

Supplementary Information

Nanoporous Metal Based Flexible Asymmetric Pseudocapacitors

Ying Hou^{ab+}, Luyang Chen^{b+}, Pan Liu^b, Jianli Kang^b, Takeshi Fujita^b and Mingwei Chen^{bcd*}

^a *Key Laboratory of Interface Science and Engineering in Advanced Materials, Taiyuan*

University of Technology, Ministry of Education, Taiyuan 030024, PR China

^b *World Premier International (WPI) Research Center, Advanced Institute for Materials Research, Tohoku University, Sendai 980-8577, Japan*

^c *CREST, Japan Science and Technology Agency (JST), Saitama 332-0012, Japan*

^d *State Key Laboratory of Metal Matrix Composites, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai 200030, PR China*

⁺These authors contributed equally to this work.

* Corresponding author. E-mail address: mwchen@wpi-aimr.tohoku.ac.jp

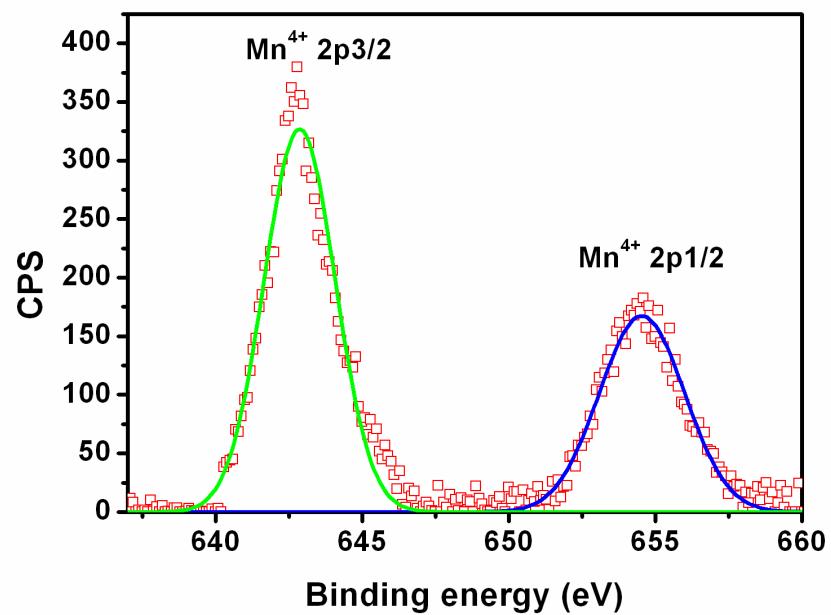


Fig. S1 XPS spectrum of Mn 2p orbit for the MnO₂ deposited on NPG.

