



# Application of Exogenous Iron Alters the Microbial Community Structure and Reduces the Accumulation of Cadmium and Arsenic in Rice (*Oryza sativa* L.)

Tingting Li <sup>1,2</sup>, Jiayuan Li <sup>1</sup>, Xin Zhan <sup>1</sup>, Xueli Wang <sup>1</sup>, Bing He <sup>1</sup>, Feishu Cao <sup>3</sup>, Changjun Liao <sup>3</sup>, Yuefeng Yu <sup>2</sup>, Zengyu Zhang <sup>1</sup>, Junhui Zhang <sup>2</sup>, Bei Li <sup>1</sup>, Jiancheng Chen <sup>1</sup>, Hong Li <sup>4</sup>, Zhiqiang Zhu <sup>5</sup>, Yanyan Wei <sup>1,\*</sup> and Junming Hu <sup>2,\*</sup>

<sup>1</sup> State Key Laboratory for Conservation and Utilization of Subtropical Agro-Bioresources, Cultivation Base of Guangxi Key Laboratory for Agro-Environment and Agro-Products Safety, College of Agriculture, Guangxi University, Nanning 530004, China; ltt1210@126.com (T.L.); 1917303005@st.gxu.edu.cn (J.L.); njueczx@163.com (X.Z.); wxl0524@126.com (X.W.); bingh2000@126.com (B.H.); 1817303017@st.gxu.edu.cn (Z.Z.); le\_bei@st.gxu.edu.cn (B.L.); 2017392001@st.gxu.edu.cn (J.C.);

<sup>2</sup> Agricultural Resources and Environment Research Institute, Guangxi Academy of Agricultural Sciences, Nanning 530007, China; yuyue202204@163.com (Y.Y.); zjh914zjh914@163.com (J.Z.);

<sup>3</sup> Guangxi Bocco Environmental Protection Technology Co., Ltd., Nanning 530007, China; feishu.cao@hotmail.com (F.C.); lcj19176042408@163.com (C.L.);

<sup>4</sup> Key Laboratory of Eco-Environment of Three Gorges Region, Ministry of Education, Chongqing University, Chongqing 400044, China; hongli@cqu.edu.cn

<sup>5</sup> College of Tropical Crops, Hainan University, Haikou 570228, China; zqzhu@hainanu.edu.cn

\* Correspondence: yanyanwei@gxu.edu.cn and yanyanwei2008@163.com (Y.W.); jmhu06@126.com (J.H.); Tel.: +86-1860-7718-450 (Y.W.)

