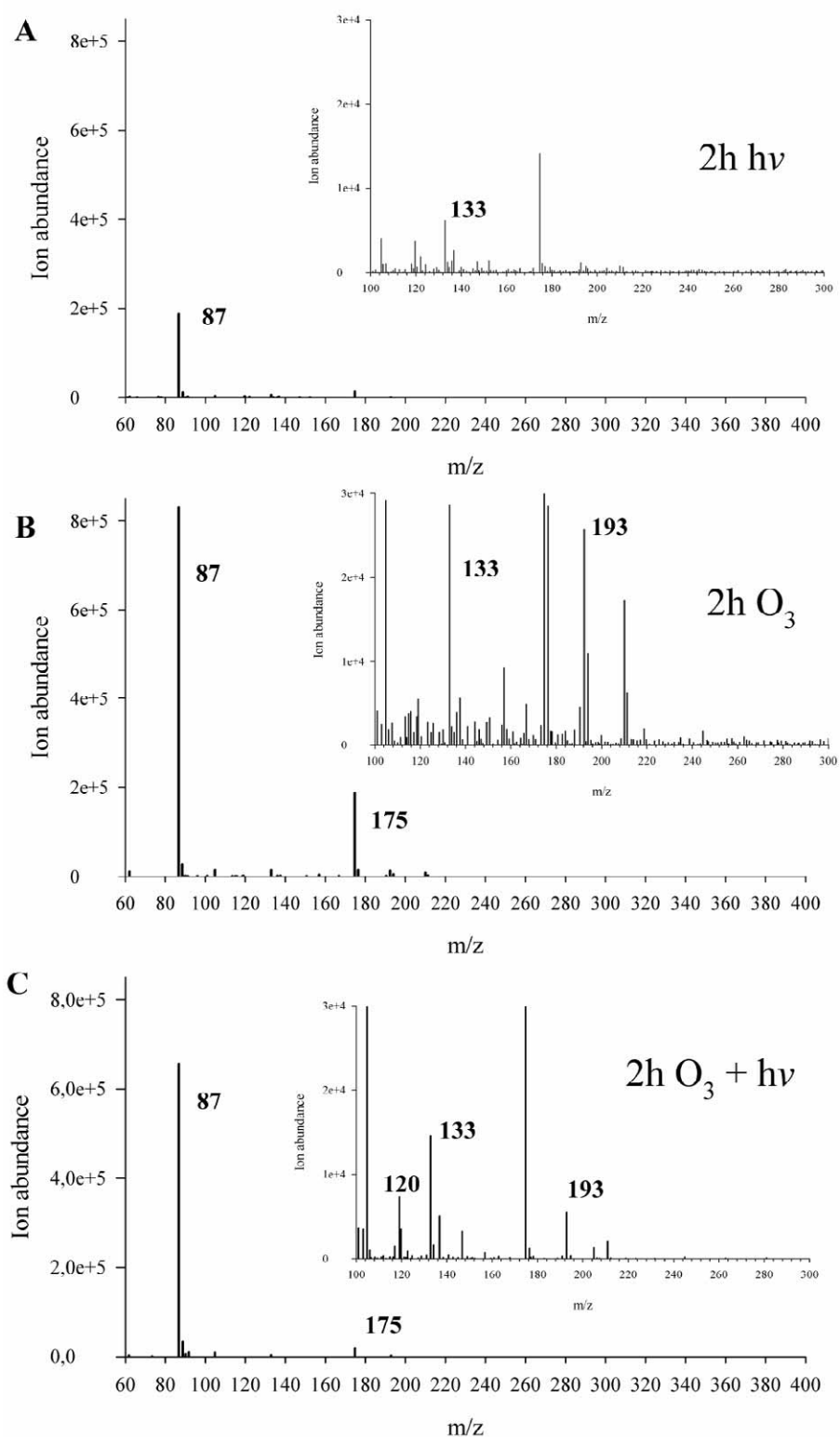
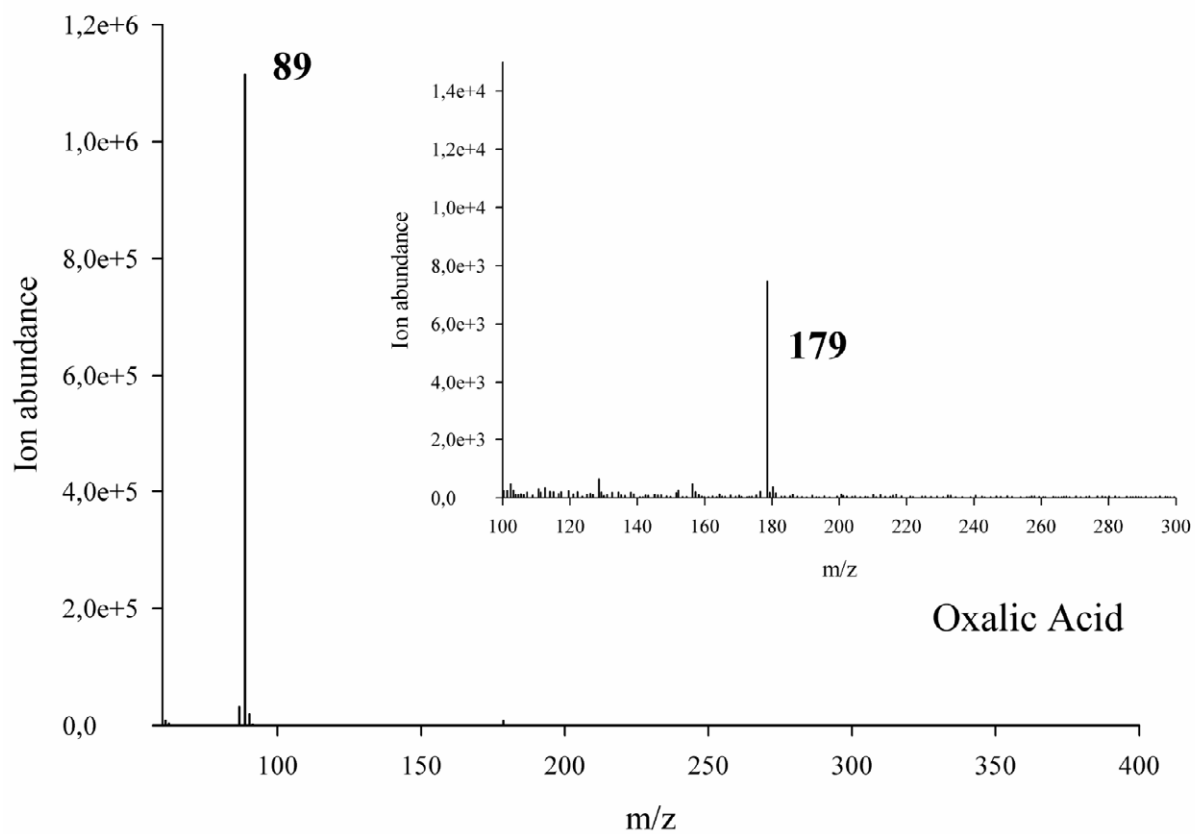


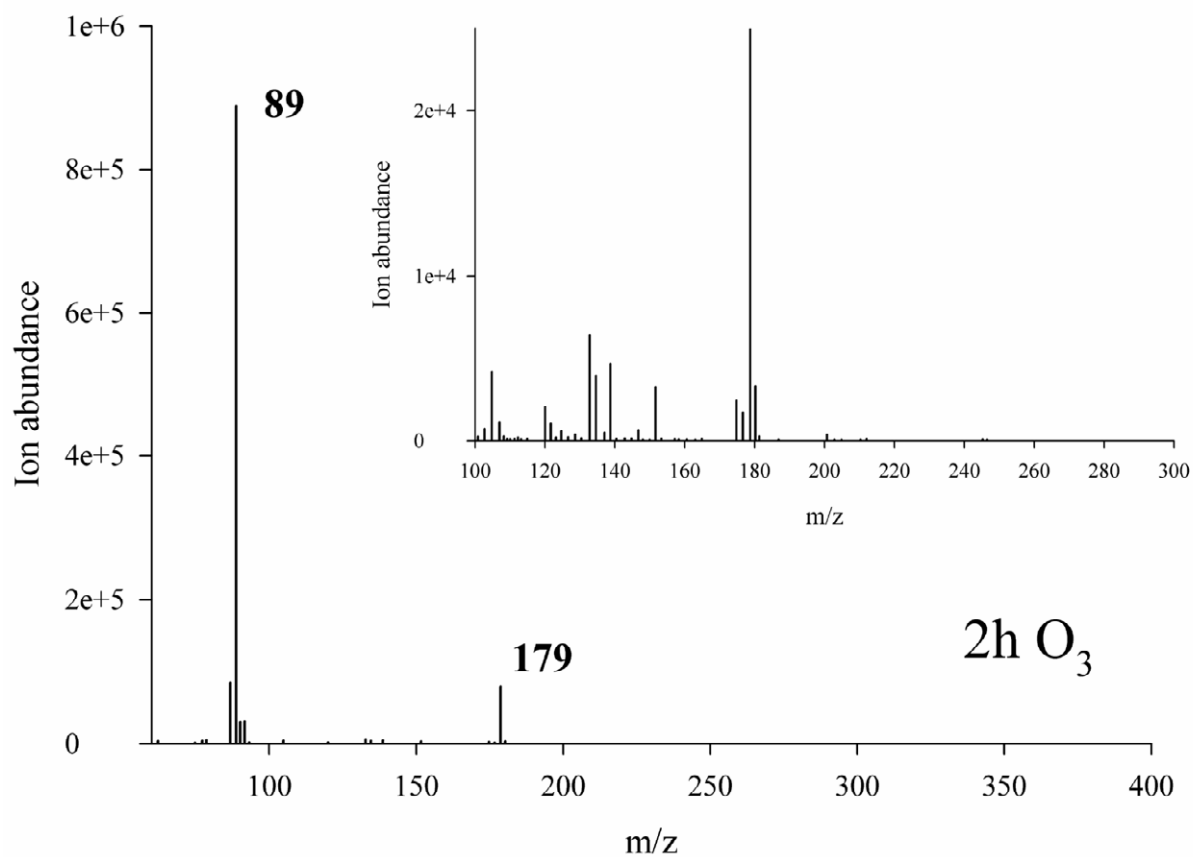
**Figure 1-S.** ESI-MS spectra of the aqueous solution of Pyruvic Acid 5 mM before reaction with  $O_3$  and light. ESI-MS experimental conditions: Capillary:  $-20V$ , DGT =  $250^\circ C$ .



**Figure 2-S.** ESI-MS of PA (5 mM) after 2 hours reactions with O<sub>3</sub> and/or of UV/VIS light. Experimental conditions: 360 ± 20 ppb O<sub>3</sub> in synthetic air (400ml/min), Xe lamp as a source of UV/VIS light, T = 25 ± 1°C. Conditions at ESI-MS: Capillary – 20V, DGT = 250°C.



**Figure 3-S.** ESI-MS spectra of the aqueous solution of Oxalic Acid 5 mM before reaction with  $O_3$  and light. ESI-MS experimental conditions: Capillary:  $-20V$ , DGT =  $250^\circ C$ .



**Figure 4-S.** ESI-MS of OA (5 mM) after 2 hours reactions with O<sub>3</sub>. Experimental conditions: 360 ± 20 ppb O<sub>3</sub> in synthetic air (400ml/min), T = 25 ± 1°C. Conditions at ESI-MS: Capillary – 20V, DGT = 250°C..