



Supplementary Material

Insights into Heavy Metals Leakage in Chelator-Induced Phytoextraction of Pb- and Tl-Contaminated Soil

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Table S1 Different treatments of the glasshouse experiment

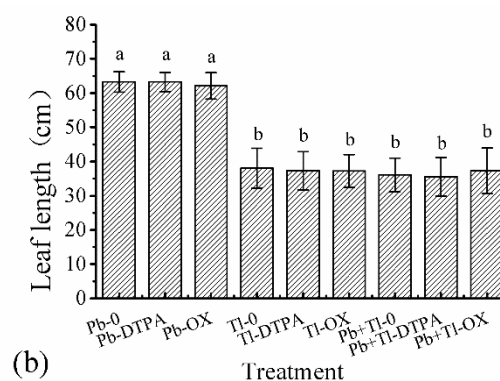
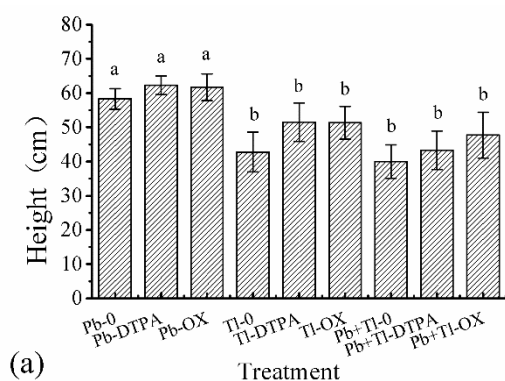
No.	Treatment	HM	Plant	Chelator (mmol kg ⁻¹)
1	Pb _{ck}	Pb	None	0
2	Pb ₀	Pb	Z. mays	0
3	Pb _{DTPA}	Pb	Z. mays	DTPA 2.5
4	Pb _{OX}	Pb	Z. mays	OX 2.5
5	Tl _{ck}	Tl	None	0
6	Tl ₀	Tl	Z. mays	0
7	Tl _{DTPA}	Tl	Z. mays	DTPA 2.5
8	Tl _{OX}	Tl	Z. mays	OX 2.5
9	Pb+Tl _{ck}	Pb+Tl	None	0
10	Pb+Tl ₀	Pb+Tl	Z. mays	0
11	Pb+Tl _{DTPA}	Pb+Tl	Z. mays	DTPA 2.5
12	Pb+Tl _{OX}	Pb+Tl	Z. mays	OX 2.5

Table S2 The chemical characteristics of rainfall at Yunfu, Guangdong Province

Component	Concentration (mg L ⁻¹)
NaCl	1.75
(NH ₄) ₂ SO ₄	2.24
KNO ₃	2.14
MgSO ₄ ·7H ₂ O	5.79
CaSO ₄ ·2H ₂ O	24.48

Table S3 Different treatments of the leaching experiment

No.	Treatment	HM	Plant	Chelator (mmol kg ⁻¹)	Rainfall pH
1	Pb _{ck} (4.5)	Pb	None	0	4.5
2	Pb _{ck} (6.5)	Pb	None	0	6.5
3	Pb ₀ (4.5)	Pb	Z. mays	0	4.5
4	Pb ₀ (6.5)	Pb	Z. mays	0	6.5
5	Pb _{DTPA} (4.5)	Pb	Z. mays	DTPA 2.5	4.5
6	Pb _{DTPA} (6.5)	Pb	Z. mays	DTPA 2.5	6.5
7	Pb _{OX} (4.5)	Pb	Z. mays	OX 2.5	4.5
8	Pb _{OX} (6.5)	Pb	Z. mays	OX 2.5	6.5
9	Tl _{ck} (4.5)	Tl	None	0	4.5
10	Tl _{ck} (6.5)	Tl	None	0	6.5
11	Tl ₀ (4.5)	Tl	Z. mays	0	4.5
12	Tl ₀ (6.5)	Tl	Z. mays	0	6.5
13	Tl _{DTPA} (4.5)	Tl	Z. mays	DTPA 2.5	4.5
14	Tl _{DTPA} (6.5)	Tl	Z. mays	DTPA 2.5	6.5
15	Tl _{OX} (4.5)	Tl	Z. mays	OX 2.5	4.5
16	Tl _{OX} (6.5)	Tl	Z. mays	OX 2.5	6.5
17	Pb+Tl _{ck} (4.5)	Pb+Tl	None	0	4.5
18	Pb+Tl _{ck} (6.5)	Pb+Tl	None	0	6.5
19	Pb+Tl ₀ (4.5)	Pb+Tl	Z. mays	0	4.5
20	Pb+Tl ₀ (6.5)	Pb+Tl	Z. mays	0	6.5
21	Pb+Tl _{DTPA} (4.5)	Pb+Tl	Z. mays	DTPA 2.5	4.5
22	Pb+Tl _{DTPA} (6.5)	Pb+Tl	Z. mays	DTPA 2.5	6.5
23	Pb+Tl _{OX} (4.5)	Pb+Tl	Z. mays	OX 2.5	4.5
24	Pb+Tl _{OX} (6.5)	Pb+Tl	Z. mays	OX 2.5	6.5



