Table S1. Ozone and OH rate constants and associated compounds

Compound	k_{O3} (cm^3 molec^{-1} s^{-1})	k_{OH} (cm^3 molec^{-1} s^{-1})
thujene	6.20 x 10^{-17}, [a]	7.10 x 10^{-11}, [a]
tricyclene	0	2.66 x 10^{-12}, [h]
α-pinene	8.70 x 10^{-17}, [e]	5.37 x 10^{-11}, [a]
α-fenchene	1.20 x 10^{-17}, [h]	5.70 x 10^{-11}, [h]
camphene	9.00 x 10^{-19}, [c]	5.33 x 10^{-11}, [c]
sabinene	8.30 x 10^{-17}, [d]	1.17 x 10^{-10}, [c]
β-pinene	2.20 x 10^{-17}, [b]	7.89 x 10^{-11}, [a]
cymene	0	1.51 x 10^{-11}, [f]
limonene	2.10 x 10^{-16}, [c]	1.71 x 10^{-10}, [a]
β-phellandrene	1.80 x 10^{-16}, [d]	1.68 x 10^{-10}, [e]
γ-terpinene	1.40 x 10^{-16}, [d]	1.77 x 10^{-10}, [g]

[a]Pinto et al. (2007), [b]Khamaganov et al. (2000), [c]Atkinson et al. (1990), [d]Atkinson and Arey (2003), [e]Hakola et al. (1994), [f]Corchnoy and Atkinson 1990, [g]Friedman and Farmer 2018, [h]Estimated using King et al. (1999)

Table S2. Mapping of bootstrap factors to base factors for 2019-2020 PMF run

Bootstrapping run	Base Factor 1	Base Factor 2	Unmapped
Boot Factor 1	95	5	0
Boot Factor 2	0	100	0

Table S3. Percent of factor attributed to light
independent (%LI) and light dependent (%LD)
emissions by compound for 2019-2020 data

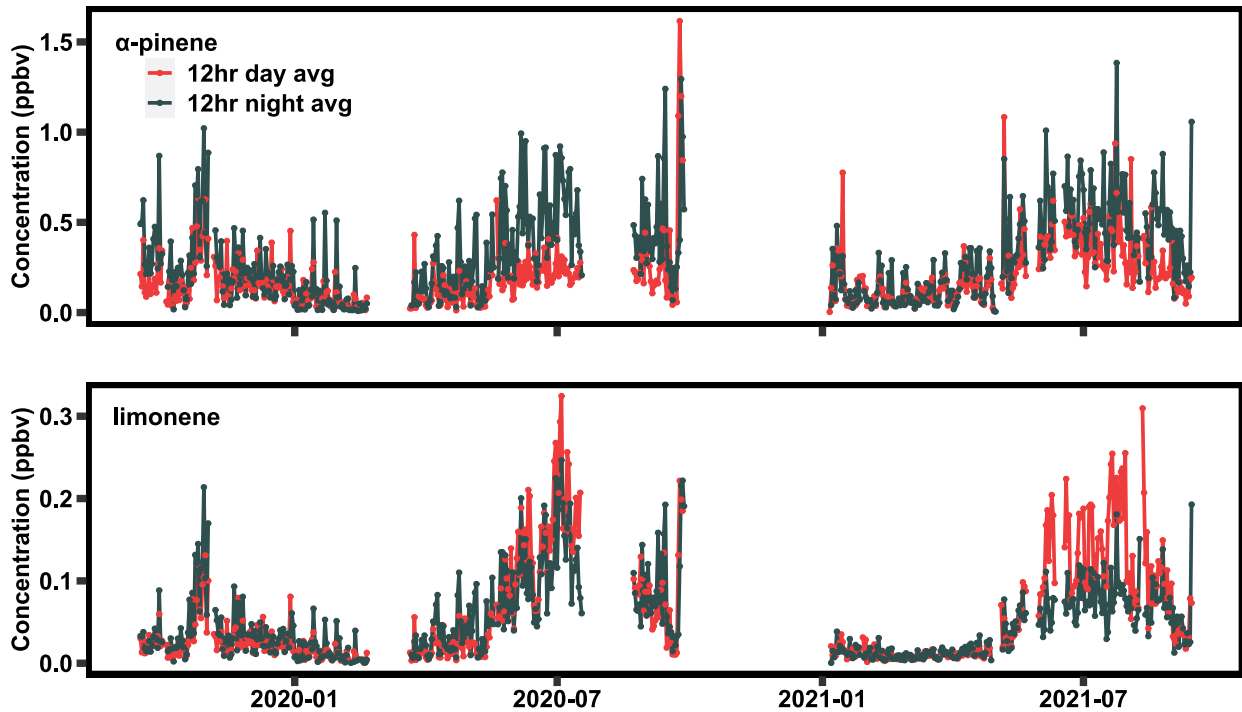| compound	%LI	%LD
α-pinene	57.9	6.0
β-pinene	14.2	2.6
β-phellandrene	3.2	3.8
camphene	11.9	5.2
limonene	5.9	34.8
tricyclene	3.0	0.8
thujene	0.2	5.3
fenchene	2.3	0.9
sabinene	0.0	13.5
cymene	0.9	25.0
γ-terpinene	0.5	2.2

