Electronic Supplementary Material (ESI) for CrystEngComm

Flame synthesis of 26-faceted maghemite polyhedrons grown via 14-faceted polyhedrons and their carbon composites for Li-ion Battery application

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Supporting Information:

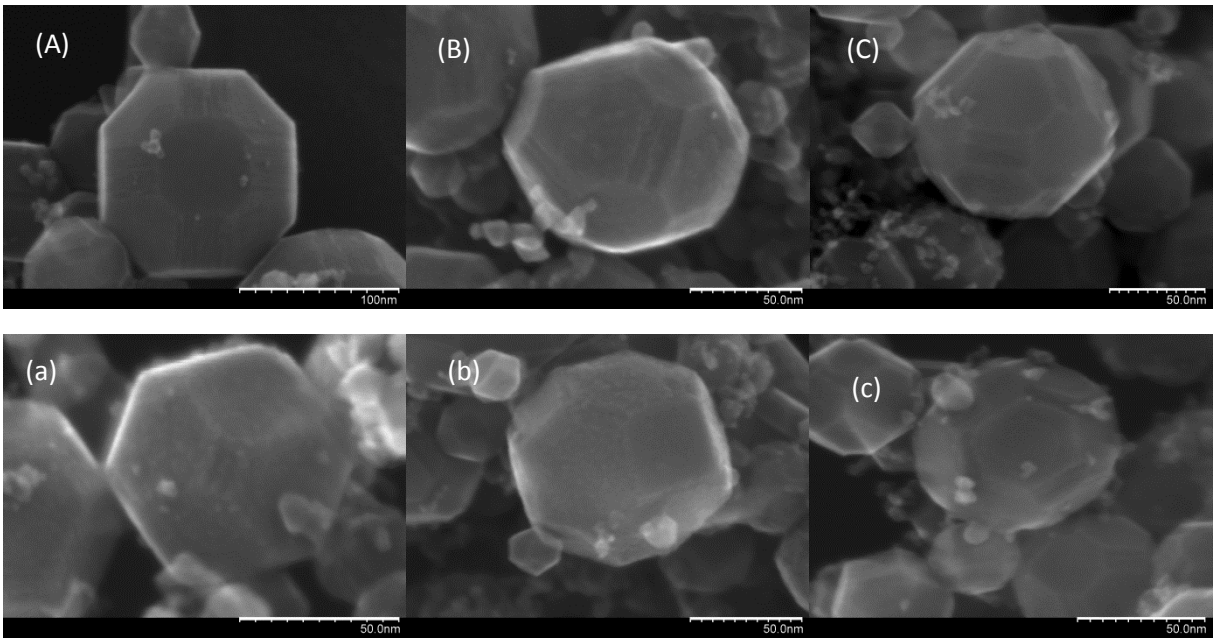

Figure S1. Virgin HR-SEM images without drawing facets of 26-faceted truncated cubooctahedrons prepared by burning ferrocene using (A) methanol, (B) Ethanol and (C) DMF. The 14-faceted truncated octahedron prepared using (a) methanol, (b) Ethanol and (c) DMF respectively. (The scale bar is 100 nm for (a) and 50 nm for rest images)