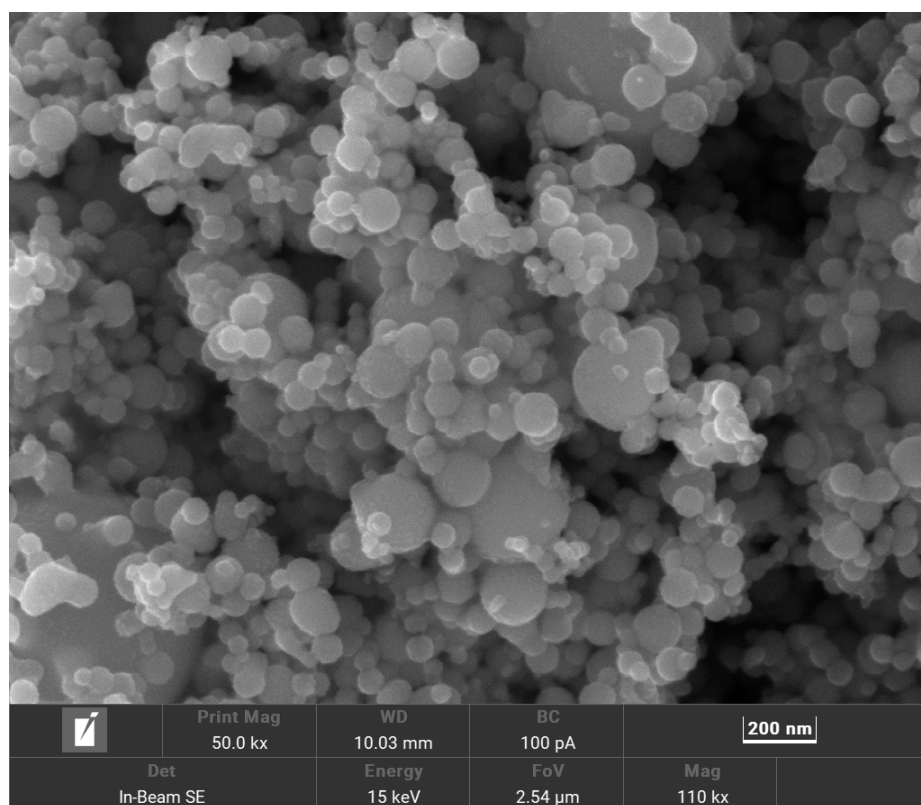
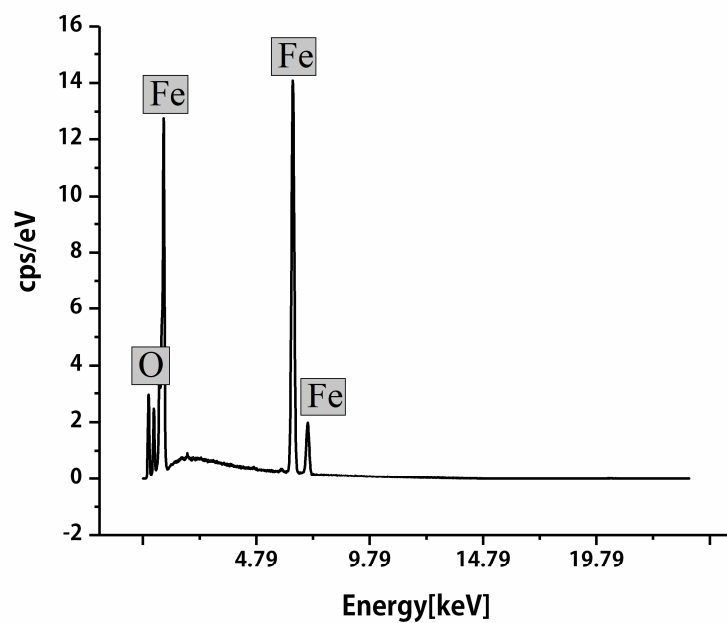
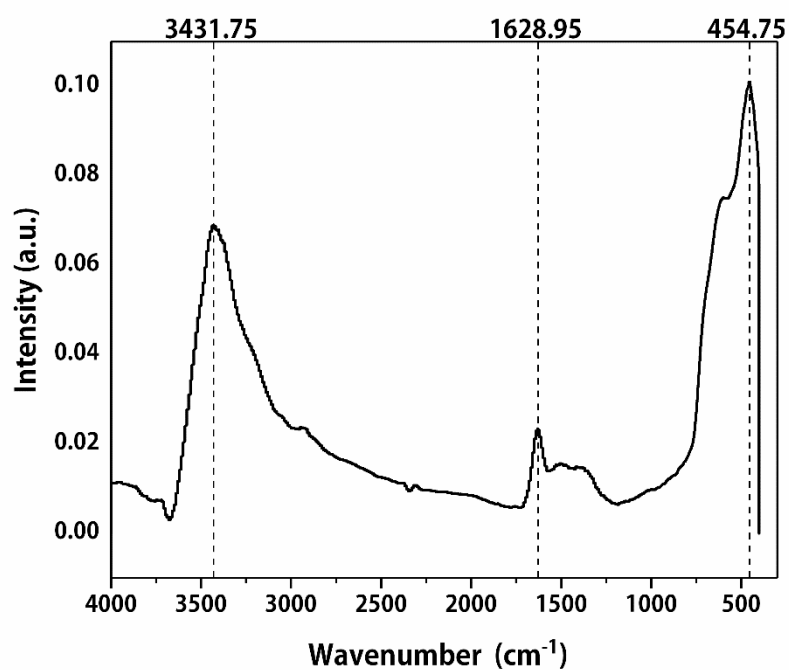


Figure S1. Scanning electron microscopy (SEM) of Nano-Fe.



**Figure S2.** X-ray energy spectrum analysis (EDS) of Nano-Fe.



**Figure S3.** Fourier transform infrared spectroscopy (FTIR) of Nano-Fe.