

## Supporting Information

# Enhancing Soil Remediation of Copper-contaminated Soil through Washing with a Soluble Humic Substance and Chemical Reductant

Lina Wang <sup>1</sup>, Jing Wei <sup>1,2\*</sup>, Lu Yang <sup>1</sup>, Yun Chen <sup>1</sup>, Mengjie Wang <sup>1</sup>, Liang Xiao<sup>2</sup>, Guodong Yuan <sup>2</sup>

<sup>1</sup> State Environmental Protection Key Laboratory of Soil Environmental Management and Pollution Control, Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment, Nanjing 210042, China<sup>2</sup>

Guangdong Provincial Key Laboratory of Environmental Health and Land Resource, Guangdong Technology and Equipment Research Center for Soil and Water Pollution Control, Zhaoqing University, Zhaoqing 526061, China

\* Correspondence: [jingwei\\_nies@foxmail.com](mailto:jingwei_nies@foxmail.com)

Supplementary figures

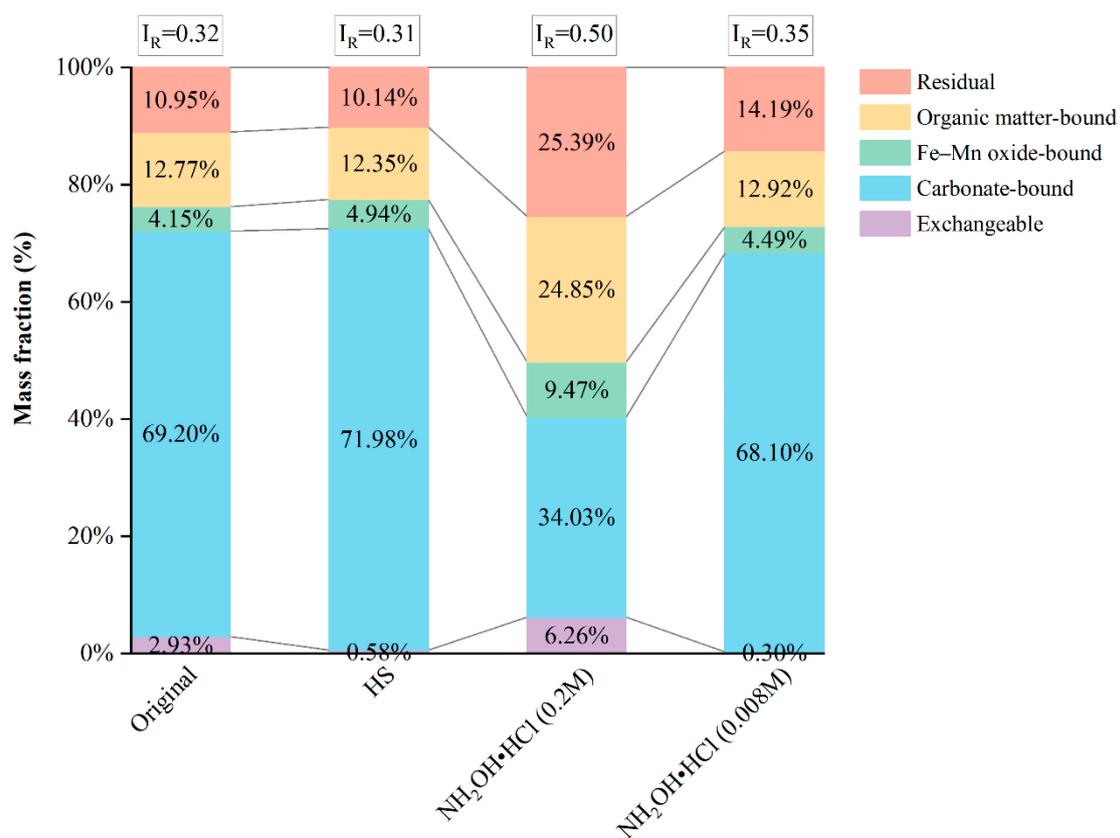
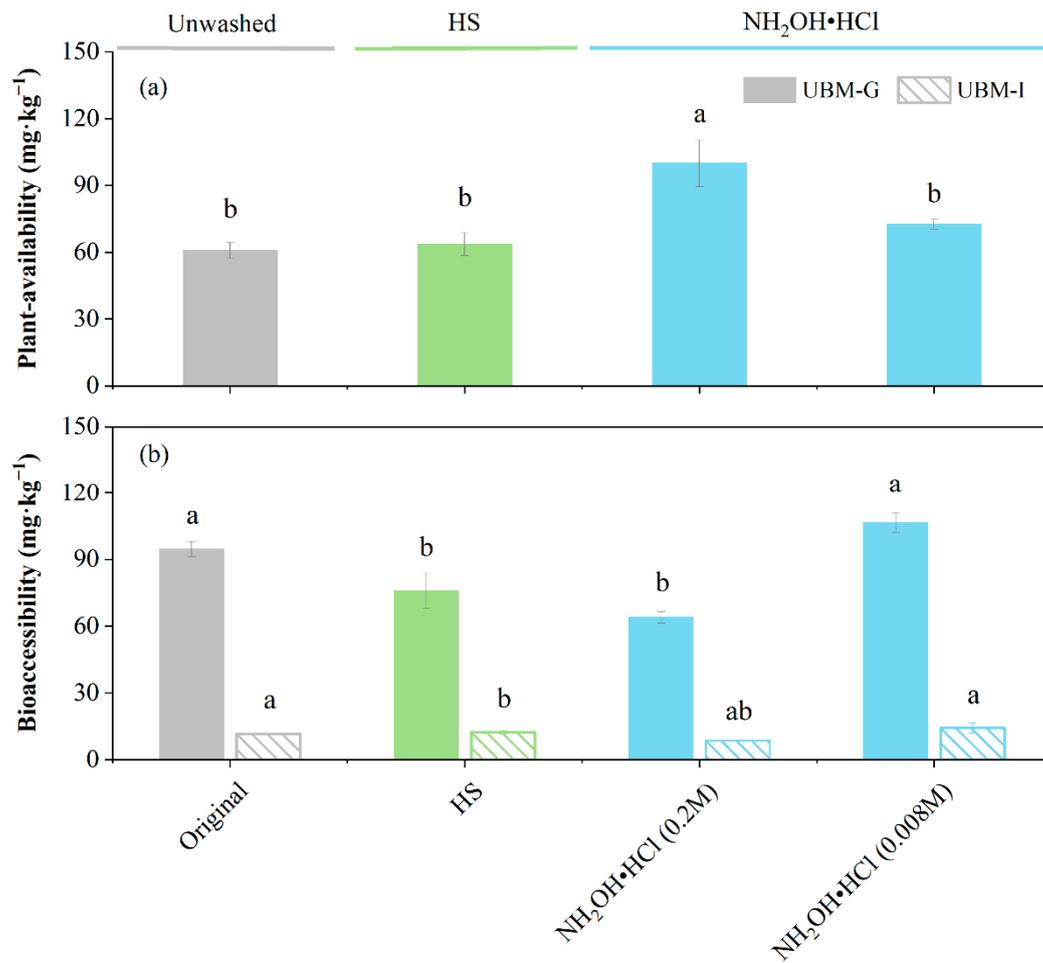


