

**Supplementary material for “The effect of photochemical ageing and initial precursor concentration on the composition and hygroscopic properties of  $\beta$ -caryophyllene secondary organic aerosol”**

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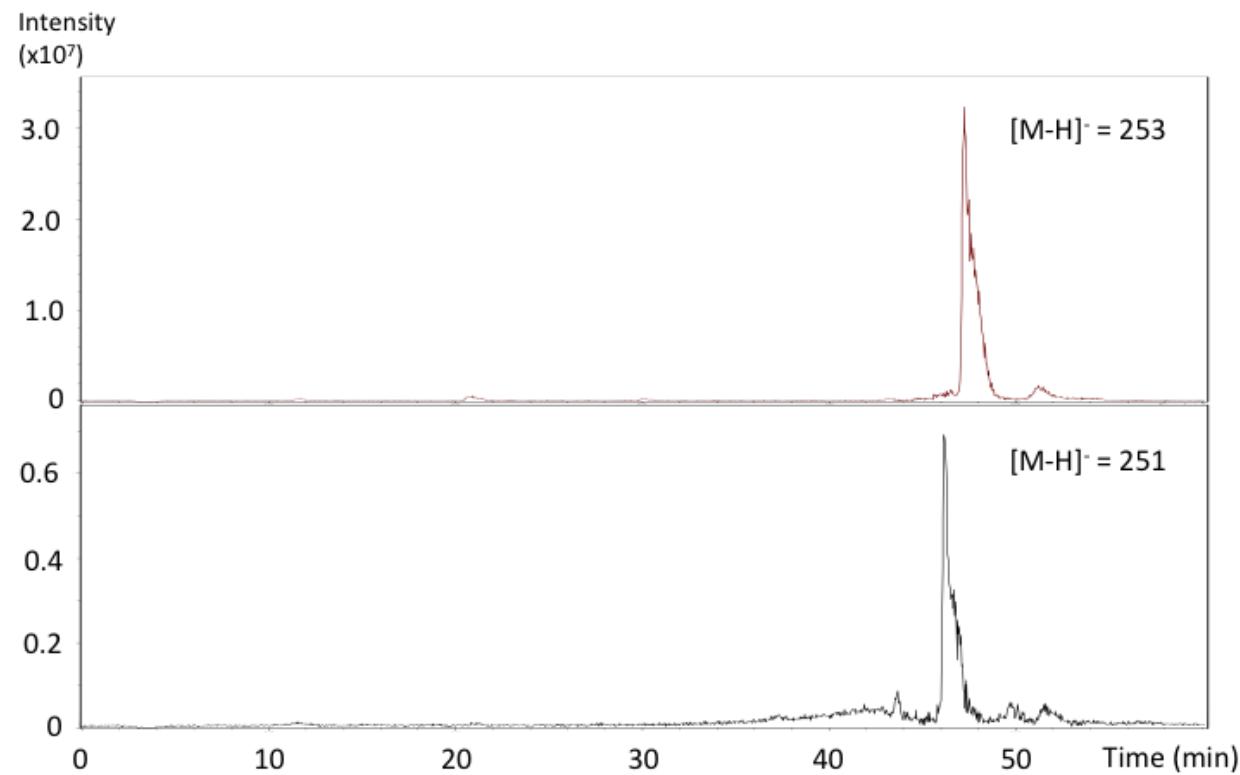
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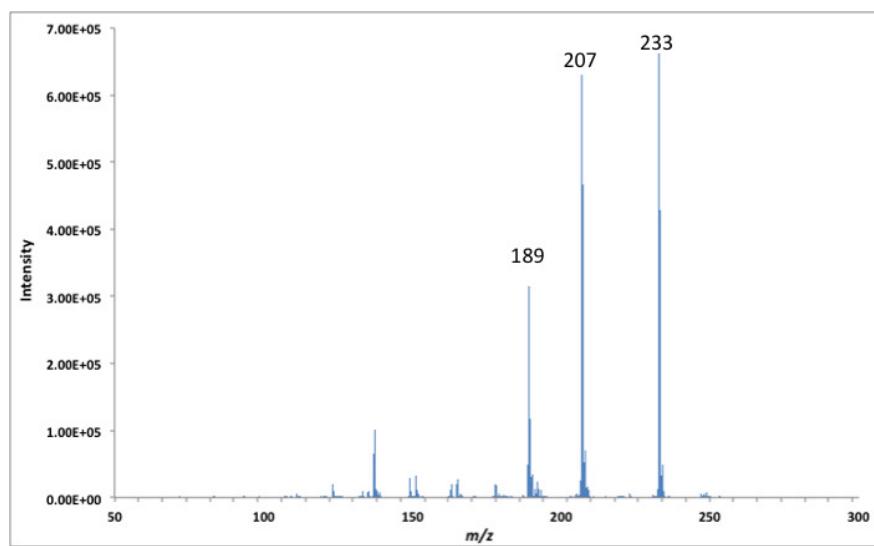
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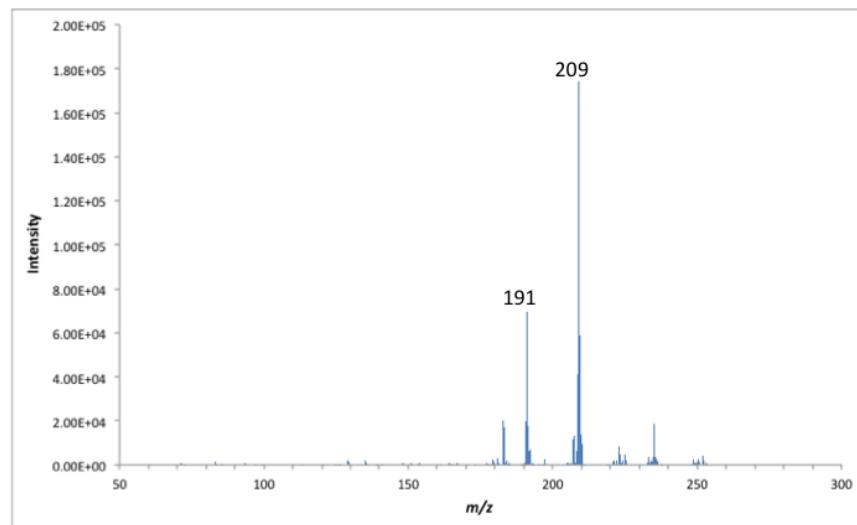