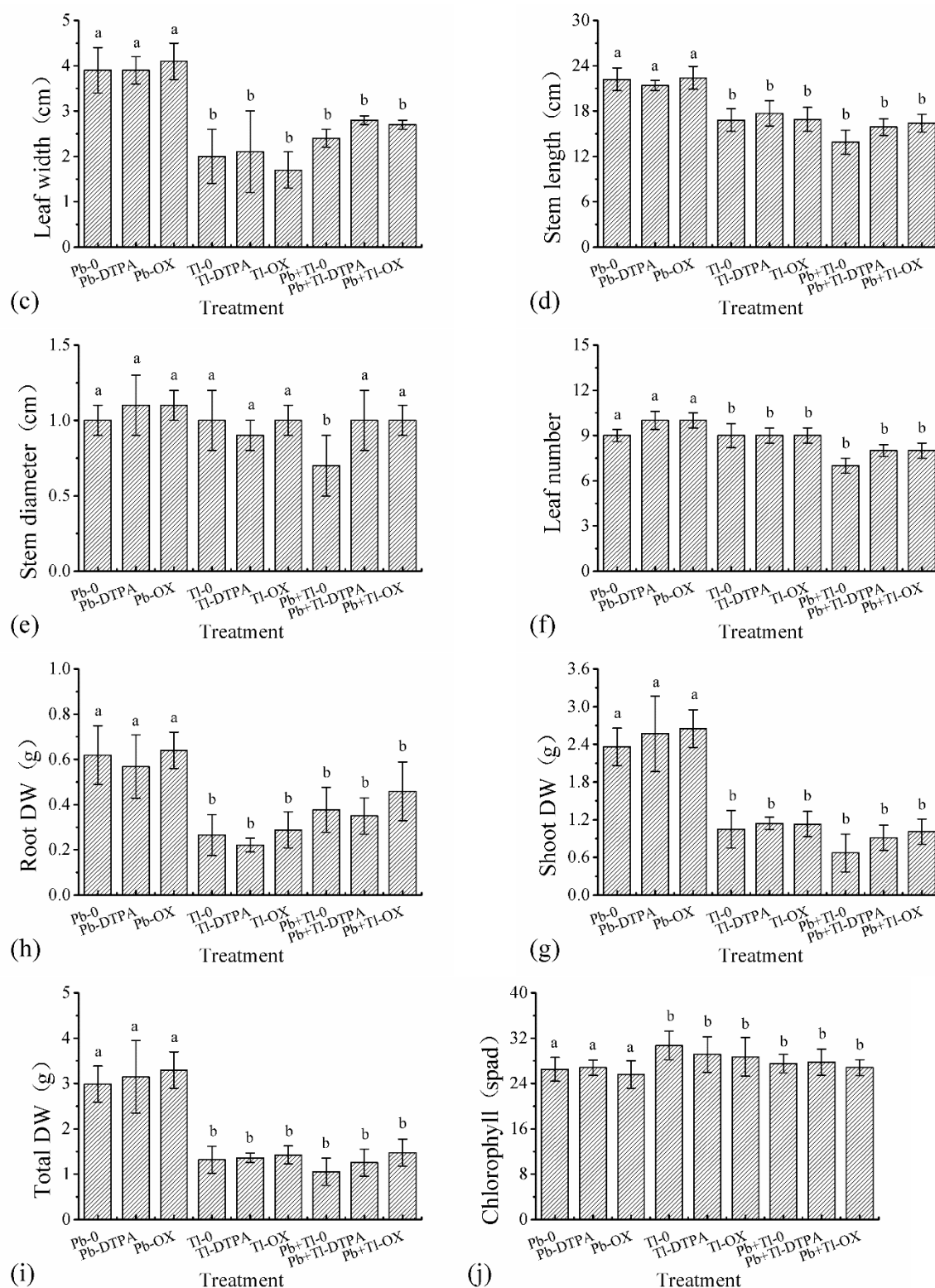


Fig. S1 Effects of using DTPA (2.5 mmol L⁻¹ soil) and oxalic acid (2.5 mmol L⁻¹ soil) in different heavy metal contaminated soils on the morphological characteristics of maize

Error bars are means $\pm$ SD (n=6)

(a) height, (b) leaf length, (c) leaf width, (d) stem length, (e) stem diameter, (f) leaf number, (g) shoot DW, (h) root DW, (i) total DW, (j) chlorophyll.

Letters on error bars in each plot indicate the difference compared with the blank treatment. The same letter

indicates that there was no significant difference ($P>0.05$), and different letters indicate a significant difference ($P<0.05$)



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