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Reconstructed VOC emissions reveal hidden ozone precursors: Overlooked roles of primary OVOCs and unmeasured species

Sijia Yin et al.

Correspondence to: Lin Wang (lin_wang@fudan.edu.cn)

S1. Calculation of the photolysis correction coefficient

Photolysis losses cannot be ignored for aldehydes and ketones (Mellouki et al., 2015). Assuming that the photolysis rate is proportional to the OH reaction rate (De Gouw et al., 2018), a correction coefficient (*f*) is used to compensate for the photolytic loss:

$$k^*_{\mathrm{OVOC}} = k_{\mathrm{OVOC}} + \frac{j_{\mathrm{OVOC}}}{[\mathrm{OH}]} = k_{\mathrm{OVOC}}\left(1 + \frac{j_{\mathrm{OVOC}}}{[\mathrm{OH}]k_{\mathrm{OVOC}}}\right) = f\,k_{\mathrm{OVOC}} \quad \text{(S1)}$$

where k_{OVOC} and j_{OVOC} represent the OH reaction rate coefficients and the photolysis frequency of an OVOC, respectively. The OH concentration ([OH], molecule cm^{-3}) was estimated using $J(O^1D)$ following Rohrer and Berresheim (2006). The photolysis frequency was estimated by the parameterization method applied in the Master Chemical Mechanism v3.3.1 (Saunders et al., 2003).

$$J_{i,clear\ sky} = l \times (cos\chi)^m \times exp\,(-n \times sec\chi) \quad \text{(S2)}$$

$$J_{i,ambient} = J_{i,clear\ sky} \times \frac{Measured\ J_{NO_2}}{clear\ sky\ J_{NO_2}} \quad \text{(S3)}$$

where χ is the solar zenith angle, *l*, *m*, and *n* are empirical parameters for different OVOC species, respectively, $J_{i,clear\ sky}$ is the clear sky photolysis frequency (s^{-1}), and $J_{i,ambient}$ the ambient photolysis frequency (s^{-1}) of individual OVOCs.

Here, the *f* values of 8 aldehydes and 5 ketones were calculated as listed in Table S2. For the remaining 195 unspecified OVOCs measured by Vocus-PTR, *f* was set to 1 as these compounds cannot be distinguish as carbonyls by the instrument, and are expected to undergo no photolytic loss.

S2. Calculation of OH exposure of anthropogenic VOCs

A species ratio method is applied to calculate the OH exposure of anthropogenic VOCs ($[\mathrm{OH}]\Delta t_a$, s molecule cm^{-3}) (Roberts et al., 1984). Two species that have similar sources and significantly different OH reaction rate constants, e.g., ethylbenzene (k_E, 7.0×10^{-12} $cm^3\cdot molecule^{-1}\cdot s^{-1}$) and m/p-xylene ($k_X$, 18.7×10^{-12} cm^3 $molecule^{-1}$ s^{-1}) (Atkinson and Arey, 2003) with a high concentration correlation (Figure S5a, $R^2 = 0.97$, $p < 0.05$), were selected for the calculation.

$$[\mathrm{OH}]\Delta t_a = \frac{1}{k_X - k_E} \times \ln\left[\ln\left(\frac{[X]}{[E]}\right)_{\mathrm{source}} - \ln\left(\frac{[X]}{[E]}\right)_t\right] \quad \text{(S4)}$$

where $([X]/[E])_{source}$ is the initial emission ratio of m/p-xylene and ethylbenzene in fresh emissions, and $([X]/[E])_t$ is the observed concentration ratio of m/p-xylene and ethylbenzene. The $([X]/[E])_t$ over the entire campaign was relatively stable and remained at a high value at 22:00–06:00 LT before sunrise. As shown in Figure S5b, the maximum $([X]/[E])_t$ at 05:00–06:00 LT (4.60 ppbv $ppbv^{-1}$) was chosen as the $([X]/[E])_{source}$, which is close to the ratio of 4.0 ppbv $ppbv^{-1}$ measured in Guangzhou (Wu et al., 2020a).

S3. Calculation of OH exposure of biogenic VOCs

Isoprene is extremely reactive in the atmosphere, and its oxidation process by OH radicals can be described as follows (De Gouw et al., 2005; Stroud et al., 2001).

$$\text{Isoprene} + \text{OH} \rightarrow 0.32\text{MVK} + 0.23\text{MACR} \quad k_{\text{C}_5\text{H}_8} = 1 \times 10^{-10}\ \text{cm}^3/(\text{molecule} \cdot \text{s}) \tag{SR1}$$

$$\text{MACR} + \text{OH} \rightarrow \text{Products} \quad k_{\text{MACR}} = 3.3 \times 10^{-11}\ \text{cm}^3/(\text{molecule} \cdot \text{s}) \tag{SR2}$$

Therefore, the OH exposure of biogenic VOCs ($[\text{OH}]\Delta t_b$, s molecule cm^{-3}) can be concluded:

$$[\text{OH}]\Delta t_b = \frac{\ln\left[1 - \frac{[\text{MACR}_{correct}]}{[\text{C}_5\text{H}_8]} \times \frac{k_{MACR} - k_{\text{C}_5\text{H}_8}}{0.23 k_{\text{C}_5\text{H}_8}}\right]}{k_{\text{C}_5\text{H}_8} - k_{MACR}} \tag{S5}$$

where k_{C5H8} and k_{MACR} are the OH reaction rate constants of isoprene and MACR, respectively; $[C_5H_8]$ is the observed concentration of isoprene, and $[\text{MACR}_{correct}]$ is the corrected concentration of MACR as defined below.

Observed MACR was elevated during nighttime when anthropogenic emissions were high, similar to observations in Guangzhou and Shenzhen, China (Li et al., 2024; Wu et al., 2020a), indicating that MACR is influenced by anthropogenic sources. As shown in Figure S6, the emission ratio of MACR to acetylene (ER_{MACR}) was determined by the slope of [MACR] and $[C_2H_2]$ during the nighttime (21:00-5:00 LT). The daytime concentration of MACR generated from isoprene oxidation was then estimated from observed MACR concentration ($[\text{MACR}_{\text{meas}}]$) as follow:

$$[\text{MACR}_{correct}] = [\text{MACR}_{meas}] - \text{ER}_{MACR} \times [\text{C}_2\text{H}_2] \tag{S6}$$

The subsequent source appointment of MACR indicates that anthropogenic contributions are relatively minor at the DSL site. Thus, although the weak nighttime correlation between [MACR] and $[C_2H_2]$ may introduce substantial uncertainty in the derived ER_{MACR}, this uncertainty has only a minor effect on the subsequent estimation of isoprene-derived MACR.

S4. The OH reaction rate constants

The OH reaction rate constants (k_{OH}) of NMHCs and carbonyls measured by GC-MS/FID are summarized in Table S5. For VOCs detected by Vocus-PTR, k_{OH} of identified compounds or their isomers were adopted from previous studies (Gilman et al., 2015; Koss et al., 2018; Wu et al., 2020a). For molecular formulas with unidentified compounds and rarely reported in previous studies, k_{OH} was estimated using a parametric method based on the number of carbon (n_{C}) and oxygen atoms (n_{O}) (Donahue et al., 2013).

$$k_{OH} = 1.2 \times 10^{-12}\left(n_{\text{C}} + 9n_{\text{O}} - 10\left(\frac{n_{\text{O}}}{n_{\text{C}}}\right)^2\right) \tag{S7}$$

The mean k_{OH} of NMHCs and OVOCs used in this study is 3.7×10^{-11} $\text{cm}^3\cdot\text{molecule}^{-1}\cdot\text{s}^{-1}$ and 2.9×10^{-11} $\text{cm}^3\cdot\text{molecule}^{-1}\cdot\text{s}^{-1}$, respectively, which are similar to previous estimations (Qi et al., 2025).

S5. Uncertainty analysis

The estimated OFP of VOCs is primarily affected by uncertainties in VOC measurements, the assignment of k_{OH} and MIR values to VOCs measured by Vocus-PTR, and assumptions regarding unmeasured VOCs.

Uncertainties in VOC measurements by GC–MS/FID and Kore PTR are estimated at 15%–20% (Yuan et al., 2012) and ±30% (Yuan et al., 2017), respectively. We quantified concentrations of unspecified NMHCs and OVOCs detected by Vocus-PTR using the calibration method proposed by Sekimoto et al. (2017), which is based on the linear relationship between VOC's sensitivity by PTR and kinetic rate constants for proton-transfer reactions. Following this approach, the estimated concentration uncertainty for uncalibrated species by Vocus-PTR is approximately 50%.

Given that many m/z values detected by Vocus-PTR represent multiple potential isomers with divergent chemical structures, the uncertainties in k_{OH} and MIR values for these species can be even larger. Specifically, k_{OH} uncertainty can reach ~100 % (Wu et al., 2020a). In our base-case OFP calculation, we conservatively applied the minimum MIR among all possible isomers to prevent overestimation. This approach yielded a total OFP of 431.9 μg m^{-3} for total initial VOCs, with unspecified NMHCs and OVOCs contributing 40.8 and 33.2 μg m^{-3}, respectively. Conversely, when applying the maximum MIR values, the estimated OFPs for unspecified NMHCs and OVOCs increased to 55.5 and 126.4 μg m^{-3}, respectively. This corresponds to a total OFP of 539.8 μg m^{-3} for total initial VOCs. Consequently, the contribution of unspecified VOCs to the total OFP ranges from 17.1% (minimum MIR case) to 42.0% (maximum MIR case), confirming their significant role as O_3 precursors regardless of the isomer assignment. Ultimately, the cumulative uncertainties for the estimated OFP of unspecified NMHCs and OVOCs were determined to be 0–67.2% and 0–209.8%, respectively.

Previous studies (Li et al., 2020; Wang et al., 2020; Wu et al., 2020b) have identified methanol, long-chain alkanes, diterpenes, and OVOCs with more than four oxygen atoms as important contributors to R_{OH}. However, these species were not quantified during this campaign. In addition, the isomerization and fragmentation of terpenes can lead to an underestimation of the calculated R_{OH} (Jensen et al., 2023; Yang et al., 2022), representing a potential biogenic source of the missing R_{OH}.

To quantify the uncertainty in OFP estimates for unmeasured VOCs, a sensitivity analysis was conducted by attributing the entire missing R_{OH} to a surrogate VOC. Potential surrogates included methanol, 56 PAMS species, isoprene, monoterpenes, sesquiterpenes, and diterpenes. After converting the missing R_{OH} into an equivalent concentration of a selected surrogate, its initial concentrations and OFP were calculated using the methodology described in Sect. 2.3. As shown in Figure S7, the OFP of surrogates ranged from 110.7 to 744.4 μg m^{-3} (10^{th}–90^{th} percentile range), corresponding to an uncertainty of 76.4% to 1086.0% relative to the base-case calculated OFP of 62.8 μg m^{-3}, but the extreme values are unlikely to occur.

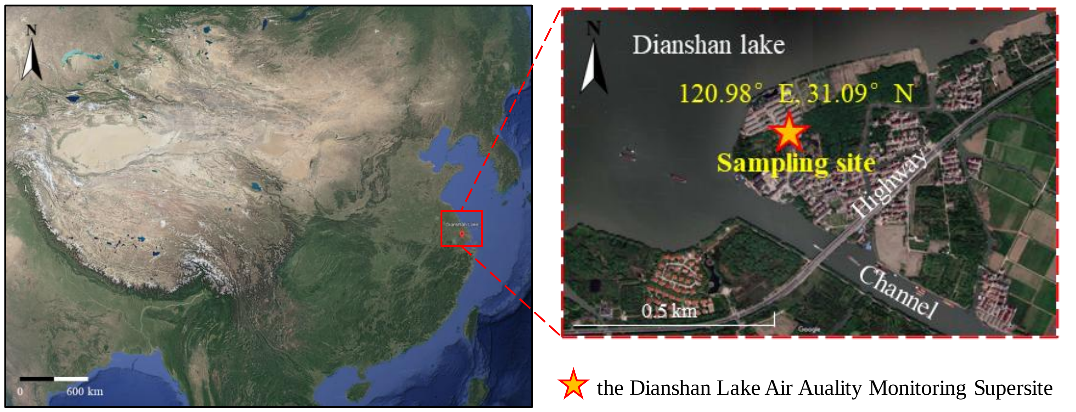

Figure S1. The geographic location of the DSL supersite. Imagery © 2026 Airbus, CNES/Airbus, Maxar Technologies, Map data © 2026 Google.

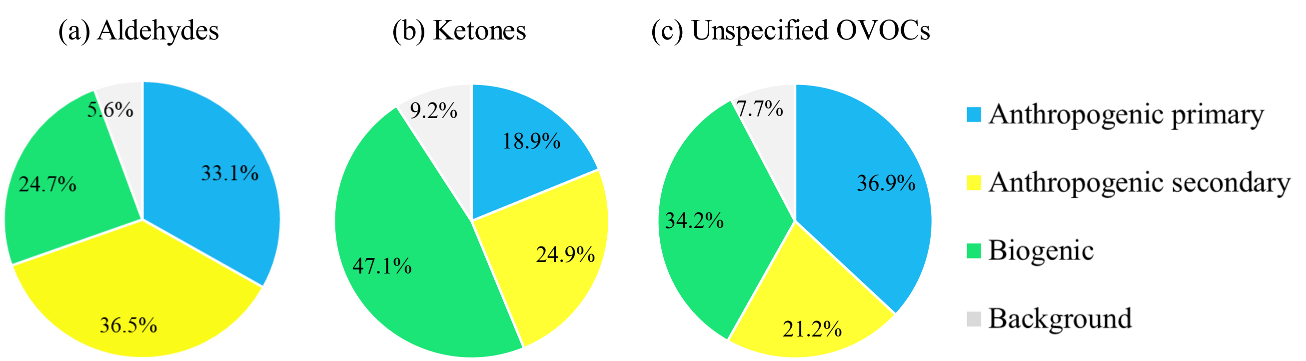

Figure S2. Source distribution of (a) aldehydes, (b) ketones, and (c) unspecified OVOCs during the daytime

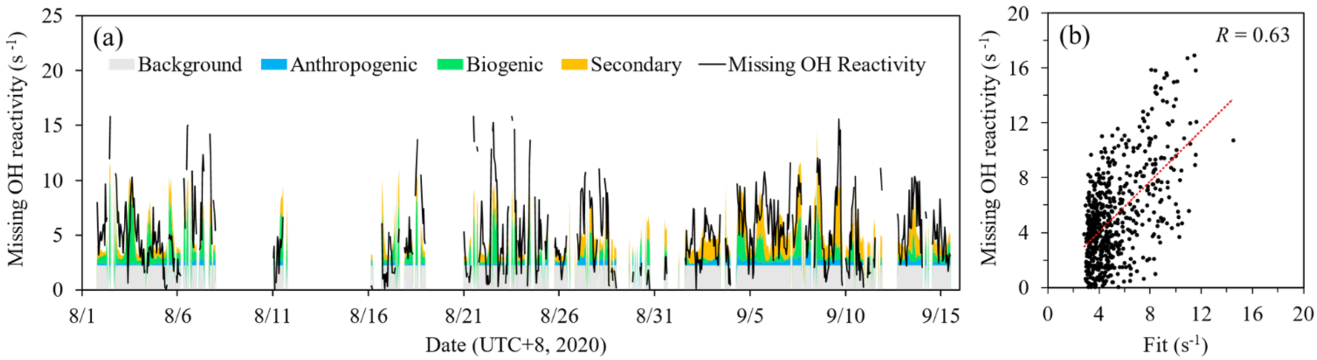

Figure S3. (a) Time series and (b) scatter plot of missing OH reactivity versus the fit result using MLR.

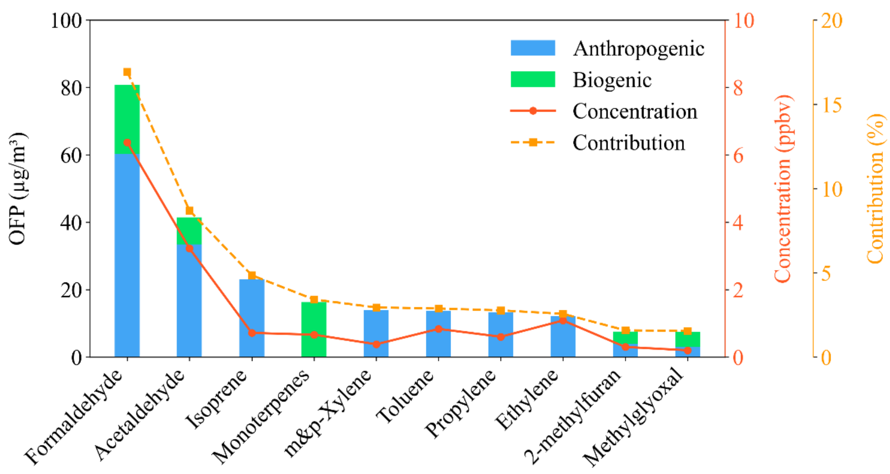

Figure S4. The observed concentrations and contributions of the top-ten OFP contributors during daytime.

