

Supporting information for

Highly Porous Carbon Nanofibers Co-doped with Fluorine and Nitrogen for Outstanding Supercapacitor Performance

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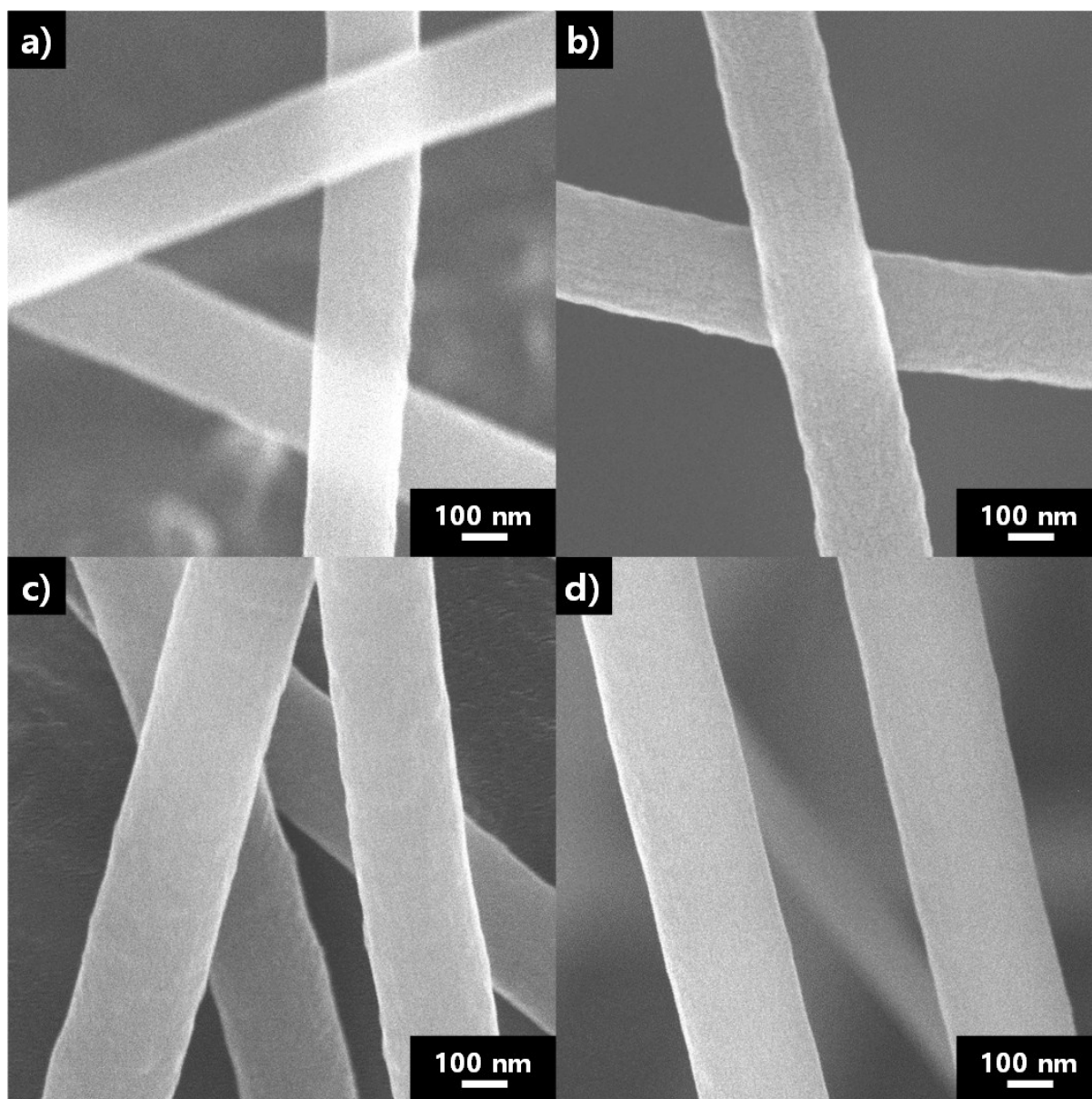


Fig. S1 SEM images of PAN/PVP polymer nanofibers increased with the ratio of PVP in the mixed polymer solution (PAN/PVP ratio: a) 2:1, b) 1:1, c) 1:2, and d) 1:3).

