

High Performance Nitrogen-Doped Porous Graphene/Carbon Frameworks for Supercapacitors

Xutao Ning,^a Wenbin Zhong,^{*a} Shichao Li,^a Yongxin Wang,^b Wantai Yang^b

a. College of Materials Science and Engineering, Hunan University, Changsha, 410082, P. R. China.

b. Department of Polymer Science, Beijing University of Chemical Technology, Beijing, 100029, P. R. China.

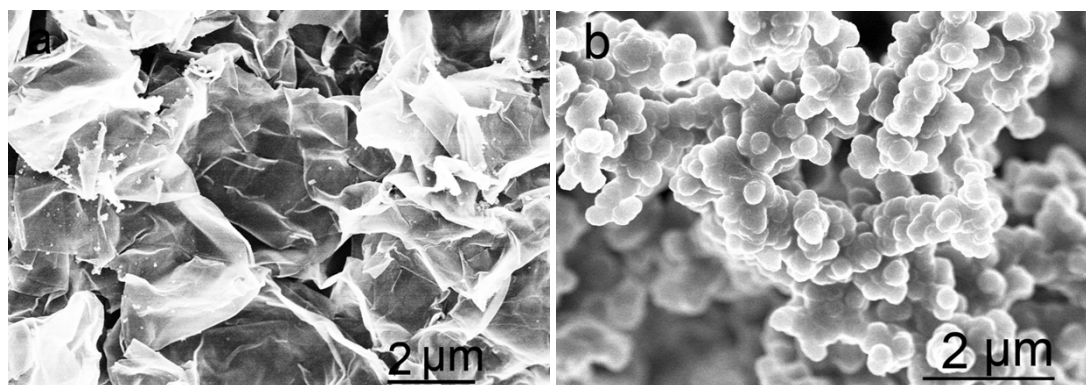


Fig.S1 SEM images of samples (a) GOP composites, (b) PPy.

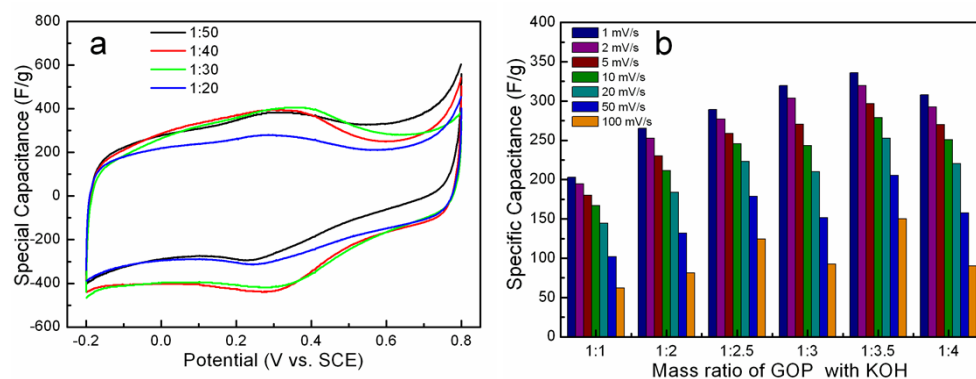


Fig. S2 (a) Cyclic voltammograms of NPGCs activated GOP prepared with various GO/Py at scan rate of 1 mV s^{-1} in $1 \text{ M H}_2\text{SO}_4$, (b) Specific capacitances of NPGCs (GO:Py = 1:40) activated with various mass ratio of GOP to KOH at scan rate changed from 1 to 100 mV s^{-1} in $1 \text{ M H}_2\text{SO}_4$.

