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Porous $LiMn_2O_4$ microspheres as durable high power cathode materials for lithium ion batteries

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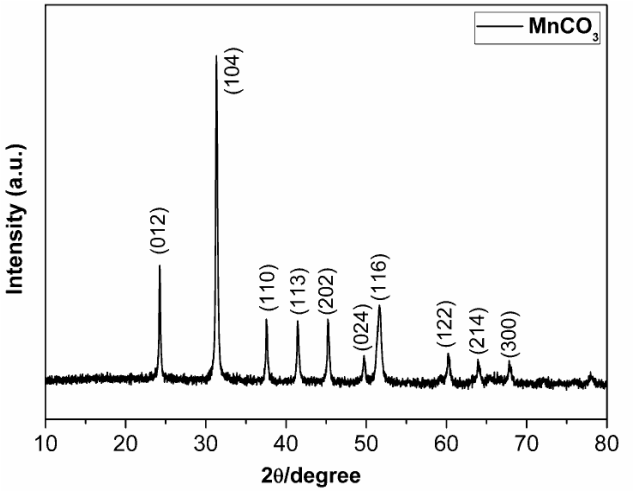

Fig. S1. The XRD pattern of the $MnCO_3$.

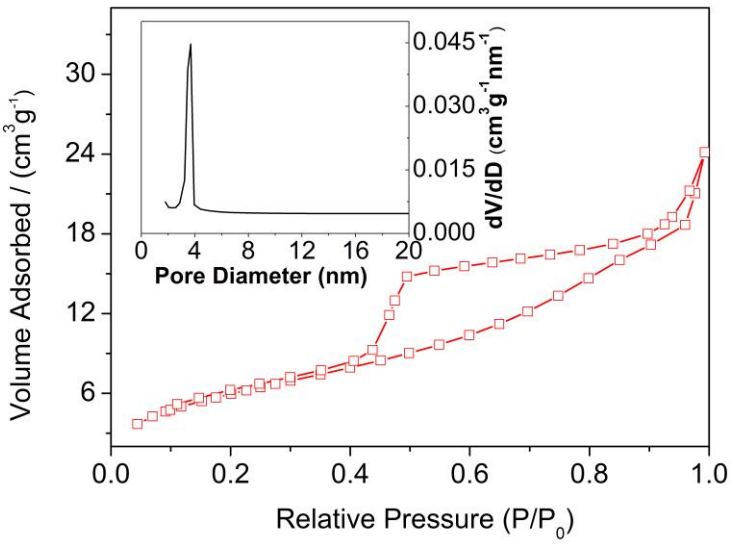

Fig. S2. The N_2 adsorption-desorption isotherms of the porous $MnCO_3$ microspheres.

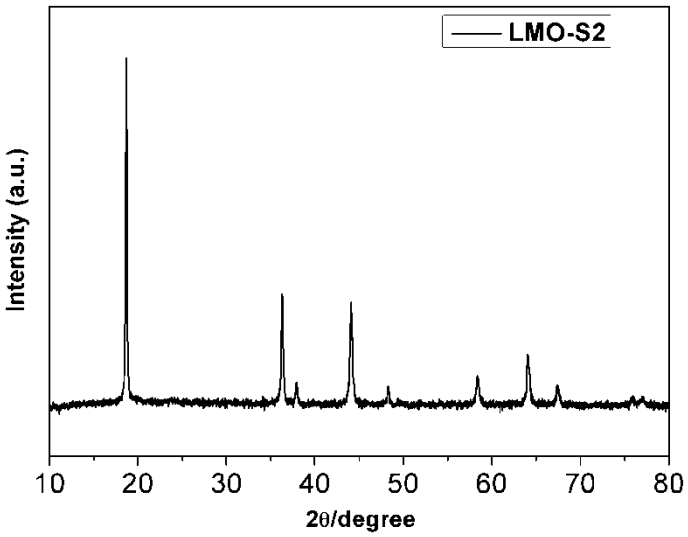

Fig. S3. The XRD pattern of the $LiMn_2O_4$ obtained from the reaction of commercial $MnCO_3$ with eutectic molten lithium salt.

