

Supporting Information

Significant promotion of porous architecture and magnetic Fe_3O_4 NPs inside honeycomb-like carbonaceous composites for enhanced microwave absorption

Shengshuai Gao ^a, Qingda An ^{a,*}, Zuoyi Xiao ^a, Shangru Zhai ^{a,*}, Zhan Shi ^b

^a Faculty of Light Industry and Chemical Engineering, Dalian Polytechnic University,
Dalian 116034, China

^b State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of
Chemistry, Jilin University, Changchun 130012, China

*Corresponding authors.

E-mail: anqingdachem@163.com (Q.-D. An); zhaisrchem@163.com (S.-R. Zhai)

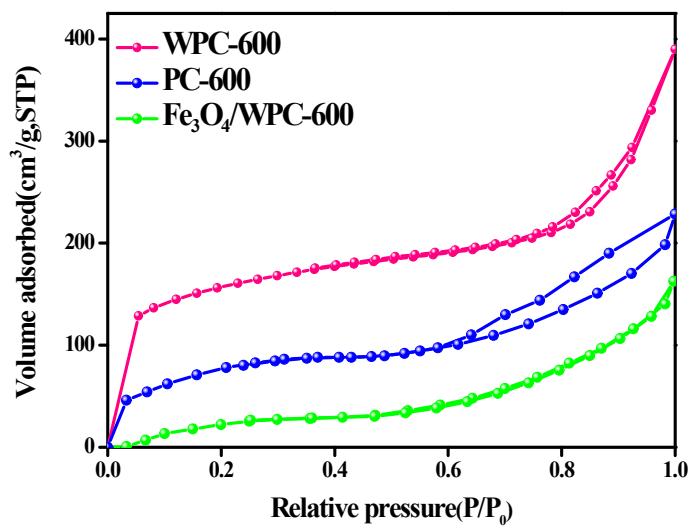


Fig. S1. Nitrogen adsorption - desorption isotherms of as-prepared samples under different conditions.

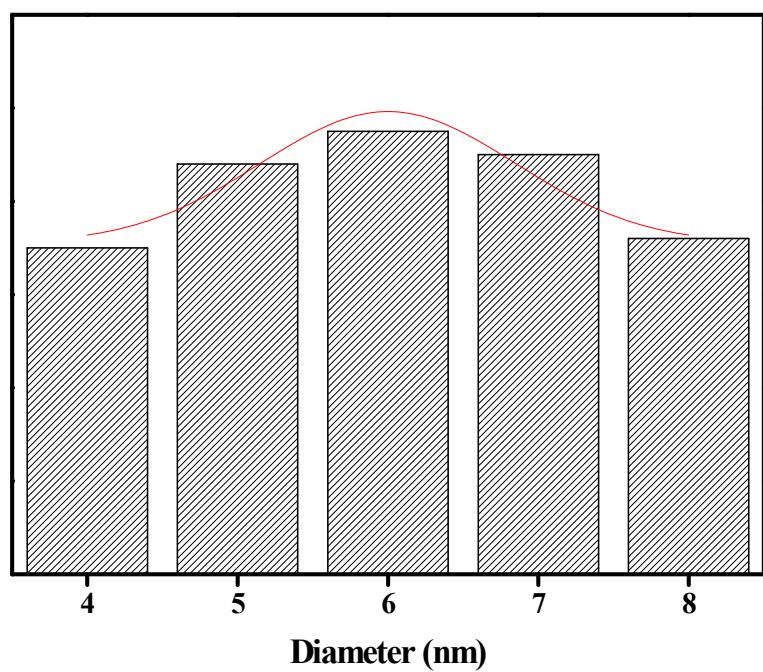
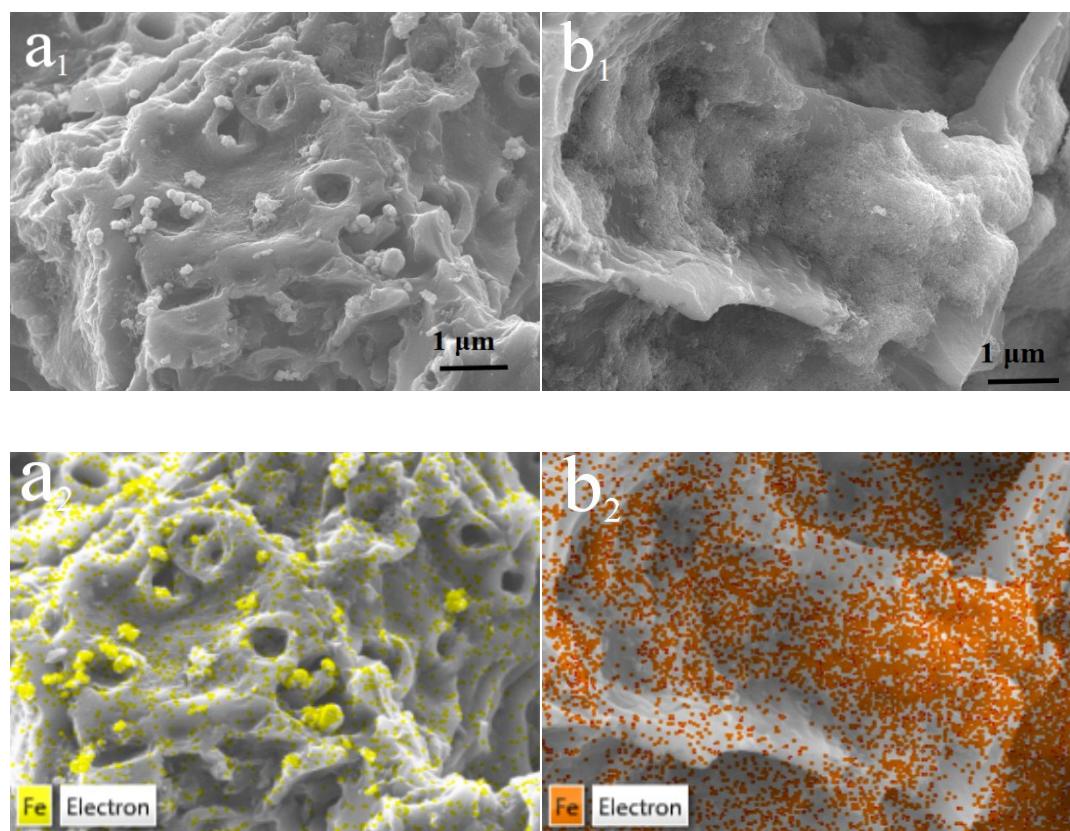


