Supplemental Information

Mechanisms Leading to Oligomers and SOA through Aqueous Photooxidation: Insights from OH Radical Oxidation of Acetic Acid

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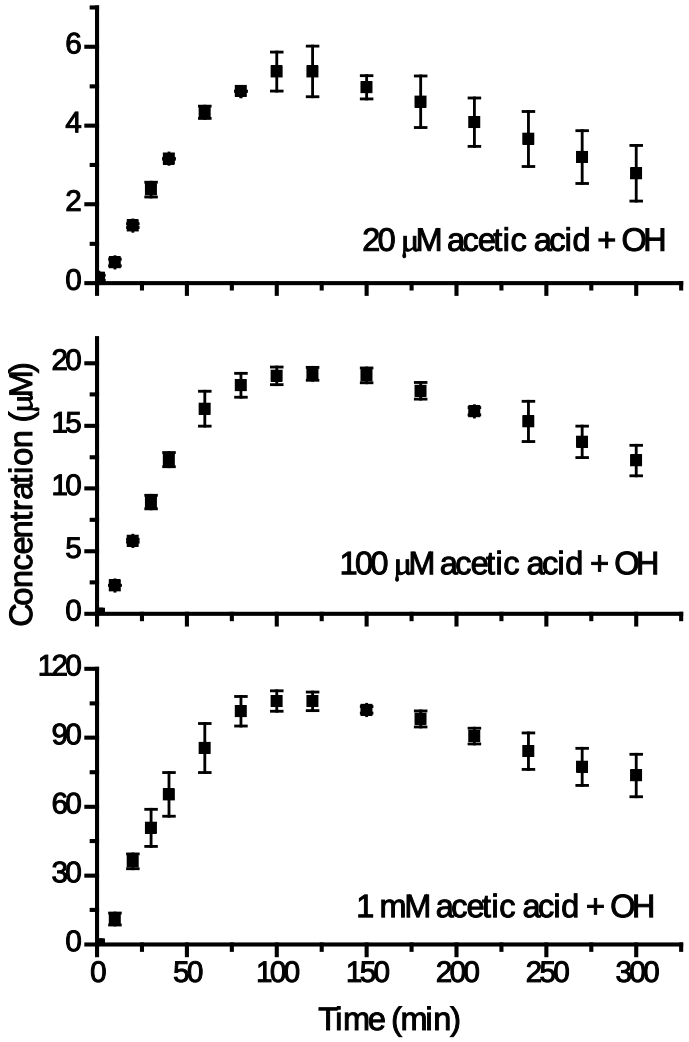

Fig. S1. Oxalic acid time profiles from acetic acid + OH radical experiments.

