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α-Li_2TiO_3: A new ultra-stable anode material for lithium ion batteries

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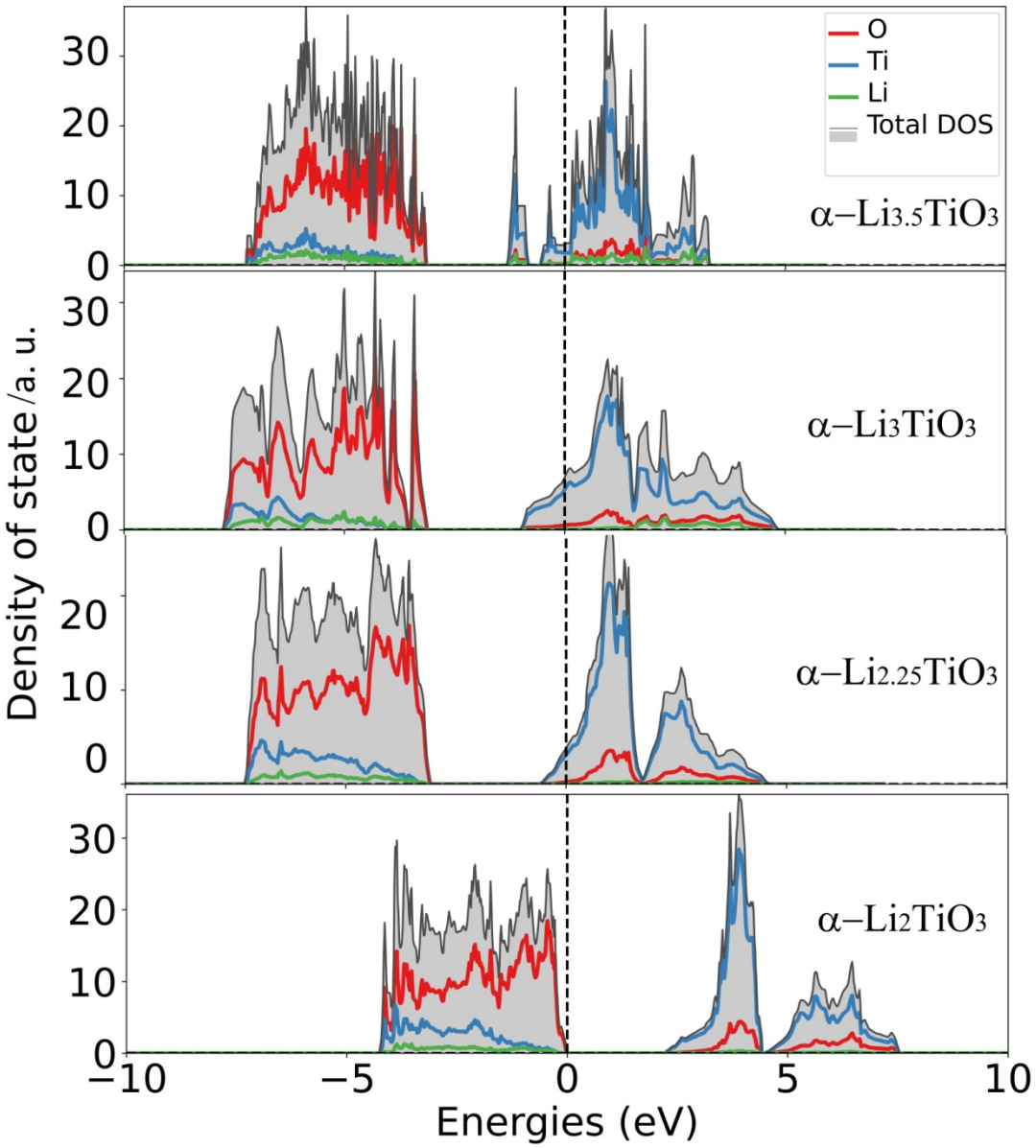

Fig. S1 The partial density of states for the ground state configuration of $Li_{2+x}TiO_3$, when *x*= 0, 0.25, 1.0 and 1.5

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Structure	β-$L_{i2}TiO_3$	β-$L_{i2}TiO_3$	β-$L_{i2}TiO_3$	β-$L_{i2}TiO_3$	α-Li_2TiO_3
Reversible Capacity (mAh g^{-1}) /Current density（mA g^{-1}）	200/100	153/1000	114/0.08C	13/0.2C	376/100
Number of cycles(n)	200	30	30	5	100
Retention rate(%)	97	95	95	--	95
rate performance	300/100				387 /0.15C
Reversible capacity	190/200	---	---	---	330/0.3C
(mAh g^{-1})/Current	140/300				243/0.75C
density（mA g^{-1}）	125/400				175/1.5C
	120/500				113/3C
	190/100				378/0.15C
Electrolyte	Non-aqueous	aqueous	aqueous	Non-aqueous.	
Long cycle Capacity	177	---	---	---	312
Long Cycle Number	500	---	---	---	400
Reference	[23]	[20]	[13]	[18]	This work

Tab. S1 A comparison of electrochemical performance between α-Li_2TiO_3 in this work and the related phase reported previously.