

## **Supporting Information**

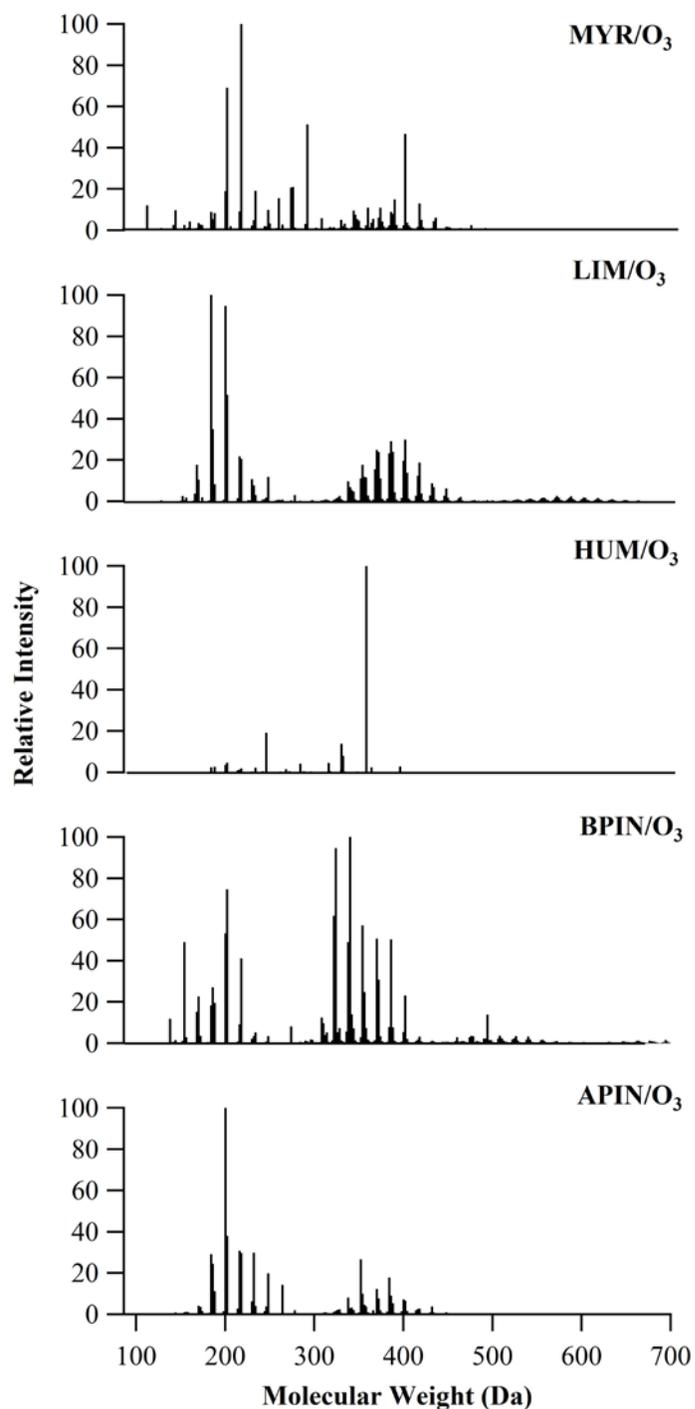
### **High-Resolution Mass Spectrometry and Molecular Characterization of Aqueous Photochemistry Products of Common Types of Secondary Organic Aerosols**

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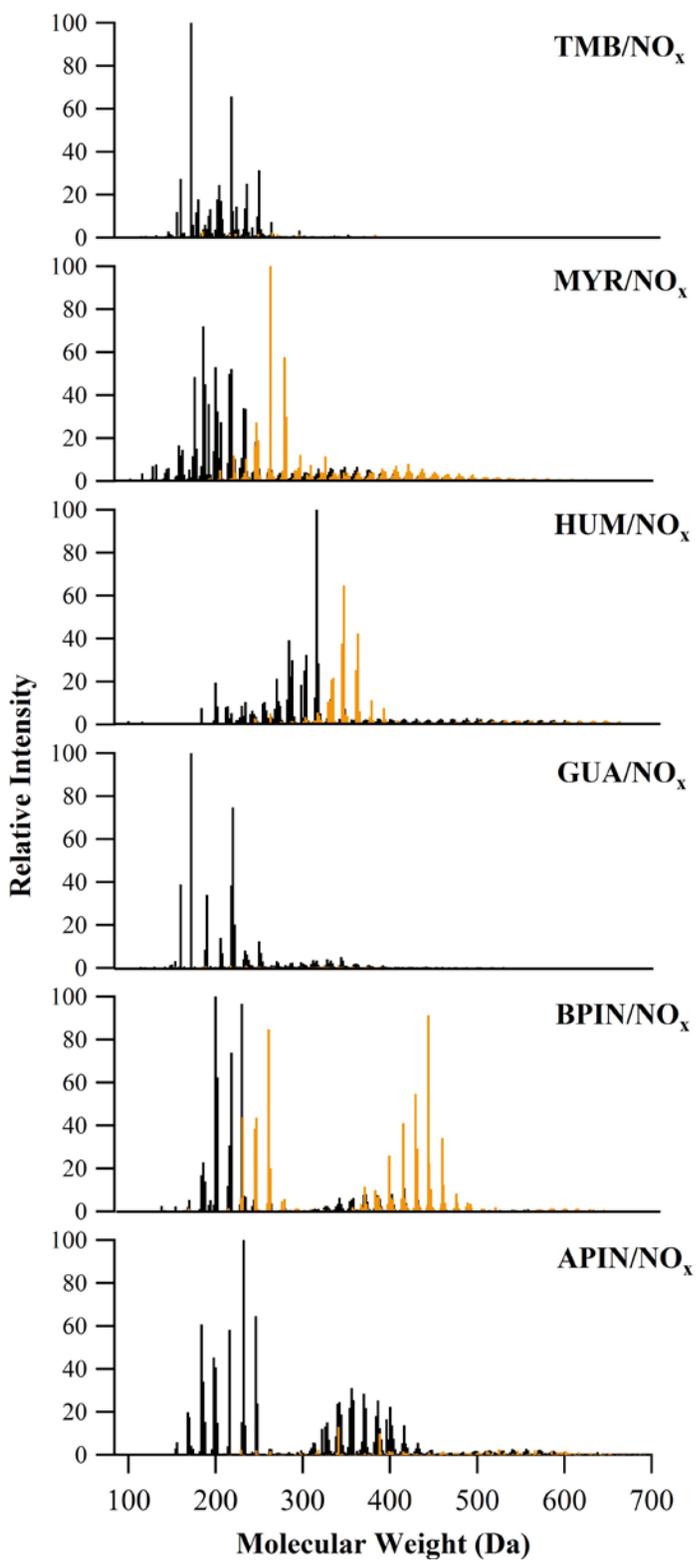
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**Figure S1:** Reconstructed mass spectra for all the unphotolyzed O<sub>3</sub> SOA samples (before photolysis) recorded in this work. The x-axis corresponds to the molecular weight of the neutral SOA compounds.



**Figure S2.** Reconstructed mass spectra for all the unphotolyzed  $\text{NO}_x$  SOA samples (before photolysis) recorded in this work. The x-axis corresponds to the molecular weight of the neutral SOA compounds.



**Figures S3.** Multiple panels below show the mass spectra of all the SOA solutions before (black) and after (green) 1 h of photolysis. The difference (red, after - before) is representative of the change that occurred during photolysis the time.

