

# Supporting information for Solid and macroporous Fe<sub>3</sub>C/N-C nanofibers with enhanced electromagnetic wave absorbability

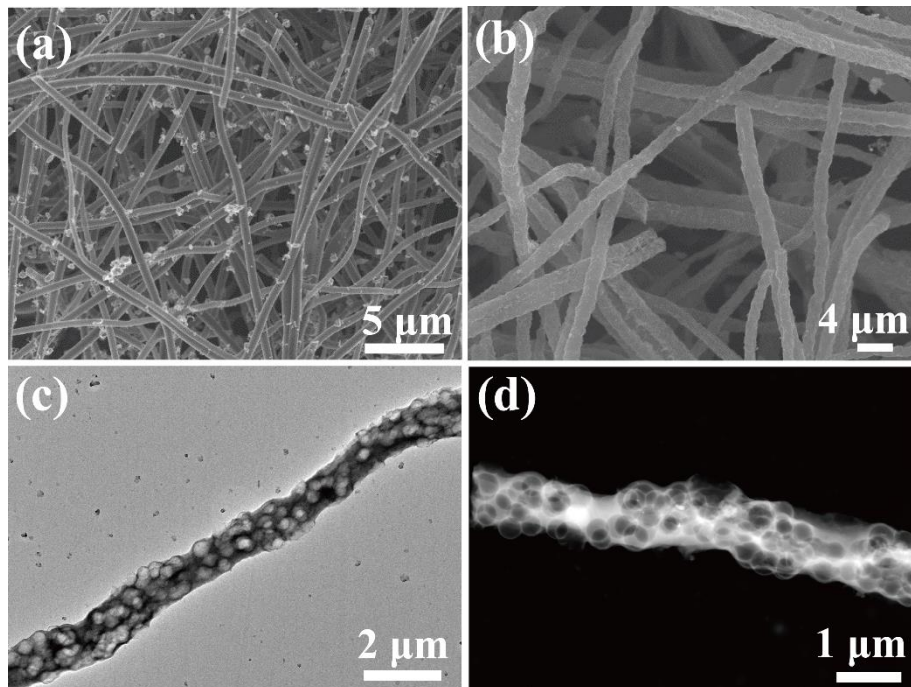
Huihui Liu,<sup>1</sup> Yajing Li,<sup>1</sup> Mengwei Yuan,<sup>1</sup> Genban Sun,<sup>\*,1,2</sup> Qingliang Liao,<sup>\*,2</sup> Yue Zhang<sup>\*,2</sup>

<sup>1</sup> Beijing Key Laboratory of Energy Conversion and Storage Materials and College of Chemistry, Beijing Normal University, Beijing 100875, China.

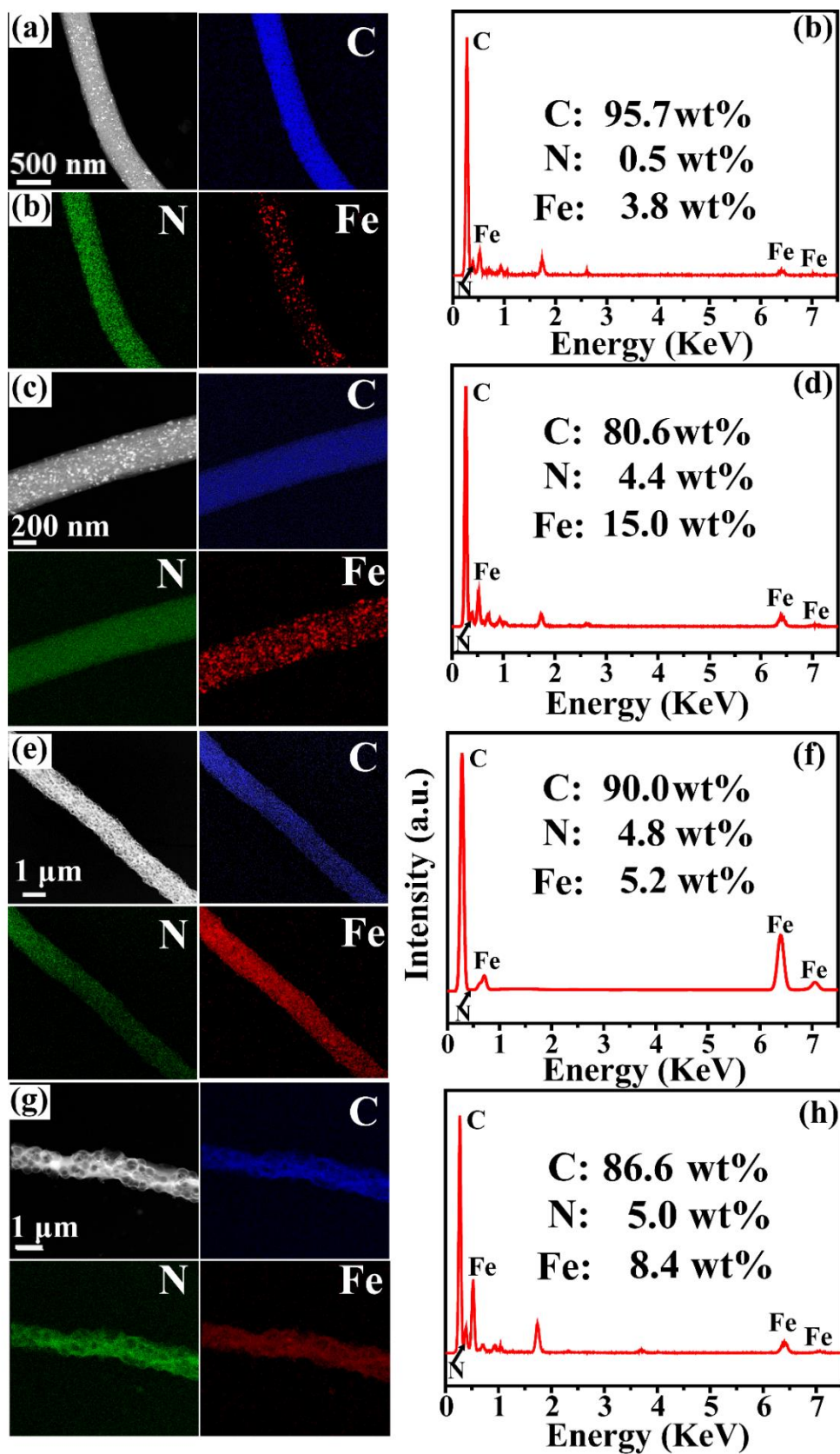
<sup>2</sup> State Key Laboratory for Advanced Metals and Materials, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing, 100083, China.

