

# ADVANCED ENERGY MATERIALS

## Supporting Information

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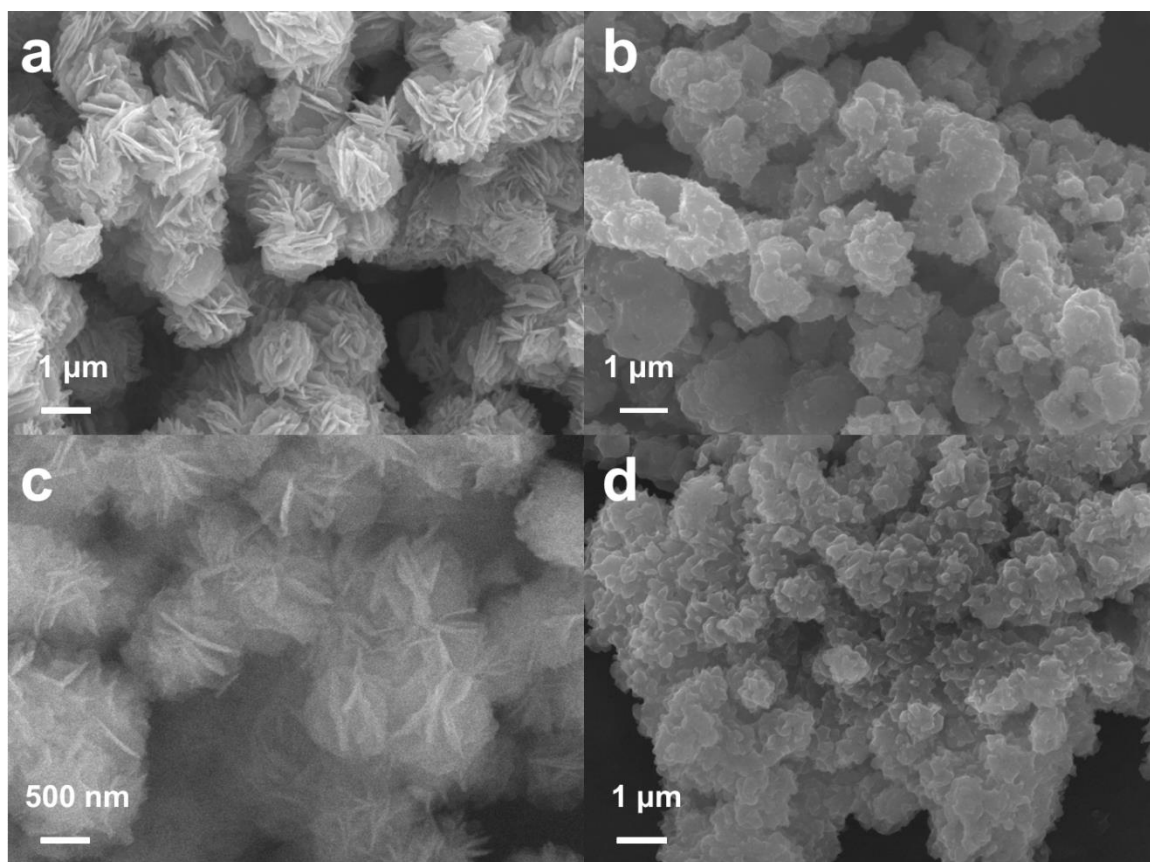
Nanoflake-Assembled Hierarchical  $\text{Na}_3\text{V}_2(\text{PO}_4)_3/\text{C}$   
Microflowers: Superior Li Storage Performance and  
Insertion/Extraction Mechanism

Qinyou An, Fangyu Xiong, Qiulong Wei, Jinzhi Sheng, Liang  
He, Dongling Ma, Yan Yao,\* and Liqiang Mai\*