Figure S1 Changes in Cu fraction in soil after the second round of washing with HS,  $NH_2OH \cdot HCl$



**Figure S2** Plant availability (a) and bio-accessibility (b) of Cu after the second round of washing with HS,  $\text{NH}_2\text{OH} \cdot \text{HCl}$

### Supplementary table

**Table S1** Physical and chemical properties of soils before and after the washing with HS, NH<sub>2</sub>OH•HCl and NH<sub>2</sub>OH•HCl + HS

Properties	Washing times	pH	SOM	CEC
Unit	-	-	g·kg <sup>-1</sup>	cmol(+).kg <sup>-1</sup>
Original	-	7.36	6.66	10.52
HS	1 <sup>st</sup>	9.08	7.95	8.46
	2 <sup>nd</sup>	8.97	undetected	undetected
0.2 M NH <sub>2</sub> OH•HCl	1 <sup>st</sup>	6.30	6.61	9.86
	2 <sup>nd</sup>	6.71	undetected	undetected
0.008 M NH <sub>2</sub> OH•HCl	1 <sup>st</sup>	6.98	6.08	9.53
	2 <sup>nd</sup>	7.28	undetected	undetected
NH <sub>2</sub> OH•HCl + HS	1 <sup>st</sup>	8.56	8.50	8.05