Figure S1. The 12-hour average of α-pinene and limonene between September 2019 and September 2021. The averaging period for each compound was between 7 AM and 7 PM.
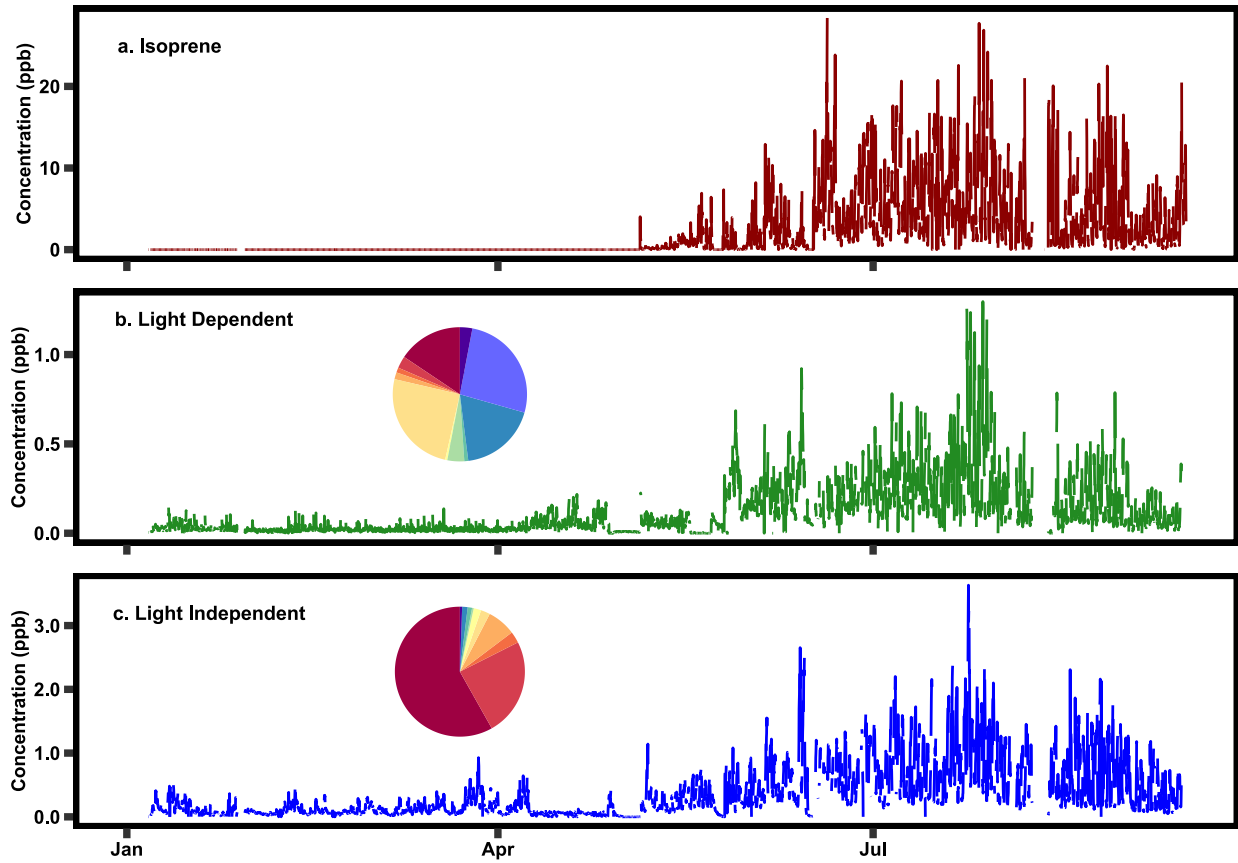
Figure S2. Time series of isoprene concentration, the two positive matrix factorization factors between January 2021 and