

Supporting Information

Bonding Synergy in In₂TiO₅ Enables High-Capacity Fast Lithium Storage

Hongming Zhang^{a,b,1}, Yue Sang^{a,b,1}, Shuoyu Wang^{a,b}, Zedong Li^{a,b}, Haipeng Wang^{a,b}, Pengfei Hou^{a,b}, Xinxin Wang^{a,b}, Jingjing Chen^c, Chenlong Dong^{a,b,*} and Zhiyong Mao^{a,b,*}

^a Tianjin Key Laboratory for Photoelectric Materials and Devices, School of Materials Science and Engineering, Tianjin University of Technology, Tianjin 300384, PR China

^b Key Laboratory of Display Materials and Photoelectric Devices, Tianjin University of Technology, Ministry of Education, Tianjin 300384, PR China

^c Tianjin Key Laboratory of Quantum Optics and Intelligent Photonics, School of Science, Tianjin University of Technology, Tianjin 300384, PR China

¹ These authors contributed equally to this work.

Email: mzhy1984@163.com (Prof. Zhiyong Mao), dongchenlong@email.tjut.edu.cn (Prof. Chenlong Dong)

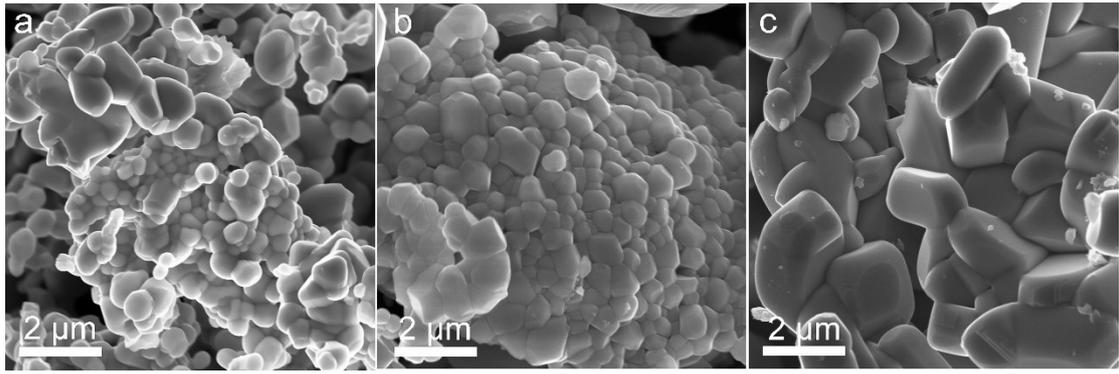


Figure S1. SEM images of (a) In_2TiO_5 , (b) In_2O_3 and (c) TiO_2 samples prepared by sol-gel method.

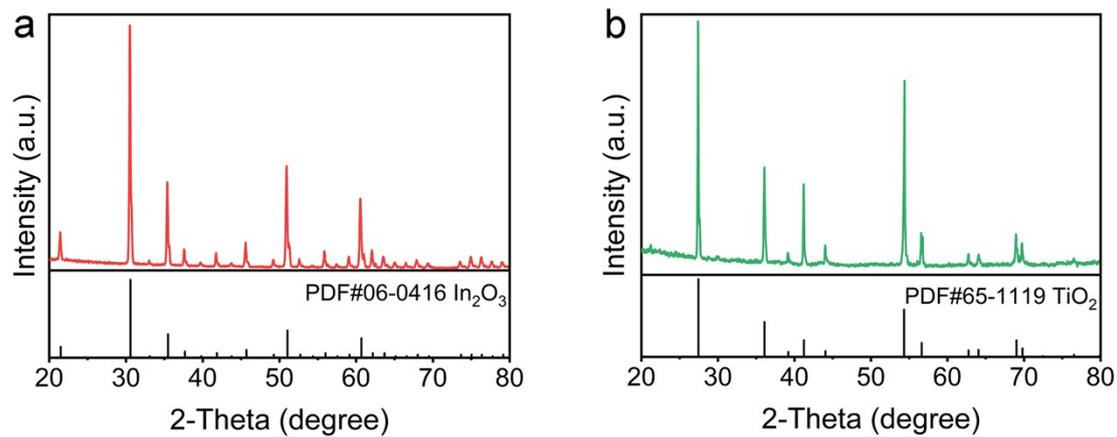


Figure S2. XRD patterns of (a) In_2O_3 and (b) TiO_2 .

