Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information for

Carbon Coated Manganese Monoxide Octahedrons Negative-electrode for Lithium-ion Batteries with Enhanced Performances

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This file includes:

- XRD pattern of the as-prepared Mn_3O_4 octahedrons.

- SEM images of the Mn_3O_4 octahedrons prepared with 0.5 g PVP addition at 150 ℃ over a reaction time of **(a)** 30, **(b)** 45, **(c)** 60, and **(d)** 90 min.

- SEM images of the Mn_3O_4 octahedrons prepared **(a)** without PVP, and with the addition of **(b)** 0.2, **(c)** 1.0 and **(d)** 1.5 g.

- TEM image of as prepared MnO@C octahedrons.

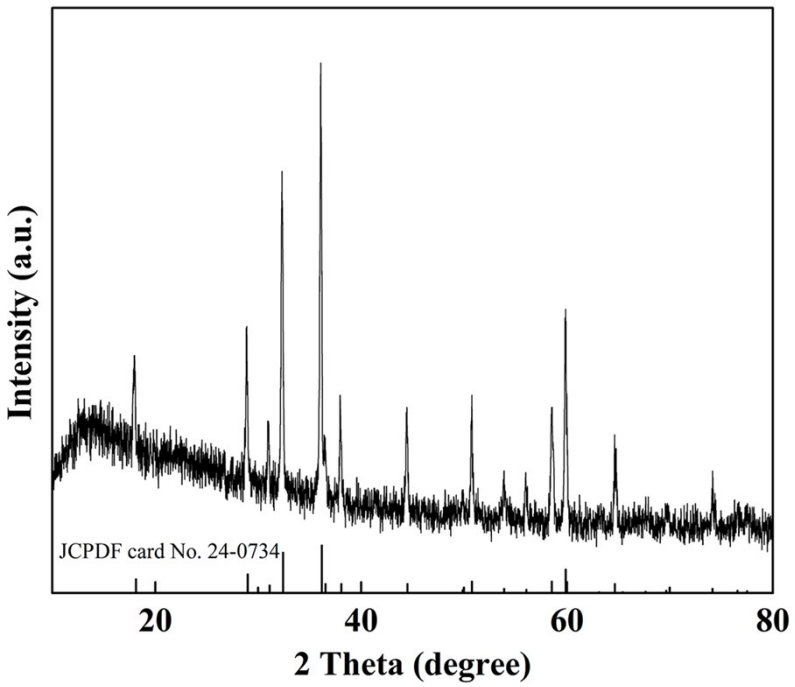

Figure S1. XRD pattern of the as prepared Mn_3O_4 octahedrons.

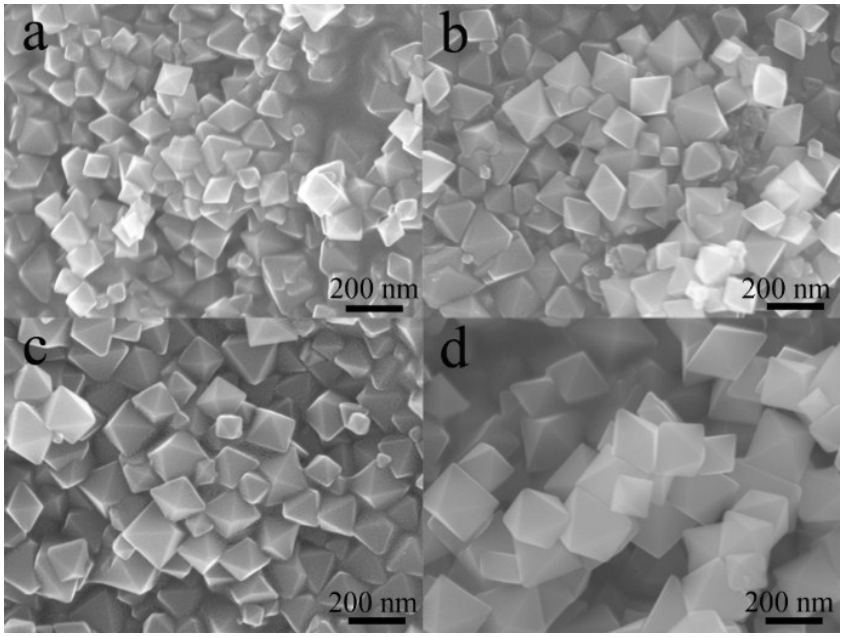

Figure S2. SEM images of the Mn_3O_4 octahedrons prepared with 0.5 g PVP addition at 150 ℃ over a reaction time of **(a)** 30, **(b)** 45, **(c)** 60, and **(d)** 90 min.