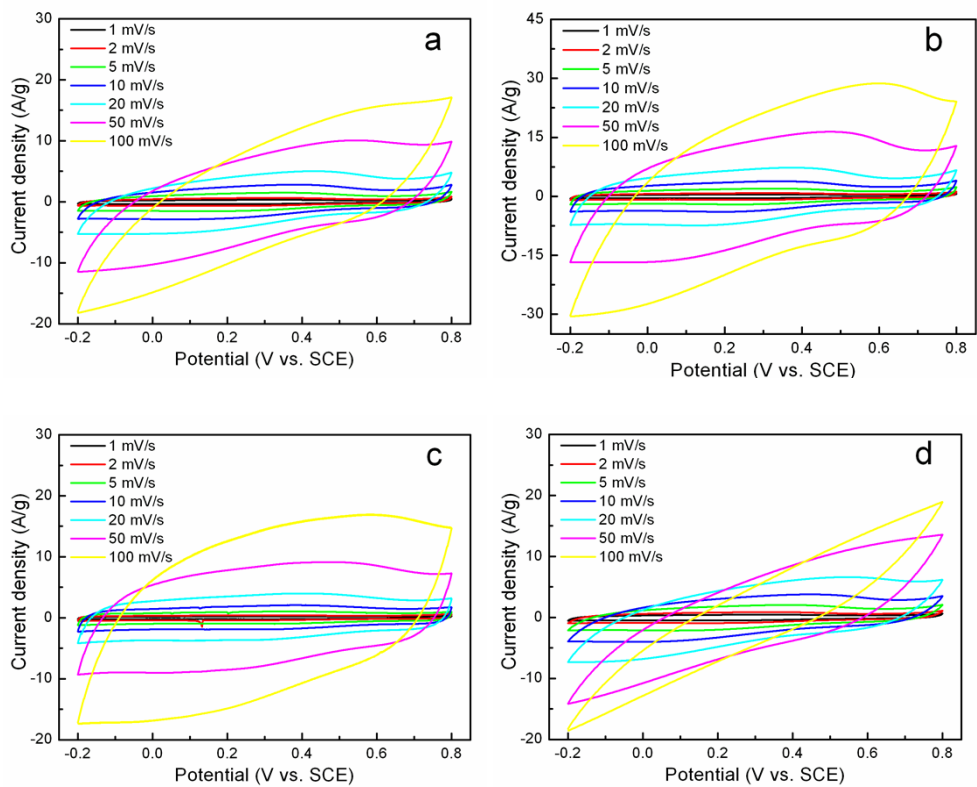


Fig. S3 Cyclic voltammograms recorded from 1 to 100 mV s⁻¹ in 1M H₂SO₄: (a) NPGC600, (b) NPGC650, (c) NPGC700, (d) NPC650.