Correspondence and requests for materials should be addressed to G.S. (email: gbsun@bnu.edu.cn),

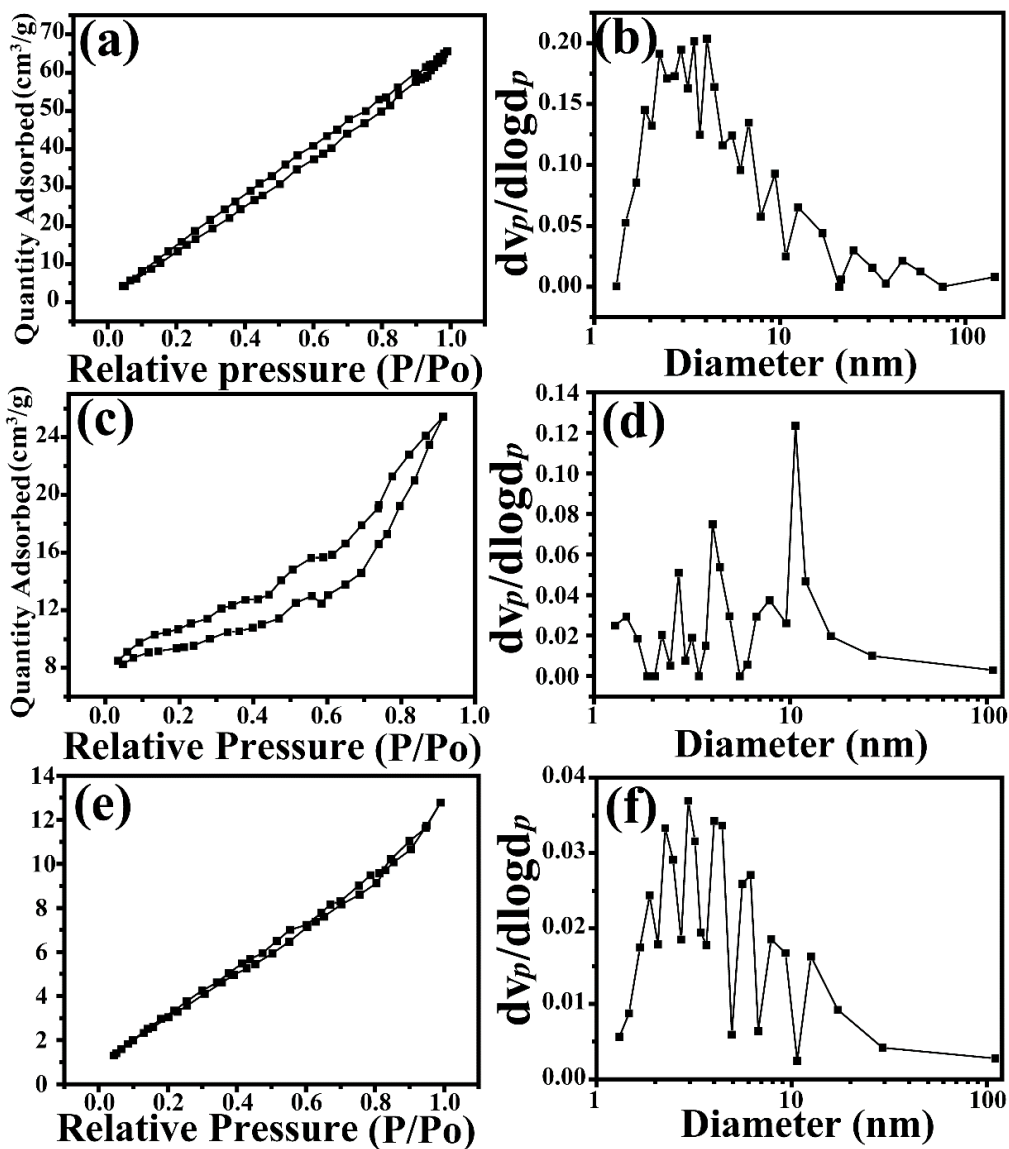
Q.L. (email: liao@ustb.edu.cn) or Y.Z. (email: yuezhang@ustb.edu.cn).



