

Supporting Information

Hierarchical Carbon Network Composites Derived from ZIF-8 for High-Efficiency Microwave Absorption

Zhongyi Luo ¹, Zhaohao Wang ², Jinshuai Liu ^{3,4}, Huihui Jin ^{1,*}, Chunhua Han ^{3,4,5} and Xuanpeng Wang ^{1,4,5,*}

¹ Department of Physical Science & Technology, School of Science, Wuhan University of Technology, Wuhan 430070, China

² School of Chemistry and Chemical Engineering, Hubei Polytechnic University, Huangshi 435003, China

³ School of Materials Science and Engineering, Wuhan University of Technology, Wuhan 430070, China

⁴ Hainan Institute, Wuhan University of Technology, Sanya 572000, China

⁵ Hubei Longzhong Laboratory, Wuhan University of Technology (Xiangyang Demonstration Zone), Xiangyang 441000, China

* Correspondence: jinhuihui@whut.edu.cn (H.J.); wxp122525691@whut.edu.cn (X.W.);
Tel.: +86-135-4528-4506 (X.W.)

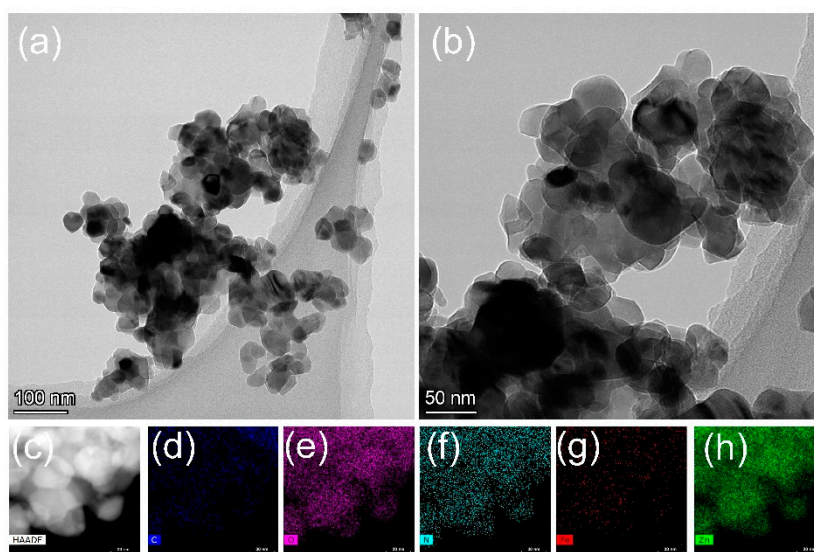


Figure S1. (a,b) TEM images of Fe-ZnO@ZIF; (c-h) EDS mapping of Fe-ZnO@ZIF.

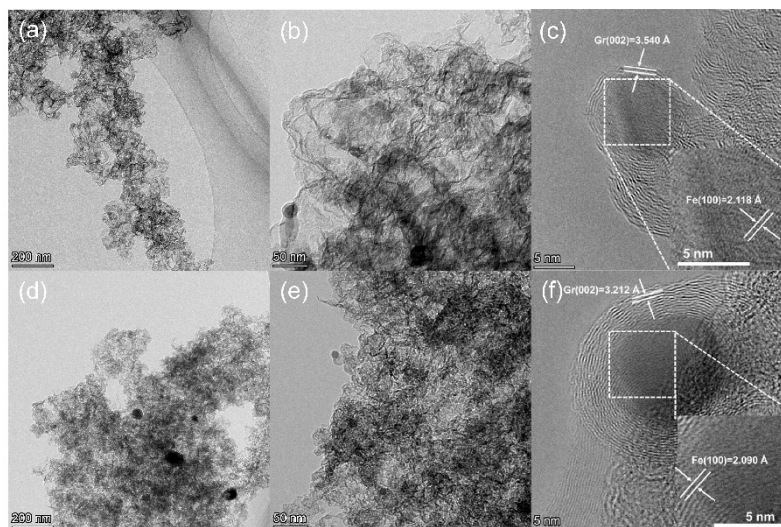


Figure S2. TEM images of (a–c) Fe-N-C@CNTs-700; (d–f) Fe-N-C@CNTs-900.

