## **Supplementary Material**

Effect of elevated carbon dioxide on phosphorus nutrition of phosphate-deficient *Arabidopsis thaliana* (L.) Heynh under different nitrogen forms

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Fig. S1. Effect of elevated CO<sub>2</sub> and N form on fresh weights of shoots (a) and roots (b), P concentration in plants (c) and amount of P absorbed by per unit weight of roots (d) of five-week-old wild-type *Arabidopsis* grown for 7 d in P-adequate (0.5 mM) nutrient solution containing with NO<sub>3</sub><sup>-</sup> or NH<sub>4</sub><sup>+</sup> under ambient CO<sub>2</sub> (350 ± 50  $\mu$ L L<sup>-1</sup>) or elevated CO<sub>2</sub> (800 ± 50  $\mu$ L L<sup>-1</sup>). Data are means ± SD (n = 5). Asterisks indicate that the mean values are significantly different between the ambient and elevated CO<sub>2</sub> treatments (*P* < 0.05). DW, dry weight.





Fig. S2. Concentration of chlorophyll in leaves of five-week-old wild-type *Arabidopsis* grown for 7 d in P-deficient (0.5  $\mu$ M) (a) and P-adequate (0.5 mM) (b) nutrition solutions containing with NO<sub>3</sub><sup>-</sup> or NH<sub>4</sub><sup>+</sup> under ambient CO<sub>2</sub> (350 ±50  $\mu$ L L<sup>-1</sup>) or elevated CO<sub>2</sub> (800 ±50  $\mu$ L L<sup>-1</sup>). After 7-d treatment, chlorophyll was measured using the portable chlorophyll meter (SPAD-502, Minolta, Japan) (Netto *et al.* 2005). Data are means ±SD (n = 5). Asterisks indicate that the mean values are significantly different between the CO<sub>2</sub> treatments (*P* < 0.05).





Fig. S3. Concentrations of total anthocyanins in leaves of five-week-old wild-type *Arabidopsis* grown for 7 d in P-deficient (0.5  $\mu$ M) (a) and P-adequate (0.5 mM) (b) nutrition solutions containing with NO<sub>3</sub><sup>-</sup> or NH<sub>4</sub><sup>+</sup> under ambient CO<sub>2</sub> (350 ± 50  $\mu$ L L<sup>-1</sup>) or elevated CO<sub>2</sub> (800 ± 50  $\mu$ L L<sup>-1</sup>). Data are means ± SD (*n* = 5). Asterisks indicate that the mean values are significantly different between the CO<sub>2</sub> treatments (*P* < 0.05). FW, fresh weight.