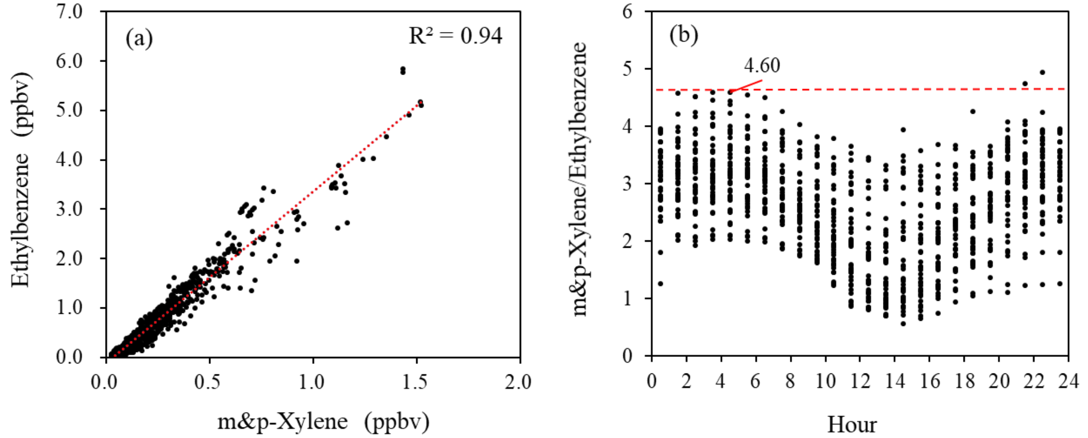

Figure S5. (a) Correlation between m&p-xylene and ethylbenzene. (b) The diurnal trend of the ratio of m&p-xylene and ethylbenzene, the red dashed line represents the maximum ratio at 05:00–06:00.

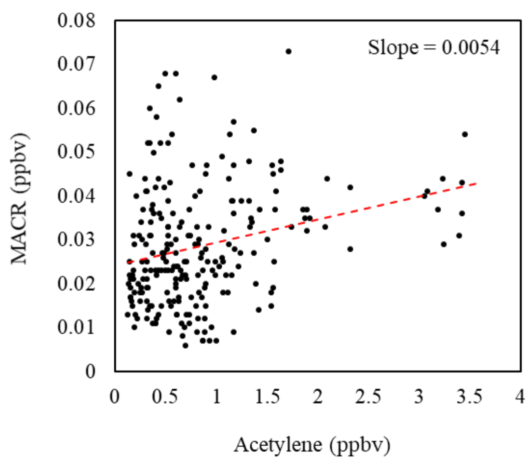

Figure S6. Scatterplot of MACR versus acetylene during the nighttime (21:00-5:00 LT).

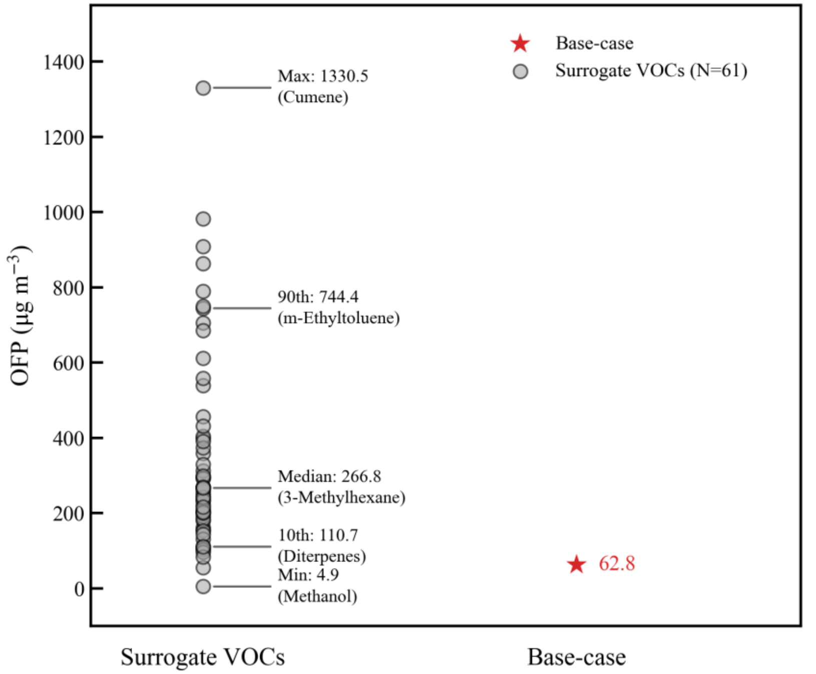

Figure S7. Estimated initial OFP of unmeasured VOCs when compensated missing R_{OH} by a surrogate VOC (surrogates including methanol, 56 PMAS, isoprene, monoterpenes, sesquiterpenes, and diterpenes).

Table S1. The average, median, 10th percentile, and 90th percentile concentrations of VOCs detected during the whole campaign**.**

Categories	Components or m/z	Formula	Concentration (ppbv)				Detector
			Average	Median	10th percentile	90th percentile	
	Ethane	C_2H_6	1.43	1.10	0.56	2.59	GC-MS/FID
	Propane	C_3H_8	4.63	2.38	1.20	13.39	GC-MS/FID
	Isobutane	C_4H_{10}	1.11	0.85	0.32	2.18	GC-MS/FID
	n-Butane	C_4H_{10}	1.38	1.08	0.45	2.62	GC-MS/FID
	Cyclopentane	C_5H_{10}	0.05	0.04	0.02	0.11	GC-MS/FID
	Isopentane	C_5H_{12}	0.73	0.59	0.23	1.34	GC-MS/FID
	n-Pentane	C_5H_{12}	0.38	0.30	0.12	0.71	GC-MS/FID
	2,2-Dimethylbutane	C_6H_{14}	0.04	0.03	0.02	0.06	GC-MS/FID
	Methylcyclopentane	C_6H_{12}	0.12	0.05	0.01	0.27	GC-MS/FID
	2,3-Dimethylbutane	C_6H_{14}	0.01	0.01	0.00	0.03	GC-MS/FID
	2-Methylpentane	C_6H_{14}	0.15	0.12	0.05	0.29	GC-MS/FID
	3-Methylpentane	C_6H_{14}	0.12	0.10	0.03	0.23	GC-MS/FID
	n-Hexane	C_6H_{14}	1.67	0.15	0.05	8.97	GC-MS/FID
	2,4-Dimethylpentane	C_7H_{16}	0.01	0.00	0.00	0.02	GC-MS/FID
Alkanes	Cyclohexane	C_6H_{12}	0.12	0.05	0.01	0.28	GC-MS/FID
	2-Methylhexane	C_7H_{16}	0.05	0.03	0.01	0.10	GC-MS/FID
	2,3-Dimethylpentane	C_7H_{16}	0.02	0.01	0.00	0.04	GC-MS/FID
	3-Methylhexane	C_7H_{16}	0.06	0.03	0.01	0.12	GC-MS/FID
	2,2,4-Trimethylpentane	C_8H_{18}	0.02	0.01	0.00	0.04	GC-MS/FID
	n-Heptane	C_7H_{16}	0.10	0.04	0.01	0.23	GC-MS/FID
	Methylcyclohexane	C_7H_{14}	0.07	0.04	0.01	0.13	GC-MS/FID
	2,3,4-Trimethylpentane	C_8H_{18}	0.01	0.00	0.00	0.01	GC-MS/FID
	2-Methylheptane	C_8H_{18}	0.03	0.02	0.00	0.05	GC-MS/FID
	3-Methylheptane	C_8H_{18}	0.02	0.01	0.00	0.03	GC-MS/FID
	n-Octane	C_8H_{18}	0.03	0.02	0.01	0.06	GC-MS/FID
	n-Nonane	C_9H_{20}	0.02	0.01	0.01	0.03	GC-MS/FID
	n-Decane	$C_{10}H_{22}$	0.02	0.02	0.01	0.05	GC-MS/FID
	n-Undecane	$C_{11}H_{24}$	0.02	0.02	0.01	0.05	GC-MS/FID
	n-Dodecane	$C_{12}H_{26}$	0.04	0.02	0.01	0.07	GC-MS/FID
	Ethylene	C_2H_4	1.18	0.96	0.48	2.07	GC-MS/FID
	Propylene	C_3H_6	0.58	0.47	0.21	1.09	GC-MS/FID
	trans-2-Butene	C_4H_8	0.03	0.02	0.01	0.07	GC-MS/FID
Alkenes	1-Butene	C_4H_8	0.07	0.06	0.03	0.12	GC-MS/FID
	cis-2-Butene	C_4H_8	0.04	0.03	0.02	0.08	GC-MS/FID
	trans-2-Pentene	C_5H_{10}	0.01	0.01	0.00	0.01	GC-MS/FID
	1-Pentene	C_5H_{10}	0.01	0.01	0.00	0.02	GC-MS/FID

	cis-2-Pentene	C_5H_{10}	0.00	0.00	0.00	0.01	GC-MS/FID
	Isoprene	C_5H_8	0.35	0.12	0.01	1.09	GC-MS/FID
	1-Hexene	C_6H_{12}	0.01	0.01	0.00	0.02	GC-MS/FID
Alkyne	Acetylene	C_2H_2	0.79	0.70	0.26	1.38	GC-MS/FID
Aromatics	Benzene	C_6H_6	0.25	0.21	0.08	0.47	GC-MS/FID
	Toluene	C_7H_8	1.44	0.83	0.26	3.60	GC-MS/FID
	Ethylbenzene	C_8H_{10}	0.24	0.18	0.06	0.52	GC-MS/FID
	m/p-Xylene	C_8H_{10}	0.72	0.46	0.09	1.68	GC-MS/FID
	Styrene	C_8H_8	0.06	0.04	0.01	0.14	GC-MS/FID
	o-Xylene	C_8H_{10}	0.22	0.14	0.03	0.50	GC-MS/FID
	Cumene	C_9H_{12}	0.02	0.01	0.01	0.04	GC-MS/FID
	n-Propylbenzene	C_9H_{12}	0.01	0.01	0.01	0.02	GC-MS/FID
	m-Ethyltoluene	C_9H_{12}	0.02	0.01	0.01	0.04	GC-MS/FID
	p-Ethyltoluene	C_9H_{12}	0.01	0.01	0.00	0.02	GC-MS/FID
	1,3,5-Trimethylbenzene	C_9H_{12}	0.01	0.01	0.00	0.02	GC-MS/FID
	o-Ethyltoluene	C_9H_{12}	0.01	0.01	0.00	0.02	GC-MS/FID
	1,2,4-Trimethylbenzene	C_9H_{12}	0.02	0.02	0.01	0.05	GC-MS/FID
	1,2,3-Trimethylbenzene	C_9H_{12}	0.01	0.01	0.00	0.03	GC-MS/FID
	m-Diethylbenzene	$C_{10}H_{14}$	0.01	0.01	0.00	0.01	GC-MS/FID
	p-Diethylbenzene	$C_{10}H_{14}$	0.01	0.01	0.00	0.02	GC-MS/FID
Aldehydes	Formaldehyde	CH_2O	5.57	5.13	2.50	9.33	Kore-PTR
	Acetaldehyde	C_2H_4O	2.99	2.94	1.64	4.46	Kore-PTR
	Acrolein	C_3H_4O	0.04	0.03	0.02	0.06	GC-MS/FID
	Propanal	C_3H_6O	0.04	0.04	0.02	0.06	GC-MS/FID
	MACR	C_4H_6O	0.07	0.05	0.02	0.16	GC-MS/FID
	Butanal	C_4H_8O	0.06	0.04	0.02	0.11	GC-MS/FID
	Pentanal	$C_5H_{10}O$	0.02	0.02	0.00	0.04	GC-MS/FID
	Hexanal	$C_6H_{12}O$	0.12	0.07	0.01	0.29	GC-MS/FID
Ketones	Acetone	C_3H_6O	3.30	2.66	1.15	6.12	GC-MS/FID
	Butenone	C_4H_6O	0.05	0.03	0.01	0.11	GC-MS/FID
	2-Butanone	C_4H_8O	0.24	0.18	0.07	0.43	GC-MS/FID
	2-Pentanone	$C_5H_{10}O$	0.02	0.02	0.00	0.04	GC-MS/FID
	3-Pentanone	$C_5H_{10}O$	0.01	0.01	0.00	0.02	GC-MS/FID
Other HCs	64.0313	C_5H_4	0.04	0.04	0.01	0.08	Vocus-PTR
	66.0469	C_5H_6	0.00	0.00	0.00	0.01	Vocus-PTR
	80.0626	C_6H_8	0.00	0.00	0.00	0.01	Vocus-PTR
	82.0782	C_6H_{10}	0.17	0.15	0.09	0.25	Vocus-PTR
	90.0469	C_7H_6	1.66	1.30	0.32	3.38	Vocus-PTR
	94.0782	C_7H_{10}	0.00	0.00	0.00	0.01	Vocus-PTR
	96.0939	C_7H_{12}	0.08	0.06	0.04	0.13	Vocus-PTR
	98.1096	C_7H_{14}	0.01	0.01	0.01	0.02	Vocus-PTR

102.0469	C_8H_6	0.05	0.04	0.00	0.09	Vocus-PTR
108.0939	C_8H_{12}	0.16	0.14	0.04	0.26	Vocus-PTR
110.1095	C_8H_{14}	0.06	0.05	0.03	0.10	Vocus-PTR
112.1252	C_8H_{16}	0.01	0.01	0.01	0.02	Vocus-PTR
116.0626	C_9H_8	0.02	0.02	0.00	0.04	Vocus-PTR
118.0782	C_9H_{10}	0.10	0.08	0.02	0.18	Vocus-PTR
122.1095	C_9H_{14}	0.06	0.06	0.03	0.10	Vocus-PTR
124.1252	C_9H_{16}	0.03	0.02	0.01	0.04	Vocus-PTR
126.1408	C_9H_{18}	0.01	0.01	0.00	0.01	Vocus-PTR
128.0626	$C_{10}H_8$	0.08	0.06	0.02	0.15	Vocus-PTR
130.0782	$C_{10}H_{10}$	0.02	0.01	0.00	0.03	Vocus-PTR
132.0939	$C_{10}H_{12}$	0.05	0.04	0.01	0.09	Vocus-PTR
136.1252	$C_{10}H_{16}$	0.34	0.16	0.04	0.94	Vocus-PTR
138.1408	$C_{10}H_{18}$	0.01	0.01	0.01	0.02	Vocus-PTR
140.0626	$C_{11}H_8$	0.03	0.02	0.00	0.06	Vocus-PTR
140.1565	$C_{10}H_{20}$	0.01	0.00	0.00	0.01	Vocus-PTR
142.0782	$C_{11}H_{10}$	0.03	0.02	0.01	0.05	Vocus-PTR
144.0939	$C_{11}H_{12}$	0.01	0.01	0.00	0.02	Vocus-PTR
146.1095	$C_{11}H_{14}$	0.02	0.02	0.01	0.04	Vocus-PTR
148.1252	$C_{11}H_{16}$	0.03	0.03	0.01	0.06	Vocus-PTR
150.1408	$C_{11}H_{18}$	0.02	0.01	0.01	0.03	Vocus-PTR
152.1565	$C_{11}H_{20}$	0.01	0.01	0.00	0.01	Vocus-PTR
154.0782	$C_{12}H_{10}$	0.01	0.01	0.00	0.02	Vocus-PTR
154.1721	$C_{11}H_{22}$	0.01	0.00	0.00	0.01	Vocus-PTR
156.0939	$C_{12}H_{12}$	0.02	0.01	0.00	0.03	Vocus-PTR
158.1095	$C_{12}H_{14}$	0.02	0.02	0.00	0.03	Vocus-PTR
160.1252	$C_{12}H_{16}$	0.02	0.01	0.01	0.03	Vocus-PTR
162.1408	$C_{12}H_{18}$	0.02	0.02	0.01	0.03	Vocus-PTR
164.1565	$C_{12}H_{20}$	0.01	0.01	0.00	0.02	Vocus-PTR
166.1721	$C_{12}H_{22}$	0.00	0.00	0.00	0.01	Vocus-PTR
168.0939	$C_{13}H_{12}$	0.01	0.01	0.00	0.02	Vocus-PTR
168.1878	$C_{12}H_{24}$	0.01	0.00	0.00	0.01	Vocus-PTR
170.1095	$C_{13}H_{14}$	0.02	0.01	0.00	0.02	Vocus-PTR
172.1252	$C_{13}H_{16}$	0.01	0.01	0.00	0.01	Vocus-PTR
174.1408	$C_{13}H_{18}$	0.01	0.01	0.00	0.02	Vocus-PTR
176.1565	$C_{13}H_{20}$	0.02	0.01	0.01	0.03	Vocus-PTR
178.0782	$C_{14}H_{10}$	0.01	0.01	0.00	0.01	Vocus-PTR
178.1721	$C_{13}H_{22}$	0.01	0.01	0.00	0.01	Vocus-PTR
180.1878	$C_{13}H_{24}$	0.00	0.00	0.00	0.00	Vocus-PTR
182.1095	$C_{14}H_{14}$	0.01	0.01	0.00	0.02	Vocus-PTR
182.2034	$C_{13}H_{26}$	0.00	0.00	0.00	0.01	Vocus-PTR

