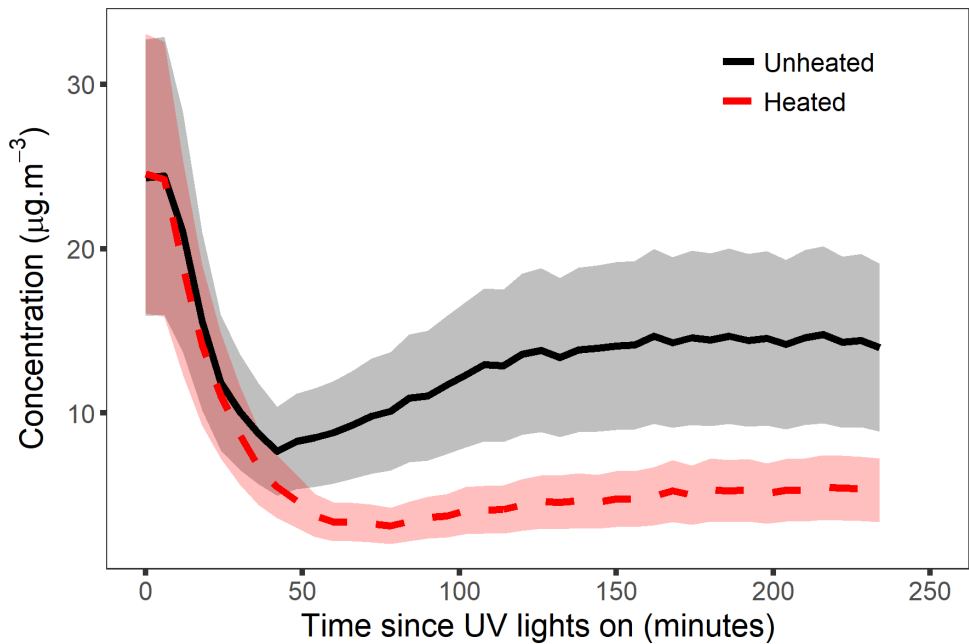


Supporting information for Determining the link between hygroscopicity and composition for semi-volatile aerosol species

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10 **Figure S1: Total non-refractory mass concentrations observed during seeded SOA formation, at both ambient temperature and after heating the sample to 120°C. The shaded area represents the cumulative uncertainties in each major AMS species.**

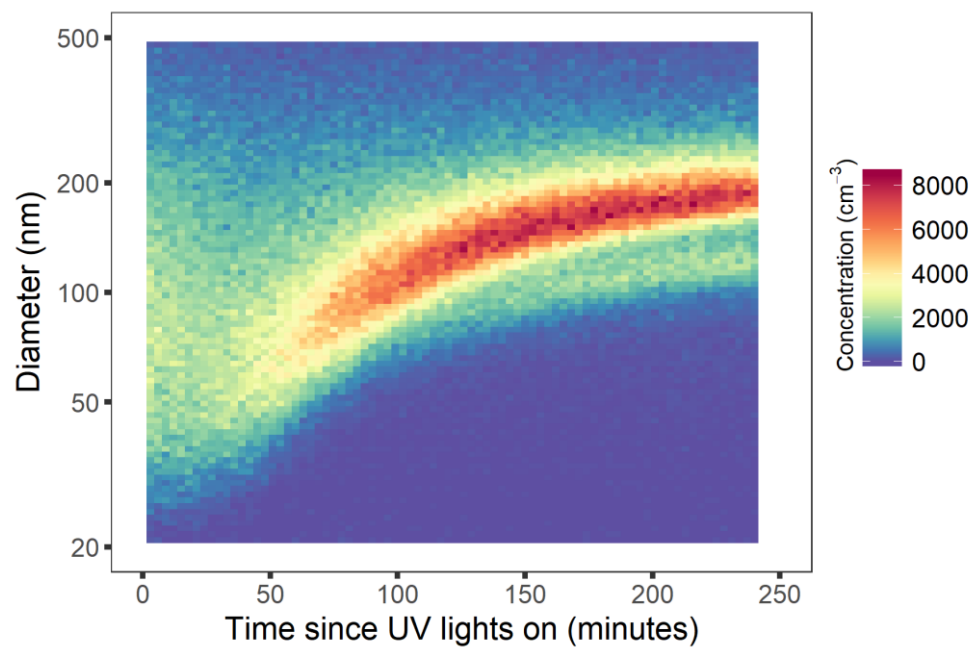


Figure S2: Size distributions of particle number concentration observed during four hours of α -pinene SOA formation on polydisperse AS seed particles.