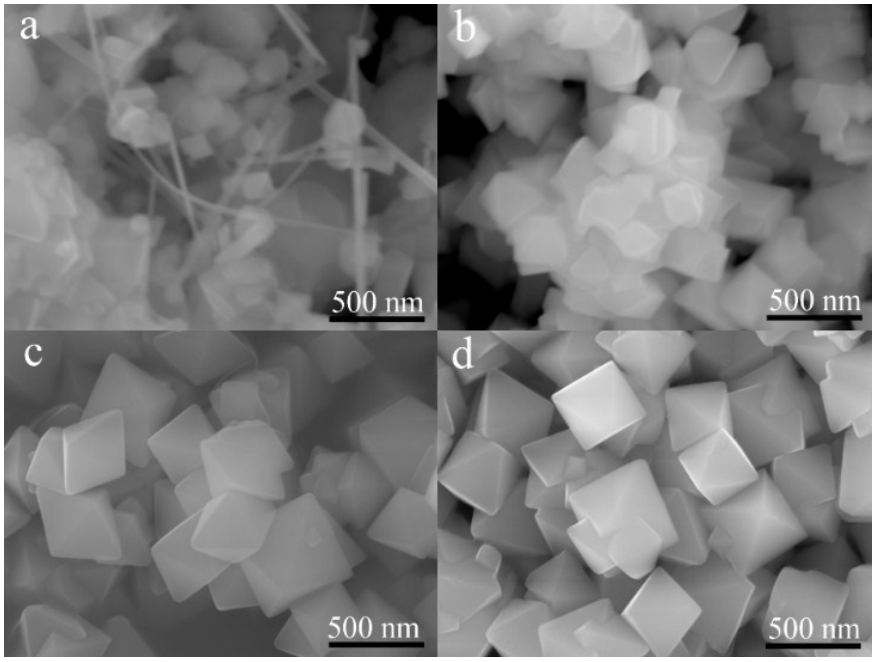

Figure S3. SEM images of the Mn_3O_4 octahedrons prepared **(a)** without PVP, and with the addition of **(b)** 0.2, **(c)** 1.0 and **(d)** 1.5 g.

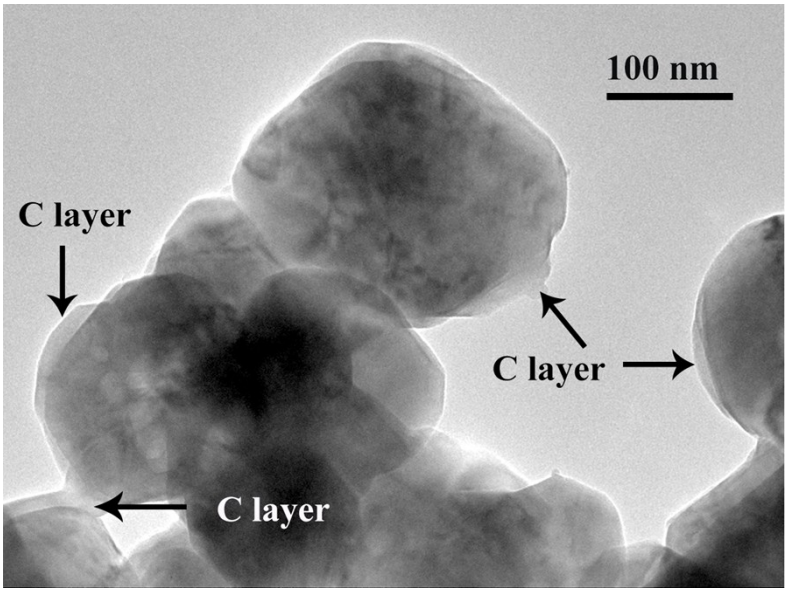

Figure S4. TEM image of as-prepared MnO@C octahedrons.