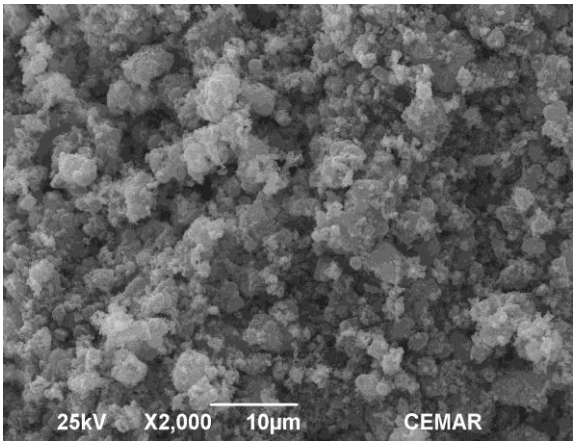

Fig. S4. The SEM image of the $LiMn_2O_4$ obtained from the reaction of commercial $MnCO_3$ with eutectic molten lithium salt.

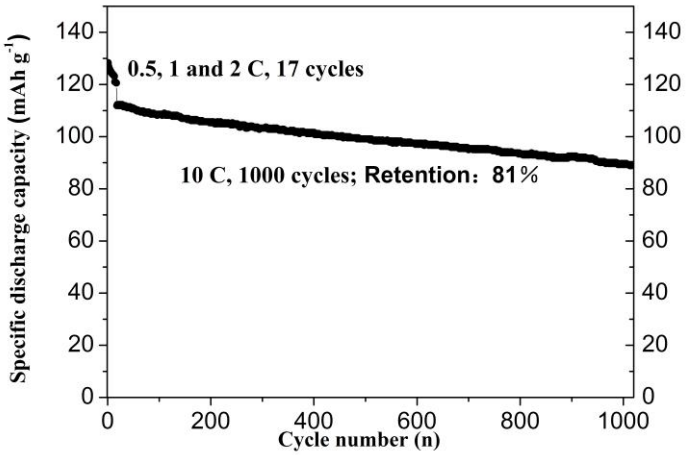

Fig. S5. The cycle performances of the LMO-S1 electrode at 10 C.

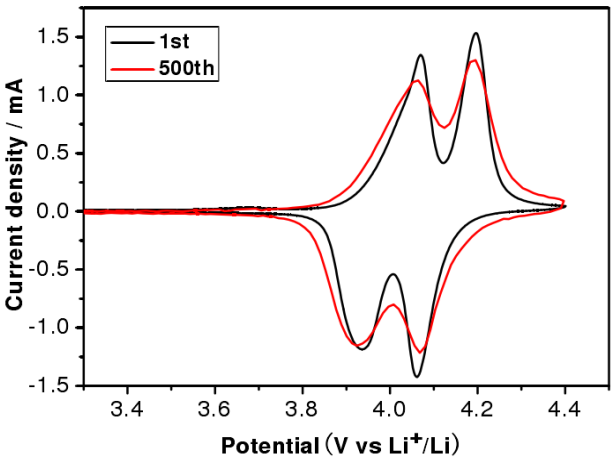

Fig. S6. The CV curves of the LMO-S1 electrode for the 1st and 500th cycles at 2 C.

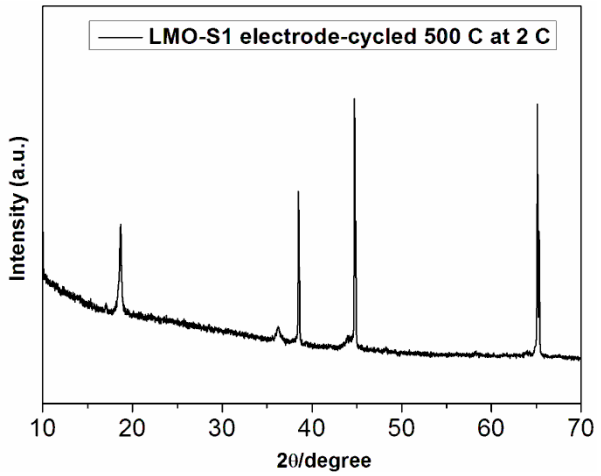

Fig. S7. The XRD pattern of the LMO-S1 electrode after the 500th cycle at 2 C.