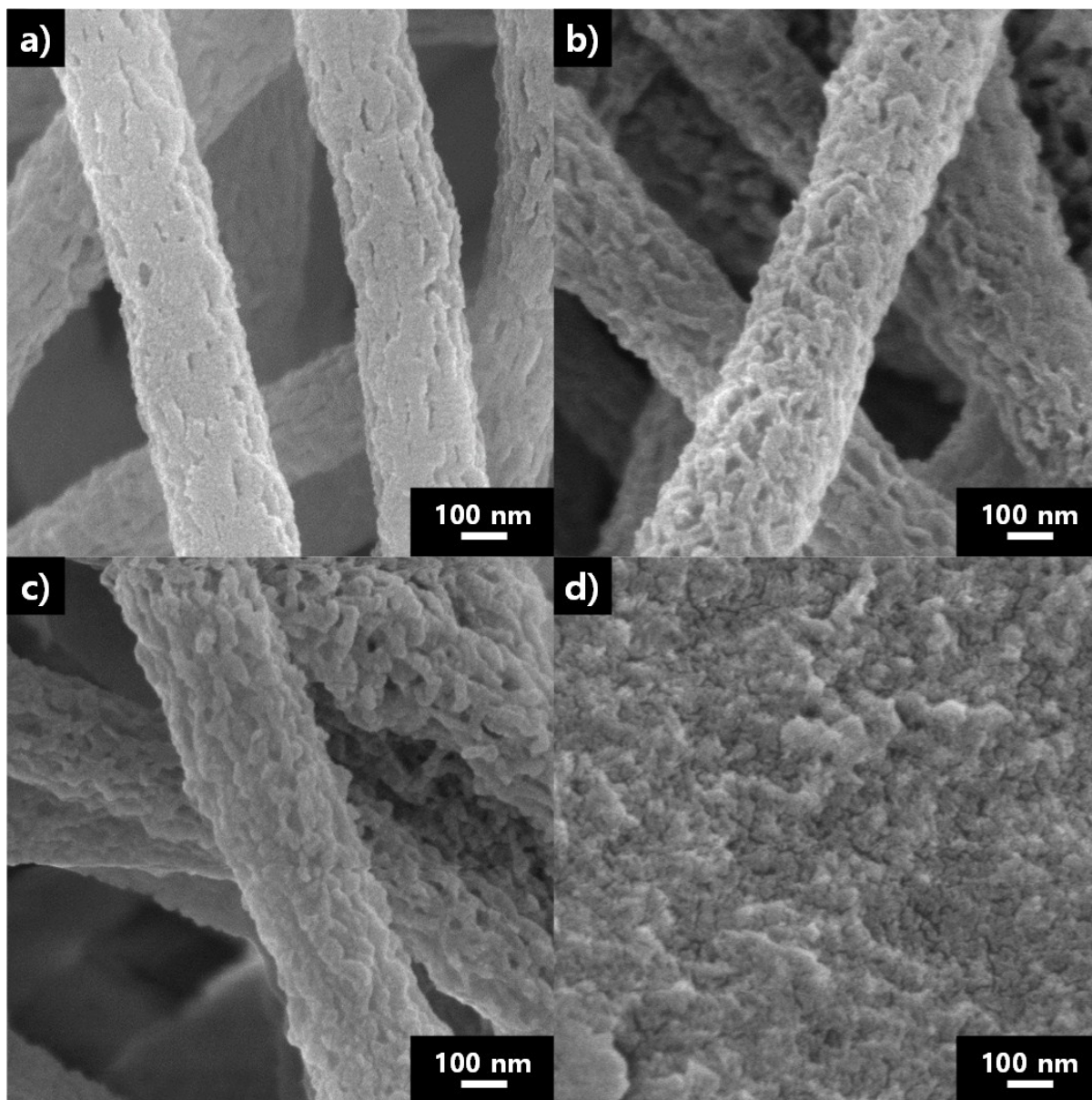


Fig. S2 FE-SEM images of the MPNFs of 1:2 PAN/PVP ratio with increasing temperature from 80 to 200 °C (a) 80 °C, b) 120 °C, c) 160 °C and d) 200 °C, respectively).

