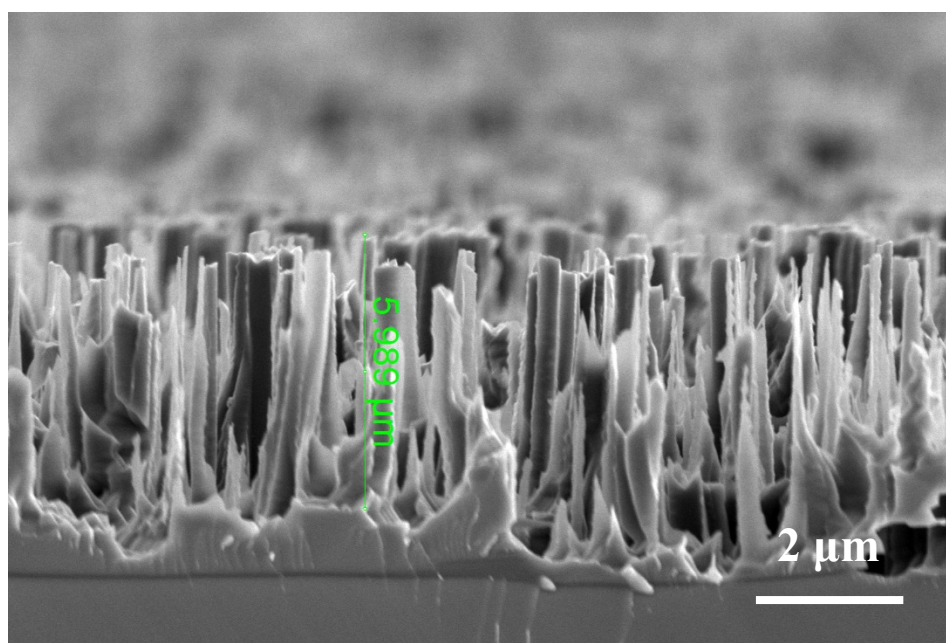


## Supporting Information for

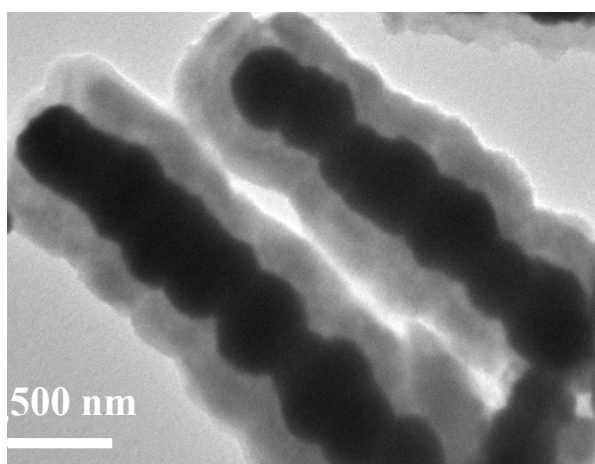
### Passivation of silicon nanowires with Ni particulates and PEDOT/MnO<sub>x</sub> composite for high-performance aqueous supercapacitors

Pengwei Liu, Shouyan Sun, Tongfei Wang, Xiaojuan Shen,\*and Maiyong Zhu\*

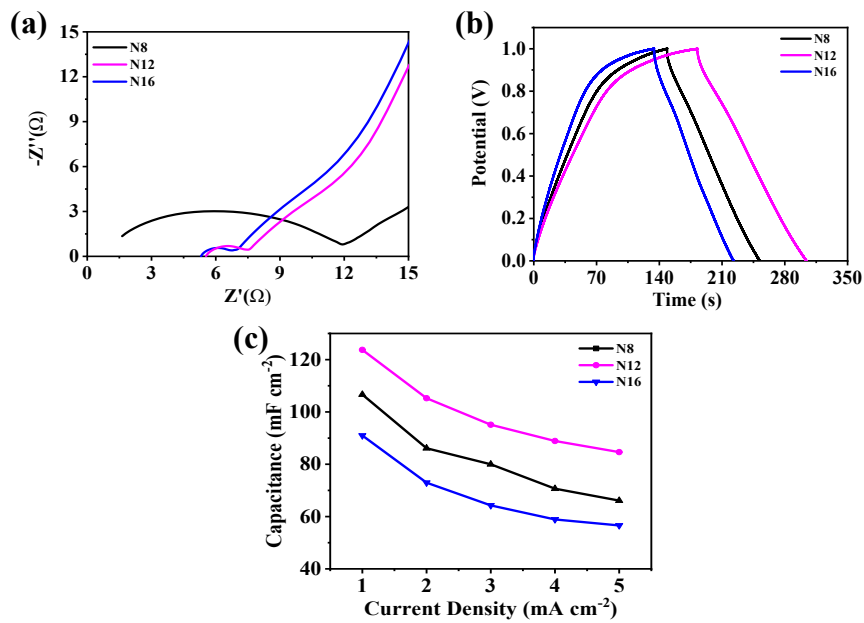
Research School of Polymeric Materials, School of Materials Science & Engineering, Jiangsu  
University, Zhenjiang, Jiangsu Province, 212013, China.