September 2021, and the breakdown of the monoterpene species that contribute to each factor (pie charts).
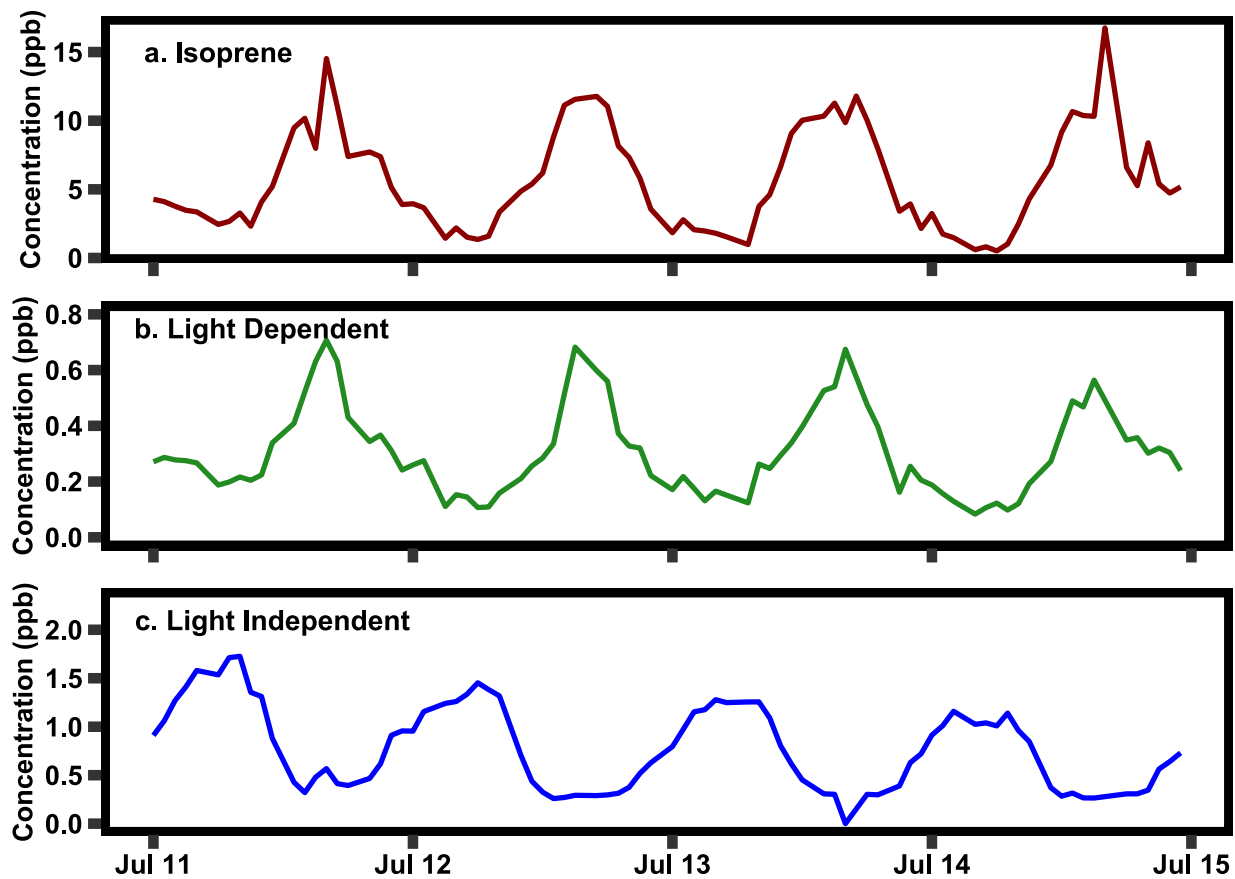
Figure S3. A four-day period in July 2021 of isoprene, and the two PMF factors (Light Dependent and Light Independent).
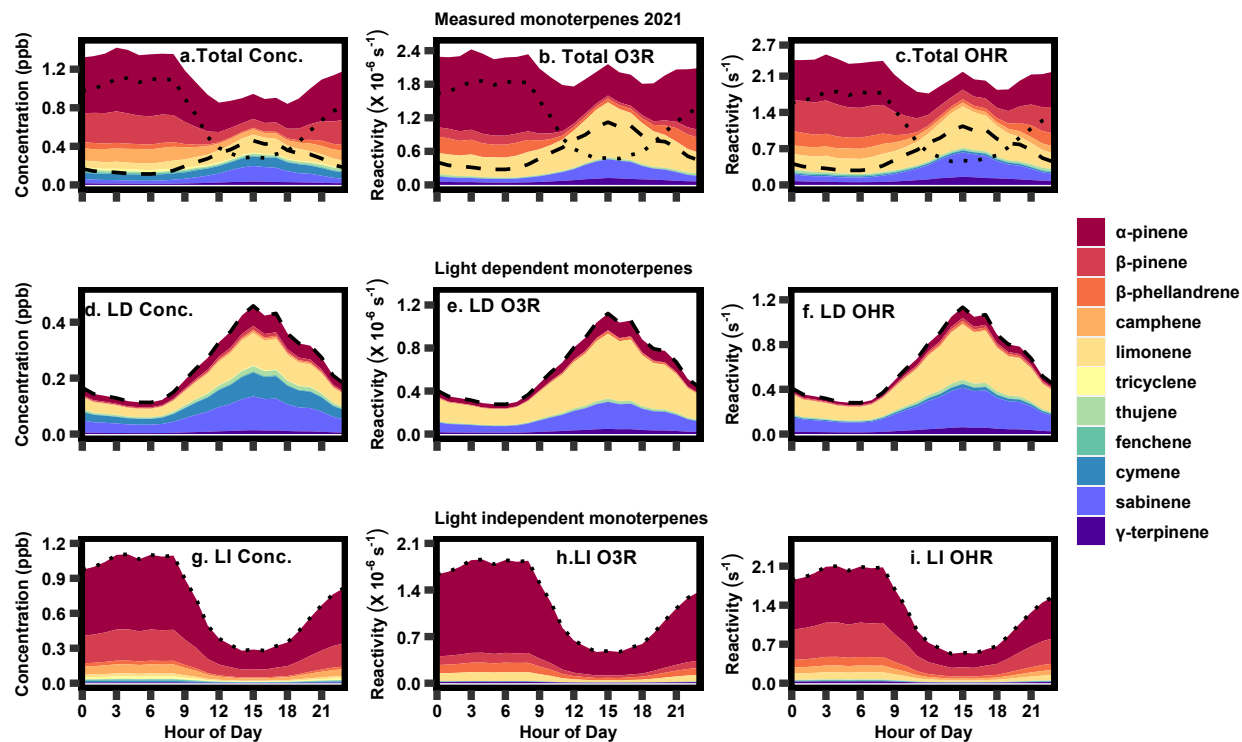
Figure S4. The 2021 summer diurnal profile of (a) measured monoterpene concentration, (b) calculated monoterpene ozone reactivity and (c) calculated OH reactivity, as well as light dependent (LD) (d) concentrations, (e) ozone reactivity, and (f) OH reactivity, and light independent (LI) (g) concentration, (h) ozone reactivity, (i) OH reactivity.