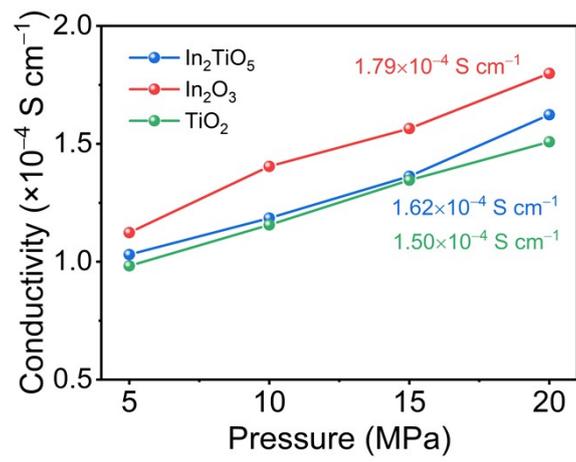


Figure S3. Four-probe conductivity measurement of In_2TiO_5 , In_2O_3 and TiO_2 .

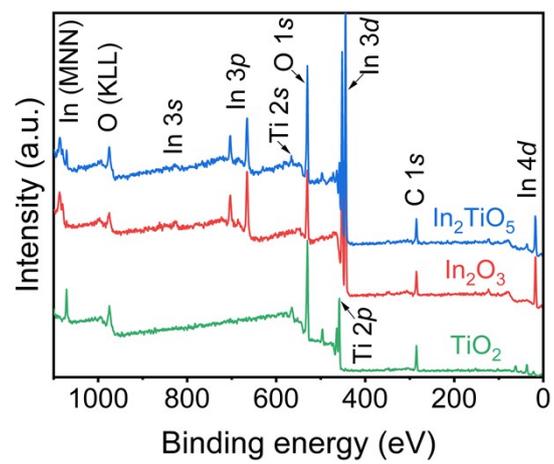


Figure S4. XPS survey spectra of In_2TiO_5 , In_2O_3 and TiO_2 .

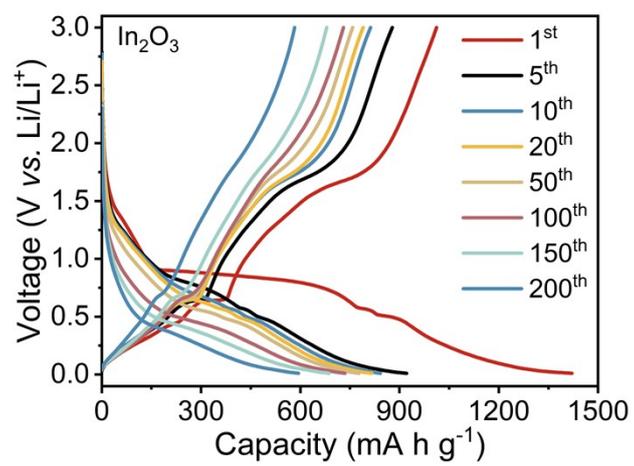


Figure S5. Galvanostatic charge-discharge curves of In_2O_3 at 0.1 A g^{-1} .

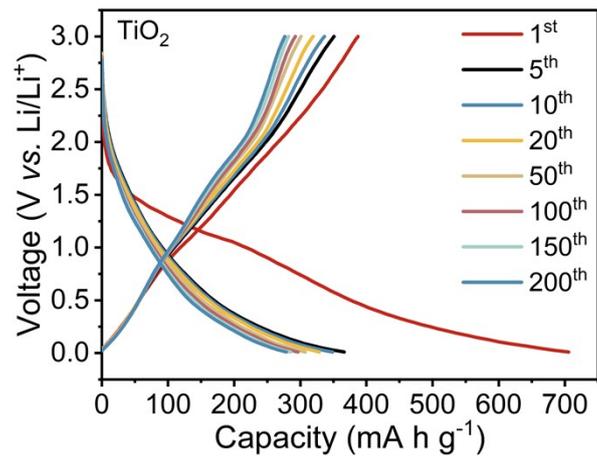


Figure S6. Galvanostatic charge-discharge curves of TiO_2 at 0.1 A g^{-1} .

