Supplementary information of Improving oxygen redox stability of a NaCl-type Cation Disordered Li_2MnO_3 in a Composite structure of Li_2MnO_3 and Spinel-type $LiMn_2O_4$

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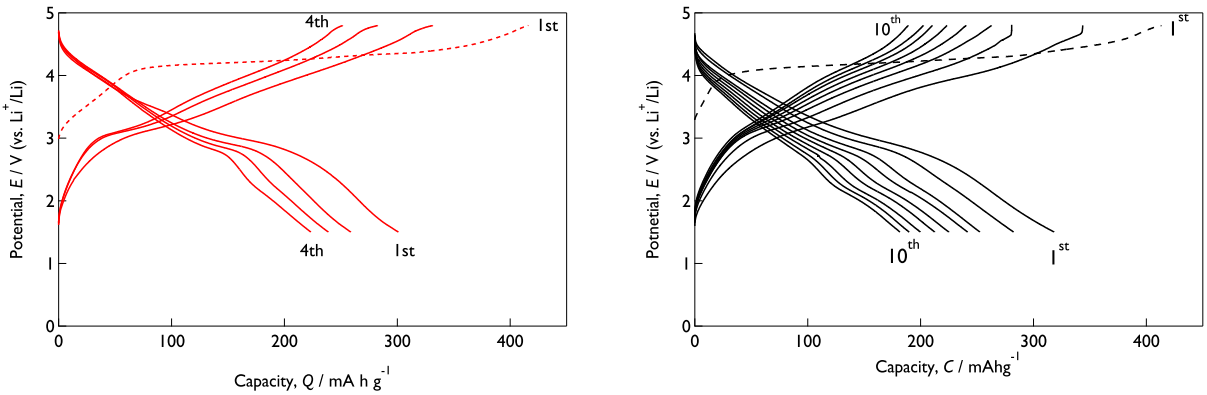


(a) (b)

Figure S1: Charge and discharge curves of m-Li_2MnO_3 milled for (a) 60 h and (b) 86 h.

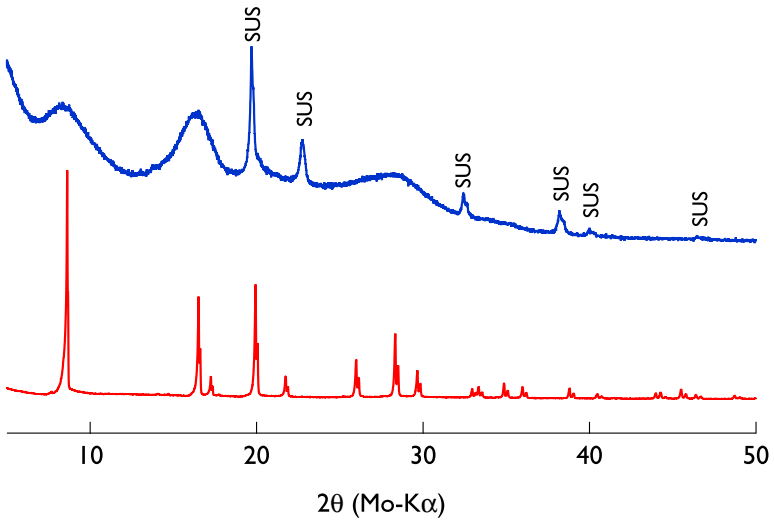
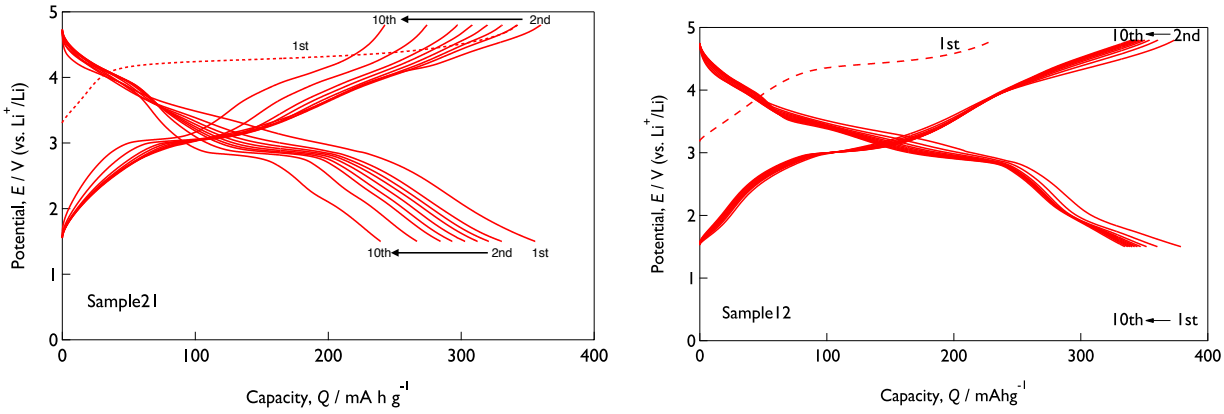
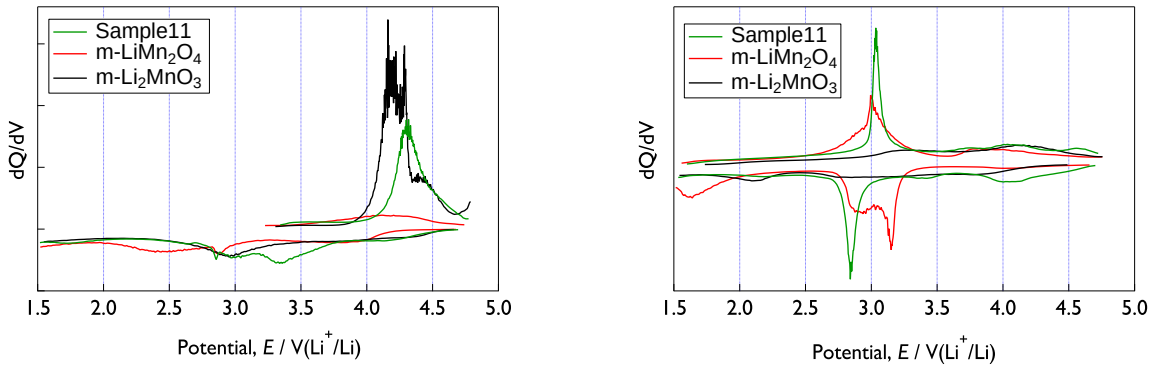


