## Assembly of Na<sub>3</sub>V<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>F<sub>3</sub>@C Nanoparticles in Reduced Graphene Oxide Enabling Superior Na<sup>+</sup> Storage for Symmetric Sodium Batteries

Ye Yao, a Lu Zhang, Yu Gao\*a, Gang Chen, Chunzhong Wanga and Fei Du\*a

Key Laboratory of Physics and Technology for Advanced Batteries (Ministry of Education), State Key Laboratory of Superhard Materials, College of Physics, Jilin University, Changchun, 130012, People's Republic of China

Email: dufei@jlu.edu.cn; gaoyu@jlu.edu.cn



Figure S1. SEM (a)and TEM(b) of NVPF@C



Figure S2. Charge-discharge profiles of the NVPF@C and NVPF@C@rGO.



Figure S3. Equivalent circuit for the Nyquist plots of the NVPF@C and NVPF@C@rGO.



Figure S4. Linear fitting of Z' vs.  $\omega^{-1/2}$  of NVPF@C and NVPF@C@rGO.



**Figure S5.** Charge-discharge profile of NVPF@C@rGO in the voltage range of 0.01-2.0V at 1C rate.



Figure S6. Cycle performance of NVPF@C@rGO symmetric full cell at 1C.