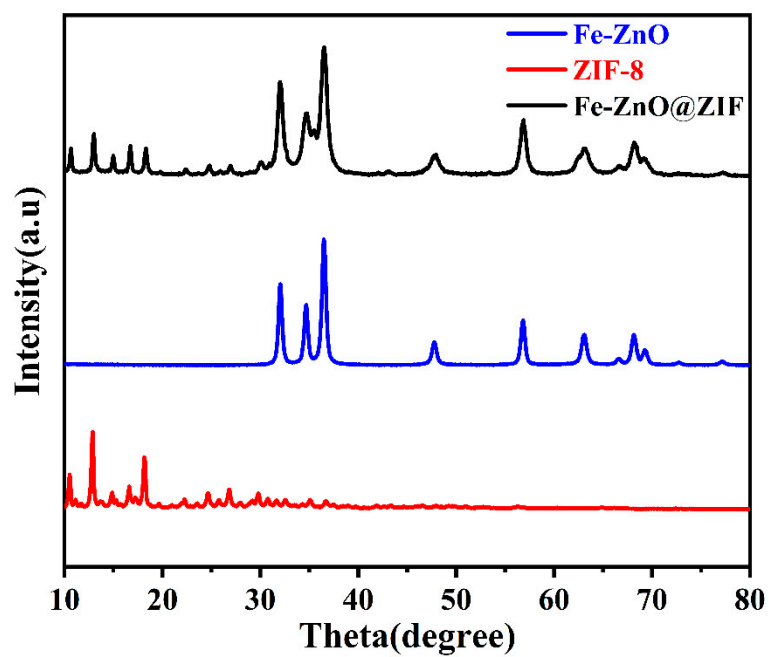


Figure S3. The powdered XRD of ZIF-8, Fe-ZnO@ZIF-8, and Fe-ZnO.

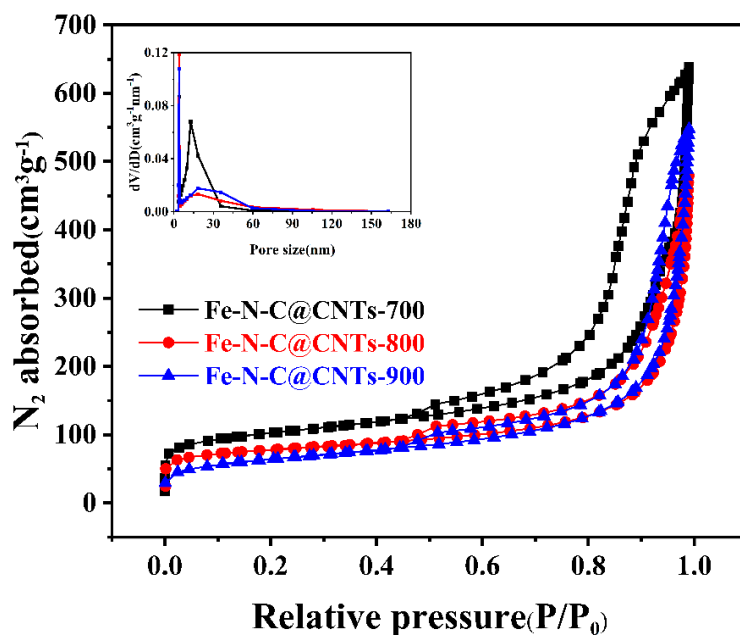


Figure S4. N₂ adsorption-desorption isotherms of Fe-N-C@CNTs-700, 800, 900.

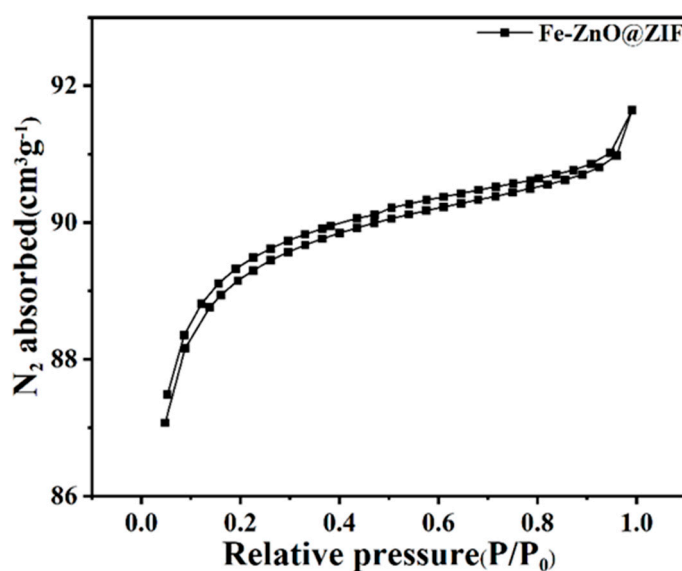


Figure S5. The Nitrogen adsorption-desorption isotherm curve of Fe-ZnO@ZIF-8.

Table S1. Comparisons of microwave-absorption performance between our work and related literatures.

Compositon	RL (dB)	EAB (GHz)	Thickness (mm)	Filling Ratio (wt.%)	Reference
Fe-N/C	-30.98	5.04	1.7	33.3	[46]
Co/N/C	-27.2	5.97	6.68	15	[47]
CoNC/CNTs	-44.6	1.7	4.7	15	[48]
Ni@C@ZnO	-55.8	4.1	2.5	25	[49]
CoFe@C	-44.1	5.2	5.8	40	[50]
Fe-N-C@CNTs	-58.5	5.68	4.8	20	This work