	184.1252	$C_{14}H_{16}$	0.01	0.01	0.00	0.02	Vocus-PTR
	186.1408	$C_{14}H_{18}$	0.01	0.01	0.00	0.01	Vocus-PTR
	188.1565	$C_{14}H_{20}$	0.01	0.01	0.00	0.02	Vocus-PTR
	190.1721	$C_{14}H_{22}$	0.01	0.01	0.00	0.02	Vocus-PTR
	192.1878	$C_{14}H_{24}$	0.01	0.00	0.00	0.01	Vocus-PTR
	194.2034	$C_{14}H_{26}$	0.00	0.00	0.00	0.00	Vocus-PTR
	196.2191	$C_{14}H_{28}$	0.00	0.00	0.00	0.00	Vocus-PTR
	204.1878	$C_{15}H_{24}$	0.03	0.02	0.01	0.05	Vocus-PTR
	60.0211	$C_2H_4O_2$	3.24	2.59	1.08	5.77	Vocus-PTR
	62.0368	$C_2H_6O_2$	0.05	0.04	0.01	0.09	Vocus-PTR
	68.0262	C_4H_4O	0.07	0.06	0.03	0.10	Vocus-PTR
	72.0211	$C_3H_4O_2$	0.15	0.13	0.05	0.28	Vocus-PTR
	74.0368	$C_3H_6O_2$	1.54	1.03	0.35	3.17	Vocus-PTR
	76.016	$C_2H_4O_3$	0.03	0.02	0.00	0.05	Vocus-PTR
	76.0524	$C_3H_8O_2$	0.87	0.76	0.33	1.46	Vocus-PTR
	78.0317	$C_2H_6O_3$	1.09	0.91	0.40	1.98	Vocus-PTR
	80.0262	C_5H_4O	0.06	0.04	0.02	0.12	Vocus-PTR
	82.0418	C_5H_6O	0.23	0.21	0.06	0.41	Vocus-PTR
	84.0211	$C_4H_4O_2$	0.09	0.08	0.04	0.13	Vocus-PTR
	84.0575	C_5H_8O	0.05	0.04	0.02	0.08	Vocus-PTR
	86.0368	$C_4H_6O_2$	0.30	0.26	0.11	0.51	Vocus-PTR
	88.016	$C_3H_4O_3$	0.19	0.15	0.11	0.31	Vocus-PTR
	88.0524	$C_4H_8O_2$	0.97	0.70	0.28	1.71	Vocus-PTR
	90.0317	$C_3H_6O_3$	0.29	0.18	0.06	0.67	Vocus-PTR
Other OVOCs	90.0681	$C_4H_{10}O_2$	0.29	0.21	0.08	0.56	Vocus-PTR
	92.0473	$C_3H_8O_3$	0.39	0.24	0.07	0.85	Vocus-PTR
	94.0418	C_6H_6O	0.11	0.06	0.02	0.16	Vocus-PTR
	96.0211	$C_5H_4O_2$	0.33	0.20	0.09	0.81	Vocus-PTR
	96.0575	C_6H_8O	0.04	0.04	0.01	0.08	Vocus-PTR
	98.0368	$C_5H_6O_2$	0.19	0.19	0.09	0.29	Vocus-PTR
	98.0731	$C_6H_{10}O$	0.07	0.05	0.02	0.11	Vocus-PTR
	100.016	$C_4H_4O_3$	0.07	0.05	0.03	0.11	Vocus-PTR
	100.0524	$C_5H_8O_2$	0.32	0.26	0.13	0.57	Vocus-PTR
	102.0317	$C_4H_6O_3$	0.07	0.06	0.03	0.12	Vocus-PTR
	102.0681	$C_5H_{10}O_2$	0.08	0.05	0.03	0.13	Vocus-PTR
	104.0473	$C_4H_8O_3$	0.06	0.05	0.02	0.12	Vocus-PTR
	104.0837	$C_5H_{12}O_2$	0.04	0.04	0.02	0.07	Vocus-PTR
	106.0266	$C_3H_6O_4$	0.07	0.06	0.03	0.10	Vocus-PTR
	106.0418	C_7H_6O	0.12	0.09	0.04	0.23	Vocus-PTR
	106.063	$C_4H_{10}O_3$	0.32	0.22	0.06	0.63	Vocus-PTR
	108.0575	C_7H_8O	0.16	0.15	0.05	0.29	Vocus-PTR

	110.0368	$C_6H_6O_2$	0.01	0.02	0.01	0.04	Vocus-PTR
	110.0731	$C_7H_{10}O$	0.04	0.03	0.01	0.07	Vocus-PTR
	112.016	$C_5H_4O_3$	0.13	0.12	0.05	0.22	Vocus-PTR
	112.0524	$C_6H_8O_2$	0.11	0.11	0.04	0.19	Vocus-PTR
	112.0888	$C_7H_{12}O$	0.02	0.01	0.01	0.03	Vocus-PTR
	113.9953	$C_4H_2O_4$	0.02	0.02	0.00	0.04	Vocus-PTR
	114.0317	$C_5H_6O_3$	0.11	0.10	0.05	0.17	Vocus-PTR
	114.0681	$C_6H_{10}O_2$	0.10	0.09	0.04	0.18	Vocus-PTR
	114.1044	$C_7H_{14}O$	0.01	0.01	0.00	0.02	Vocus-PTR
	116.0109	$C_4H_4O_4$	0.04	0.03	0.02	0.08	Vocus-PTR
	116.0473	$C_5H_8O_3$	0.08	0.07	0.04	0.15	Vocus-PTR
	116.0837	$C_6H_{12}O_2$	0.12	0.10	0.04	0.23	Vocus-PTR
	118.0266	$C_4H_6O_4$	0.07	0.07	0.04	0.10	Vocus-PTR
	118.063	$C_5H_{10}O_3$	0.04	0.03	0.02	0.08	Vocus-PTR
	118.0994	$C_6H_{14}O_2$	0.04	0.03	0.02	0.08	Vocus-PTR
	120.0211	$C_7H_4O_2$	0.03	0.02	0.01	0.05	Vocus-PTR
	120.0422	$C_4H_8O_4$	0.02	0.02	0.01	0.03	Vocus-PTR
	120.0575	C_8H_8O	0.08	0.06	0.02	0.13	Vocus-PTR
	122.0368	$C_7H_6O_2$	0.07	0.06	0.02	0.12	Vocus-PTR
	122.0731	$C_8H_{10}O$	0.05	0.04	0.01	0.09	Vocus-PTR
	124.0524	$C_7H_8O_2$	0.17	0.14	0.05	0.31	Vocus-PTR
	124.0888	$C_8H_{12}O$	0.04	0.04	0.01	0.07	Vocus-PTR
	126.0681	$C_7H_{10}O_2$	0.04	0.04	0.02	0.08	Vocus-PTR
	126.1044	$C_8H_{14}O$	0.02	0.01	0.01	0.03	Vocus-PTR
	128.0109	$C_5H_4O_4$	0.02	0.02	0.01	0.04	Vocus-PTR
	128.0473	$C_6H_8O_3$	0.04	0.03	0.01	0.07	Vocus-PTR
	128.0837	$C_7H_{12}O_2$	0.05	0.05	0.02	0.10	Vocus-PTR
	128.1201	$C_8H_{16}O$	0.01	0.01	0.00	0.01	Vocus-PTR
	130.0266	$C_5H_6O_4$	0.08	0.07	0.04	0.11	Vocus-PTR
	130.063	$C_6H_{10}O_3$	0.03	0.03	0.01	0.06	Vocus-PTR
	130.0994	$C_7H_{14}O_2$	0.02	0.01	0.01	0.03	Vocus-PTR
	132.0422	$C_5H_8O_4$	0.03	0.03	0.02	0.05	Vocus-PTR
	132.0786	$C_6H_{12}O_3$	0.04	0.03	0.02	0.06	Vocus-PTR
	132.115	$C_7H_{16}O_2$	0.01	0.01	0.01	0.03	Vocus-PTR
	134.0368	$C_8H_6O_2$	0.03	0.03	0.00	0.05	Vocus-PTR
	134.0731	$C_9H_{10}O$	0.02	0.02	0.01	0.03	Vocus-PTR
	136.016	$C_7H_4O_3$	0.01	0.01	0.00	0.01	Vocus-PTR
	136.0524	$C_8H_8O_2$	0.07	0.06	0.01	0.13	Vocus-PTR
	136.0888	$C_9H_{12}O$	0.02	0.02	0.00	0.04	Vocus-PTR
	138.0317	$C_7H_6O_3$	0.02	0.02	0.01	0.04	Vocus-PTR
	138.0681	$C_8H_{10}O_2$	0.06	0.05	0.02	0.10	Vocus-PTR

	138.1044	$C_9H_{14}O$	0.04	0.03	0.01	0.09	Vocus-PTR
	140.0473	$C_7H_8O_3$	0.03	0.03	0.02	0.06	Vocus-PTR
	140.0837	$C_8H_{12}O_2$	0.02	0.02	0.01	0.04	Vocus-PTR
	140.1201	$C_9H_{16}O$	0.02	0.02	0.01	0.03	Vocus-PTR
	142.063	$C_7H_{10}O_3$	0.02	0.02	0.01	0.03	Vocus-PTR
	142.0994	$C_8H_{14}O_2$	0.03	0.03	0.01	0.05	Vocus-PTR
	142.1357	$C_9H_{18}O$	0.02	0.01	0.01	0.03	Vocus-PTR
	144.0422	$C_6H_8O_4$	0.02	0.02	0.01	0.03	Vocus-PTR
	144.0786	$C_7H_{12}O_3$	0.01	0.01	0.01	0.02	Vocus-PTR
	144.115	$C_8H_{16}O_2$	0.01	0.01	0.01	0.02	Vocus-PTR
	146.0368	$C_9H_6O_2$	0.01	0.01	0.00	0.01	Vocus-PTR
	146.0579	$C_6H_{10}O_4$	0.02	0.01	0.01	0.03	Vocus-PTR
	146.0731	$C_{10}H_{10}O$	0.01	0.01	0.00	0.02	Vocus-PTR
	146.1307	$C_8H_{18}O_2$	0.01	0.01	0.01	0.02	Vocus-PTR
	148.0524	$C_9H_8O_2$	0.01	0.01	0.00	0.02	Vocus-PTR
	148.0888	$C_{10}H_{12}O$	0.02	0.01	0.00	0.03	Vocus-PTR
	150.0317	$C_8H_6O_3$	0.01	0.00	0.00	0.01	Vocus-PTR
	150.0681	$C_9H_{10}O_2$	0.02	0.02	0.01	0.03	Vocus-PTR
	150.1044	$C_{10}H_{14}O$	0.02	0.02	0.01	0.04	Vocus-PTR
	152.0473	$C_8H_8O_3$	0.05	0.04	0.01	0.08	Vocus-PTR
	152.0837	$C_9H_{12}O_2$	0.02	0.02	0.01	0.04	Vocus-PTR
	152.1201	$C_{10}H_{16}O$	0.04	0.04	0.02	0.07	Vocus-PTR
	154.0266	$C_7H_6O_4$	0.01	0.01	0.00	0.01	Vocus-PTR
	154.063	$C_8H_{10}O_3$	0.02	0.01	0.00	0.03	Vocus-PTR
	154.0994	$C_9H_{14}O_2$	0.02	0.02	0.01	0.03	Vocus-PTR
	154.1357	$C_{10}H_{18}O$	0.01	0.01	0.00	0.02	Vocus-PTR
	156.0422	$C_7H_8O_4$	0.02	0.02	0.01	0.03	Vocus-PTR
	156.0786	$C_8H_{12}O_3$	0.01	0.01	0.01	0.02	Vocus-PTR
	156.115	$C_9H_{16}O_2$	0.03	0.02	0.01	0.05	Vocus-PTR
	158.0579	$C_7H_{10}O_4$	0.01	0.01	0.00	0.02	Vocus-PTR
	160.0888	$C_{11}H_{12}O$	0.02	0.01	0.00	0.02	Vocus-PTR
	160.1463	$C_9H_{20}O_2$	0.03	0.02	0.01	0.04	Vocus-PTR
	162.0317	$C_9H_6O_3$	0.07	0.05	0.01	0.12	Vocus-PTR
	162.0681	$C_{10}H_{10}O_2$	0.02	0.02	0.01	0.03	Vocus-PTR
	162.1044	$C_{11}H_{14}O$	0.01	0.01	0.00	0.01	Vocus-PTR
	164.0473	$C_9H_8O_3$	0.00	0.00	0.00	0.01	Vocus-PTR
	164.0837	$C_{10}H_{12}O_2$	0.01	0.01	0.00	0.02	Vocus-PTR
	164.1201	$C_{11}H_{16}O$	0.01	0.00	0.00	0.01	Vocus-PTR
	166.0266	$C_8H_6O_4$	0.05	0.05	0.01	0.11	Vocus-PTR
	166.063	$C_9H_{10}O_3$	0.01	0.01	0.00	0.02	Vocus-PTR
	166.0994	$C_{10}H_{14}O_2$	0.02	0.02	0.01	0.03	Vocus-PTR