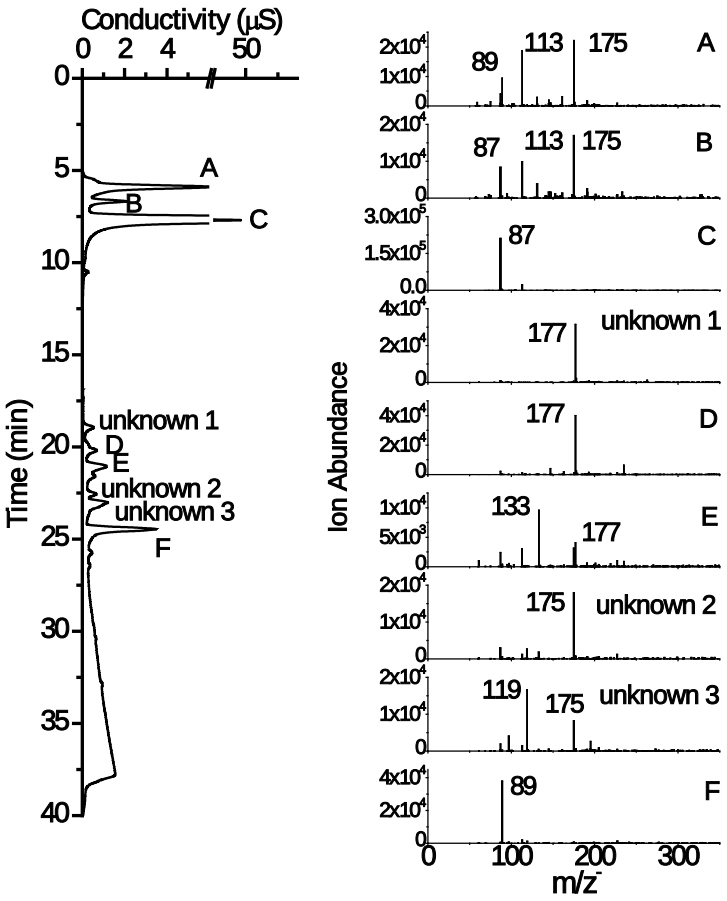

Fig. S2. IC-ESI-MS spectra of 1 mM pyruvic acid + UV experiment (180 min. reaction time). (A) peak with retention time of acetic/glycolic acids, (B) peak with retention time of formic acid, (C) peak with retention time of pyruvic acid (m/z^- 87), (D) peak with retention time of succinic acid (m/z^- 117), (E) peak with retention time of malonic acid (m/z^- 103), (F) oxalic acid (m/z^- 89).

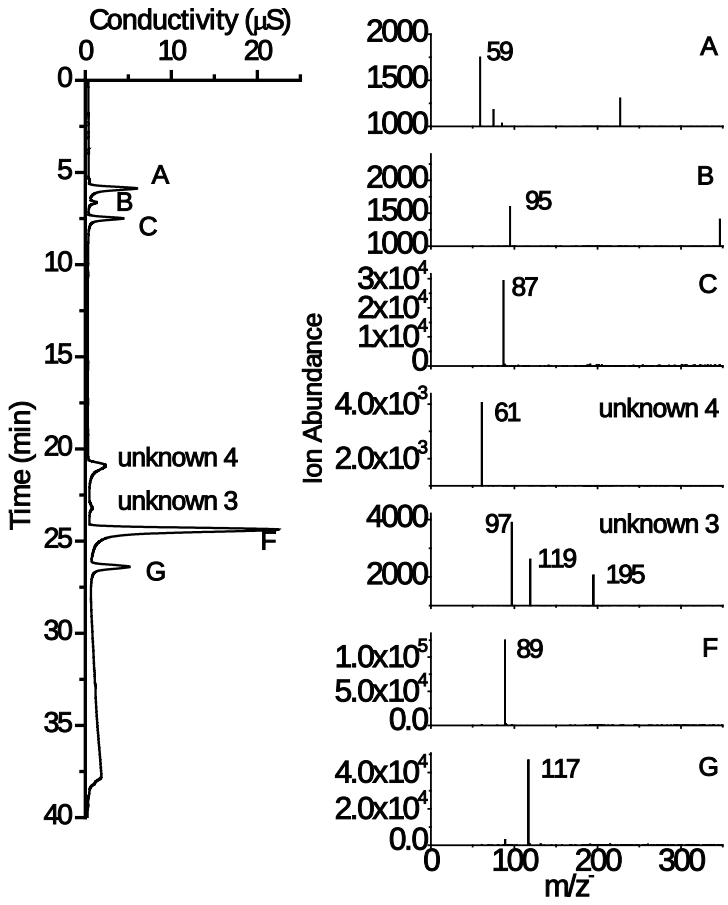

Fig. S3. IC-ESI-MS spectra of 1 mM pyruvic acid + OH radical experiment (180 min. reaction time). (A) peak with retention time of acetic acid (m/z^- 59) and glycolic acid (m/z^- 75), (B) peak with retention time of formic acid (not an expected product and not observable by ESI-MS), (C) peak with the retention time of pyruvic acid (m/z^- 87), (F) oxalic acid (m/z^- 89), (G) mesoxalic acid (m/z^- 117). Unknown 4 is likely carbonate (m/z^- 61), a contaminant.