Iron uptake system mediates nitrate-facilitated cadmium accumulation in tomato (*Solanum lycopersicum*) plants

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Supplementary Material

Supplement Materials

Table S1. Comparison of Cd and Fe forms between NO_3^- and NH_4^+ mediums. The compositions of Cd, Fe and other nutrients in NO_3^- and NH_4^+ mediums were described in "Materials and Methods". The metal form in the medium as a percentage of total metal, was estimated by GEOCHEM-PC.

	Metal form	Predicted percentage of Cd form (%)		Predicted percentage of Fe form (%)	
		NO_3^- medium	NH_4^+ medium	NO_3^- medium	NH_4^+ medium
Soluble forms	Free metal	22.86	22.62	0	0
	Complexed with EDTA	70.94	67.42	92.42	92.76
	Complexed with SO_4^{2-}	2.61	6.50	0	0
	Complexed with Cl^-	3.18	3.12	0	0
	Complexed with PO_4^{3-}	0.36	0.33	0.01	0.01
	Complexed with NO_3^-	0.05	0	0	0
	In solid form with PO_4^{3-}	0	0	7.56	7.22

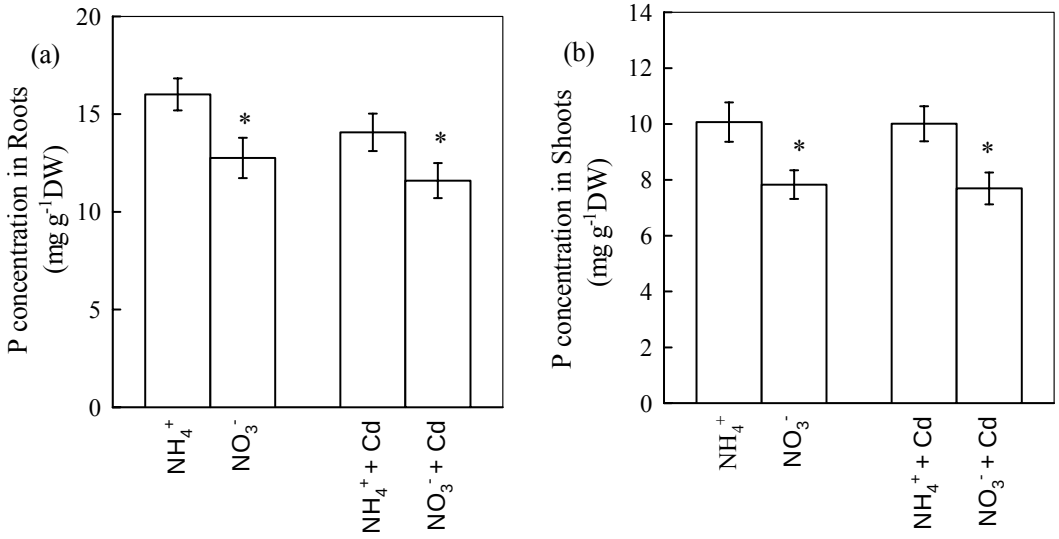

Fig. S1. Effects of N-form on P concentrations in tomato plants during Cd exposure. **(a)** P concentration in roots. **(b)** P concentration in shoots. The plants were pre-cultured in the growth solution contained both NO_3^- and NH_4^+ for 12 days, and then were transferred to Cd-free or 2μM Cd-added growth solutions with either NO_3^- or NH_4^+ as the sole nitrogen source. The pH in the all treatments was buffered at 5.5 using MES. The roots and shoots of plants after 8 d of treatments were harvested for P analysis. Data are means ± SD (n = 4). *, Significant differences ($P < 0.05$) between NO_3^- and NH_4^+ treatments.