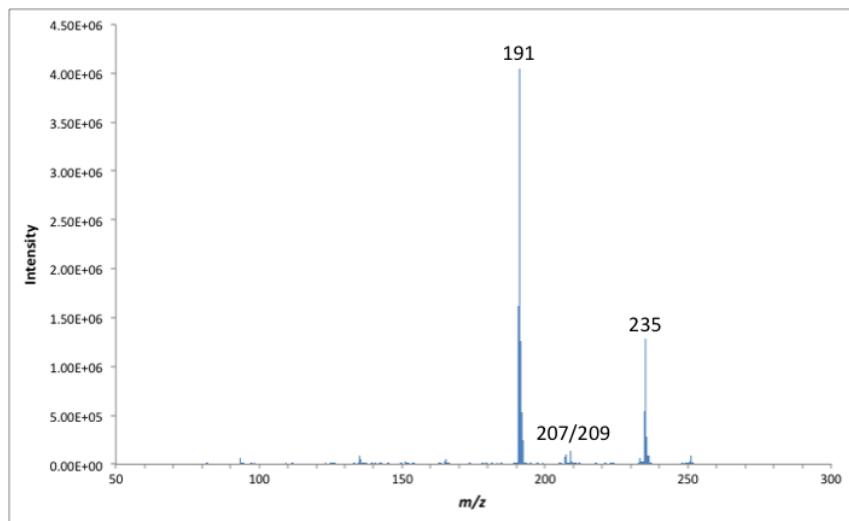
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Supplementary Figure 1: LC-MS Extracted Ion Chromatograms. Upper:  $[M-H]^- = m/z 253$ . Lower:  $[M-H]^- = m/z 251$ .



Supplementary Figure 2: Product ion mass spectra of peak at Rt = 45.9 with  $[\text{M}-\text{H}]^- = 251$  Da.



Supplementary Figure 3: Product ion mass spectra of peaks with  $[M-H]^- = 253$  Da. Upper: Peak at  $R_t = 42$  minutes. Lower: Peak at  $R_t = 52$  minutes