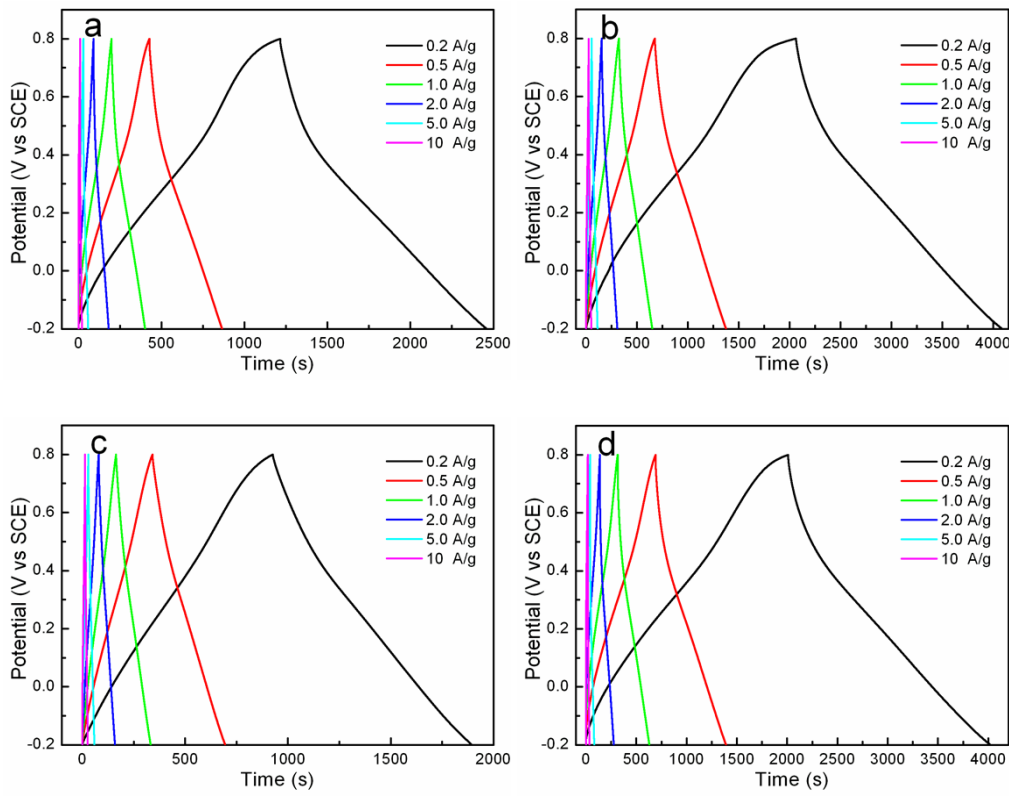


Fig. S4 Galvanostatic charge-discharge recorded from 0.2 to 10 A g⁻¹ in 1M H₂SO₄: (a) NPGC600, (b) NPGC650, (c) NPGC700, (d) NPC650.

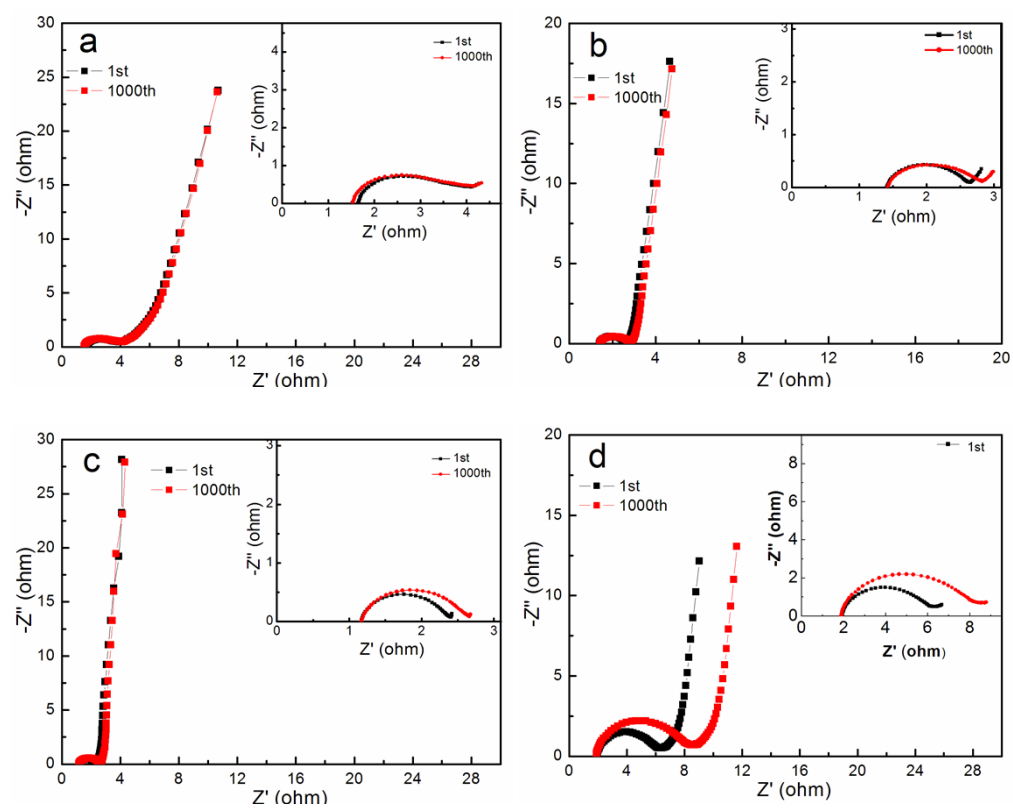


Fig. S5 Nyquist plots before 1st and after 1000th cycles: (a) NPGC600, (b) NPGC650, (c) NPGC700, (d) NPC650.