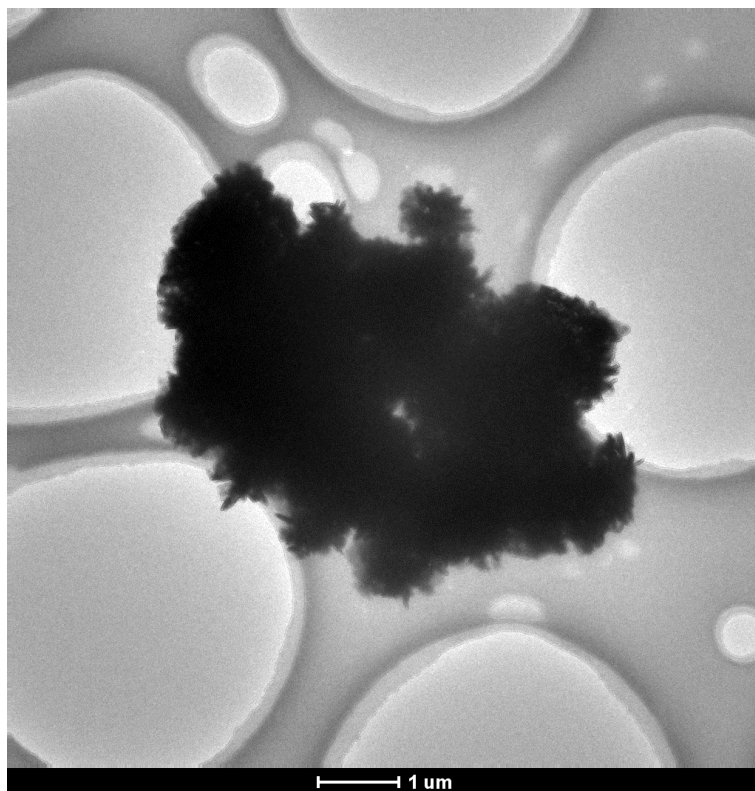
## Supporting Information

### Nanoflake-assembled Hierarchical $\text{Na}_3\text{V}_2(\text{PO}_4)_3/\text{C}$ Microflowers: Superior Li Storage Performance and Insertion/Extraction Mechanism

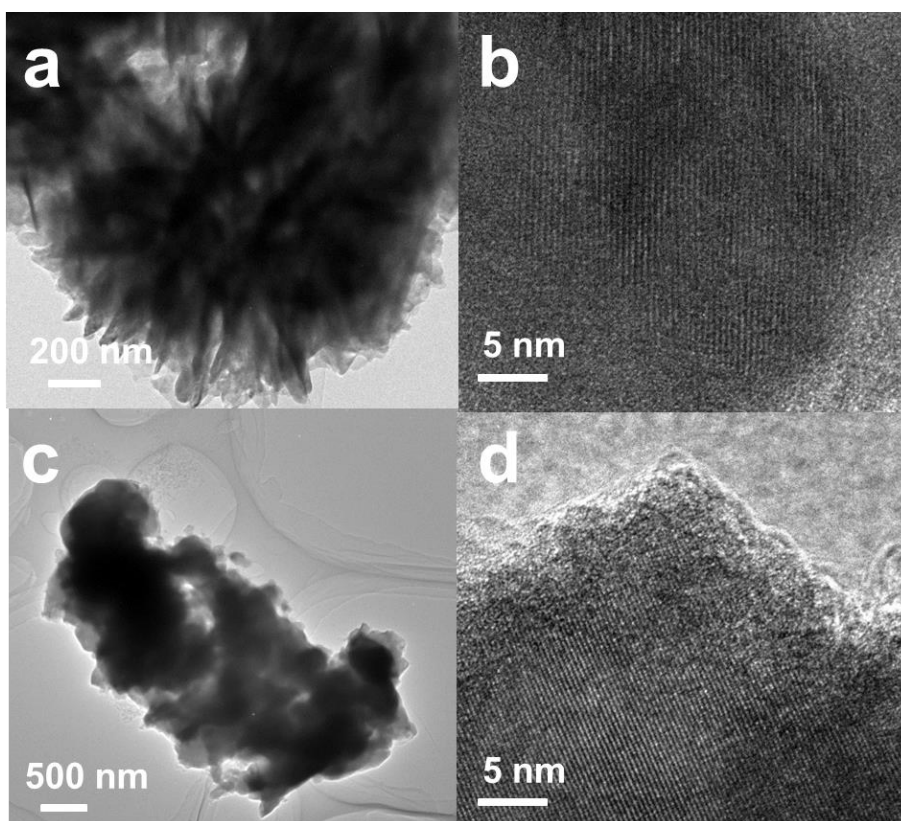
Qinyou An<sup>‡</sup>, Fangyu Xiong<sup>‡</sup>, Qiulong Wei, Jinzhi Sheng, Liang He, Dongling Ma, Yan Yao\* and Liqiang Mai\*