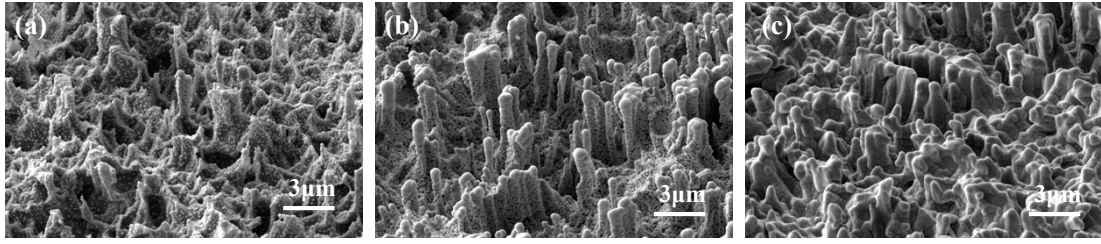
**Fig. S1.** Cross-section SEM image of SiNWs.



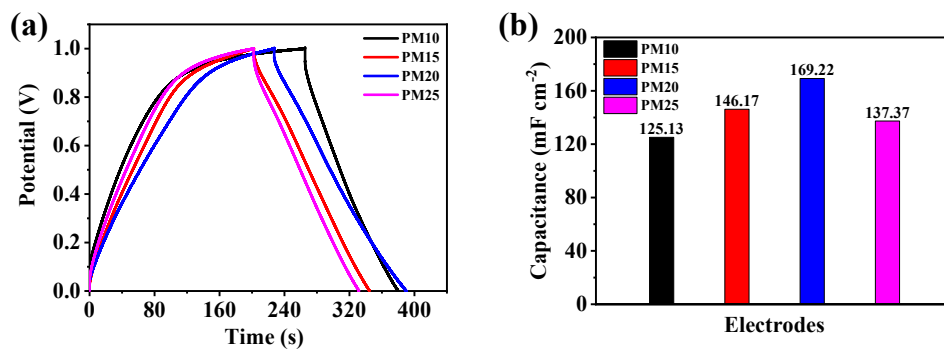
**Fig. S2.** TEM image of NSi@PM-Pt.



**Fig. S3.** Electrochemical performance of the NSi@PM electrodes with the different deposition time of Ni particles. (a) Nyquist plots, (b) GCD measurement at the current density of  $1 \text{ mA cm}^{-2}$ , (c) Areal capacitances of the electrodes at different scan rates.



**Fig. S4.** SEM image at a tilt angle of 45 degrees for NSi@PM with the different deposition time of Ni particles. (a) 8 min, (b) 12 min, and (c) 16 min.



**Fig. S5.** Electrochemical performance of the NSi@PM electrodes with the different deposition time of PM. (a) GCD measurement at the current density of  $1 \text{ mA cm}^{-2}$ ; (b) Areal capacitances at  $1 \text{ mA cm}^{-2}$  of different electrodes.

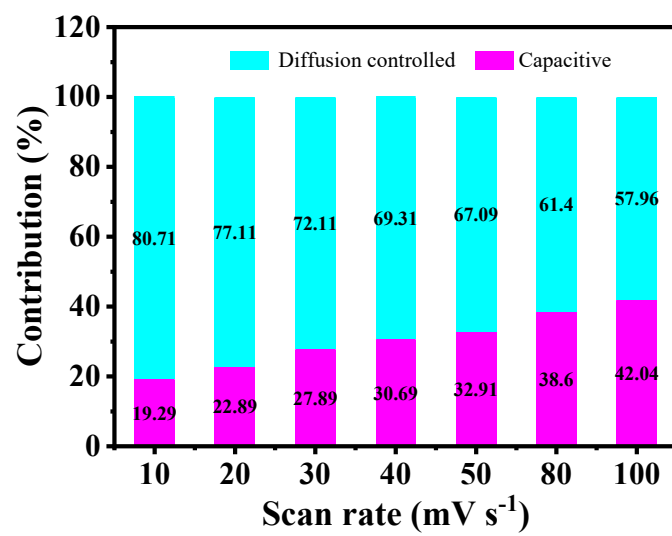


Fig. S6. Surface-capacitive contributions and diffusion-controlled contribution at different current scan rates for NSi@PM-Pt.