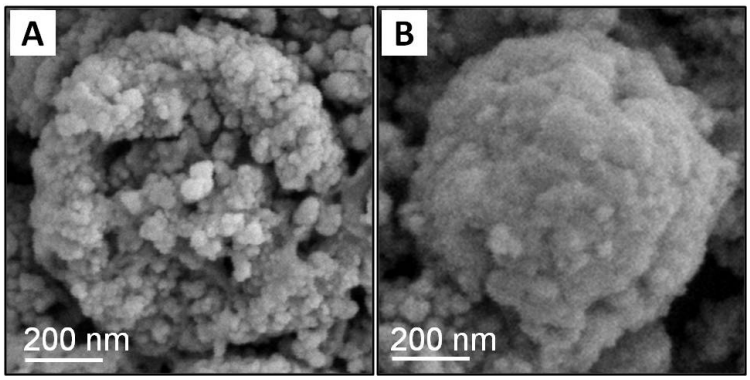


Figure S5. (A) The typical morphology of a broken Fe_3O_4 bead and (B) an intact Fe_3O_4/C bead found after 50 cycles of charging/discharging.