Electromagnetic absorption enhancing mechanisms by modified biochar derived from Enteromorpha prolifera: A combined experimental and simulation study Zhiwang Hao<sup>a, 1</sup>, Jimei Liu<sup>a, 1</sup>, Xinliang He<sup>a</sup>, Yubo Meng<sup>a</sup>, Xiaobin Wang<sup>a</sup>, Dong Liu<sup>a,\*</sup>, Naitao Yang<sup>a</sup>, Wenjie Hou<sup>b,\*</sup>, Chao Bian<sup>a,\*</sup>

<sup>a</sup>School of Chemistry and Chemical Engineering, Shandong University of Technology, Zibo, 255049, China

<sup>b</sup>School of Computer Science and Technology, Northwestern Polytechnical University, Xi'an, 710129, China

\*Corresponding author. E-mail: liu\_dong@sdut.edu.cn; wenjiehou@buaa.edu.cn; Bianchao@sdut.edu.cn

<sup>1</sup> Contributed equally to this work.

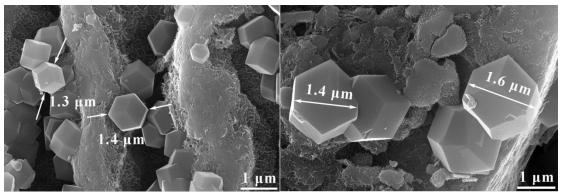


Fig. S1 SEM images showing the average size of Fe-ZIF

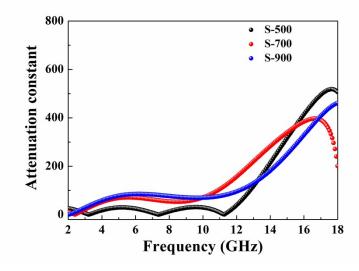


Fig. S2 Attenuation constant of S-500, S-700 and S-900 composites.