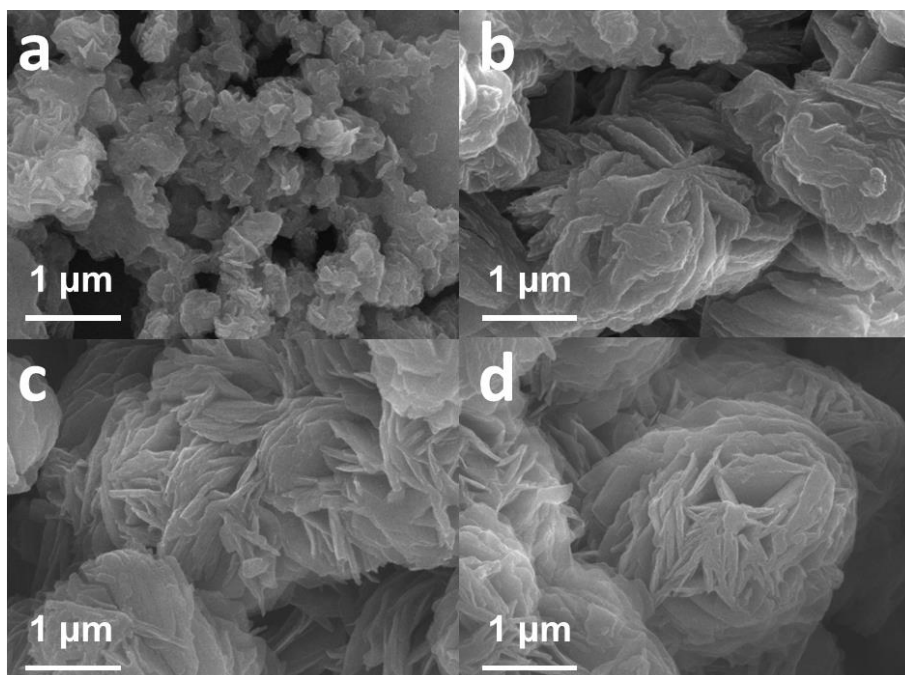
**Figure S1.** The FESEM images of (a) NVP-650, (b) NVP-850, (c) precursor without glucose and (d) sample without glucose after annealing at 750 °C.



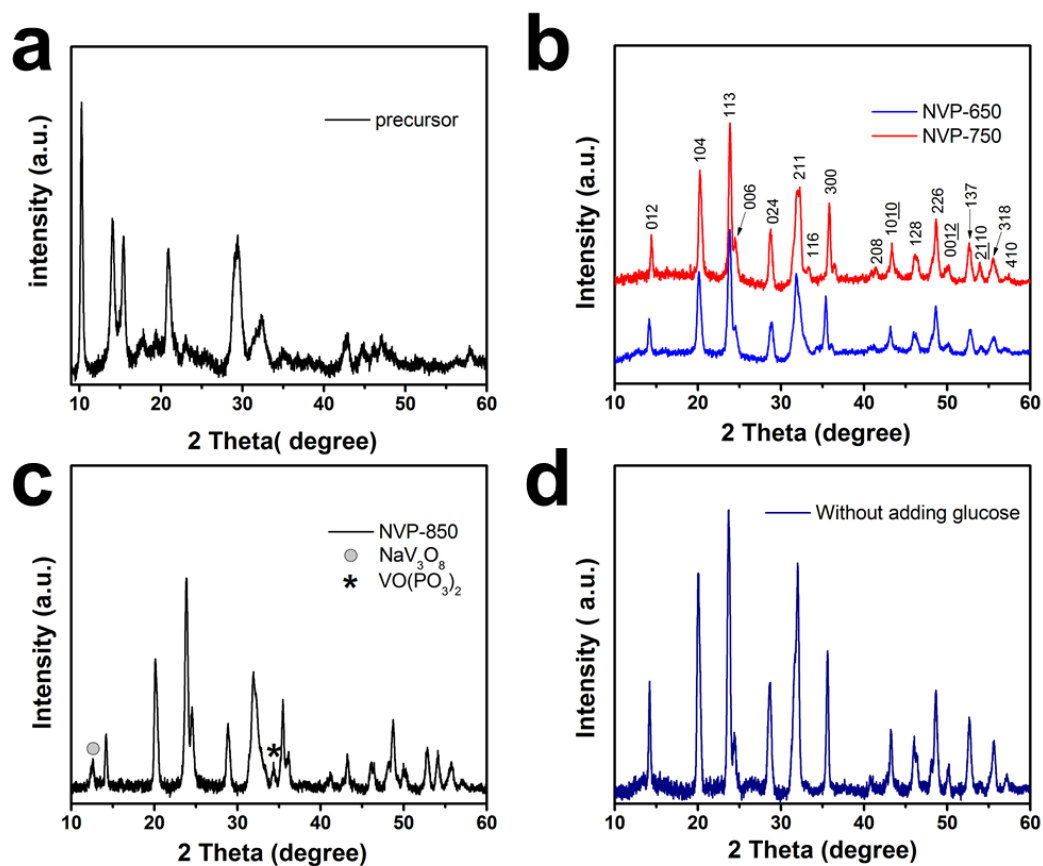
**Figure S2.** The TEM image of NVP-750.



