

Supporting Information

Facile Construction of Nanoscale Laminated $\text{Na}_3\text{V}_2(\text{PO}_4)_3$ for High-performance Sodium Ion Battery Cathode

Qiong Zheng^a, Xianfeng Li^{a,c}, Hongzhang Zhang^{a,c}, Kai Feng^{a*}, Huamin Zhang^{a,c*}

^a Division of energy storage, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Zhongshan Road 457, Dalian 116023, China

^b University of Chinese Academy of Sciences, Beijing 100039, China

^c Collaborative Innovation Center of Chemistry for Energy Materials (iChEM), Dalian 116023, P. R. China

*Correspondence - zhengqiong@dicp.ac.cn

Table S1. The lattice parameters of G-NVP and X-NVP

| | G-NVP | X-NVP |
|------------------|----------|----------|
| cell_length_a | 8.72482 | 8.72315 |
| cell_length_b | 8.72482 | 8.72315 |
| cell_length_c | 21.8351 | 21.8301 |
| cell_angle_alpha | 90 | 90 |
| cell_angle_beta | 90 | 90 |
| cell_angle_gamma | 120 | 120 |
| cell_volume | 1439.46 | 1438.57 |
| setting | trigonal | Trigonal |
| space_group | R-3c | R-3c |

Table S2. Crystallographic data of the G-NVP

| atom | site | x | y | Z | occupancy |
|------|------|----------|---------|----------|-----------|
| Na | Na1 | 0.3333 | 0.6667 | 0.1667 | 0.862 |
| Na | Na2 | 0.6667 | 0.9708 | 0.0833 | 0.7681 |
| V | V1 | 0.3333 | 0.6667 | 0.01926 | 1 |
| P | P1 | -0.04337 | 0.3333 | 0.0833 | 1 |
| O | O1 | 0.14038 | 0.49886 | 0.07741 | 1 |
| O | O2 | 0.53971 | 0.84147 | -0.02467 | 1 |

Table S3. Crystallographic data of the X-NVP

| atom | site | x | Y | Z | occupancy |
|------|------|----------|---------|----------|-----------|
| Na | Na1 | 0.3333 | 0.6667 | 0.1667 | 0.846 |
| Na | Na2 | 0.6667 | 0.9694 | 0.0833 | 0.7655 |
| V | V1 | 0.3333 | 0.6667 | 0.01930 | 1 |
| P | P1 | -0.04389 | 0.3333 | 0.0833 | 1 |
| O | O1 | 0.14009 | 0.49923 | 0.07758 | 1 |
| O | O2 | 0.53974 | 0.84156 | -0.02430 | 1 |