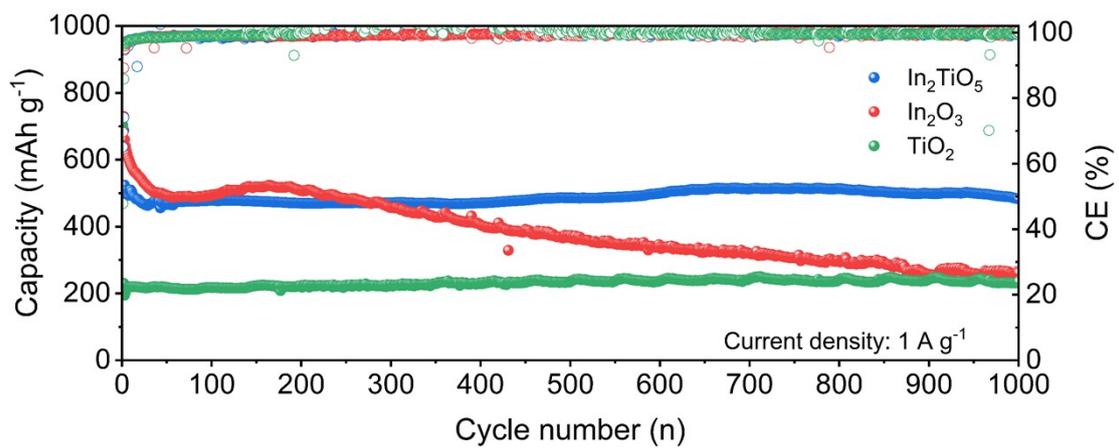


Figure S7. Cyclic performance of In_2TiO_5 , In_2O_3 and TiO_2 at 1 A g^{-1} .

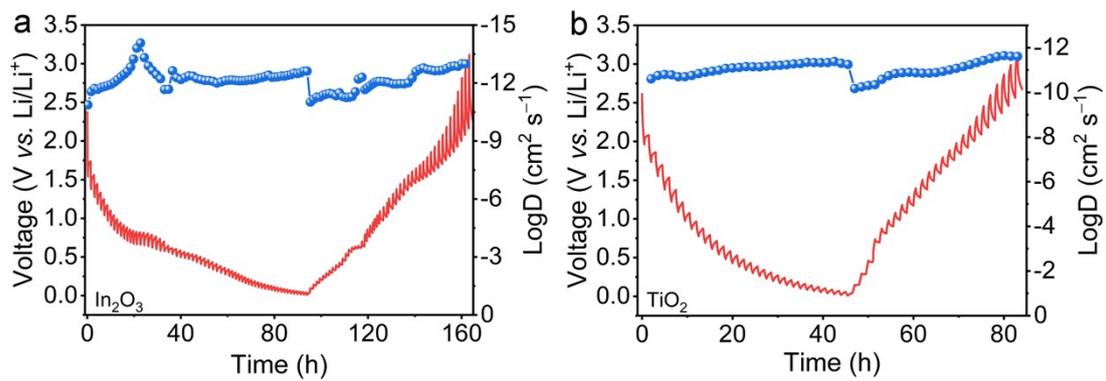


Figure S8. GITT curves and corresponding Li^+ diffusion coefficient at different potentials of (a) In_2O_3 and (b) TiO_2 anodes.

Table S1. Electrochemical performance comparison of In_2TiO_5 with representative anodes based on intercalation-type oxides.

Materials	Capacity at low current density (mAh g ⁻¹ @A g ⁻¹)	Capacity at high current density (mAh g ⁻¹ @A g ⁻¹)	Capacity (mAh g ⁻¹)@Cycles@Current density (A g ⁻¹)	Ref.
TiO ₂ /rGO	290@0.067	150@3.35	175@1000@1.675	1
Ultrathin Li ₄ Ti ₅ O ₁₂	181@0.175	155@8.75	150@1500@8.75	2
T-Nb ₂ O ₅ /C	205@0.1	177@6	170@2000@2	3
Ta _{0.2} Nb ₂ O _{5.5}	251@0.1	~110@10	90@1000@8	4
In ₂ O ₃ /C	544@0.2	264@3.2	571@200@0.3	5
SnO ₂ /TiO ₂	447@0.1	115@5	452@100@0.1	6
Sn-TiO ₂ /G	~900@~0.2	~230@~5	~860@50@~0.2	7
Nb ₂ O ₅ @Ge/GeO ₂	700@0.1	~350@5	300@1000@5	8
In ₂ TiO ₅	605@0.1	258@5	485@1000@1	This work
	430@0.5		365@1000@2	
	374@1	180@10	260@1000@5	
			160@1000@10	

References

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