

Supporting Information for

Carbon-Coated Rhombohedral $\text{Li}_3\text{V}_2(\text{PO}_4)_3$ as Both Cathode and Anode Materials for Lithium-Ion Batteries: Electrochemical Performance and Storage Mechanism

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Table S1 Crystallographic data of the r-LVP/C sample at room temperature.

Atom	Type	Wyckoff	X/a	Y/b	Z/c	Occ.
Li	Li1	18f	0.2	0.00641	0.45052	0.944
Na	Na1	3a	0.07496	0.02897	0.00136	0.028
Na	Na2	3b	0.07496	0.02897	0.49864	0.028
P	P1	18f	0.28981	0.00495	0.25	1
V	V1	6c	0	0	0.14472	1
V	V2	6c	0	0	0.65265	1
O	O1	18f	0.18274	0.00637	0.19027	1
O	O2	18f	0.75113	0.00638	0.69918	1
O	O3	18f	0.23546	0.00639	0.26532	1
O	O4	18f	0.49751	-0.0064	0.75353	1

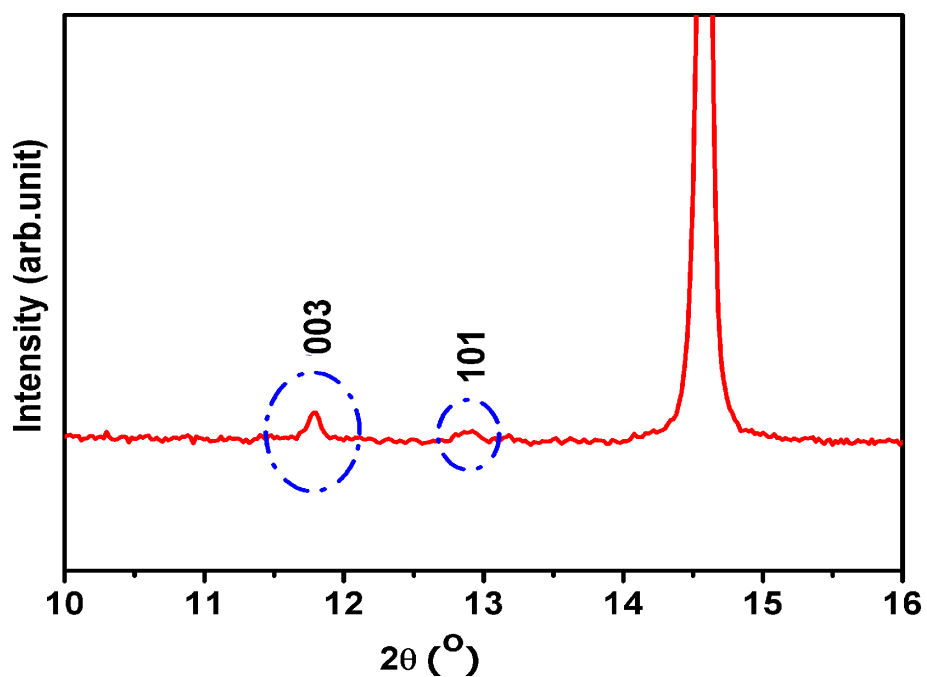


Figure S1 Magnified XRD particular patterns of r-LVP/C

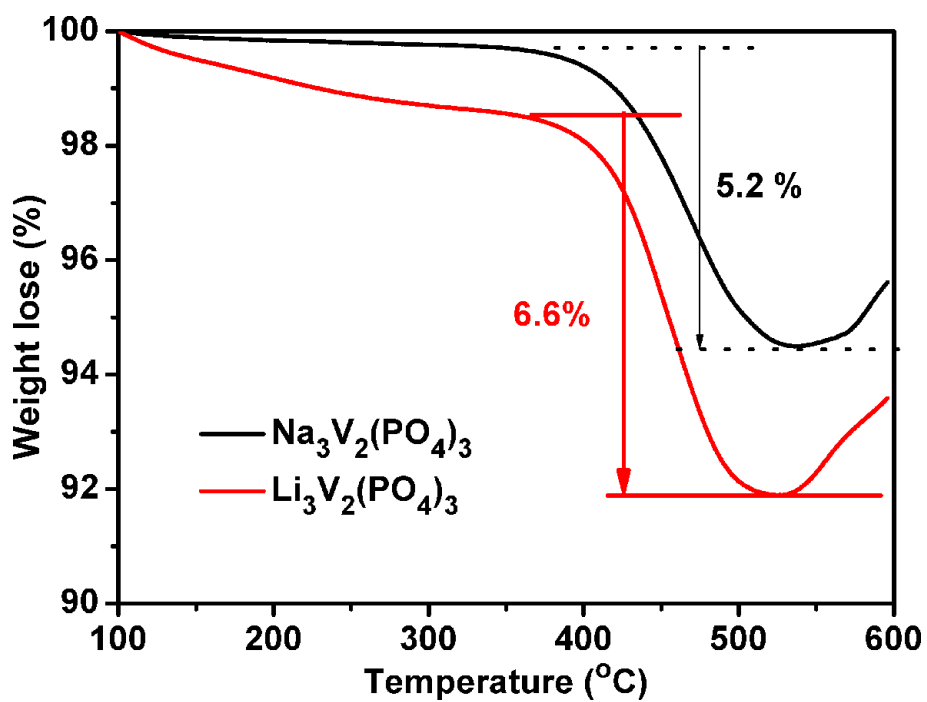


Figure S2 TGA curves of r-NVP/C and r-LVP/C in air atmosphere.

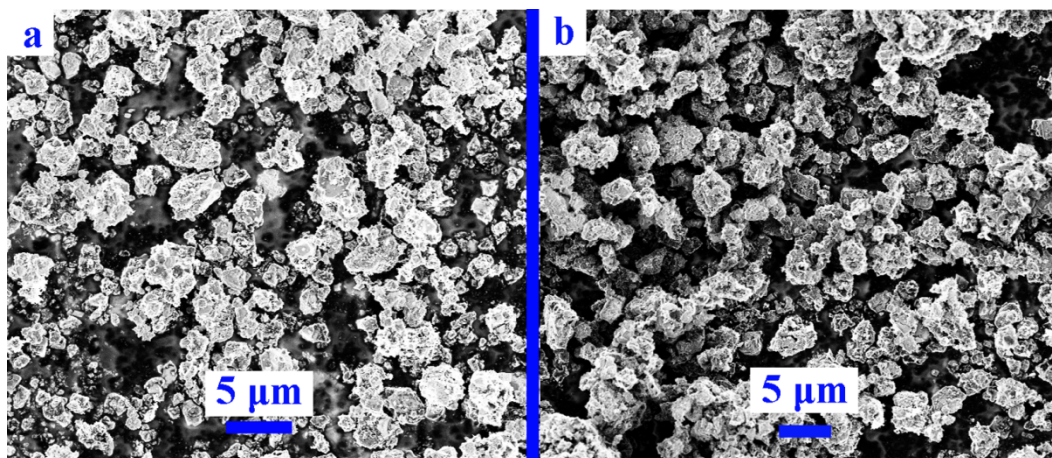


Figure S3 SEM images of (a) r-NVP/C and (b) r-LVP/C

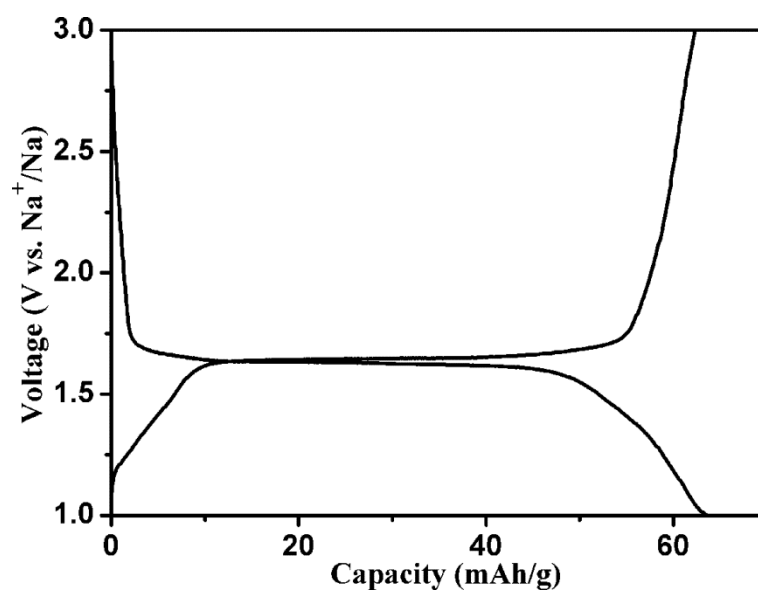


Figure S4 Discharge/charge curves of the carbon coated r-NVP vs Na anode.