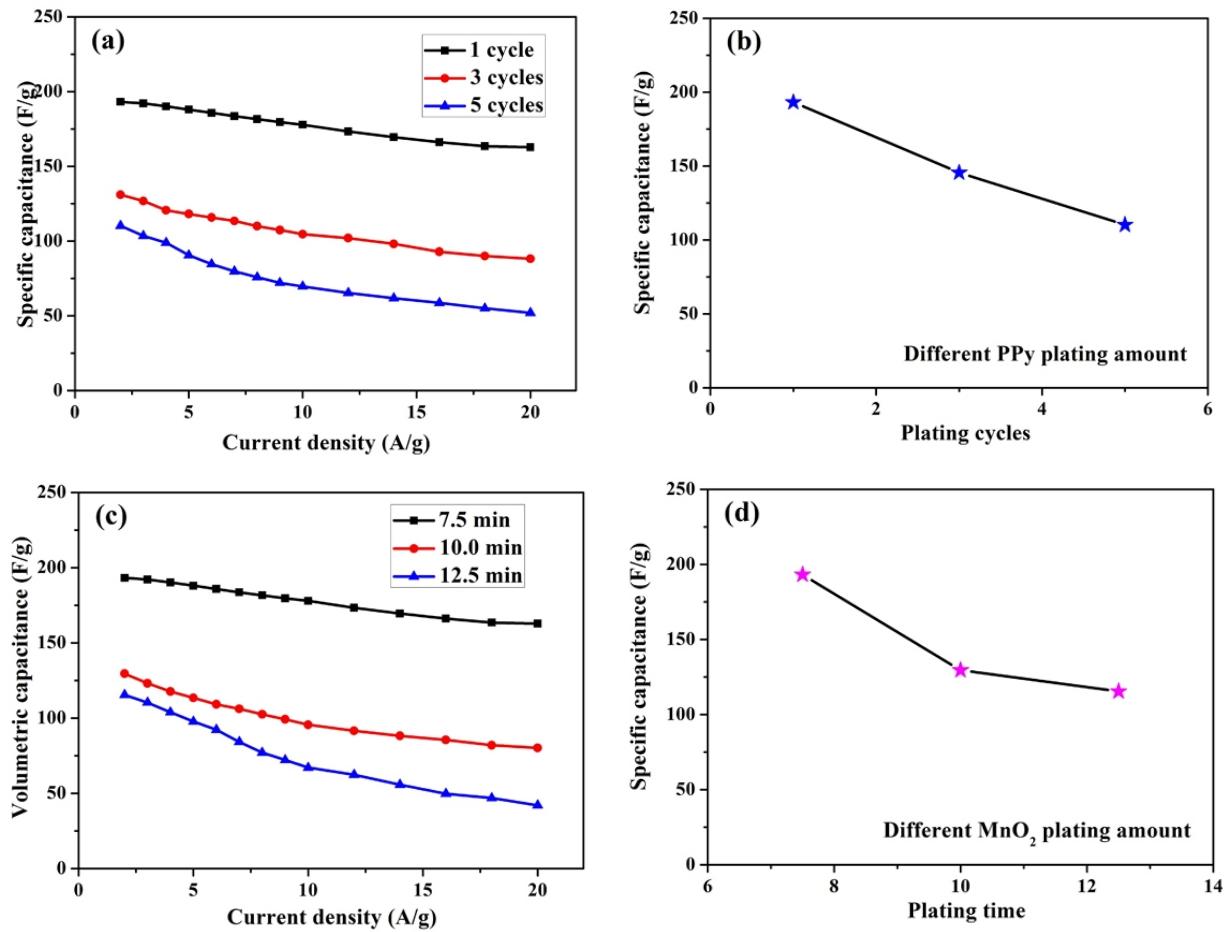


Fig. S2. (a) Specific capacitance of PPy-NPG//MnO₂-NPG asymmetric supercapacitor with 7.5 min-plated MnO₂ and different plating cycles PPy. (b) Relationship between specific capacitance and PPy plating cycles. (c) Specific capacitance of PPy-NPG//MnO₂-NPG asymmetric supercapacitor with 1 cycle-plated PPy and different plating times MnO₂. (d) Relationship between specific capacitance and MnO₂ plating times.

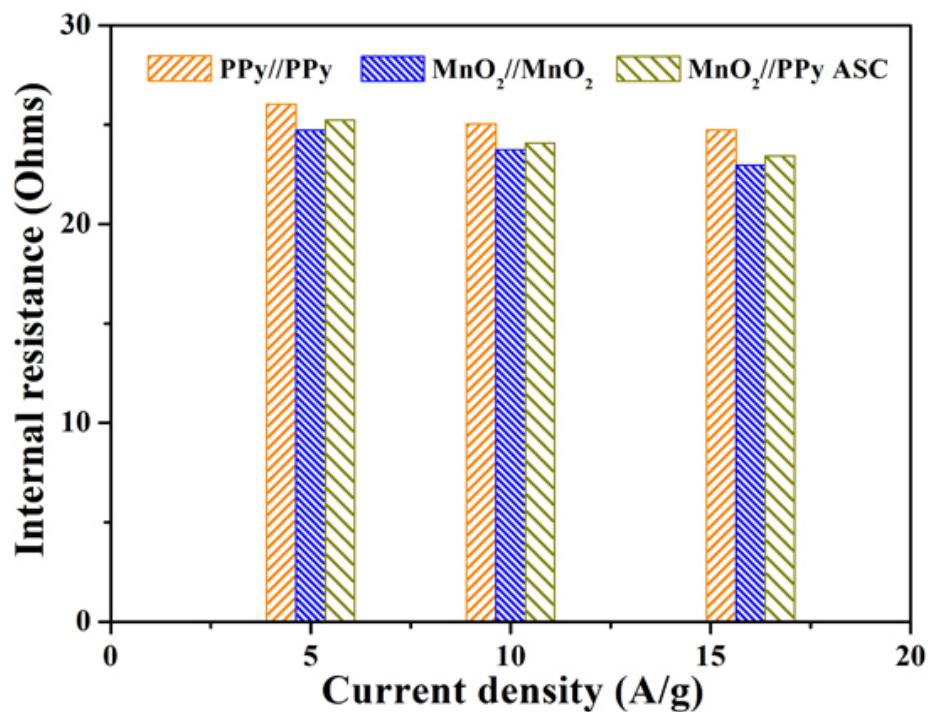


Fig. S3. Internal resistances of the PPy-NPG//MnO₂-NPG asymmetric supercapacitor, PPy-NPG//PPy-NPG symmetric supercapacitor and MnO₂-NPG//MnO₂-NPG symmetric supercapacitor at different current densities.