

Electronic Supplementary Information

Heterostructured Ga₂O₃-Li₃VO₄-Embedded Porous Carbon Nanofibers as Advanced Anode Materials for Lithium-ion Batteries

Canyang Chen^a, Cunyuan Pei^{a}, Song Yang^a, Huijuan Ma^b, Dongmei Zhang^a, Bing Sun^a, Shibing Ni^{a*}*

^a College of Materials and Chemical Engineering, Key Laboratory of Inorganic Nonmetallic Crystalline and Energy Conversion Materials, China Three Gorges University, Yichang, 443002, China

^b Hubei Three Gorges Laboratory, Yichang, 443007, China.

** E-mail: peicunyan@ctgu.edu.cn; shibingni07@126.com*

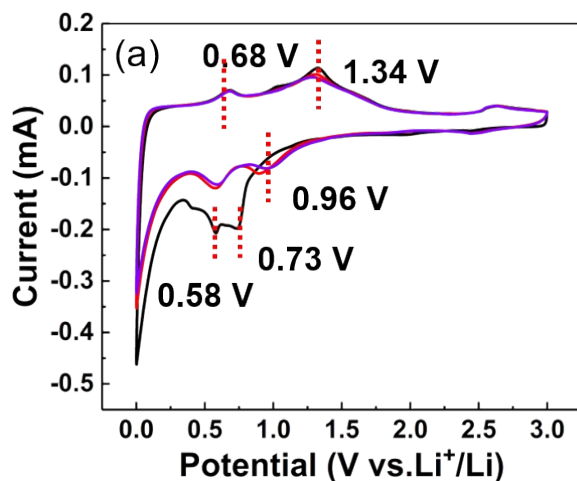


Figure S1 (a) CV curves of $\text{Li}_3\text{VO}_4\text{-Ga}_2\text{O}_3$.

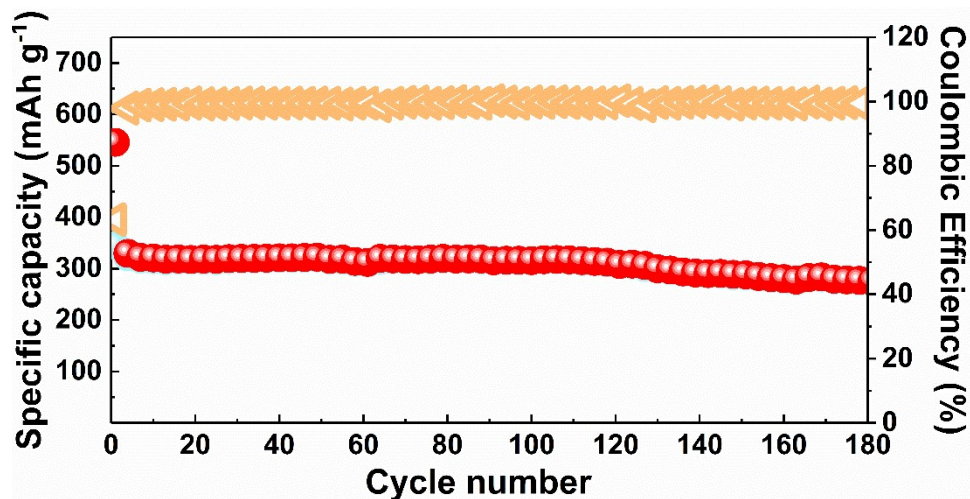


Figure S2 (a) Cycle performance and coulombic efficiency of $\text{Li}_3\text{VO}_4\text{-Ga}_2\text{O}_3$ at a specific current of 0.2 A g^{-1} .