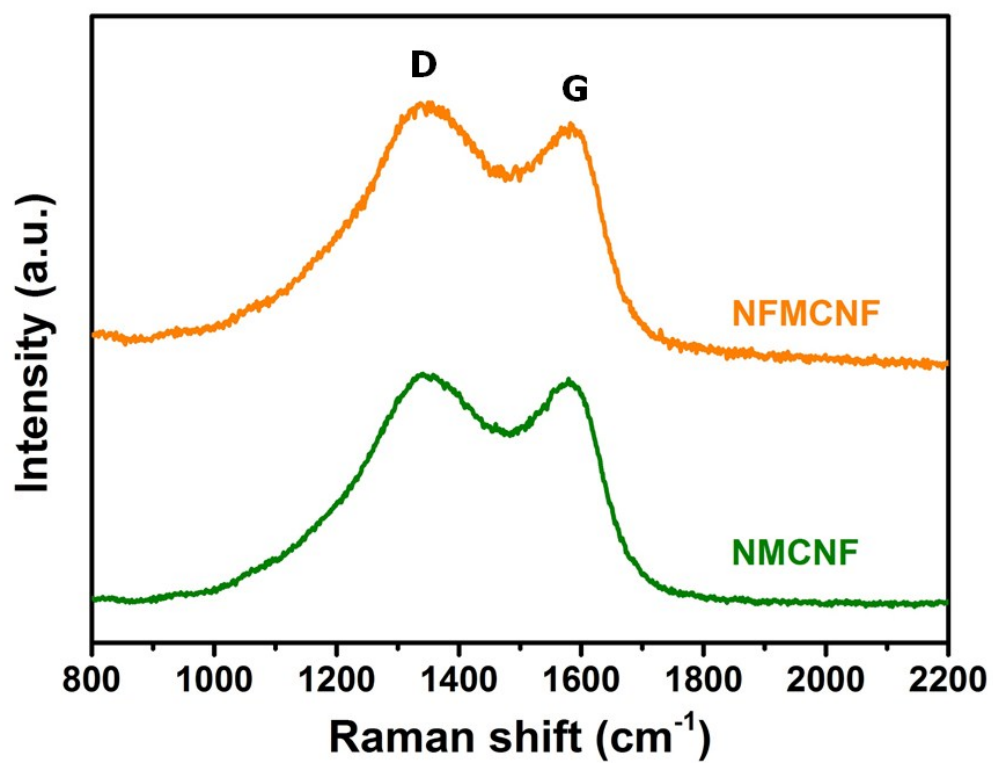


Fig. S3 Raman spectra of NMCNFs and NFMCNFs (Raman shift: from 800 to 2200 cm⁻¹).

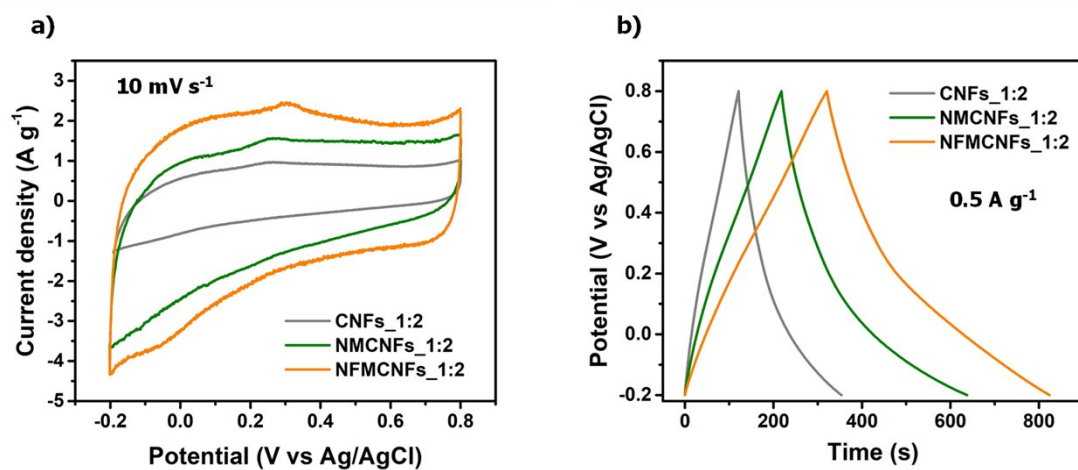


Fig. S4 a) CV curves, and b) GCD profiles of CNFs_1:2, NMCNFs_1:2, and NFMCNFs_1:2 (scan rate in a): 10 mV s^{-1} , and current density in b): 0.5 A g^{-1})