166.1357	$C_{11}H_{18}O$	0.01	0.01	0.00	0.01	Vocus-PTR
168.0575	$C_{12}H_{8}O$	0.01	0.01	0.00	0.02	Vocus-PTR
168.115	$C_{10}H_{16}O_{2}$	0.02	0.02	0.01	0.04	Vocus-PTR
168.1514	$C_{11}H_{20}O$	0.01	0.00	0.00	0.01	Vocus-PTR
170.0579	$C_{8}H_{10}O_{4}$	0.01	0.01	0.00	0.01	Vocus-PTR
170.1307	$C_{10}H_{18}O_{2}$	0.02	0.02	0.01	0.03	Vocus-PTR
170.1671	$C_{11}H_{22}O$	0.01	0.00	0.00	0.01	Vocus-PTR
172.0735	$C_{8}H_{12}O_{4}$	0.01	0.01	0.00	0.01	Vocus-PTR
172.1463	$C_{10}H_{20}O_{2}$	0.00	0.00	0.00	0.01	Vocus-PTR
174.0681	$C_{11}H_{10}O_{2}$	0.00	0.00	0.00	0.01	Vocus-PTR
174.1044	$C_{10}H_{22}O_{2}$	0.01	0.01	0.00	0.01	Vocus-PTR
176.0473	$C_{10}H_{8}O_{3}$	0.01	0.00	0.00	0.01	Vocus-PTR
176.0837	$C_{11}H_{12}O_{2}$	0.01	0.01	0.00	0.01	Vocus-PTR
176.1201	$C_{12}H_{16}O$	0.00	0.00	0.00	0.01	Vocus-PTR
178.0266	$C_{9}H_{6}O_{4}$	0.00	0.00	0.00	0.00	Vocus-PTR
178.063	$C_{10}H_{10}O_{3}$	0.00	0.00	0.00	0.01	Vocus-PTR
178.0994	$C_{11}H_{14}O_{2}$	0.01	0.01	0.00	0.01	Vocus-PTR
178.1357	$C_{12}H_{18}O$	0.00	0.00	0.00	0.01	Vocus-PTR
180.0422	$C_{9}H_{8}O_{4}$	0.01	0.01	0.00	0.02	Vocus-PTR
180.0786	$C_{10}H_{12}O_{3}$	0.01	0.01	0.00	0.02	Vocus-PTR
180.115	$C_{11}H_{16}O_{2}$	0.01	0.01	0.00	0.02	Vocus-PTR
180.1514	$C_{12}H_{20}O$	0.00	0.00	0.00	0.01	Vocus-PTR
182.0731	$C_{13}H_{10}O$	0.01	0.01	0.00	0.02	Vocus-PTR
182.1307	$C_{11}H_{18}O_{2}$	0.01	0.01	0.00	0.01	Vocus-PTR
182.1671	$C_{12}H_{22}O$	0.01	0.00	0.00	0.01	Vocus-PTR
184.0735	$C_{9}H_{12}O_{4}$	0.00	0.00	0.00	0.01	Vocus-PTR
184.1463	$C_{11}H_{20}O_{2}$	0.01	0.01	0.00	0.01	Vocus-PTR
184.1827	$C_{12}H_{24}O$	0.00	0.00	0.00	0.01	Vocus-PTR
186.0892	$C_{9}H_{14}O_{4}$	0.00	0.00	0.00	0.00	Vocus-PTR
186.1044	$C_{13}H_{14}O$	0.00	0.00	0.00	0.00	Vocus-PTR
188.0837	$C_{12}H_{12}O_{2}$	0.00	0.00	0.00	0.00	Vocus-PTR
188.1201	$C_{13}H_{16}O$	0.00	0.00	0.00	0.01	Vocus-PTR
190.063	$C_{11}H_{10}O_{3}$	0.00	0.00	0.00	0.00	Vocus-PTR
190.0994	$C_{12}H_{14}O_{2}$	0.00	0.00	0.00	0.00	Vocus-PTR
190.1357	$C_{13}H_{18}O$	0.00	0.00	0.00	0.01	Vocus-PTR
192.0422	$C_{10}H_{8}O_{4}$	0.00	0.00	0.00	0.00	Vocus-PTR
192.115	$C_{12}H_{16}O_{2}$	0.00	0.00	0.00	0.01	Vocus-PTR
192.1514	$C_{13}H_{20}O$	0.00	0.00	0.00	0.01	Vocus-PTR
194.0579	$C_{10}H_{10}O_{4}$	0.01	0.01	0.00	0.01	Vocus-PTR
194.0943	$C_{11}H_{14}O_{3}$	0.00	0.00	0.00	0.01	Vocus-PTR
194.1307	$C_{12}H_{18}O_{2}$	0.01	0.00	0.00	0.01	Vocus-PTR

194.1671	$C_{13}H_{22}O$	0.00	0.00	0.00	0.01	Vocus-PTR
196.0888	$C_{14}H_{12}O$	0.00	0.00	0.00	0.01	Vocus-PTR
196.1463	$C_{12}H_{20}O_2$	0.00	0.00	0.00	0.01	Vocus-PTR
196.1827	$C_{13}H_{24}O$	0.00	0.00	0.00	0.00	Vocus-PTR
198.0681	$C_{13}H_{10}O_2$	0.00	0.00	0.00	0.00	Vocus-PTR
198.0892	$C_{10}H_{14}O_4$	0.00	0.00	0.00	0.01	Vocus-PTR
198.162	$C_{12}H_{22}O_2$	0.01	0.01	0.00	0.02	Vocus-PTR
198.1983	$C_{13}H_{26}O$	0.00	0.00	0.00	0.00	Vocus-PTR
200.0837	$C_{13}H_{12}O_2$	0.00	0.00	0.00	0.00	Vocus-PTR
200.1201	$C_{14}H_{16}O$	0.00	0.00	0.00	0.00	Vocus-PTR
202.0994	$C_{13}H_{14}O_2$	0.00	0.00	0.00	0.00	Vocus-PTR
202.1357	$C_{14}H_{18}O$	0.00	0.00	0.00	0.01	Vocus-PTR
204.115	$C_{13}H_{16}O_2$	0.00	0.00	0.00	0.00	Vocus-PTR
204.1514	$C_{14}H_{20}O$	0.00	0.00	0.00	0.00	Vocus-PTR
206.1307	$C_{13}H_{18}O_2$	0.00	0.00	0.00	0.00	Vocus-PTR
206.1671	$C_{14}H_{22}O$	0.00	0.00	0.00	0.01	Vocus-PTR
208.1463	$C_{13}H_{20}O_2$	0.00	0.00	0.00	0.01	Vocus-PTR
208.1827	$C_{14}H_{24}O$	0.00	0.00	0.00	0.00	Vocus-PTR
210.1983	$C_{14}H_{26}O$	0.00	0.00	0.00	0.00	Vocus-PTR
212.1776	$C_{13}H_{24}O_2$	0.00	0.00	0.00	0.01	Vocus-PTR
212.214	$C_{14}H_{28}O$	0.00	0.00	0.00	0.00	Vocus-PTR
220.1463	$C_{14}H_{20}O_2$	0.01	0.00	0.00	0.01	Vocus-PTR
57.0214	C_2H_3NO	0.00	0.00	0.00	0.01	Vocus-PTR
59.0371	C_2H_5NO	0.06	0.05	0.01	0.13	Vocus-PTR
71.0371	C_3H_5NO	0.03	0.03	0.01	0.05	Vocus-PTR
73.0164	$C_2H_3NO_2$	0.03	0.03	0.01	0.04	Vocus-PTR
73.0527	C_3H_7NO	0.23	0.11	0.02	0.50	Vocus-PTR
75.0684	C_3H_9NO	0.00	0.00	0.00	0.00	Vocus-PTR
85.0527	C_4H_7NO	0.02	0.02	0.00	0.02	Vocus-PTR
87.032	$C_3H_5NO_2$	0.05	0.04	0.02	0.08	Vocus-PTR
87.0684	C_4H_9NO	0.04	0.02	0.01	0.08	Vocus-PTR
99.0684	C_5H_9NO	0.01	0.01	0.00	0.02	Vocus-PTR
101.0477	$C_4H_7NO_2$	0.08	0.07	0.03	0.13	Vocus-PTR
101.084	$C_5H_{11}NO$	0.02	0.02	0.01	0.03	Vocus-PTR
113.0477	$C_5H_7NO_2$	0.02	0.02	0.01	0.03	Vocus-PTR
113.084	$C_6H_{11}NO$	0.01	0.01	0.00	0.02	Vocus-PTR
121.0527	C_7H_7NO	0.04	0.03	0.01	0.06	Vocus-PTR
139.0269	$C_6H_5NO_3$	0.02	0.02	0.01	0.03	Vocus-PTR
153.0426	$C_7H_7NO_3$	0.01	0.01	0.00	0.02	Vocus-PTR

Table S2. The photolysis correction coefficient of carbonyls.

Carbonyls	k_{OVOC} 10^{-12} cm^3 $molecule^{-1}$ s^{-1}	f
Formaldehyde	9.37	1.84
Acetaldehyde	15.3	1.03
Acrolein	18.3	1.01
Propanal	20	1.09
2-Methylacrylaldehyde	29	1.01
Butanal	24	1.13
Pentanal	28	1.07
Hexanal	30	1.10
Acetone	0.17	1.32
Butenone	20	1.02
2-Butanone	1.22	1.30
2-Pentanone	4.4	1.08
3-Pentanone	2	1.18

Table S3. The fitting parameters based on the photochemical age-based parameterization method.*

OVOCs	ER_{OVOC}	$ER_{precursor}$	$k_{precursor}$	$ER_{biogenic}$	Background
	ppbv ppbv^{-1} acetylene	ppbv ppbv^{-1} acetylene	cm^3 molecule^{-1} s^{-1}	ppbv ppbv^{-1} isoprene	ppbv
Formaldehyde	3.87	10.00	1.90E-11	1.35	0.24
Acetaldehyde	2.18	9.79	6.32E-12	0.53	0.22
Acrolein	0.02	0.15	4.09E-12	0.02	0.00
Propanal	0.02	0.48	1.69E-12	0.01	0.00
MACR	0.00	0.32	2.29E-12	0.07	0.01
Butanal	0.00	10.00	1.07E-13	0.02	0.01
Pentanal	0.00	9.99	2.66E-14	0.01	0.00
Hexanal	0.01	3.02	5.77E-13	0.03	0.00
Acetone	0.72	3.87	6.95E-12	1.20	0.30
MVK	0.00	0.37	1.37E-11	0.12	0.00
2-Butanone	0.08	0.59	1.84E-12	0.10	0.02
2-Pentanone	0.00	0.12	2.44E-12	0.01	0.00
3-Pentanone	0.00	0.49	3.06E-13	0.00	0.00
$C_2H_4O_2$	1.09	0.82	3.02E-11	0.84	0.26
$C_2H_6O_2$	0.03	0.25	2.29E-12	0.01	0.00
C_4H_4O	0.04	1.47	1.38E-12	0.02	0.00
$C_3H_4O_2$	0.01	5.49	6.63E-13	0.09	0.00
$C_3H_6O_2$	0.90	2.63	1.14E-12	0.51	0.00
$C_2H_4O_3$	0.00	0.29	2.42E-12	0.00	0.00
$C_3H_8O_2$	0.53	9.77	1.43E-12	0.11	0.03
$C_2H_6O_3$	0.83	10.00	4.94E-13	0.27	0.02
C_5H_4O	0.03	1.38	5.43E-13	0.01	0.00
C_5H_6O	0.13	7.27	1.05E-12	0.09	0.00
$C_4H_4O_2$	0.03	3.36	1.07E-12	0.02	0.01
C_5H_8O	0.03	0.45	1.66E-12	0.01	0.00
$C_4H_6O_2$	0.07	0.46	1.13E-11	0.10	0.00
$C_3H_4O_3$	0.08	0.06	1.00E-14	0.04	0.00
$C_4H_8O_2$	0.84	0.00	1.00E-14	0.00	0.09
$C_3H_6O_3$	0.17	6.43	1.32E-12	0.05	0.00
$C_4H_{10}O_2$	0.28	3.60	3.29E-12	0.00	0.00
$C_3H_8O_3$	0.06	0.64	2.05E-11	0.11	0.01
C_6H_6O	0.08	0.66	3.01E-12	0.03	0.01
$C_5H_4O_2$	0.17	9.61	1.24E-12	0.00	0.01
C_6H_8O	0.00	10.00	2.37E-13	0.02	0.00
$C_5H_6O_2$	0.09	0.81	4.47E-12	0.06	0.00
$C_6H_{10}O$	0.04	1.34	1.66E-13	0.01	0.01

$C_4H_4O_3$	0.03	1.32	9.09E-13	0.00	0.00
$C_5H_8O_2$	0.07	4.21	1.77E-12	0.08	0.02
$C_4H_6O_3$	0.02	10.00	2.15E-13	0.02	0.01
$C_5H_{10}O_2$	0.06	0.04	3.29E-12	0.01	0.01
$C_4H_8O_3$	0.02	10.00	1.97E-13	0.03	0.00
$C_5H_{12}O_2$	0.02	0.28	3.26E-12	0.01	0.00
$C_3H_6O_4$	0.05	0.56	2.27E-12	0.02	0.00
C_7H_6O	0.07	0.18	1.21E-11	0.02	0.00
$C_4H_{10}O_3$	0.31	7.12	1.91E-13	0.06	0.00
C_7H_8O	0.11	0.34	7.94E-12	0.05	0.02
$C_6H_6O_2$	0.05	9.77	1.02E-12	0.08	0.01
$C_7H_{10}O$	0.00	10.00	7.44E-14	0.02	0.00
$C_5H_4O_3$	0.07	6.18	9.02E-13	0.02	0.01
$C_6H_8O_2$	0.03	10.00	3.63E-13	0.04	0.02
$C_7H_{12}O$	0.01	0.07	3.82E-12	0.00	0.00
$C_4H_2O_4$	0.02	2.99	4.42E-13	0.00	0.00
$C_5H_6O_3$	0.04	9.98	1.13E-12	0.02	0.00
$C_6H_{10}O_2$	0.01	10.00	2.03E-13	0.04	0.02
$C_7H_{14}O$	0.01	0.04	5.03E-12	0.00	0.00
$C_4H_4O_4$	0.02	0.97	1.85E-12	0.00	0.00
$C_5H_8O_3$	0.03	9.99	6.25E-14	0.03	0.01
$C_6H_{12}O_2$	0.08	0.00	6.71E-11	0.02	0.01
$C_4H_6O_4$	0.03	0.04	1.54E-12	0.03	0.01
$C_5H_{10}O_3$	0.01	0.43	1.97E-12	0.01	0.00
$C_6H_{14}O_2$	0.03	0.22	1.91E-12	0.00	0.00
$C_7H_4O_2$	0.00	0.67	9.06E-13	0.01	0.00
$C_4H_8O_4$	0.01	0.21	1.66E-12	0.01	0.00
C_8H_8O	0.04	10.00	9.42E-14	0.01	0.01
$C_7H_6O_2$	0.03	10.00	2.44E-13	0.02	0.01
$C_8H_{10}O$	0.04	0.17	1.48E-11	0.01	0.01
$C_7H_8O_2$	0.04	4.60	2.21E-12	0.05	0.00
$C_8H_{12}O$	0.00	10.00	8.91E-14	0.02	0.01
$C_7H_{10}O_2$	0.01	0.28	3.62E-12	0.01	0.01
$C_8H_{14}O$	0.00	0.03	1.00E-10	0.01	0.00
$C_5H_4O_4$	0.01	0.43	2.23E-12	0.00	0.00
$C_6H_8O_3$	0.00	3.22	6.17E-13	0.01	0.00
$C_7H_{12}O_2$	0.01	10.00	1.20E-13	0.02	0.01
$C_8H_{16}O$	0.00	0.01	2.25E-11	0.00	0.00
$C_5H_6O_4$	0.02	2.50	8.08E-13	0.02	0.01
$C_6H_{10}O_3$	0.01	10.00	6.32E-14	0.01	0.01
$C_7H_{14}O_2$	0.01	0.01	6.89E-11	0.01	0.00

$C_5H_8O_4$	0.01	2.50	3.87E-13	0.01	0.00
$C_6H_{12}O_3$	0.02	9.49	3.59E-14	0.01	0.01
$C_7H_{16}O_2$	0.00	0.01	1.89E-11	0.00	0.00
$C_8H_6O_2$	0.01	9.97	4.49E-14	0.01	0.01
$C_9H_{10}O$	0.01	0.01	2.63E-11	0.00	0.00
$C_7H_4O_3$	0.00	0.04	3.51E-12	0.00	0.00
$C_8H_8O_2$	0.02	0.03	7.24E-12	0.04	0.00
$C_9H_{12}O$	0.01	0.21	9.70E-12	0.00	0.00
$C_7H_6O_3$	0.00	1.40	5.15E-13	0.00	0.00
$C_8H_{10}O_2$	0.02	10.00	3.31E-13	0.02	0.00
$C_9H_{14}O$	0.02	0.12	3.87E-14	0.01	0.00
$C_7H_8O_3$	0.00	10.00	7.66E-14	0.01	0.00
$C_8H_{12}O_2$	0.00	0.45	1.02E-12	0.01	0.00
$C_9H_{16}O$	0.00	0.32	1.82E-12	0.00	0.00
$C_7H_{10}O_3$	0.00	9.99	3.72E-14	0.01	0.00
$C_8H_{14}O_2$	0.01	10.00	6.70E-14	0.01	0.00
$C_9H_{18}O$	0.01	0.04	2.19E-12	0.00	0.00
$C_6H_8O_4$	0.01	0.02	8.01E-12	0.01	0.00
$C_7H_{12}O_3$	0.00	0.07	3.42E-12	0.00	0.00
$C_8H_{16}O_2$	0.01	0.00	3.85E-11	0.00	0.00
$C_9H_6O_2$	0.00	0.09	1.05E-12	0.00	0.00
$C_6H_{10}O_4$	0.00	0.83	4.86E-13	0.01	0.00
$C_{10}H_{10}O$	0.01	0.03	7.50E-12	0.00	0.00
$C_8H_{18}O_2$	0.00	0.14	8.13E-12	0.00	0.00
$C_9H_8O_2$	0.01	0.10	4.28E-12	0.00	0.00
$C_{10}H_{12}O$	0.01	0.11	5.52E-12	0.00	0.00
$C_8H_6O_3$	0.00	4.57	1.00E-14	0.00	0.00
$C_9H_{10}O_2$	0.00	10.00	6.80E-14	0.01	0.00
$C_{10}H_{14}O$	0.01	0.02	3.13E-11	0.01	0.00
$C_8H_8O_3$	0.06	2.16	1.59E-12	0.02	0.00
$C_9H_{12}O_2$	0.01	0.11	3.92E-12	0.01	0.00
$C_{10}H_{16}O$	0.03	0.00	1.27E-11	0.01	0.00
$C_7H_6O_4$	0.00	0.23	1.02E-12	0.00	0.00
$C_8H_{10}O_3$	0.00	10.00	3.15E-14	0.01	0.00
$C_9H_{14}O_2$	0.00	0.36	9.25E-13	0.00	0.00
$C_{10}H_{18}O$	0.00	0.05	4.23E-12	0.00	0.00
$C_7H_8O_4$	0.01	0.63	1.04E-12	0.00	0.00
$C_8H_{12}O_3$	0.00	10.00	3.32E-14	0.00	0.00
$C_9H_{16}O_2$	0.00	0.06	7.83E-12	0.01	0.00
$C_7H_{10}O_4$	0.00	9.99	2.40E-14	0.00	0.00
$C_{11}H_{12}O$	0.00	0.14	1.57E-12	0.00	0.00