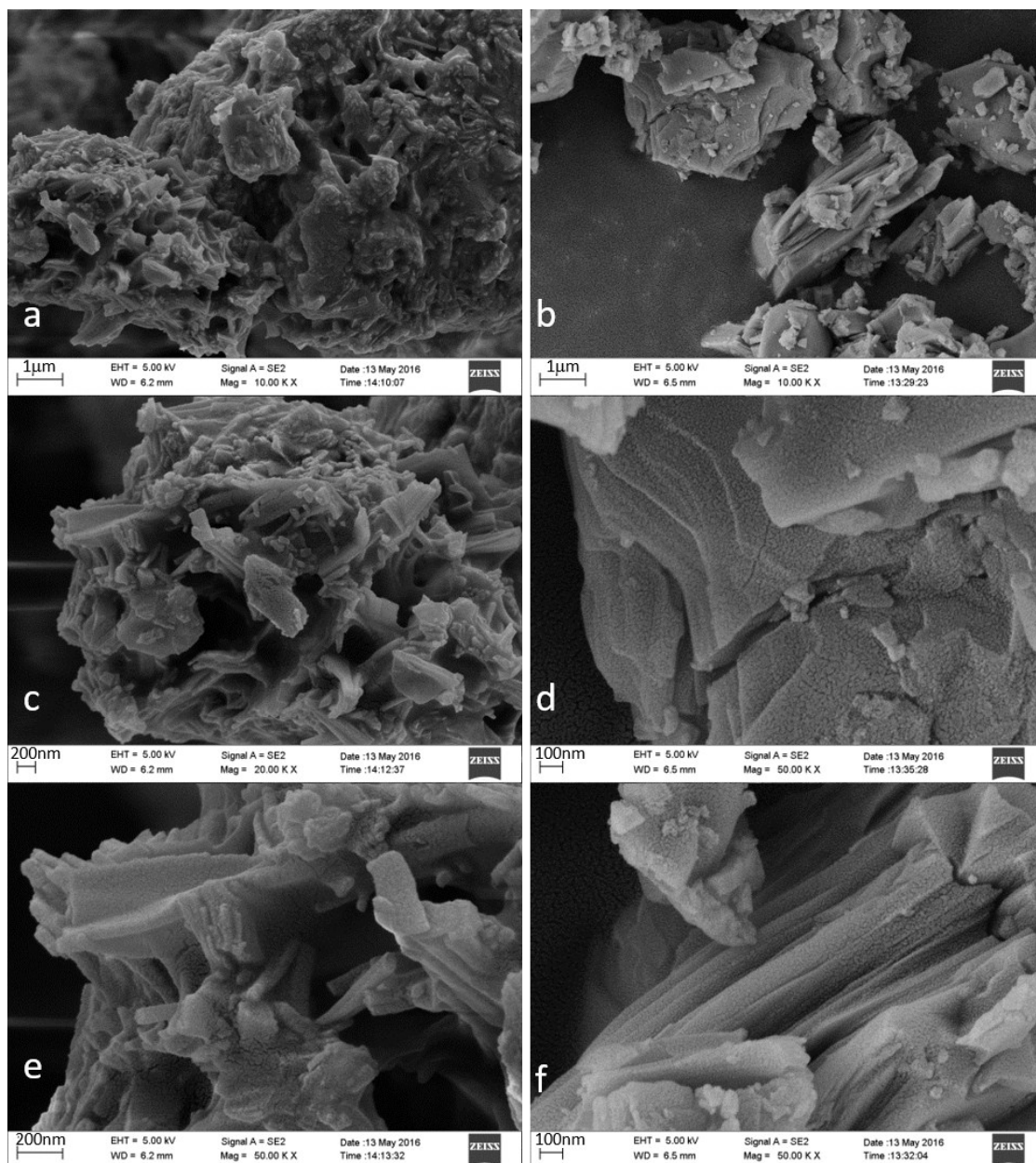


Fig. S1. SEM images of the intermediate precursor of G-NVP (a) (c) (e) and X-NVP (b) (d) (f) with different magnifications.

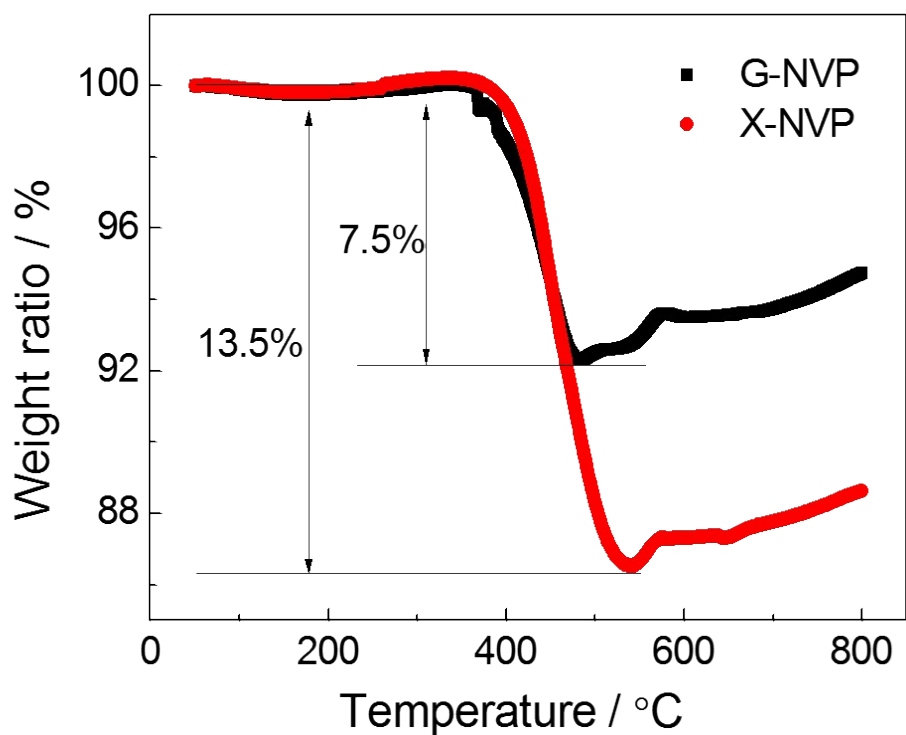


Fig. S2. TG curves of G-NVP and X-NVP

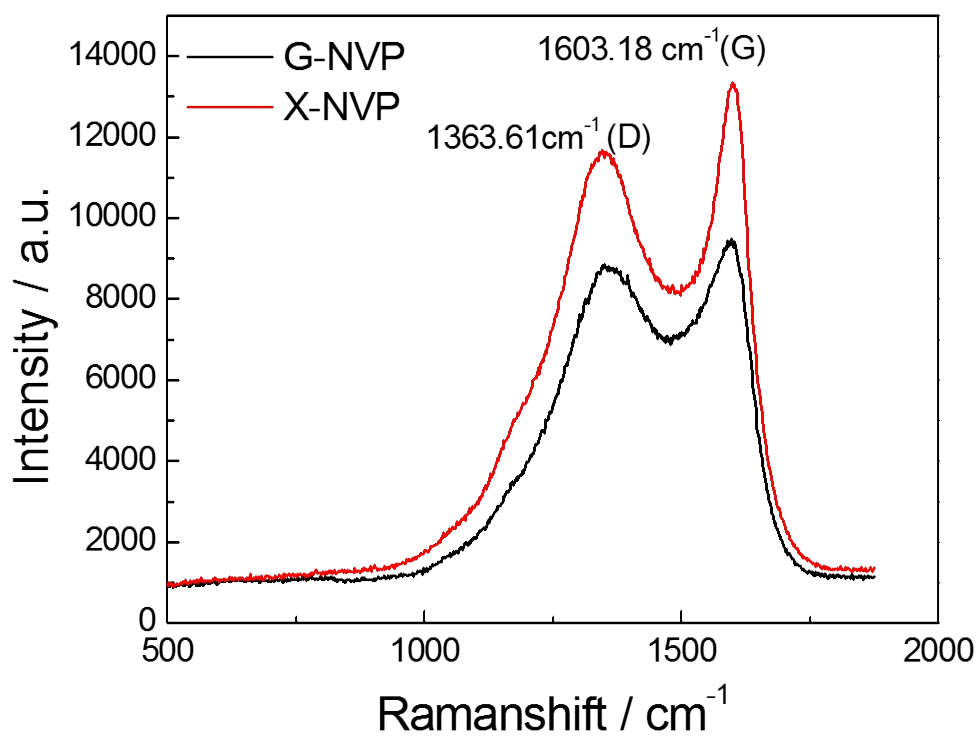


Fig. S3. Raman spectra of G-NVP and X-NVP