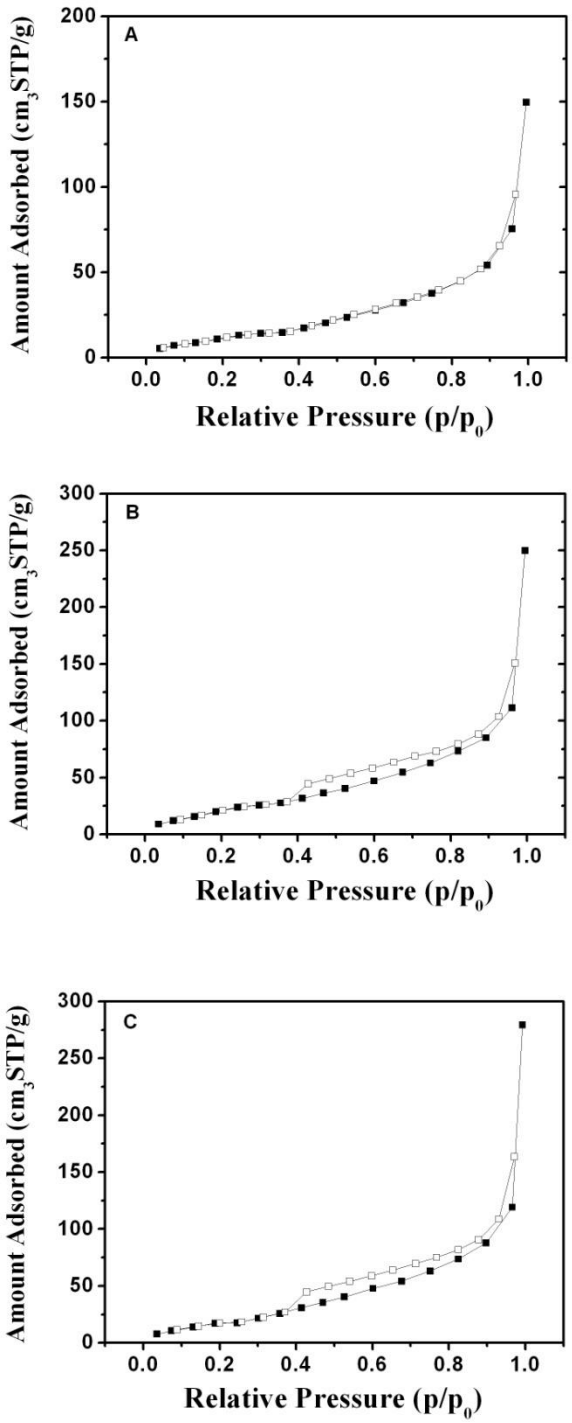

Figure S2. Nitrogen adsorption-desorption isotherms at 77K for the maghemite polyhedrons obtained using (A) methanol, (B) Ethanol and (C) DMF.

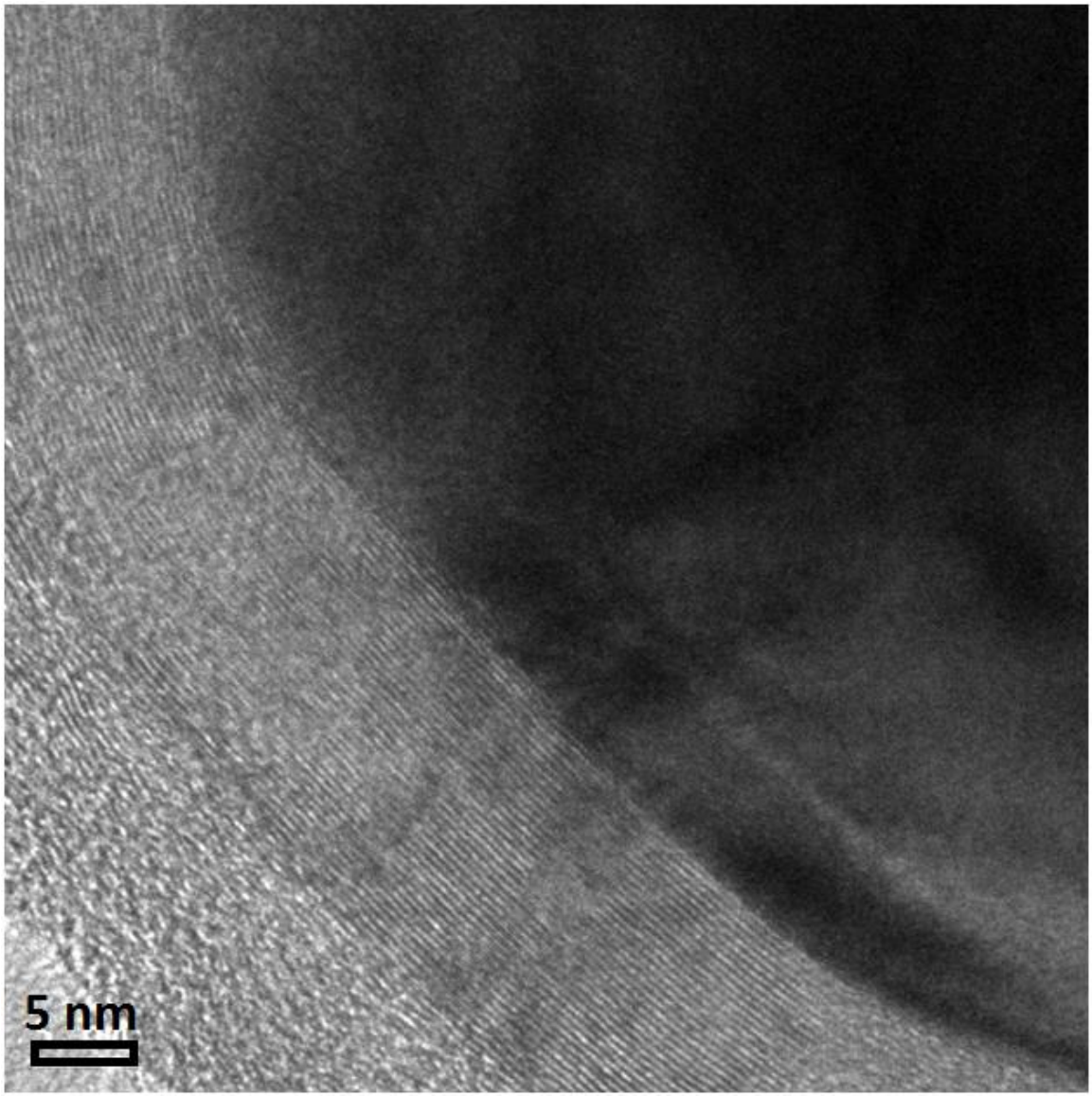

Figure S3. Enlarged HR-TEM image of flame synthesized γ-Fe_2O_3@C prepared using acetone as solvent, showing the encapsulation of maghemite polyhedrons by many layers of carbon shells.