$C_9H_{20}O_2$	0.01	6.62	2.41E-13	0.01	0.00
$C_9H_6O_3$	0.00	1.59	7.64E-13	0.02	0.00
$C_{10}H_{10}O_2$	0.01	1.08	1.36E-12	0.01	0.00
$C_{11}H_{14}O$	0.00	0.03	3.49E-12	0.00	0.00
$C_9H_8O_3$	0.00	5.90	1.00E-14	0.00	0.00
$C_{10}H_{12}O_2$	0.00	10.00	4.38E-14	0.00	0.00
$C_{11}H_{16}O$	0.00	0.03	2.86E-12	0.00	0.00
$C_8H_6O_4$	0.00	10.00	1.67E-13	0.03	0.01
$C_9H_{10}O_3$	0.00	0.40	5.64E-13	0.00	0.00
$C_{10}H_{14}O_2$	0.01	1.16	2.83E-13	0.01	0.00
$C_{11}H_{18}O$	0.00	0.06	2.42E-12	0.00	0.00
$C_{12}H_8O$	0.00	8.32	1.31E-14	0.00	0.00
$C_{10}H_{16}O_2$	0.01	0.07	5.79E-12	0.00	0.00
$C_{11}H_{20}O$	0.00	0.01	1.23E-11	0.00	0.00
$C_8H_{10}O_4$	0.00	4.63	3.12E-14	0.00	0.00
$C_{10}H_{18}O_2$	0.01	0.15	2.42E-12	0.00	0.00
$C_{11}H_{22}O$	0.00	0.36	1.06E-12	0.00	0.00
$C_8H_{12}O_4$	0.00	10.00	2.02E-14	0.00	0.00
$C_{10}H_{20}O_2$	0.00	0.00	1.88E-11	0.00	0.00
$C_{11}H_{10}O_2$	0.00	0.05	2.18E-12	0.00	0.00
$C_{12}H_{14}O$	0.01	0.04	2.94E-12	0.00	0.00
$C_{10}H_8O_3$	0.00	10.00	2.18E-14	0.00	0.00
$C_{11}H_{12}O_2$	0.00	0.11	1.59E-12	0.00	0.00
$C_{12}H_{16}O$	0.00	2.23	1.30E-13	0.00	0.00
$C_9H_6O_4$	0.00	0.35	2.21E-13	0.00	0.00
$C_{10}H_{10}O_3$	0.00	0.05	1.88E-12	0.00	0.00
$C_{11}H_{14}O_2$	0.00	1.53	7.01E-14	0.00	0.00
$C_{12}H_{18}O$	0.00	9.65	2.16E-14	0.00	0.00
$C_9H_8O_4$	0.00	10.00	3.42E-14	0.00	0.00
$C_{10}H_{12}O_3$	0.00	0.12	2.14E-12	0.00	0.00
$C_{11}H_{16}O_2$	0.00	0.07	2.20E-12	0.00	0.00
$C_{12}H_{20}O$	0.00	0.01	8.47E-12	0.00	0.00
$C_{13}H_{10}O$	0.00	0.04	3.46E-12	0.00	0.00
$C_{11}H_{18}O_2$	0.00	0.20	5.83E-13	0.00	0.00
$C_{12}H_{22}O$	0.00	0.04	2.13E-12	0.00	0.00
$C_9H_{12}O_4$	0.00	0.17	7.73E-13	0.00	0.00
$C_{11}H_{20}O_2$	0.00	0.03	6.08E-12	0.00	0.00
$C_{12}H_{24}O$	0.00	0.01	3.22E-12	0.00	0.00
$C_9H_{14}O_4$	0.00	0.13	6.70E-13	0.00	0.00
$C_{13}H_{14}O$	0.00	0.02	1.84E-12	0.00	0.00
$C_{12}H_{12}O_2$	0.00	0.08	8.53E-13	0.00	0.00

$C_{13}H_{16}O$	0.00	0.15	3.63E-13	0.00	0.00
$C_{11}H_{10}O_3$	0.00	0.09	9.02E-13	0.00	0.00
$C_{12}H_{14}O_2$	0.00	0.03	2.00E-12	0.00	0.00
$C_{13}H_{18}O$	0.00	0.01	8.84E-12	0.00	0.00
$C_{10}H_8O_4$	0.00	0.04	1.06E-12	0.00	0.00
$C_{12}H_{16}O_2$	0.00	0.02	2.46E-12	0.00	0.00
$C_{13}H_{20}O$	0.00	0.01	7.64E-12	0.00	0.00
$C_{10}H_{10}O_4$	0.00	0.29	7.49E-13	0.00	0.00
$C_{11}H_{14}O_3$	0.00	0.22	4.89E-13	0.00	0.00
$C_{12}H_{18}O_2$	0.00	0.01	8.64E-12	0.00	0.00
$C_{13}H_{22}O$	0.00	0.01	1.01E-11	0.00	0.00
$C_{14}H_{12}O$	0.00	0.06	9.30E-13	0.00	0.00
$C_{12}H_{20}O_2$	0.00	0.02	6.95E-12	0.00	0.00
$C_{13}H_{24}O$	0.00	0.01	7.93E-12	0.00	0.00
$C_{13}H_{10}O_2$	0.00	0.05	5.30E-13	0.00	0.00
$C_{10}H_{14}O_4$	0.00	0.24	6.42E-13	0.00	0.00
$C_{12}H_{22}O_2$	0.00	0.04	7.68E-12	0.00	0.00
$C_{13}H_{26}O$	0.00	0.01	6.18E-12	0.00	0.00
$C_{13}H_{12}O_2$	0.00	0.01	2.57E-12	0.00	0.00
$C_{14}H_{16}O$	0.00	0.27	1.85E-13	0.00	0.00
$C_{13}H_{14}O_2$	0.00	0.93	4.12E-14	0.00	0.00
$C_{14}H_{18}O$	0.00	0.03	1.41E-12	0.00	0.00
$C_{13}H_{16}O_2$	0.00	0.01	2.98E-12	0.00	0.00
$C_{14}H_{20}O$	0.00	0.00	2.47E-11	0.00	0.00
$C_{13}H_{18}O_2$	0.00	0.01	7.26E-12	0.00	0.00
$C_{14}H_{22}O$	0.00	0.01	1.62E-11	0.00	0.00
$C_{13}H_{20}O_2$	0.00	0.01	4.91E-12	0.00	0.00
$C_{14}H_{24}O$	0.00	0.01	5.08E-12	0.00	0.00
$C_{14}H_{26}O$	0.00	0.01	8.98E-12	0.00	0.00
$C_{13}H_{24}O_2$	0.00	0.02	3.94E-12	0.00	0.00
$C_{14}H_{28}O$	0.00	0.01	3.45E-12	0.00	0.00
$C_{14}H_{20}O_2$	0.00	0.02	5.48E-12	0.00	0.00
C_2H_3NO	0.00	0.00	1.14E-11	0.00	0.00
C_2H_5NO	0.01	0.31	3.82E-12	0.02	0.01
C_3H_5NO	0.01	0.74	1.19E-12	0.01	0.00
$C_2H_3NO_2$	0.02	0.01	3.98E-12	0.01	0.00
C_3H_7NO	0.41	0.00	1.00E-14	0.01	0.00
C_3H_9NO	0.00	0.01	5.37E-12	0.00	0.00
C_4H_7NO	0.01	1.23	8.63E-13	0.00	0.00
$C_3H_5NO_2$	0.02	0.38	2.81E-12	0.00	0.00
C_4H_9NO	0.02	0.51	1.22E-11	0.00	0.00

C_5H_9NO	0.02	0.04	1.10E-12	0.00	0.00
$C_4H_7NO_2$	0.02	0.10	5.49E-12	0.03	0.00
$C_5H_{11}NO$	0.01	0.05	4.35E-12	0.00	0.00
$C_5H_7NO_2$	0.01	0.51	1.24E-12	0.00	0.00
$C_6H_{11}NO$	0.00	0.15	3.49E-12	0.00	0.00
C_7H_7NO	0.02	10.00	2.42E-13	0.01	0.01
$C_6H_5NO_3$	0.01	0.01	1.49E-11	0.00	0.00
$C_7H_7NO_3$	0.00	0.35	1.14E-13	0.00	0.00

[*]If the best fit for any parameter was obtained with a negative value, that parameter was set to zero and the fit process was repeated.

Table S4. Percentage contributions from different sources to the ambient OVOCs.

OVOCs	*R*	Anthropogenic primary	Anthropogenic secondary	Biogenic	Background
Formaldehyde	0.60	32.8%	37.5%	25.4%	4.3%
Acetaldehyde	0.62	36.8%	36.0%	19.4%	7.9%
Acrolein	0.65	19.1%	27.4%	48.7%	4.7%
Propanal	0.74	23.9%	34.6%	32.1%	9.3%
MACR	0.90	0.5%	11.5%	81.8%	6.2%
Butanal	0.79	1.6%	28.7%	52.1%	17.6%
Pentanal	0.75	0.0%	15.2%	69.9%	14.9%
Hexanal	0.72	2.1%	28.9%	67.2%	1.8%
Acetone	0.74	19.6%	25.2%	45.3%	9.8%
MVK	0.80	0.0%	31.0%	69.0%	0.0%
2-Butanone	0.63	26.0%	14.9%	50.7%	8.4%
2-Pentanone	0.64	2.3%	29.1%	64.3%	4.4%
3-Pentanone	0.67	22.7%	30.3%	37.3%	9.6%
$C_2H_4O_2$	0.60	34.7%	11.3%	41.5%	12.5%
$C_2H_6O_2$	0.65	37.3%	17.6%	36.9%	8.1%
C_4H_4O	0.75	24.9%	29.8%	43.3%	1.9%
$C_3H_4O_2$	0.76	3.1%	36.7%	58.3%	1.9%
$C_3H_6O_2$	0.65	50.5%	5.2%	44.4%	0.0%
$C_2H_4O_3$	0.62	15.8%	62.5%	13.0%	8.6%
$C_3H_8O_2$	0.65	44.8%	29.8%	19.4%	6.0%
$C_2H_6O_3$	0.67	46.4%	5.7%	45.3%	2.6%
C_5H_4O	0.72	47.5%	27.2%	23.5%	1.8%
C_5H_6O	0.82	24.7%	25.6%	49.0%	0.7%
$C_4H_4O_2$	0.73	17.2%	38.9%	33.3%	10.7%
C_5H_8O	0.83	37.6%	27.8%	28.9%	5.7%
$C_4H_6O_2$	0.78	21.8%	31.6%	44.8%	1.9%
$C_3H_4O_3$	0.83	52.4%	0.0%	45.7%	1.9%
$C_4H_8O_2$	0.69	84.4%	0.0%	0.0%	15.6%
$C_3H_6O_3$	0.64	34.0%	45.7%	19.8%	0.4%
$C_4H_{10}O_2$	0.79	53.2%	46.8%	0.0%	0.0%

$C_3H_8O_3$	0.62	10.8%	36.0%	47.2%	6.0%
C_6H_6O	0.68	36.5%	19.5%	34.7%	9.4%
$C_5H_4O_2$	0.62	38.3%	56.6%	0.1%	5.0%
C_6H_8O	0.71	0.0%	28.1%	60.4%	11.5%
$C_5H_6O_2$	0.74	29.6%	29.9%	39.7%	0.8%
$C_6H_{10}O$	0.81	45.7%	8.1%	23.5%	22.7%
$C_4H_4O_3$	0.30	36.6%	45.6%	12.5%	5.3%
$C_5H_8O_2$	0.67	15.5%	31.6%	40.5%	12.5%
$C_4H_6O_3$	0.75	11.5%	30.8%	32.0%	25.8%
$C_5H_{10}O_2$	0.58	62.3%	2.2%	22.2%	13.2%
$C_4H_8O_3$	0.81	16.1%	25.4%	58.5%	0.0%
$C_5H_{12}O_2$	0.71	36.1%	36.1%	19.6%	8.1%
$C_3H_6O_4$	0.48	39.9%	29.2%	27.9%	3.0%
C_7H_6O	0.72	43.0%	25.3%	31.7%	0.0%
$C_4H_{10}O_3$	0.72	68.9%	9.3%	21.8%	0.0%
C_7H_8O	0.77	28.9%	13.3%	40.2%	17.6%
$C_6H_6O_2$	0.56	10.1%	30.9%	55.5%	3.5%
$C_7H_{10}O$	0.73	0.0%	30.6%	65.8%	3.6%
$C_5H_4O_3$	0.60	27.9%	39.6%	20.6%	12.0%
$C_6H_8O_2$	0.68	10.1%	27.4%	42.7%	19.7%
$C_7H_{12}O$	0.79	29.5%	23.9%	31.6%	15.0%
$C_4H_2O_4$	0.53	34.5%	63.2%	0.2%	2.1%
$C_5H_6O_3$	0.60	10.5%	79.6%	8.5%	1.4%
$C_6H_{10}O_2$	0.82	7.7%	37.2%	38.0%	17.1%
$C_7H_{14}O$	0.77	30.9%	23.8%	18.7%	26.6%
$C_4H_4O_4$	0.46	28.0%	68.7%	0.1%	3.2%
$C_5H_8O_3$	0.80	31.4%	16.9%	41.8%	9.9%
$C_6H_{12}O_2$	0.73	63.0%	1.1%	18.9%	17.0%
$C_4H_6O_4$	0.56	34.6%	2.5%	53.0%	9.9%
$C_5H_{10}O_3$	0.63	16.7%	43.6%	33.6%	6.1%
$C_6H_{14}O_2$	0.70	60.6%	19.6%	11.0%	8.8%
$C_7H_4O_2$	0.44	11.8%	21.7%	66.5%	0.0%
$C_4H_8O_4$	0.80	33.3%	25.5%	34.4%	6.8%

