

SUPPLEMENTAL DATA

Figure S1. Leaf discs were infiltrated with 160 mM SNP and cyanide concentration detected immediately after infiltration (0 h) and after 2, 5, 10 and 24 h.

Figure S2. Content of JA and JA derivatives determined by GC-MS analysis.

- (A) JA content detected in control unfumigated and O₃-treated plants harvested at different times (1.5, 2.5, 5, 10 and 24 h) after the start of fumigation. Values represent the averages of four independent experiments ± SE. Inset a shows the JA content detected before the start of fumigation (0 h) and after 20, 40, 60 and 90 min of fumigation. Values represent the averages of four different experiments ± SE.
- (B) OPDA content in control unfumigated and O₃-treated plants harvested at different times (1.5, 2.5, 5, 10 and 24 h) after the start of fumigation. Values represent the averages of four independent experiments ± SE. Inset b shows the OPDA content detected before the start of fumigation (0 h) and after 20, 40, 60 and 90 min of fumigation. Values represent the averages of four different experiments ± SE.
- (C) JA derivatives content in control unfumigated and O₃-treated plants harvested before the start of fumigation (0 h) and after 5, 10 and 24 h from the start of ozone fumigation. Values represent the averages of four different experiments ± SE. The data are the mean ± SE from four independent experiments. Bars showing the same letter are not significantly different ($p \leq 0.01$ as ANOVA test).

Figure S3. Effect of SNP and SNP + cPTIO on purified mitochondria. Cyt and AOX capacities are defined as O₂ uptake that was sensitive to 3 mM KCN in the presence of 1 mM SHAM and 1 mM SHAM in the presence of 3 mM KCN, respectively. Respiration rate refers to O₂ uptake in the absence of any addition. Respiratory capacities were

measured after SNP (160 μM), cPTIO (200 μM) and SNP (160 μM) + cPTIO (200 μM) addition to the reaction vessel. As a control we report the cyt and AOX capacities detected in isolated mitochondria without addition of SNP or cPTIO. The data are the mean \pm SE from four independent experiments; bars with a different letter are significantly different ($p \leq 0.01$ as ANOVA test; .cyt capacity, AOX capacity and respiration rate are separated).

Figure S4. Endogenous H_2O_2 accumulation in leaf discs infiltrated with 5 mM H_2O_2 . The measurements were carried out immediately after infiltration (0 h) with H_2O_2 and after 1 and 2 h. Leaf tissue (0.5 g FW) was frozen and ground to a powder under liquid nitrogen. The powder was extracted with 1 mL of 0.2 M HClO_4 , incubated on ice for 5 min, and pelleted by centrifugation at 10,000 g for 10 min at 4°C. The supernatant was neutralized to pH 7.0 with 0.2 M NaOH and briefly centrifuged at 3,000 g for 2 min to sediment the insoluble material. The extracts were passed through 0.8 x 4 cm columns of AG 1X-8 resin (ionic-form chloride; Biorad) and were eluted with distilled water (Rao et al., 2000). The quantification of H_2O_2 was carried out with 200 μl of cleared extracts, 300 μl of H_2O and 500 μl of xylenol orange assay reagent. Absorbance of the Fe^{+3} -xylenol orange complex was recorded by reading A_{560} after 45 min. The data are the mean \pm SE from four independent experiments. Bars showing the same letter are not significantly different ($p \leq 0.01$ as ANOVA test).