Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

Supplementary Information

$Na_2Ti_3O_7$: An intercalation based anode for sodium-ion battery application

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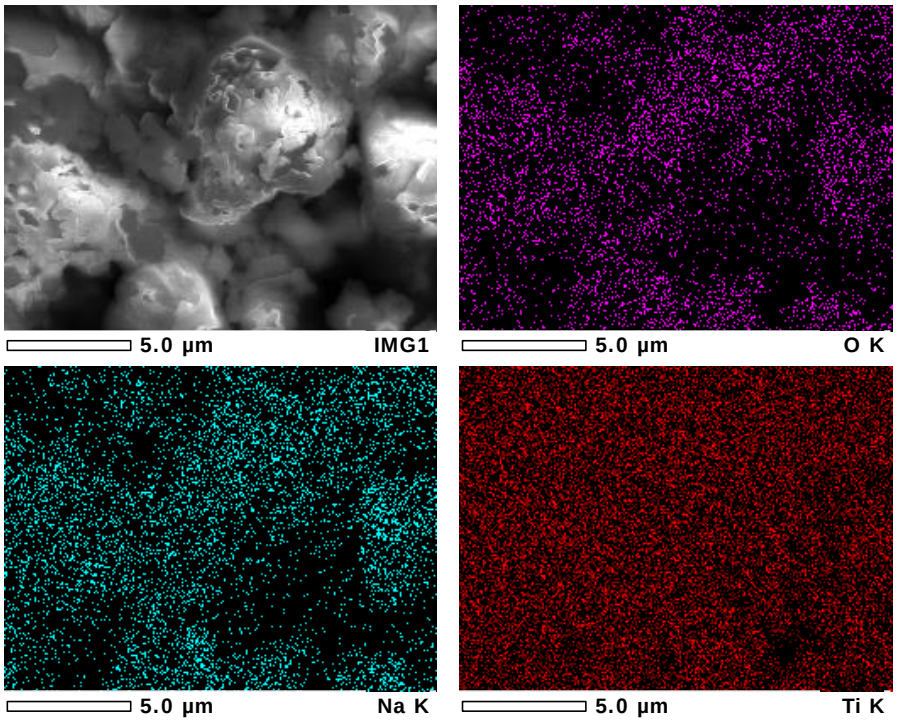

Fig. S1 SEM examination along with elemental mapping for the elements Na, Ti and O for the as-synthesized $Na_2Ti_3O_7$. No other impurity elements were detected. The mapped cyan, red and pink regions correspond to Na, Ti and O, respectively. The elemental mapping demonstrates a uniform distribution of elements throughout the volume of the sample analyzed.

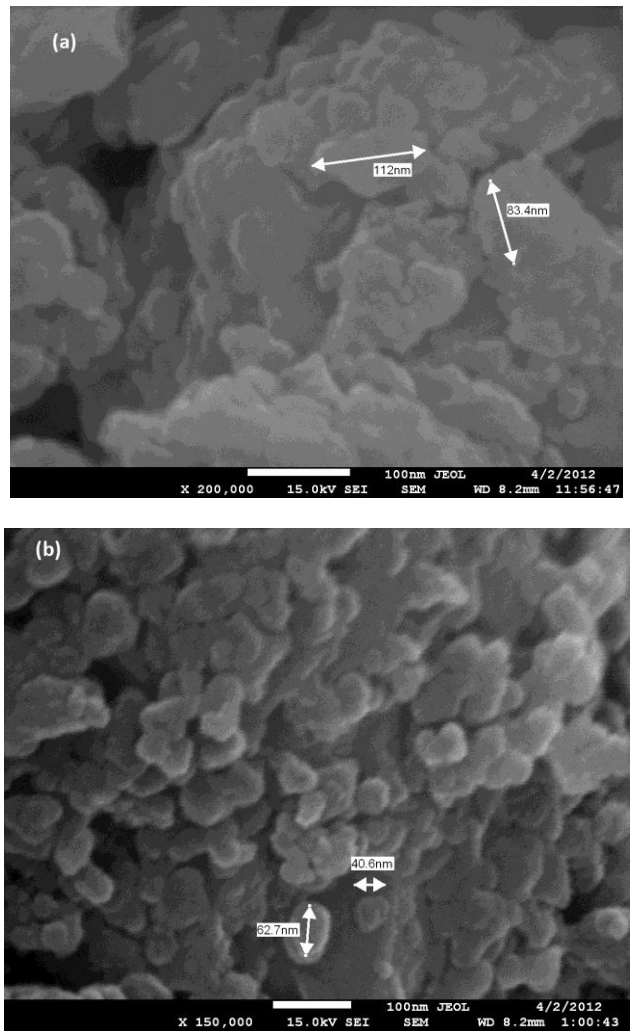

Fig. S2 FESEM image taken of: Top- (a) Pure $Na_2Ti_3O_7$ ball milled at 400 rpm for 20 minutes at a ×200,000 magnification and Bottom- (b) ball-milled $Na_2Ti_3O_7$ with CB at 400 rpm for 20 minutes at a ×150,000 magnification.