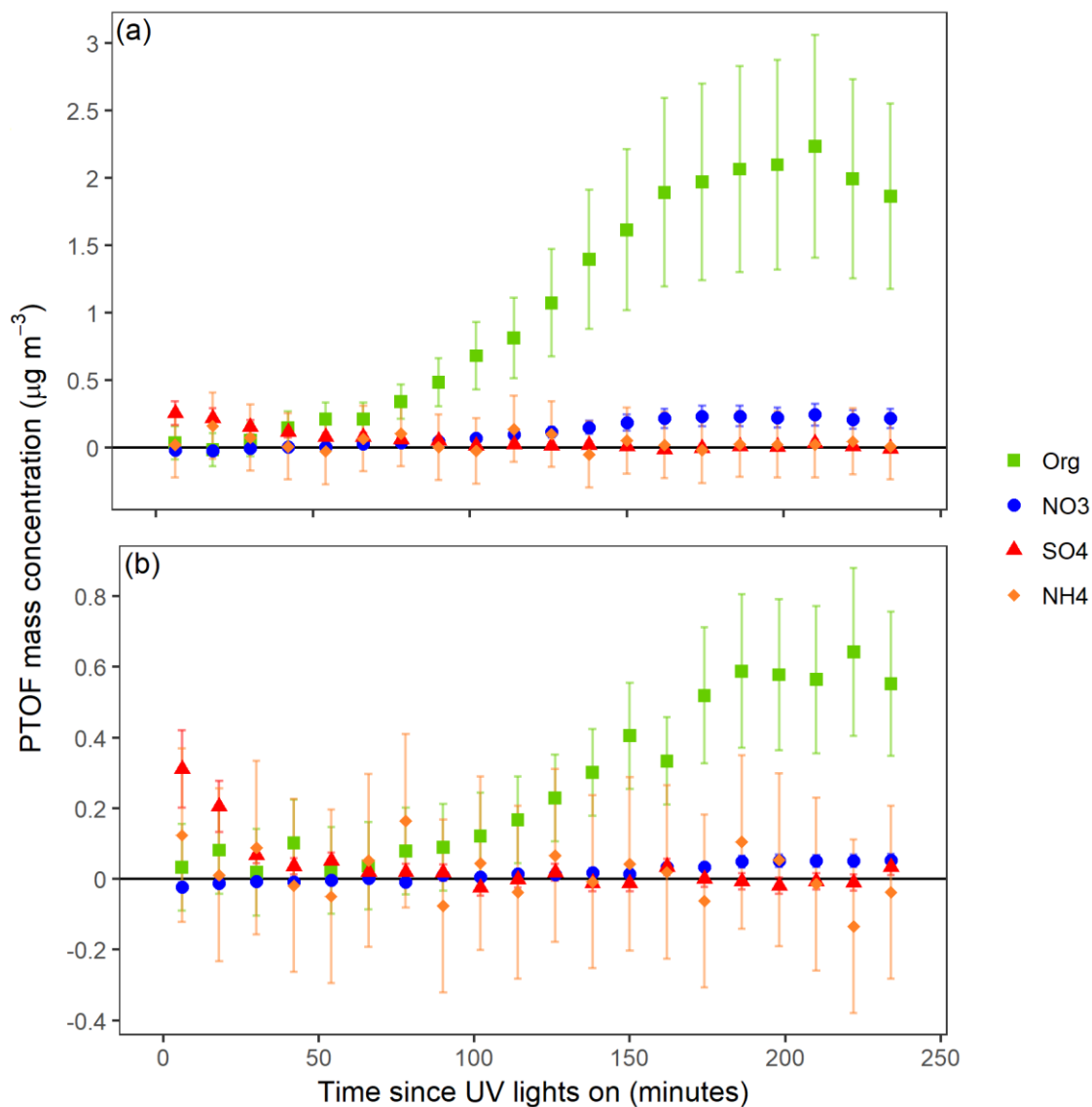


Figure S3: Size-resolved mass concentrations of major AMS species (excluding Chl) observed during seeded SOA formation, when sampling through (a) an unheated line and (b) a thermodenuder heated to 120°C. Concentrations have been restricted to aerosol with $130 < d_{va} < 180$ nm. The error bars represent the larger value of either their respective detection limits or estimated uncertainties of 37% for organics, 35% for SO₄ and Chl, and 33% for NO₃ and NH₄.