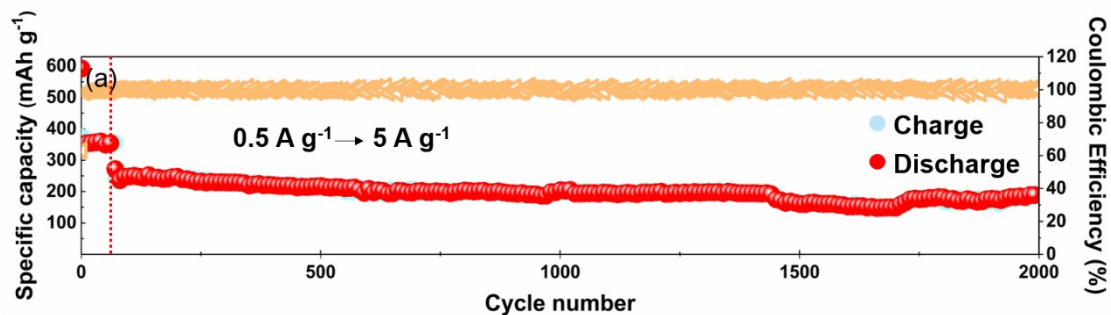


Figure S3 (a) Long cycle performance of $\text{Li}_3\text{VO}_4\text{-Ga}_2\text{O}_3$ at charge/discharge current densities of 5.0 A g^{-1} .

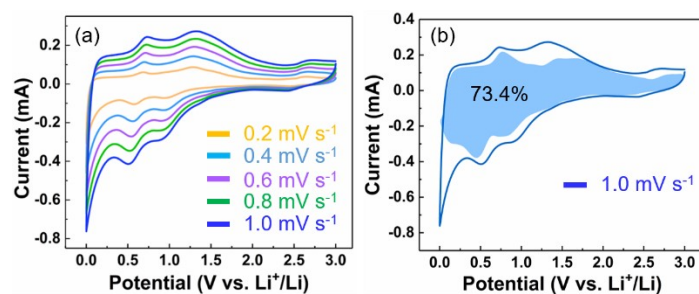


Figure S4 (a) CV curves at different scan rates and (b) pseudocapacitive charge storage at 1.0 mV s^{-1} for pristine $\text{Li}_3\text{VO}_4\text{-Ga}_2\text{O}_3$

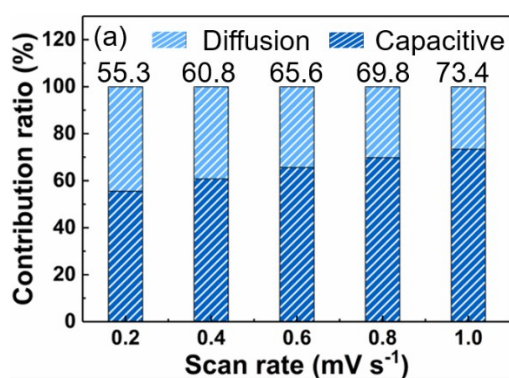


Figure S5 (a) Capacitive contribution variation along with different scan rates for pristine $\text{Li}_3\text{VO}_4\text{-Ga}_2\text{O}_3$.

Table S1 The rate performance comparison between our work and previous reported Li_3VO_4 based batteries.

Electrode	Rate number	Capacity/current	Ref.
		($\text{mA g}^{-1}/\text{A g}^{-1}$)	
Ni-LVO	800	370/1.0	1
LVO/C-Ni	2000	325/10C	2
LVO/C/rGo	5000	325/4.0	3
LVO/rGO-HS	1500	258.0/4.0	4
LVO/CNT	2000	250/2.0	5
LVO	500	280.9/2.0	6

Ag@Li ₃ VO ₄	150	498/0.15	7
Li ₃ VO ₄ /MXene	1000	146/2.0	8
Li ₃ VO ₄ /NiO/Ni	100	612/0.07	9
Li ₃ VO ₄ -Ga ₂ O ₃ /NC	400	652/0.1	10
Li ₃ VO ₄ -Ga ₂ O ₃ @PCNF	2000	320/4.0	this work

Notes and references:

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