C_8H_8O	0.80	33.8%	21.9%	19.9%	24.4%
$C_7H_6O_2$	0.80	18.1%	45.6%	27.6%	8.6%
$C_8H_{10}O$	0.84	28.4%	25.3%	20.9%	25.4%
$C_7H_8O_2$	0.69	13.1%	43.3%	43.7%	0.0%
$C_8H_{12}O$	0.71	0.0%	24.5%	54.6%	20.9%
$C_7H_{10}O_2$	0.69	8.7%	15.7%	46.5%	29.0%
$C_8H_{14}O$	0.55	1.0%	41.5%	54.3%	3.2%
$C_5H_4O_4$	0.52	31.4%	56.2%	0.3%	12.1%
$C_6H_8O_3$	0.61	2.1%	35.8%	59.8%	2.3%
$C_7H_{12}O_2$	0.76	7.2%	40.1%	38.0%	14.7%
$C_8H_{16}O$	0.62	40.4%	19.3%	27.5%	12.8%
$C_5H_6O_4$	0.60	13.1%	19.6%	53.9%	13.5%
$C_6H_{10}O_3$	0.72	8.4%	20.2%	47.5%	23.9%
$C_7H_{14}O_2$	0.72	28.4%	12.7%	35.5%	23.4%
$C_5H_8O_4$	0.76	16.2%	21.8%	56.4%	5.5%
$C_6H_{12}O_3$	0.67	27.6%	14.8%	31.7%	26.0%
$C_7H_{16}O_2$	0.70	15.5%	15.9%	38.7%	29.9%
$C_8H_6O_2$	0.73	29.1%	30.2%	21.8%	18.9%
$C_9H_{10}O$	0.78	52.9%	8.8%	31.5%	6.8%
$C_7H_4O_3$	0.57	15.4%	14.7%	60.0%	9.9%
$C_8H_8O_2$	0.60	24.1%	4.0%	66.7%	5.2%
$C_9H_{12}O$	0.67	21.3%	36.6%	34.8%	7.3%
$C_7H_6O_3$	0.62	13.4%	28.5%	39.7%	18.3%
$C_8H_{10}O_2$	0.74	12.6%	62.4%	24.3%	0.7%
$C_9H_{14}O$	0.79	41.9%	0.3%	42.6%	15.2%
$C_7H_8O_3$	0.78	5.9%	14.1%	60.2%	19.8%
$C_8H_{12}O_2$	0.70	6.9%	6.3%	72.4%	14.4%
$C_9H_{16}O$	0.63	15.6%	47.4%	31.0%	6.0%
$C_7H_{10}O_3$	0.75	2.4%	26.4%	46.2%	25.0%
$C_8H_{14}O_2$	0.78	23.5%	43.6%	32.9%	0.0%
$C_9H_{18}O$	0.54	37.5%	9.9%	45.0%	7.6%
$C_6H_8O_4$	0.55	40.8%	14.7%	41.5%	3.0%
$C_7H_{12}O_3$	0.71	15.1%	23.5%	53.0%	8.3%

$C_8H_{16}O_2$	0.65	44.1%	8.5%	39.0%	8.4%
$C_9H_6O_2$	0.63	7.2%	8.5%	70.0%	14.3%
$C_6H_{10}O_4$	0.62	12.0%	14.0%	65.7%	8.4%
$C_{10}H_{10}O$	0.82	29.3%	19.9%	26.4%	24.3%
$C_8H_{18}O_2$	0.61	15.1%	34.1%	42.9%	7.8%
$C_9H_8O_2$	0.74	35.9%	13.9%	49.1%	1.1%
$C_{10}H_{12}O$	0.81	32.2%	27.7%	35.2%	5.0%
$C_8H_6O_3$	0.75	3.8%	6.8%	74.2%	15.2%
$C_9H_{10}O_2$	0.66	11.9%	50.3%	26.5%	11.3%
$C_{10}H_{14}O$	0.71	34.6%	23.9%	41.3%	0.2%
$C_8H_8O_3$	0.76	33.2%	32.4%	34.0%	0.4%
$C_9H_{12}O_2$	0.67	12.3%	10.3%	57.2%	20.2%
$C_{10}H_{16}O$	0.69	61.3%	1.9%	34.3%	2.5%
$C_7H_6O_4$	0.65	21.1%	54.8%	19.7%	4.4%
$C_8H_{10}O_3$	0.65	0.0%	11.8%	59.2%	28.9%
$C_9H_{14}O_2$	0.66	7.2%	13.0%	50.9%	28.8%
$C_{10}H_{18}O$	0.69	25.3%	31.3%	18.8%	24.6%
$C_7H_8O_4$	0.73	15.6%	53.7%	27.2%	3.5%
$C_8H_{12}O_3$	0.77	12.7%	38.7%	35.9%	12.7%
$C_9H_{16}O_2$	0.70	9.1%	29.9%	45.7%	15.3%
$C_7H_{10}O_4$	0.78	10.0%	36.0%	33.0%	21.1%
$C_{11}H_{12}O$	0.53	18.8%	11.2%	67.0%	3.0%
$C_9H_{20}O_2$	0.55	22.2%	28.7%	46.4%	2.7%
$C_9H_6O_3$	0.38	2.7%	13.9%	66.4%	16.9%
$C_{10}H_{10}O_2$	0.55	14.3%	33.8%	48.3%	3.7%
$C_{11}H_{14}O$	0.58	29.8%	9.2%	45.7%	15.3%
$C_9H_8O_3$	0.64	0.0%	32.2%	43.8%	24.0%
$C_{10}H_{12}O_2$	0.62	11.8%	19.4%	45.6%	23.1%
$C_{11}H_{16}O$	0.59	19.2%	9.4%	64.6%	6.8%
$C_8H_6O_4$	0.67	0.0%	14.3%	64.5%	21.2%
$C_9H_{10}O_3$	0.65	9.4%	12.9%	77.7%	0.0%
$C_{10}H_{14}O_2$	0.70	18.5%	10.2%	65.2%	6.1%
$C_{11}H_{18}O$	0.70	18.1%	13.1%	52.4%	16.4%

$C_{12}H_8O$	0.61	13.0%	30.6%	29.8%	26.6%
$C_{10}H_{16}O_2$	0.66	17.4%	12.8%	56.2%	13.6%
$C_{11}H_{20}O$	0.68	18.9%	24.0%	33.4%	23.7%
$C_8H_{10}O_4$	0.67	8.8%	27.2%	35.8%	28.1%
$C_{10}H_{18}O_2$	0.77	36.2%	33.5%	30.2%	0.0%
$C_{11}H_{22}O$	0.54	11.9%	43.7%	37.1%	7.3%
$C_8H_{12}O_4$	0.74	9.3%	41.3%	35.1%	14.3%
$C_{10}H_{20}O_2$	0.57	14.8%	13.3%	60.8%	11.0%
$C_{11}H_{10}O_2$	0.59	8.4%	18.0%	71.0%	2.6%
$C_{12}H_{14}O$	0.82	41.9%	7.0%	49.7%	1.4%
$C_{10}H_8O_3$	0.69	0.0%	23.6%	67.6%	8.8%
$C_{11}H_{12}O_2$	0.55	13.6%	10.5%	69.6%	6.4%
$C_{12}H_{16}O$	0.56	14.3%	33.1%	45.7%	6.8%
$C_9H_6O_4$	0.68	0.6%	58.1%	31.7%	9.6%
$C_{10}H_{10}O_3$	0.65	8.5%	12.7%	72.4%	6.4%
$C_{11}H_{14}O_2$	0.56	10.8%	7.2%	68.7%	13.3%
$C_{12}H_{18}O$	0.66	7.3%	18.8%	44.8%	29.1%
$C_9H_8O_4$	0.70	0.0%	14.9%	69.9%	15.2%
$C_{10}H_{12}O_3$	0.58	9.5%	9.1%	69.5%	11.9%
$C_{11}H_{16}O_2$	0.59	14.6%	7.7%	66.4%	11.4%
$C_{12}H_{20}O$	0.60	19.2%	29.6%	45.8%	5.5%
$C_{13}H_{10}O$	0.56	8.0%	6.4%	72.2%	13.5%
$C_{11}H_{18}O_2$	0.65	19.6%	29.9%	45.7%	4.9%
$C_{12}H_{22}O$	0.57	25.4%	27.4%	40.4%	6.8%
$C_9H_{12}O_4$	0.64	4.5%	43.0%	42.4%	10.1%
$C_{11}H_{20}O_2$	0.70	8.2%	27.0%	45.1%	19.7%
$C_{12}H_{24}O$	0.50	26.3%	17.6%	54.6%	1.5%
$C_9H_{14}O_4$	0.64	11.0%	42.0%	43.1%	3.9%
$C_{13}H_{14}O$	0.56	22.1%	8.9%	62.7%	6.3%
$C_{12}H_{12}O_2$	0.55	12.2%	13.8%	66.0%	8.0%
$C_{13}H_{16}O$	0.78	38.0%	5.2%	45.3%	11.6%
$C_{11}H_{10}O_3$	0.65	6.2%	17.3%	60.8%	15.8%
$C_{12}H_{14}O_2$	0.59	12.4%	10.5%	70.3%	6.8%

$C_{13}H_{18}O$	0.56	20.4%	6.5%	70.6%	2.6%
$C_{10}H_8O_4$	0.66	8.4%	52.3%	32.0%	7.2%
$C_{12}H_{16}O_2$	0.59	14.0%	9.7%	75.0%	1.4%
$C_{13}H_{20}O$	0.63	34.4%	22.9%	38.5%	4.3%
$C_{10}H_{10}O_4$	0.62	14.9%	39.2%	40.2%	5.7%
$C_{11}H_{14}O_3$	0.56	15.0%	41.0%	42.6%	1.4%
$C_{12}H_{18}O_2$	0.58	5.8%	6.9%	72.4%	15.0%
$C_{13}H_{22}O$	0.52	21.9%	16.6%	52.1%	9.4%
$C_{14}H_{12}O$	0.57	9.1%	7.9%	71.1%	11.8%
$C_{12}H_{20}O_2$	0.62	9.1%	34.3%	50.1%	6.5%
$C_{13}H_{24}O$	0.56	20.0%	34.1%	35.4%	10.5%
$C_{13}H_{10}O_2$	0.54	4.3%	11.2%	82.9%	1.6%
$C_{10}H_{14}O_4$	0.81	37.5%	42.3%	19.7%	0.5%
$C_{12}H_{22}O_2$	0.53	16.2%	14.1%	52.3%	17.4%
$C_{13}H_{26}O$	0.55	20.2%	23.1%	49.5%	7.2%
$C_{13}H_{12}O_2$	0.62	7.0%	8.2%	73.7%	11.1%
$C_{14}H_{16}O$	0.61	17.5%	10.4%	66.8%	5.2%
$C_{13}H_{14}O_2$	0.52	11.7%	11.8%	64.4%	12.0%
$C_{14}H_{18}O$	0.54	18.4%	7.2%	59.5%	14.8%
$C_{13}H_{16}O_2$	0.55	11.6%	13.1%	74.1%	1.2%
$C_{14}H_{20}O$	0.65	30.6%	24.5%	36.1%	8.9%
$C_{13}H_{18}O_2$	0.75	34.6%	26.2%	33.0%	6.2%
$C_{14}H_{22}O$	0.67	31.1%	35.1%	32.6%	1.3%
$C_{13}H_{20}O_2$	0.59	10.1%	9.0%	66.3%	14.6%
$C_{14}H_{24}O$	0.59	21.0%	24.0%	44.0%	11.0%
$C_{14}H_{26}O$	0.53	15.6%	36.1%	44.4%	3.8%
$C_{13}H_{24}O_2$	0.63	5.7%	33.0%	35.3%	25.9%
$C_{14}H_{28}O$	0.50	16.1%	27.9%	50.8%	5.2%
$C_{14}H_{20}O_2$	0.46	24.3%	28.8%	40.5%	6.4%
C_2H_3NO	0.64	35.1%	15.7%	29.7%	19.4%
C_2H_5NO	0.45	16.8%	33.6%	36.1%	13.5%
C_3H_5NO	0.41	11.0%	32.2%	56.1%	0.7%
$C_2H_3NO_2$	0.65	58.1%	3.5%	32.3%	6.1%

C_3H_7NO	0.80	95.6%	0.0%	4.4%	0.0%
C_3H_9NO	0.56	34.5%	31.2%	19.5%	14.8%
C_4H_7NO	0.64	27.9%	39.9%	25.7%	6.5%
$C_3H_5NO_2$	0.67	34.2%	47.2%	9.3%	9.3%
C_4H_9NO	0.68	23.5%	53.4%	19.3%	3.7%
C_5H_9NO	0.63	78.2%	4.7%	10.6%	6.5%
$C_4H_7NO_2$	0.39	23.4%	12.6%	57.2%	6.9%
$C_5H_{11}NO$	0.65	32.7%	21.1%	40.1%	6.1%
$C_5H_7NO_2$	0.63	27.6%	61.2%	7.8%	3.5%
$C_6H_{11}NO$	0.55	10.9%	25.0%	52.0%	12.1%
C_7H_7NO	0.79	23.2%	34.4%	18.2%	24.2%
$C_6H_5NO_3$	0.61	57.6%	15.0%	14.9%	12.5%
$C_7H_7NO_3$	0.67	37.3%	10.7%	23.9%	28.1%

Table S5. Observed and initial daytime average concentration, k_{OH}, MIR and associated OFP of individual VOCs.

Categories	Components or m/z	Formula	k_{OH} cm^3 molecule^{-1} s^{-1}	MIR g g^{-1}	Concentration (ppbv)		OFP (μg m^{-3})	
					Observed	Initial	Observed	Initial
	Ethane	C_2H_6	2.49E-13[a]	0.28	1.41±0.87	1.42±0.84	0.53±0.33	0.53±0.32
	Propane	C_3H_8	1.11E-12[a]	0.49	3.84±4.85	3.96±4.93	3.71±4.68	3.82±4.76
	Isobutane	C_4H_{10}	2.11E-12[a]	1.23	0.85±0.66	0.92±0.67	2.71±2.09	2.94±2.14
	n-Butane	C_4H_{10}	2.38E-12[a]	1.15	1.07±0.71	1.16±0.71	3.19±2.13	3.47±2.12
	Cyclopentane	C_5H_{10}	4.77E-12[a]	2.39	0.04±0.03	0.05±0.03	0.31±0.24	0.37±0.25
	Isopentane	C_5H_{12}	3.74E-12[a]	1.45	0.57±0.41	0.66±0.44	2.68±1.89	3.10±2.07
	n-Pentane	C_5H_{12}	3.76E-12[a]	1.31	0.30±0.21	0.35±0.22	1.26±0.87	1.46±0.92
	2,2-Dimethylbutane	C_6H_{14}	2.23E-12[a]	1.17	0.04±0.02	0.05±0.02	0.20±0.08	0.22±0.09
	Methylcyclopentane	C_6H_{12}	7.56E-12[a]	2.19	0.05±0.09	0.07±0.10	0.42±0.70	0.54±0.80
	2,3-Dimethylbutane	C_6H_{14}	5.86E-12[a]	0.97	0.01±0.01	0.01±0.01	0.04±0.03	0.05±0.04
	2-Methylpentane	C_6H_{14}	5.25E-12[a]	1.50	0.11±0.08	0.14±0.08	0.65±0.44	0.79±0.48
	3-Methylpentane	C_6H_{14}	5.20E-12[b]	1.80	0.09±0.07	0.11±0.07	0.64±0.47	0.77±0.52
	n-Hexane	C_6H_{14}	4.97E-12[a]	1.24	1.54±3.60	1.74±4.14	7.36±17.20	7.88±18.57
	2,4-Dimethylpentane	C_7H_{16}	5.76E-12[a]	1.55	0.00±0.00	0.01±0.00	0.03±0.03	0.04±0.03
Alkanes	Cyclohexane	C_6H_{12}	6.69E-12[a]	1.25	0.06±0.08	0.07±0.09	0.28±0.37	0.35±0.42
	2-Methylhexane	C_7H_{16}	6.86E-12[c]	1.19	0.03±0.02	0.03±0.03	0.13±0.13	0.17±0.15
	2,3-Dimethylpentane	C_7H_{16}	6.57E-12[a]	1.34	0.01±0.01	0.01±0.01	0.05±0.05	0.07±0.06
	3-Methylhexane	C_7H_{16}	7.15E-12[c]	1.61	0.03±0.03	0.04±0.04	0.22±0.22	0.30±0.27
	2,2,4-Trimethylpentane	C_8H_{18}	3.34E-12[a]	1.26	0.01±0.01	0.01±0.01	0.08±0.08	0.09±0.08
	n-Heptane	C_7H_{16}	6.23E-12[a]	1.07	0.05±0.07	0.06±0.08	0.22±0.32	0.28±0.38
	Methylcyclohexane	C_7H_{14}	9.26E-12[a]	1.70	0.04±0.03	0.06±0.04	0.31±0.25	0.43±0.30
	2,3,4-Trimethylpentane	C_8H_{18}	6.60E-12[a]	1.03	0.00±0.00	0.01±0.00	0.02±0.02	0.03±0.02
	2-Methylheptane	C_8H_{18}	8.28E-12[c]	1.07	0.01±0.02	0.02±0.02	0.08±0.09	0.10±0.10
	3-Methylheptane	C_8H_{18}	8.56E-12[c]	1.24	0.01±0.01	0.01±0.01	0.05±0.05	0.07±0.06
	n-Octane	C_8H_{18}	8.48E-12[a]	0.90	0.02±0.02	0.03±0.03	0.10±0.10	0.15±0.13
	n-Nonane	C_9H_{20}	1.02E-11[a]	0.78	0.01±0.01	0.02±0.01	0.06±0.03	0.09±0.05
	n-Decane	$C_{10}H_{22}$	1.31E-11[a]	0.68	0.02±0.03	0.03±0.06	0.08±0.11	0.14±0.26
	n-Undecane	$C_{11}H_{24}$	1.19E-11[a]	0.61	0.02±0.03	0.03±0.06	0.08±0.12	0.14±0.25
	n-Dodecane	$C_{12}H_{26}$	1.31E-11[a]	0.55	0.04±0.10	0.06±0.21	0.16±0.44	0.25±0.87
	Ethylene	C_2H_4	8.52E-12[a]	9.00	1.09±0.63	1.61±0.97	12.24±7.08	18.18±10.92
	Propylene	C_3H_6	2.44E-11[a]	11.66	0.60±0.34	1.21±0.70	13.22±7.45	26.43±15.39
	trans-2-Butene	C_4H_8	6.31E-11[a]	15.16	0.03±0.02	0.06±0.04	1.03±0.75	2.23±1.54
	1-Butene	C_4H_8	3.10E-11[a]	9.73	0.06±0.03	0.11±0.05	1.35±0.65	2.72±1.20
Alkenes	cis-2-Butene	C_4H_8	5.28E-11[a]	14.24	0.04±0.02	0.08±0.04	1.29±0.72	2.77±1.30
	trans-2-Pentene	C_5H_{10}	6.70E-11[a]	10.56	0.01±0.01	0.01±0.04	0.19±0.45	0.43±1.20
	1-Pentene	C_5H_{10}	3.22E-11[a]	7.21	0.01±0.01	0.02±0.02	0.18±0.15	0.38±0.34
	cis-2-Pentene	C_5H_{10}	6.50E-11[a]	10.38	0.01±0.01	0.01±0.01	0.19±0.18	0.42±0.41
	Isoprene	C_5H_8	1.00E-10[a]	10.61	0.72±0.63	1.08±0.86	23.16±20.46	34.85±27.74

