Figure S1: Anion contents in roots and shoots were measured on the same plants as described in Fig 1. The values are means ± S.D. of 3 replicates.

Table S1. List of the genes that are differentially regulated in root between [$CO(NH_2)_2$]- and [NH_4NO_3]-Arabidopsis grown plants (reference). Culture conditions are detailed in Materials and Methods. The number of CATMA set is indicated, together with AGI. The putative function of the gene is indicated according the TIGR Arabidopsis gene index (Release 5, January 2004). Positive ratio indicates that the gene is over-expressed in exposure to $CO(NH_2)_2$ (red boxes); negative ratio that the gene is repressed in exposure to $CO(NH_2)_2$ (green boxes). P-values are Bonferroni-corrected. Genes were considered as differentially regulated for a P-value < 0.05.

Table S2. List of the genes that are differentially regulated in shoot between [$CO(NH_2)_2$]- and [NH_4NO_3]-Arabidopsis grown plants (reference). Culture conditions are detailed in Materials and Methods. The number of CATMA set is indicated, together with AGI. The putative function of the gene is indicated according the TIGR Arabidopsis gene index (Release 5, January 2004). Positive ratio indicates that the gene is over-expressed in exposure to $CO(NH_2)_2$ (red boxes); negative ratio that the gene is repressed in exposure to $CO(NH_2)_2$ (green boxes). P-values are Bonferroni-corrected. Genes were considered as differentially regulated for a P-value < 0.05.

Table S3. Functional categories distribution of the [$CO(NH_2)_2$]-induced and repressed genes. Genes that were differentially expressed in root and shoot during a 7 days exposure to $CO(NH_2)_2$ nutrient medium were classified into functional categories using the MAPMAN tool (Thimm et al., 2004).

Table S4. List of the genes that are differentially regulated in root between [NH_4NO_3 + $CO(NH_2)_2$]- and [NH_4NO_3]-Arabidopsis grown plants (reference). Culture conditions are detailed in Materials and Methods. The number of CATMA set is indicated, together with AGI. The putative function of the gene is indicated according the TIGR Arabidopsis gene index (Release 5, January 2004). Positive ratio indicates that the gene is over-expressed in exposure to NH_4NO_3 + $CO(NH_2)_2$ (red boxes); negative ratio that the gene is repressed in exposure to

NH_4NO_3 + $CO(NH_2)_2$ (green boxes). P-values are Bonferroni-corrected. Genes were considered as differentially regulated for a P-value < 0.05.

Table S5. List of the genes that are differentially regulated in shoot between [NH_4NO_3 + $CO(NH_2)_2$]- and [NH_4NO_3]-Arabidopsis grown plants (reference). Culture conditions are detailed in Materials and Methods. The number of CATMA set is indicated, together with AGI. The putative function of the gene is indicated according the TIGR Arabidopsis gene index (Release 5, January 2004). Positive ratio indicates that the gene is over-expressed in exposure to NH_4NO_3 + $CO(NH_2)_2$ (red boxes); negative ratio that the gene is repressed in exposure to NH_4NO_3 + $CO(NH_2)_2$ (green boxes). P-values are Bonferroni-corrected. Genes were considered as differentially regulated for a P-value < 0.05.

Table S6. Functional categories distribution of the [NH_4NO_3 + $CO(NH_2)_2$]-induced and repressed genes. Genes that were differentially expressed in root and shoot during a 7 days exposure to NH_4NO_3 + $CO(NH_2)_2$ nutrient medium were classified into functional categories using the MAPMAN tool (Thimm et al., 2004).