Fig. S2. Size distributions of Fe_3O_4 nano-particles for $\text{Fe}_3\text{O}_4/\text{WPC-600}$ composites.



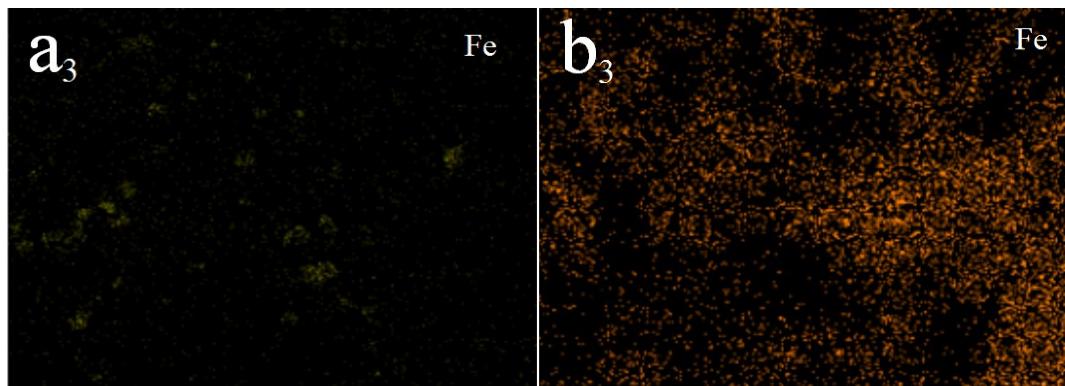


Fig. S3 SEM images of 0.5-Fe₃O₄/WPC-600 (**a**₁), 2-Fe₃O₄/WPC-600 (**b**₁), EDS elemental mapping images of 0.5-Fe₃O₄/WPC-600 (**a**₂ and **a**₃) and 2-Fe₃O₄/WPC-600 (**b**₂ and **b**₃)

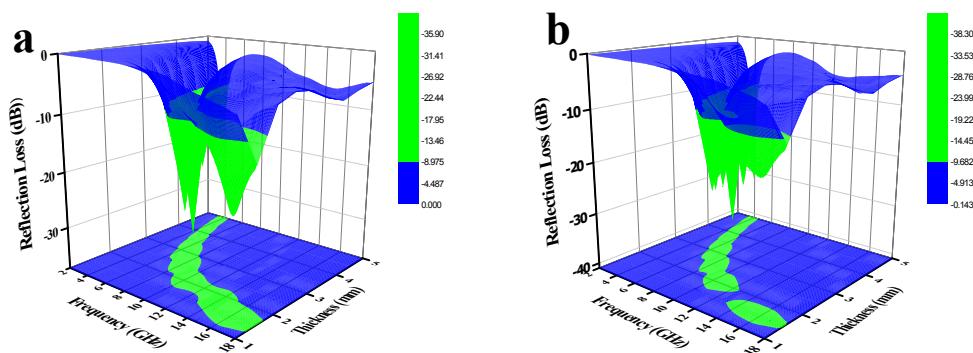


Fig. S4 Three-dimension images of calculated RL values of (a) 0.5-Fe₃O₄/WPC-600 and (b) 2-Fe₃O₄/WPC-600.

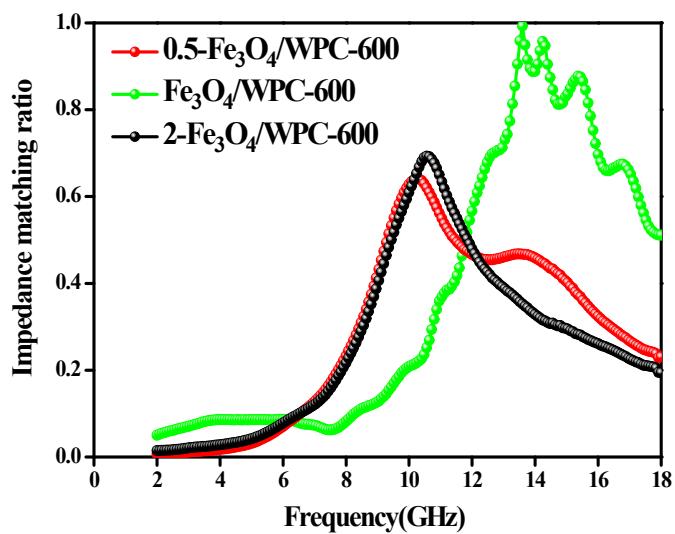


Fig. S5 The modulus of normalized input impedance of the products.

Table S1 The conductivity σ of samples.

Sample	PC-600	WPC-600	0.5- Fe_3O_4 /WPC-600	Fe_3O_4 /WPC-600	2- Fe_3O_4 /WPC-600
$\sigma(\text{S/m})$	1.27×10^{-7}	6.23×10^{-5}	7.45×10^{-5}	1.16×10^{-4}	4.06×10^{-4}