Supporting Information

A Truncated Manganese Spinel Cathode for Excellent Power and Lifetime in Lithium-ion Batteries

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Figure S1. SEM images of Mn₃O₄ or Mn(OH)₂. (a-c) low magnification images of Oh^T, Oh, and PL, respectively. (d-f) Same as (a-c) but in higher magnifications.

Figure S2. TEM images of Mn_3O_4 or $\text{Mn}(\text{OH})_2$. (a-c) low magnification images of Oh^T , Oh , and PL , respectively. (d-f) Same as (a-c) but in higher magnifications.

Figure S3. An SEM image of LiMn_2O_4 PL. The as-synthesized LiMn_2O_4 PLs at low magnification.
(Inset) A higher magnification SEM image of LiMn_2O_4 PLs with a typical thickness denoted.

Figure S4. Cycling performance of Oh^T and Oh in the extended cycle number.

Figure S5. EIS data for LiMn_2O_4 with different morphologies during cycling. (a), Oh^T . (b), Oh . (c), PL . (d-f), the same plots as a-c but zoomed in near the origin.

Figure S6. SEM images for LiMn_2O_4 with different morphologies at different stages. The as-synthesized images of (a), Oh^{T} . (b), Oh. (c), PL. The same samples as (a-c) but (d-f), after 10 cycles at 25 °C and (g-i), after 850 cycles at 55 °C.