	1-Hexene	C_6H_{12}	3.70E-11[a]	5.49	0.01±0.01	0.03±0.02	0.26±0.15	0.56±0.36
Alkyne	Acetylene	C_2H_2	7.50E-13[a]	0.95	0.76±0.45	0.78±0.44	0.84±0.50	0.86±0.49
Aromatics	Benzene	C_6H_6	1.20E-12[a]	0.72	0.24±0.16	0.26±0.16	0.61±0.41	0.64±0.40
	Toluene	C_7H_8	5.60E-12[a]	4.00	0.84±0.82	1.03±0.91	13.75±13.43	16.93±14.93
	Ethylbenzene	C_8H_{10}	7.00E-12[a]	3.04	0.16±0.13	0.20±0.14	2.28±1.87	2.92±2.00
	m/p-Xylene	C_8H_{10}	1.87E-11[b]	7.80	0.38±0.43	0.57±0.53	14.05±15.88	21.15±19.71
	Styrene	C_8H_8	5.80E-11[a]	1.73	0.04±0.04	0.07±0.09	0.29±0.34	0.59±0.71
	o-Xylene	C_8H_{10}	1.36E-11[a]	7.64	0.12±0.13	0.17±0.15	4.41±4.73	6.22±5.44
	Cumene	C_9H_{12}	6.30E-12[a]	6.23	0.02±0.03	0.02±0.03	0.50±0.95	0.62±1.10
	n-Propylbenzene	C_9H_{12}	5.80E-12[a]	2.03	0.01±0.00	0.01±0.00	0.09±0.05	0.12±0.05
	m-Ethyltoluene	C_9H_{12}	1.86E-11[b]	7.39	0.01±0.01	0.02±0.01	0.46±0.36	0.79±0.50
	p-Ethyltoluene	C_9H_{12}	1.23E-11[a]	4.44	0.01±0.01	0.01±0.01	0.21±0.15	0.32±0.19
	1,3,5-Trimethylbenzene	C_9H_{12}	5.86E-11[a]	11.76	0.01±0.00	0.01±0.01	0.42±0.31	0.92±0.68
	o-Ethyltoluene	C_9H_{12}	1.19E-11[b]	5.59	0.01±0.01	0.01±0.01	0.26±0.18	0.40±0.23
	1,2,4-Trimethylbenzene	C_9H_{12}	3.25E-11[a]	8.87	0.01±0.01	0.03±0.02	0.63±0.57	1.25±1.10
	1,2,3-Trimethylbenzene	C_9H_{12}	3.27E-11[a]	11.97	0.01±0.01	0.02±0.01	0.54±0.40	1.09±0.77
	m-Diethylbenzene	$C_{10}H_{14}$	1.42E-11[c]	7.10	0.01±0.01	0.01±0.01	0.25±0.25	0.41±0.40
	p-Diethylbenzene	$C_{10}H_{14}$	8.11E-12[c]	4.43	0.01±0.00	0.01±0.00	0.15±0.09	0.23±0.08
Aldehydes	Formaldehyde	CH_2O	9.37E-12[a]	9.46	6.16±3.72	4.52±2.89	80.76±47.18	57.28±36.61
	Acetaldehyde	C_2H_4O	1.53E-11[a]	6.54	3.16±1.76	2.29±1.43	41.46±22.60	29.48±18.38
	Acrolein	C_3H_4O	1.83E-11[a]	7.45	0.04±0.03	0.03±0.02	0.87±0.51	0.56±0.39
	Propanal	C_3H_6O	2.00E-11[a]	7.08	0.04±0.03	0.03±0.02	0.82±0.46	0.55±0.36
	MACR	C_4H_6O	2.90E-11[a]	6.01	0.10±0.09	0.08±0.06	2.11±1.60	1.50±1.17
	Butanal	C_4H_8O	2.40E-11[a]	5.97	0.06±0.05	0.03±0.02	1.53±0.99	0.56±0.43
	Pentanal	$C_5H_{10}O$	2.80E-11[a]	5.08	0.02±0.02	0.01±0.01	0.50±0.39	0.21±0.16
	Hexanal	$C_6H_{12}O$	3.00E-11[a]	4.35	0.08±0.15	0.04±0.03	3.12±2.82	0.70±0.53
Ketones	Acetone	C_3H_6O	1.70E-13[a]	0.36	3.48±3.34	1.89±1.36	4.40±3.11	1.77±1.27
	Butenone	C_4H_6O	2.00E-11[a]	9.65	0.22±0.07	0.14±0.11	2.26±2.21	4.08±3.20
	2-Butanone	C_4H_8O	1.22E-12[a]	1.48	0.24±0.22	0.17±0.12	1.30±1.06	0.80±0.57
	2-Pentanone	$C_5H_{10}O$	4.40E-12[a]	2.81	0.03±0.03	0.02±0.01	0.37±0.37	0.18±0.14
	3-Pentanone	$C_5H_{10}O$	2.00E-12[a]	1.24	0.02±0.01	0.01±0.01	0.09±0.06	0.04±0.03
Other HCs	64.0313	C_5H_4	6.00E-12[j]	8.84	0.04±0.03	0.05±0.03	1.02±0.67	1.33±0.83
	66.0469	C_5H_6	9.20E-11[d]	6.98	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
	80.0626	C_6H_8	7.20E-12[j]	6.98	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
	82.0782	C_6H_{10}	6.97E-12[b]	5.10	0.15±0.13	0.21±0.11	3.15±2.39	3.87±2.00
	90.0469	C_7H_6	8.40E-12[j]	5.37	1.11±0.92	1.12±0.86	-3.02±-2.48	-3.02±-2.31
	94.0782	C_7H_{10}	4.68E-11[e]	5.37	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
	96.0939	C_7H_{12}	9.64E-12[b]	6.61	0.07±0.05	0.10±0.06	1.97±1.34	2.86±1.68
	98.1096	C_7H_{14}	9.64E-12[f]	1.08	0.01±0.01	0.01±0.01	0.05±0.03	0.07±0.04
	102.0469	C_8H_6	1.00E-12[d]	1.47	0.04±0.03	0.04±0.03	0.25±0.20	0.25±0.18
	108.0939	C_8H_{12}	1.07E-10[e]	4.03	0.16±0.13	0.26±0.17	3.33±2.46	5.13±3.38

110.1095	C_8H_{14}	9.64E-12[b]	5.63	0.05±0.04	0.07±0.04	1.50±1.10	2.07±1.15
112.1252	C_8H_{16}	3.80E-11[f]	1.12	0.01±0.01	0.02±0.01	0.05±0.06	0.10±0.05
116.0626	C_9H_8	7.80E-11[b]	1.55	0.02±0.02	0.05±0.04	0.16±0.13	0.37±0.29
118.0782	C_9H_{10}	5.04E-11[b]	3.32	0.07±0.06	0.15±0.10	1.24±1.07	2.68±1.81
122.1095	C_9H_{14}	1.08E-11[j]	1.31	0.06±0.04	0.10±0.06	0.45±0.26	0.70±0.40
124.1252	C_9H_{16}	3.10E-11[f]	1.31	0.02±0.02	0.05±0.03	0.19±0.14	0.37±0.20
126.1408	C_9H_{18}	4.00E-11[f]	1.22	0.01±0.00	0.01±0.01	0.04±0.02	0.09±0.05
128.0626	$C_{10}H_8$	2.30E-11[b]	3.34	0.06±0.08	0.11±0.08	1.17±1.50	2.03±1.48
130.0782	$C_{10}H_{10}$	2.85E-11[g]	3.31	0.01±0.01	0.03±0.02	0.27±0.21	0.55±0.42
132.0939	$C_{10}H_{12}$	3.30E-11[g]	2.97	0.04±0.03	0.09±0.05	0.74±0.51	1.52±0.95
136.1252	$C_{10}H_{16}$	5.30E-11[g]	4.04	0.63±0.44	0.75±0.45	16.31±10.74	18.40±11.15
138.1408	$C_{10}H_{18}$	2.10E-11[h]	3.31	0.01±0.01	0.02±0.01	0.22±0.14	0.40±0.22
140.0626	$C_{11}H_8$	1.32E-11[j]	2.73	0.02±0.03	0.03±0.03	0.38±0.44	0.59±0.45
140.1565	$C_{10}H_{20}$	4.10E-11[f]	0.99	0.00±0.00	0.01±0.01	0.03±0.02	0.07±0.03
142.0782	$C_{11}H_{10}$	5.00E-11[g]	3.06	0.02±0.05	0.04±0.04	0.46±0.89	0.83±0.83
144.0939	$C_{11}H_{12}$	7.80E-11[g]	3.06	0.01±0.01	0.03±0.02	0.23±0.17	0.52±0.35
146.1095	$C_{11}H_{14}$	5.80E-11[e]	8.88	0.02±0.01	0.04±0.02	0.96±0.67	2.15±1.30
148.1252	$C_{11}H_{16}$	5.00E-11[g]	2.12	0.02±0.02	0.05±0.03	0.35±0.26	0.76±0.47
150.1408	$C_{11}H_{18}$	1.32E-11[j]	2.73	0.01±0.01	0.02±0.01	0.26±0.17	0.42±0.25
152.1565	$C_{11}H_{20}$	1.34E-10[i]	0.73	0.01±0.00	0.02±0.01	0.04±0.02	0.09±0.05
154.0782	$C_{12}H_{10}$	1.44E-11[j]	0.63	0.01±0.01	0.02±0.01	0.04±0.05	0.07±0.05
154.1721	$C_{11}H_{22}$	4.40E-11[f]	1.04	0.00±0.00	0.01±0.01	0.04±0.02	0.08±0.04
156.0939	$C_{12}H_{12}$	6.00E-11[g]	2.78	0.01±0.03	0.03±0.03	0.29±0.57	0.55±0.54
158.1095	$C_{12}H_{14}$	1.44E-11[j]	0.63	0.02±0.01	0.03±0.02	0.07±0.04	0.12±0.07
160.1252	$C_{12}H_{16}$	5.80E-11[e]	7.95	0.01±0.01	0.03±0.02	0.74±0.52	1.67±0.98
162.1408	$C_{12}H_{18}$	1.13E-10[g]	4.23	0.01±0.01	0.04±0.02	0.48±0.31	1.10±0.63
164.1565	$C_{12}H_{20}$	1.44E-11[j]	0.80	0.01±0.01	0.01±0.01	0.05±0.04	0.09±0.06
166.1721	$C_{12}H_{22}$	1.50E-10[i]	0.63	0.00±0.00	0.01±0.00	0.01±0.01	0.03±0.02
168.0939	$C_{13}H_{12}$	1.56E-11[j]	0.60	0.01±0.01	0.02±0.01	0.05±0.03	0.08±0.05
168.1878	$C_{12}H_{24}$	1.90E-11[f]	1.02	0.00±0.00	0.01±0.00	0.04±0.02	0.07±0.03
170.1095	$C_{13}H_{14}$	1.54E-10[i]	0.60	0.01±0.02	0.03±0.02	0.07±0.08	0.14±0.10
172.1252	$C_{13}H_{16}$	1.56E-11[j]	0.60	0.01±0.01	0.01±0.01	0.04±0.03	0.06±0.04
174.1408	$C_{13}H_{18}$	3.85E-11[e]	7.13	0.01±0.01	0.02±0.01	0.40±0.36	0.85±0.56
176.1565	$C_{13}H_{20}$	1.13E-10[g]	0.60	0.01±0.02	0.03±0.02	0.07±0.07	0.15±0.10
178.0782	$C_{14}H_{10}$	1.68E-11[j]	1.60	0.01±0.00	0.01±0.01	0.07±0.05	0.13±0.09
178.1721	$C_{13}H_{22}$	1.56E-11[j]	0.70	0.01±0.00	0.01±0.01	0.04±0.03	0.06±0.04
180.1878	$C_{13}H_{24}$	1.56E-11[j]	0.53	0.00±0.00	0.00±0.00	0.01±0.00	0.01±0.01
182.1095	$C_{14}H_{14}$	1.68E-11[j]	1.60	0.01±0.01	0.02±0.01	0.15±0.11	0.26±0.16
182.2034	$C_{13}H_{26}$	1.90E-11[i]	0.96	0.00±0.00	0.01±0.00	0.03±0.01	0.05±0.02
184.1252	$C_{14}H_{16}$	1.70E-10[i]	1.60	0.01±0.01	0.02±0.01	0.12±0.09	0.29±0.19
186.1408	$C_{14}H_{18}$	1.68E-11[j]	1.60	0.01±0.01	0.01±0.01	0.10±0.08	0.16±0.09