Figure S2: XRD patterns of $LiMn_2O_4$ before (bottom) and after (top) mechanical milling.



(a) (b)

Figure S3: Charge and discharge curves of (a) Sample21 and (b) Sample12.



(a) (b)

Figure S4: dQ/dV curves of Sample11, m-Li_2MnO_3 and m-$LiMn_2O_4$ during (a) 1st and (b) 10th cycling.

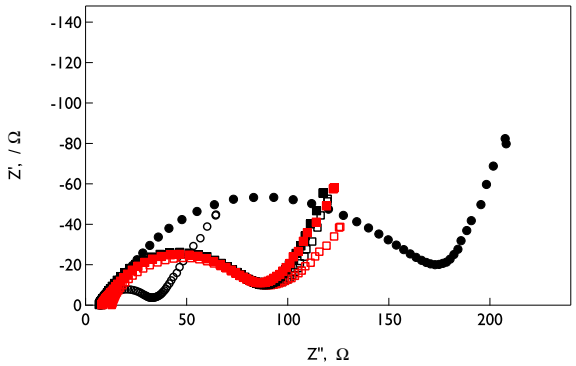
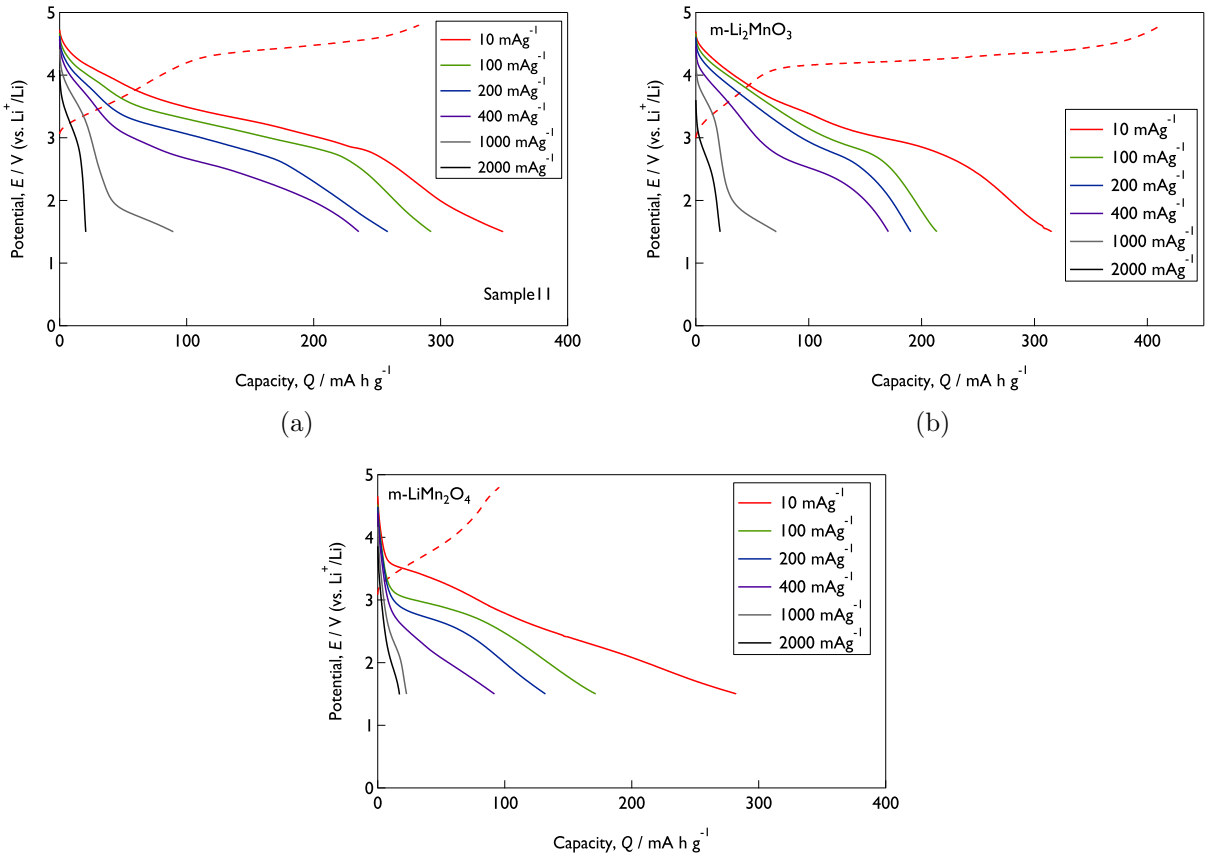
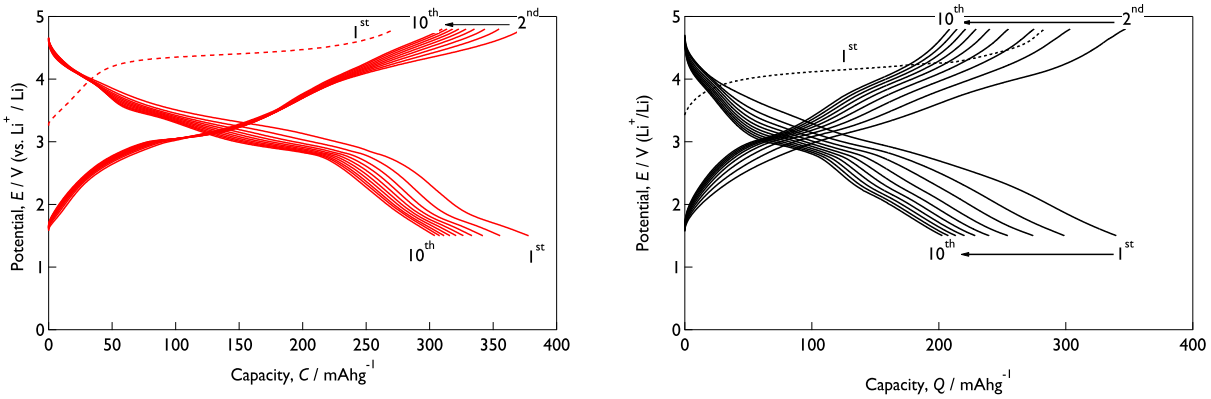


Figure S5: Cole-cole plots of Sample11(red square), m-Li_2MnO_3(black circle) and m-$LiMn_2O_4$(black circle) after initial(open symbol) and 10 cycles(filled symbol).



(a) (b) (c)

Figure S6: Initial charge curve and discharge curves at various current densities of (a) Sample11, (b) m-Li_2MnO_3 and (c) m-$LiMn_2O_4$.



(a) (b)

Figure S7: Charge and discharge curves of (a) Sample11 and (b) mixture of m-Li_2MnO_3 and m-$LiMn_2O_4$ milled by hand.