**Figure S3.** The TEM images of NVP-650 (a, b) and NVP-850 (c, d).



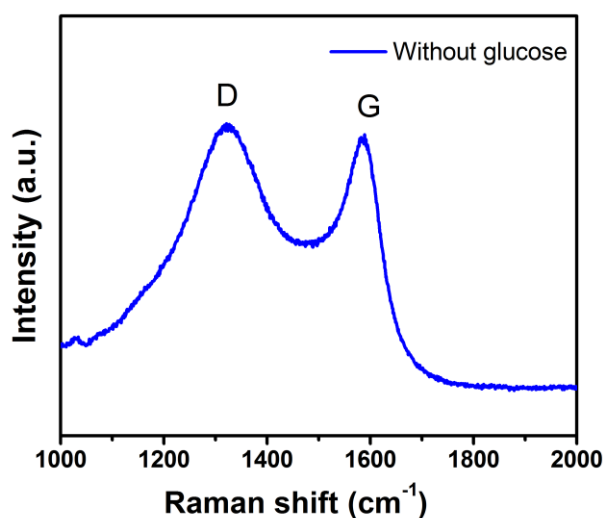
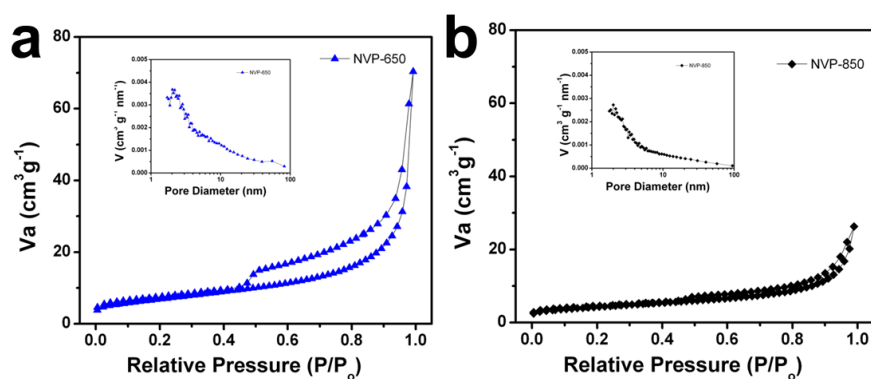
**Figure S4.** The FESEM images of precursors with different reaction time: (a) 1 min; (b) 5 min (c) 10 min and (d) 20 min.

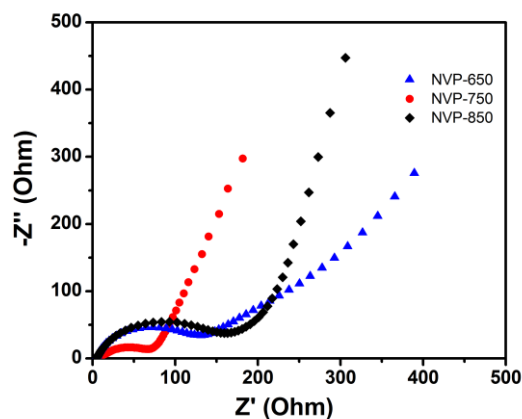


**Figure S5.** XRD patterns of (a) precursor; (b) NVP-650 and NVP-750; (c) NVP-850 and (d) the sample without adding any glucose annealed at 750 °C.