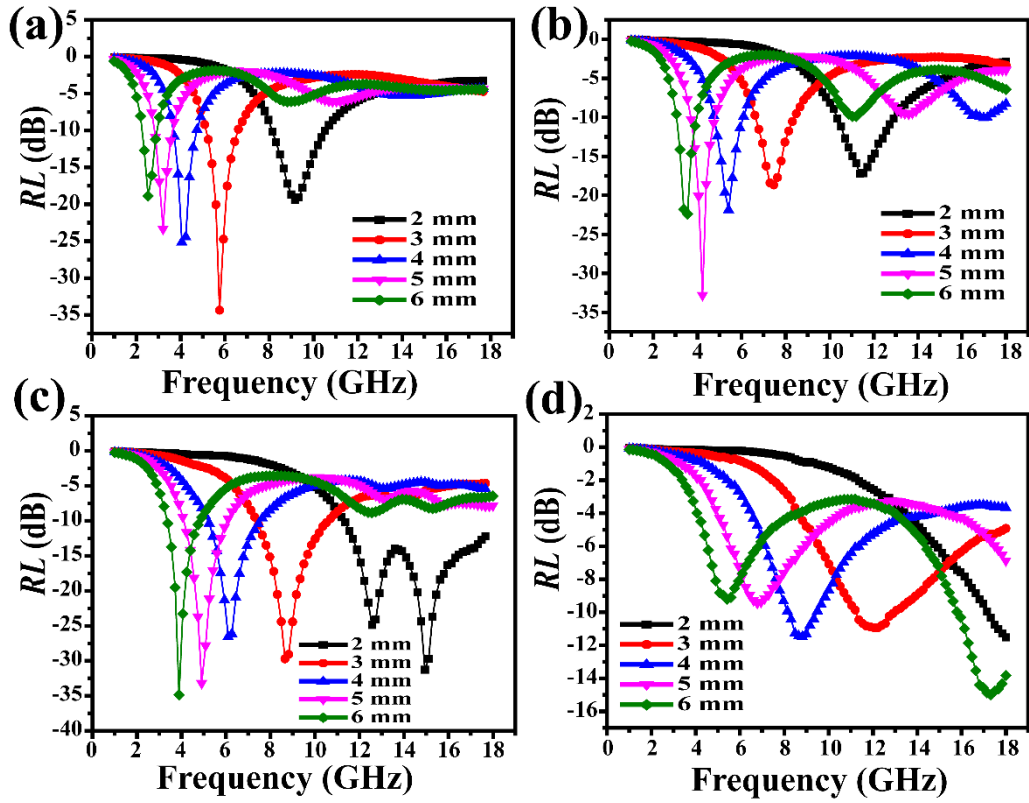
**Figure S1.** SEM images of (a) solid Fe<sub>3</sub>C/N-C NFs, (b) macroporous Fe<sub>3</sub>C/N-C NFs, (c) TEM images of macroporous Fe<sub>3</sub>C/N-C NFs, (d) STEM images of macroporous Fe<sub>3</sub>C/N-C NFs.



**Figure S2.** (a) (c) (e) & (g) EDX mapping images, (b) (d) (f) & (h) EDS spectra of solid Fe<sub>3</sub>C/N-C NFs-1, solid Fe<sub>3</sub>C/N-C NFs-2, macroporous Fe<sub>3</sub>C/N-C NFs-1, macroporous Fe<sub>3</sub>C/N-C NFs-2.



**Figure S3.** (a) & (c) & (e) nitrogen adsorption/desorption isotherms, (b) & (d) & (f) the pore size distributions of solid and macroporous Fe<sub>3</sub>C/N-C NFs, pure N-C NFs, respectively.



**Figure S4.** Reflection loss in the frequency range of 1–18 GHz: (a) solid Fe<sub>3</sub>C/N-C NFs-1 (b) macroporous Fe<sub>3</sub>C/N-C NFs-1 (c) solid Fe<sub>3</sub>C/N-C NFs-2 (d) macroporous Fe<sub>3</sub>C/N-C NFs-2 with 10 wt % filler content.