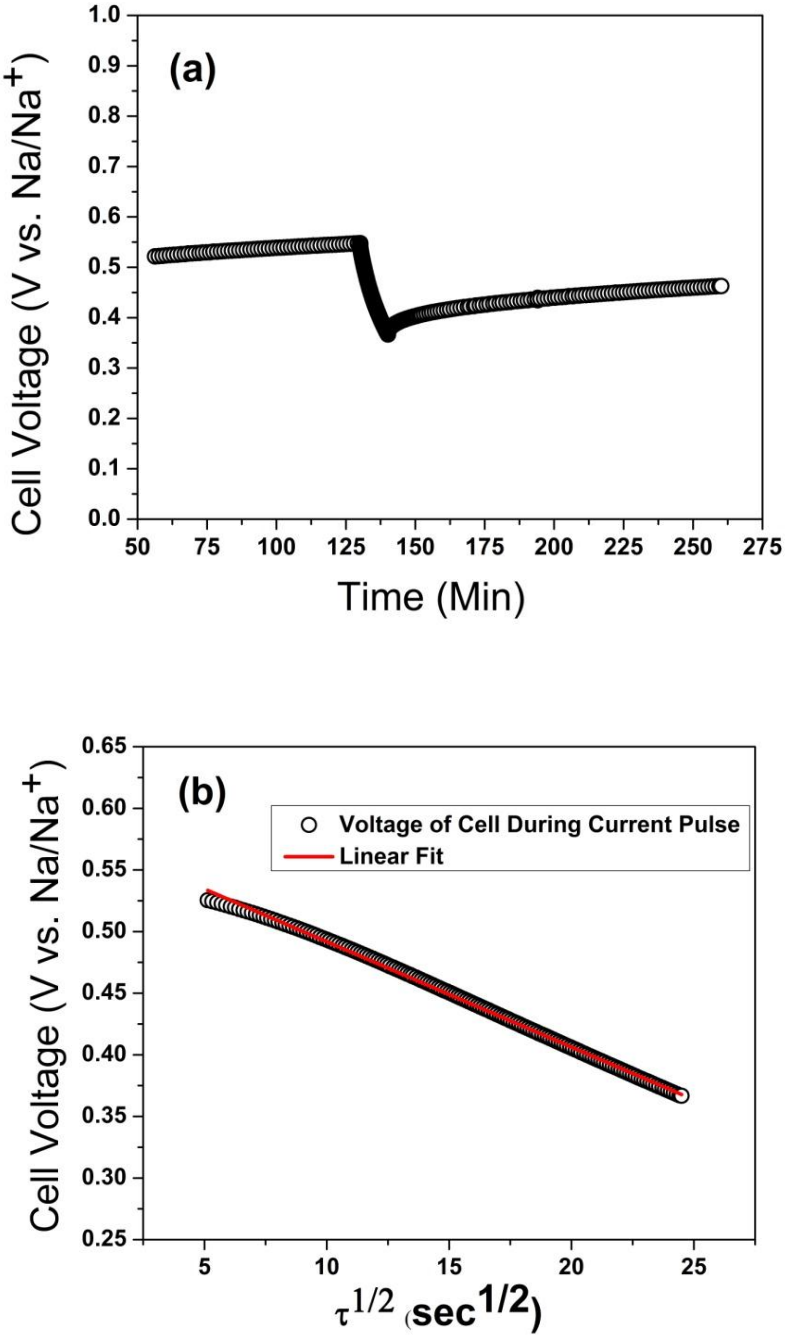

Fig. S3 A representative pulse used for GITT calculations showing (a) one pulse during the initial stages of discharge along with the subsequent relaxation step, and the previous step's relaxation step, and (b) the linear relationship between E_τ with $\tau^{1/2}$ which is needed for utilizing the GITT relation.