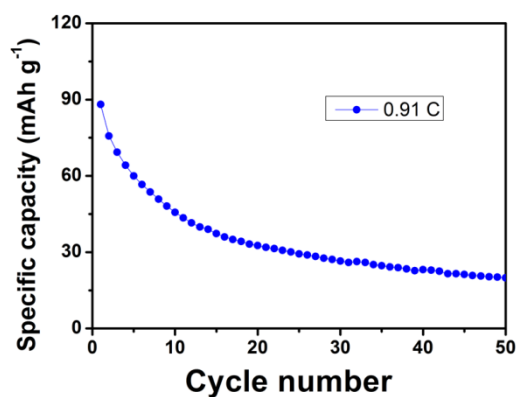
**Table S1.** The FWHM of several main XRD peaks of NVP-650 and NVP-750.

Peaks	(012)	(104)	(113)	(024)	(211)	(300)
FWHM (NVP-650)	0.345	0.499	0.557	0.541	0.901	0.293
FWHM (NVP-750)	0.284	0.450	0.499	0.495	0.805	0.282

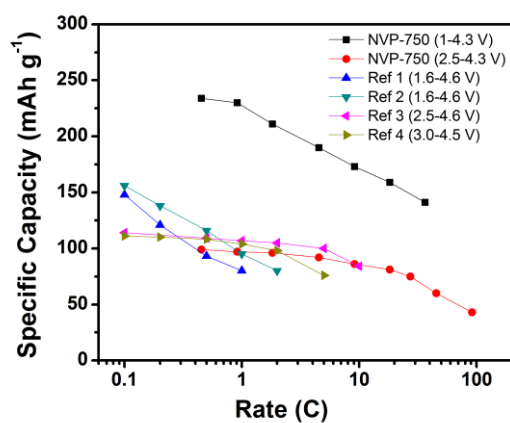
**Figure S6.** The Raman spectrum of the sample without adding any glucose and annealed at 750 °C.**Figure S7.** The Nitrogen adsorption-desorption isotherms and corresponding pore size distribution (inset) of (a) NVP-650 and (b) NVP-850.



**Figure S8.** AC-impedance spectra of NVP-650, NVP-750 and NVP-850.



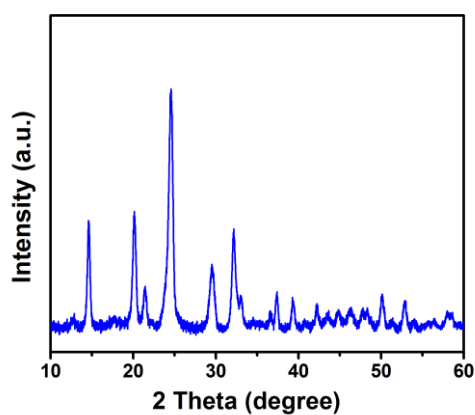
**Figure S9.** The cycling performance of the sample (without adding any glucose; annealed at 750 °C) measured at 0.91 C in the voltage range of 1- 4.3 V.



**Figure S10.** The rate performance of NVP-750 in different voltage windows in comparison of the report work (Ref 1, Ref 2, Ref 3 and Ref 4).

**Reference**

- [1] W. X. Song, X. B. Ji, C. C. Pan, Y. R. Zhu, Q. Y. Chen, C. E. Banks, *Phys. Chem. Chem. Phys.* **2013**, *15*, 14357.
- [2] W. X. Song, X. B. Ji, Y. B. Yao, H. J. Zhu, Q. Y. Chen, Q. Q. Sun, C. E. Banks, *Phys. Chem. Chem. Phys.* **2014**, *16*, 3055.
- [3] K. Du, H. W. Guo, G. R. Hu, Z. D. Peng, Y. B. Cao, *J. Power Sources* **2013**, *223*, 284.
- [4] Z. L. Jian, W. Z. Han, Y. L. Liang, Y. C. Lan, Z. Fang, Y.-S. Hu, Y. Yao, *J. Mater. Chem. A*, DOI: 10.1039/C4TA04630G.



**Figure S11.** The XRD pattern of the NVP-750 after soaking in 1 M LiPF<sub>6</sub>/EC+DMC electrolyte for 12 h.