

Supporting information

Preparation and microwave-absorbing property of BaFe₁₂O₁₉ nanoparticles and BaFe₁₂O₁₉/Fe₃C/CNTs composites

Liangjun Yin^{1,ξ}, Tong Chen^{1,ξ}, Shiyu Liu^{1,ξ}, Yuqi Gao¹, Biao Wu¹, Yufeng Wei,¹ Gang Li², Xian Jian^{1,*} and Xin Zhang^{3,*}

¹ *School of Energy Science and Engineering, State key Laboratory of Electronic Thin Films and Integrated Devices, Center for Information in Biomedicine, University of Electronic Science and Technology of China, Chengdu, 611731, China*

² *Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, China*

³*Key laboratory of Magnetic Levitation Technologies and Maglev Trains (Ministry of Education of China), Superconductivity and New Energy Center (SNEC), Southwest Jiaotong University; Chengdu, Sichuan 610031, China*

^ξ Liangjun Yin, Tong Chen and Shiyu Liu contributed equally to this work.

* Corresponding Authors: Email: jianxian@uestc.edu.cn and xzhang@my.swjtu.edu.cn

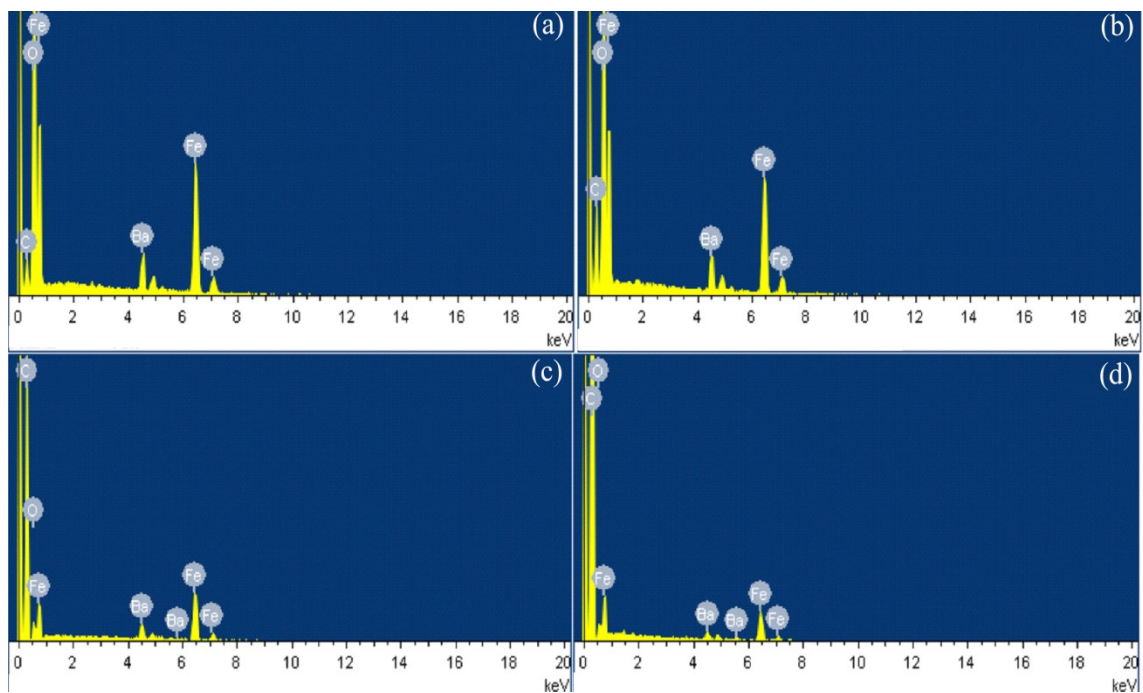


Figure S1 EDX spectrum of BaFe₁₂O₁₉/Fe₃C/CNTs composites obtained at (a) 450 °C, (b) 500 °C, (c) 550 °C and (d) 600 °C.

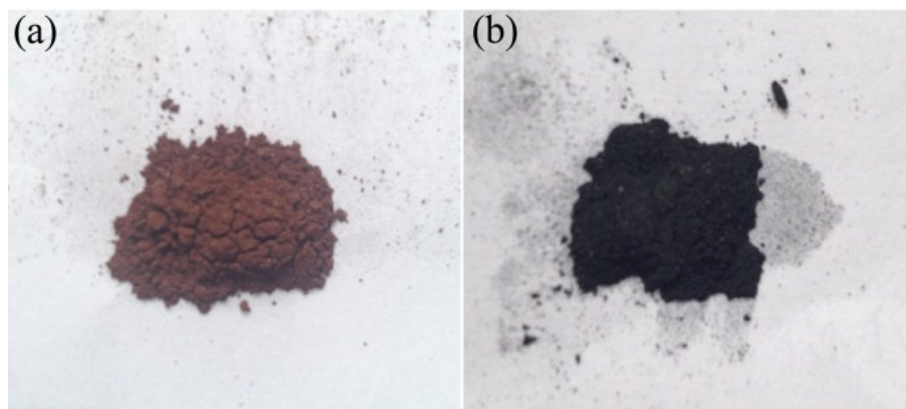


Figure S2 Photographs of (a) BaFe₁₂O₁₉ and (b) BaFe₁₂O₁₉/Fe₃C/CNTs composites obtained at 400 °C - 600 °C.

Table S1 The mass ratio and atomic ratio result of EDX characterization of BaFe₁₂O₁₉/Fe₃C/CNTs composites obtained at (a) 450 °C, (b) 500 °C, (c) 550 °C and (d)600 °C.

(a) Element	Mass ratio	Atomic ratio
C K	0.18%	0.48%
O K	32.72%	66.01%
Fe K	51.72%	29.89%
Ba L	15.39%	3.62%

(b) Element	Mass ratio	Atomic ratio
C K	0.48%	1.27%
O K	33.04%	66.16%
Fe K	50.12%	28.75%
Ba L	16.36%	3.82%

(c) Element	Mass ratio	Atomic ratio
C K	7.36%	25.91%
O K	7.19%	19.01%
Fe K	64.01%	48.47%
Ba L	21.44%	6.60%

(d) Element	Mass ratio	Atomic ratio
C K	24.72%	54.84%
O K	11.44%	19.05%
Fe K	48.47%	23.13%
Ba L	15.37%	2.98%