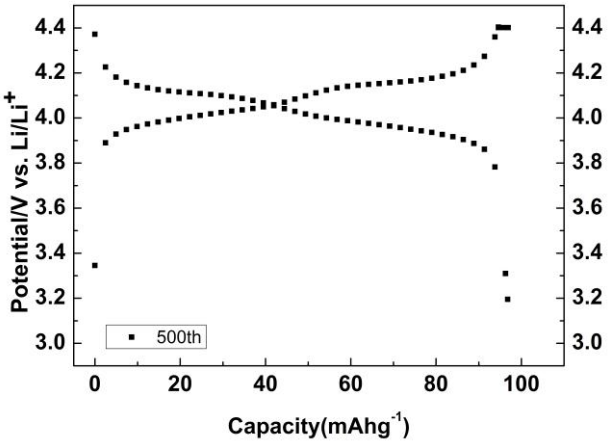

Fig. S8. The charge/discharge curves of the LMO-S1 electrode after the 500th cycle at 2 C.

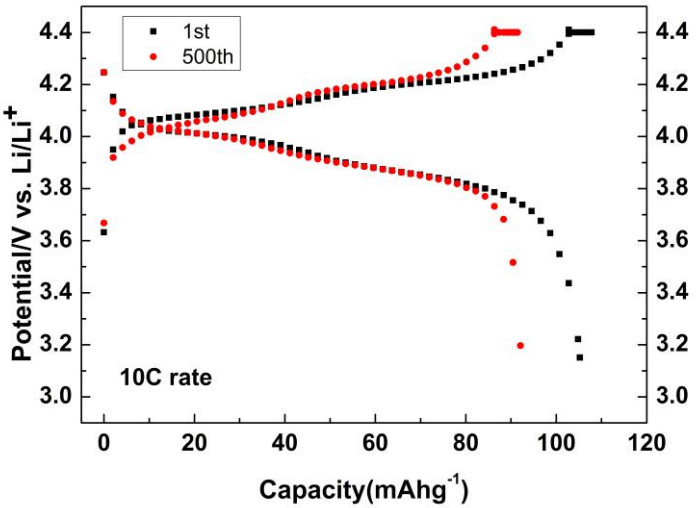

Fig. S9. The charge/discharge curves of the LMO-S1 electrode after the 1st and 500th cycles at 10 C.

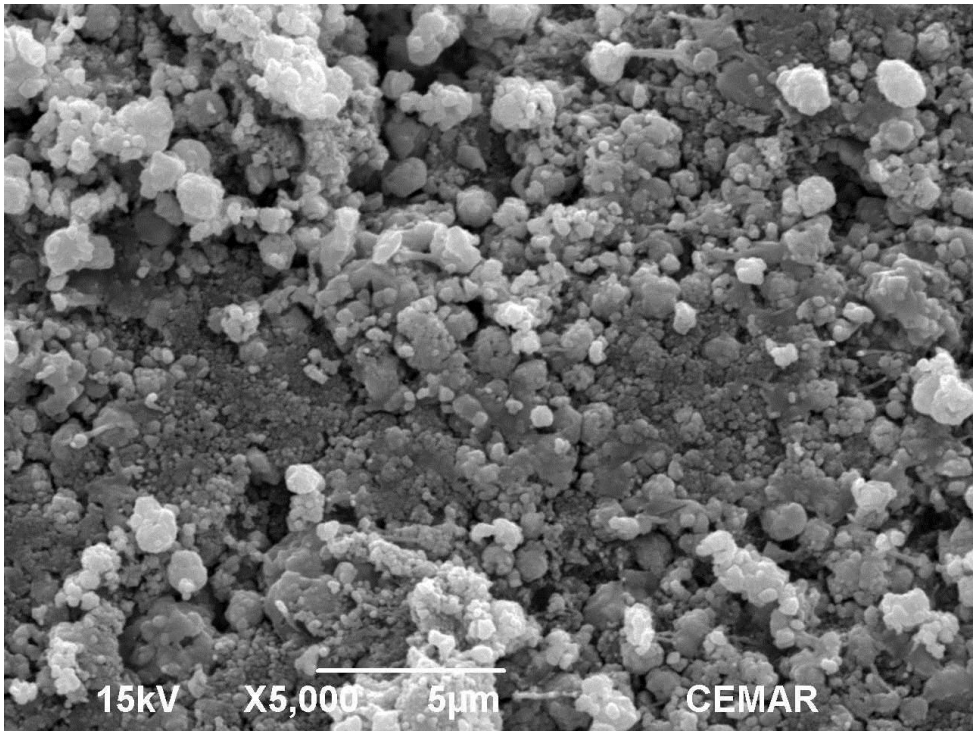

Fig. S10. The SEM image of the LMO-S1 electrode after 500 cycles at 2 C.