	188.1565	$C_{14}H_{20}$	1.68E-11[j]	1.60	0.01±0.01	0.02±0.01	0.12±0.10	0.21±0.14
	190.1721	$C_{14}H_{22}$	3.10E-11[f]	0.58	0.01±0.01	0.02±0.01	0.04±0.03	0.09±0.06
	192.1878	$C_{14}H_{24}$	1.68E-11[j]	0.65	0.00±0.00	0.01±0.01	0.03±0.02	0.05±0.03
	194.2034	$C_{14}H_{26}$	1.68E-11[j]	0.50	0.00±0.00	0.00±0.00	0.01±0.00	0.01±0.01
	196.2191	$C_{14}H_{28}$	1.90E-11[i]	0.91	0.00±0.00	0.01±0.00	0.02±0.01	0.04±0.02
	204.1878	$C_{15}H_{24}$	3.30E-11[i]	4.04	0.02±0.02	0.03±0.02	0.72±0.58	1.10±0.78
	60.0211	$C_2H_4O_2$	7.20E-13[b]	0.68	3.38±2.17	1.79±1.22	6.16±3.02	3.26±2.22
	62.0368	$C_2H_6O_2$	1.45E-11[e]	3.13	0.05±0.06	0.04±0.03	0.44±0.24	0.35±0.23
	68.0262	C_4H_4O	4.00E-11[d]	9.15	0.07±0.04	0.06±0.04	2.07±1.13	1.54±1.03
	72.0211	$C_3H_4O_2$	1.50E-11[g]	11.38	0.21±0.13	0.00±0.00	7.39±4.46	0.00±0.00
	74.0368	$C_3H_6O_2$	2.20E-12[g]	1.22	1.62±1.59	1.27±0.84	6.52±4.47	5.13±3.40
	76.016	$C_2H_4O_3$	7.80E-12[j]	0.54	0.03±0.04	0.01±0.00	0.06±0.04	0.01±0.01
	76.0524	$C_3H_8O_2$	1.62E-11[e]	0.94	0.75±0.74	0.54±0.33	2.40±1.39	1.73±1.07
	78.0317	$C_2H_6O_3$	7.80E-12[j]	/	1.03±0.71	0.94±0.60	/	/
	80.0262	C_5H_4O	2.00E-11[d]	/	0.04±0.06	0.03±0.02	/	/
	82.0418	C_5H_6O	3.71E-11[d]	6.90	0.30±0.15	0.21±0.14	7.58±3.92	5.20±3.50
	84.0211	$C_4H_4O_2$	4.45E-11[d]	/	0.10±0.05	0.05±0.03	/	/
	84.0575	C_5H_8O	1.15E-11[b]	1.15	0.06±0.04	0.04±0.02	0.27±0.14	0.16±0.11
	86.0368	$C_4H_6O_2$	8.00E-13[d]	0.96	0.35±0.20	0.17±0.12	1.29±0.77	0.62±0.44
	88.016	$C_3H_4O_3$	1.00E-13[d]	0.40	0.15±0.16	0.10±0.07	0.23±0.11	0.16±0.11
	88.0524	$C_4H_8O_2$	9.00E-13[g]	0.37	0.76±0.77	0.66±0.37	1.11±0.75	0.96±0.54
	90.0317	$C_3H_6O_3$	2.40E-11[j]	0.06	0.34±0.37	0.20±0.12	0.08±0.06	0.05±0.03
	90.0681	$C_4H_{10}O_2$	2.70E-11[f]	2.44	0.26±0.26	0.22±0.13	2.60±1.67	2.18±1.24
Other OVOCs	92.0473	$C_3H_8O_3$	2.40E-11[j]	3.15	0.38±0.44	0.17±0.12	4.86±3.96	2.15±1.57
	94.0418	C_6H_6O	2.80E-11[d]	2.76	0.11±0.06	0.10±0.06	1.25±0.72	1.10±0.70
	96.0211	$C_5H_4O_2$	3.56E-11[d]	/	0.22±0.36	0.13±0.07	/	/
	96.0575	C_6H_8O	1.32E-10[d]	7.09	0.04±0.04	0.02±0.02	1.36±0.92	0.61±0.48
	98.0368	$C_5H_6O_2$	1.36E-11[g]	/	0.23±0.10	0.14±0.10	/	/
	98.0731	$C_6H_{10}O$	6.00E-12[f]	1.35	0.06±0.06	0.04±0.03	0.36±0.22	0.25±0.16
	100.016	$C_4H_4O_3$	2.00E-11[g]	/	0.04±0.05	0.03±0.02	/	/
	100.0524	$C_5H_8O_2$	3.03E-11[d]	1.01	0.29±0.27	0.14±0.10	1.30±0.80	0.65±0.45
	102.0317	$C_4H_6O_3$	4.30E-11[g]	0.28	0.07±0.05	0.03±0.02	0.09±0.06	0.04±0.03
	102.0681	$C_5H_{10}O_2$	8.71E-12[e]	0.61	0.05±0.05	0.06±0.04	0.15±0.09	0.17±0.10
	104.0473	$C_4H_8O_3$	3.05E-11[j]	2.67	0.08±0.05	0.05±0.03	1.05±0.58	0.57±0.40
	104.0837	$C_5H_{12}O_2$	2.20E-11[f]	0.48	0.04±0.03	0.02±0.01	0.08±0.05	0.05±0.03
	106.0266	$C_3H_6O_4$	2.55E-11[j]	/	0.07±0.04	0.06±0.04	/	/
	106.0418	C_7H_6O	1.20E-11[b]	-0.67	0.11±0.12	0.08±0.05	-0.34±-0.24	-0.25±-0.16
	106.063	$C_4H_{10}O_3$	3.05E-11[j]	3.35	0.19±0.28	0.30±0.18	3.08±2.42	4.78±2.92
	108.0575	C_7H_8O	2.62E-11[h]	2.40	0.17±0.11	0.14±0.09	1.96±1.23	1.59±1.04
	110.0368	$C_6H_6O_2$	8.01E-11[g]	/	0.01±0.03	0.01±0.01	/	/
	110.0731	$C_7H_{10}O$	2.33E-11[g]	/	0.05±0.03	0.02±0.02	/	/

112.016	$C_5H_4O_3$	4.90E-11[g]	/	0.12±0.10	0.08±0.05	/	/
112.0524	$C_6H_8O_2$	5.70E-11[g]	/	0.12±0.08	0.06±0.04	/	/
112.0888	$C_7H_{12}O$	1.00E-11[h]	/	0.02±0.02	0.01±0.01	/	/
113.9953	$C_4H_2O_4$	3.60E-11[j]	/	0.02±0.01	0.02±0.01	/	/
114.0317	$C_5H_6O_3$	1.00E-10[g]	/	0.12±0.09	0.06±0.04	/	/
114.0681	$C_6H_{10}O_2$	2.00E-11[g]	/	0.12±0.07	0.05±0.04	/	/
114.1044	$C_7H_{14}O$	2.14E-11[b]	1.31	0.01±0.01	0.01±0.00	0.06±0.04	0.04±0.02
116.0109	$C_4H_4O_4$	3.60E-11[j]	/	0.03±0.03	0.02±0.01	/	/
116.0473	$C_5H_8O_3$	5.00E-12[g]	/	0.09±0.06	0.06±0.04	/	/
116.0837	$C_6H_{12}O_2$	6.00E-12[h]	0.18	0.09±0.07	0.08±0.05	0.08±0.06	0.08±0.05
118.0266	$C_4H_6O_4$	3.60E-11[j]	/	0.07±0.04	0.05±0.04	/	/
118.063	$C_5H_{10}O_3$	3.41E-11[j]	0.62	0.04±0.04	0.02±0.01	0.12±0.08	0.07±0.05
118.0994	$C_6H_{14}O_2$	1.90E-11[f]	1.45	0.03±0.03	0.03±0.02	0.20±0.13	0.22±0.13
120.0211	$C_7H_4O_2$	2.90E-11[j]	/	0.02±0.02	0.01±0.01	/	/
120.0422	$C_4H_8O_4$	3.60E-11[j]	/	0.02±0.01	0.02±0.01	/	/
120.0575	C_8H_8O	1.60E-11[b]	-0.59	0.07±0.08	0.04±0.03	-0.23±-0.14	-0.14±-0.09
122.0368	$C_7H_6O_2$	3.80E-11[g]	/	0.08±0.05	0.04±0.03	/	/
122.0731	$C_8H_{10}O$	4.66E-11[g]	2.12	0.05±0.03	0.04±0.03	0.59±0.37	0.47±0.29
124.0524	$C_7H_8O_2$	7.50E-11[h]	/	0.15±0.16	0.09±0.06	/	/
124.0888	$C_8H_{12}O$	4.04E-11[e]	/	0.04±0.03	0.02±0.01	/	/
126.0681	$C_7H_{10}O_2$	2.90E-11[j]	/	0.05±0.03	0.02±0.01	/	/
126.1044	$C_8H_{14}O$	9.88E-11[e]	/	0.03±0.02	0.01±0.01	/	/
128.0109	$C_5H_4O_4$	4.15E-11[j]	/	0.01±0.03	0.01±0.00	/	/
128.0473	$C_6H_8O_3$	1.32E-10[g]	/	0.03±0.05	0.02±0.01	/	/
128.0837	$C_7H_{12}O_2$	2.90E-11[j]	4.72	0.06±0.04	0.03±0.02	1.69±1.06	0.78±0.59
128.1201	$C_8H_{16}O$	1.10E-11[e]	1.40	0.01±0.01	0.00±0.00	0.06±0.04	0.04±0.02
130.0266	$C_5H_6O_4$	4.15E-11[j]	/	0.08±0.04	0.04±0.03	/	/
130.063	$C_6H_{10}O_3$	3.66E-11[j]	4.90	0.04±0.02	0.02±0.01	1.10±0.69	0.56±0.41
130.0994	$C_7H_{14}O_2$	5.00E-12[f]	0.84	0.02±0.01	0.01±0.01	0.08±0.05	0.05±0.03
132.0422	$C_5H_8O_4$	4.15E-11[j]	/	0.03±0.02	0.02±0.01	/	/
132.0786	$C_6H_{12}O_3$	3.66E-11[j]	1.12	0.03±0.02	0.03±0.02	0.23±0.15	0.17±0.11
132.115	$C_7H_{16}O_2$	1.90E-11[f]	1.61	0.01±0.01	0.01±0.00	0.10±0.07	0.05±0.04
134.0368	$C_8H_6O_2$	3.05E-11[j]	/	0.03±0.02	0.02±0.01	/	/
134.0731	$C_9H_{10}O$	4.50E-12[h]	0.89	0.02±0.02	0.02±0.01	0.10±0.06	0.08±0.05
136.016	$C_7H_4O_3$	3.86E-11[j]	/	0.01±0.01	0.00±0.00	/	/
136.0524	$C_8H_8O_2$	1.20E-11[g]	/	0.09±0.09	0.06±0.04	/	/
136.0888	$C_9H_{12}O$	1.18E-10[h]	1.90	0.02±0.02	0.02±0.01	0.21±0.16	0.17±0.11
138.0317	$C_7H_6O_3$	3.86E-11[j]	/	0.02±0.02	0.01±0.00	/	/
138.0681	$C_8H_{10}O_2$	1.00E-10[h]	4.49	0.06±0.04	0.04±0.03	1.61±1.02	1.01±0.70
138.1044	$C_9H_{14}O$	6.00E-12[f]	4.63	0.04±0.03	0.03±0.02	1.08±0.70	0.88±0.58
140.0473	$C_7H_8O_3$	3.86E-11[j]	/	0.04±0.02	0.02±0.01	/	/

140.0837	$C_8H_{12}O_2$	3.05E-11[j]	/	0.02±0.01	0.01±0.01	/	/
140.1201	$C_9H_{16}O$	4.35E-11[e]	1.54	0.02±0.01	0.01±0.01	0.16±0.09	0.09±0.06
142.063	$C_7H_{10}O_3$	3.86E-11[j]	/	0.02±0.02	0.01±0.01	/	/
142.0994	$C_8H_{14}O_2$	3.05E-11[j]	8.62	0.03±0.02	0.02±0.01	1.52±0.95	0.98±0.67
142.1357	$C_9H_{18}O$	1.20E-11[f]	1.08	0.01±0.02	0.01±0.01	0.10±0.06	0.08±0.05
144.0422	$C_6H_8O_4$	4.60E-12[g]	/	0.02±0.01	0.02±0.01	/	/
144.0786	$C_7H_{12}O_3$	3.86E-11[j]	/	0.01±0.01	0.01±0.01	/	/
144.115	$C_8H_{16}O_2$	6.00E-12[f]	0.60	0.01±0.01	0.01±0.00	0.04±0.02	0.03±0.02
146.0368	$C_9H_6O_2$	3.18E-11[j]	/	0.01±0.00	0.00±0.00	/	/
146.0579	$C_6H_{10}O_4$	4.51E-11[j]	0.23	0.02±0.01	0.01±0.01	0.03±0.02	0.02±0.01
146.0731	$C_{10}H_{10}O$	3.70E-11[g]	/	0.01±0.01	0.01±0.00	/	/
146.1307	$C_8H_{18}O_2$	1.28E-10[i]	1.54	0.01±0.01	0.01±0.01	0.10±0.07	0.08±0.05
148.0524	$C_9H_8O_2$	3.18E-11[j]	/	0.01±0.01	0.01±0.01	/	/
148.0888	$C_{10}H_{12}O$	5.00E-11[h]	0.80	0.02±0.01	0.01±0.01	0.08±0.05	0.07±0.05
150.0317	$C_8H_6O_3$	4.03E-11[j]	/	0.01±0.01	0.00±0.00	/	/
150.0681	$C_9H_{10}O_2$	1.00E-10[g]	/	0.02±0.01	0.01±0.01	/	/
150.1044	$C_{10}H_{14}O$	1.80E-11[f]	/	0.02±0.02	0.02±0.01	/	/
152.0473	$C_8H_8O_3$	8.50E-11[g]	1.71	0.06±0.03	0.06±0.04	0.71±0.40	0.73±0.46
152.0837	$C_9H_{12}O_2$	3.18E-11[j]	1.60	0.02±0.01	0.01±0.01	0.23±0.16	0.14±0.10
152.1201	$C_{10}H_{16}O$	4.30E-12[b]	0.49	0.04±0.02	0.03±0.02	0.13±0.07	0.12±0.07
154.0266	$C_7H_6O_4$	4.77E-11[j]	/	0.01±0.01	0.00±0.00	/	/
154.063	$C_8H_{10}O_3$	1.00E-10[g]	/	0.02±0.01	0.01±0.01	/	/
154.0994	$C_9H_{14}O_2$	3.18E-11[j]	/	0.01±0.01	0.01±0.01	/	/
154.1357	$C_{10}H_{18}O$	2.50E-11[h]	4.63	0.01±0.01	0.00±0.00	0.28±0.17	0.15±0.09
156.0422	$C_7H_8O_4$	4.77E-11[j]	/	0.02±0.01	0.01±0.01	/	/
156.0786	$C_8H_{12}O_3$	4.03E-11[j]	/	0.01±0.01	0.01±0.01	/	/
156.115	$C_9H_{16}O_2$	3.18E-11[j]	/	0.02±0.02	0.01±0.01	/	/
158.0579	$C_7H_{10}O_4$	4.77E-11[j]	/	0.01±0.01	0.00±0.00	/	/
160.0888	$C_{11}H_{12}O$	2.39E-11[j]	/	0.01±0.01	0.01±0.01	/	/
160.1463	$C_9H_{20}O_2$	1.43E-10[i]	/	0.02±0.03	0.02±0.01	/	/
162.0317	$C_9H_6O_3$	4.19E-11[j]	/	0.05±0.04	0.02±0.02	/	/
162.0681	$C_{10}H_{10}O_2$	1.45E-10[i]	2.25	0.02±0.01	0.01±0.01	0.28±0.18	0.19±0.13
162.1044	$C_{11}H_{14}O$	2.39E-11[j]	/	0.01±0.01	0.00±0.00	/	/
164.0473	$C_9H_8O_3$	4.19E-11[j]	/	0.00±0.00	0.00±0.00	/	/
164.0837	$C_{10}H_{12}O_2$	1.00E-10[g]	/	0.01±0.01	0.01±0.00	/	/
164.1201	$C_{11}H_{16}O$	2.39E-11[j]	/	0.00±0.00	0.00±0.00	/	/
166.0266	$C_8H_6O_4$	4.98E-11[j]	/	0.07±0.05	0.03±0.02	/	/
166.063	$C_9H_{10}O_3$	4.19E-11[j]	/	0.01±0.01	0.01±0.00	/	/
166.0994	$C_{10}H_{14}O_2$	3.31E-11[j]	/	0.02±0.01	0.01±0.01	/	/
166.1357	$C_{11}H_{18}O$	2.39E-11[j]	/	0.01±0.00	0.00±0.00	/	/
168.0575	$C_{12}H_8O$	2.51E-11[j]	/	0.01±0.01	0.00±0.00	/	/

168.115	$C_{10}H_{16}O_2$	3.31E-11[j]	/	0.01±0.01	0.01±0.01	/	/
168.1514	$C_{11}H_{20}O$	1.90E-11[f]	/	0.01±0.00	0.00±0.00	/	/
170.0579	$C_8H_{10}O_4$	4.98E-11[j]	/	0.01±0.01	0.00±0.00	/	/
170.1307	$C_{10}H_{18}O_2$	3.31E-11[j]	/	0.01±0.01	0.01±0.01	/	/
170.1671	$C_{11}H_{22}O$	1.54E-10[i]	/	0.00±0.01	0.00±0.00	/	/
172.0735	$C_8H_{12}O_4$	4.98E-11[j]	/	0.01±0.00	0.00±0.00	/	/
172.1463	$C_{10}H_{20}O_2$	1.90E-11[f]	0.57	0.00±0.00	0.00±0.00	0.02±0.01	0.01±0.01
174.0681	$C_{11}H_{10}O_2$	3.44E-11[j]	/	0.00±0.00	0.00±0.00	/	/
174.1044	$C_{10}H_{22}O_2$	2.51E-11[j]	/	0.01±0.00	0.01±0.00	/	/
176.0473	$C_{10}H_8O_3$	4.33E-11[j]	/	0.01±0.00	0.00±0.00	/	/
176.0837	$C_{11}H_{12}O_2$	3.44E-11[j]	/	0.01±0.01	0.01±0.00	/	/
176.1201	$C_{12}H_{16}O$	1.61E-10[i]	/	0.00±0.00	0.00±0.00	/	/
178.0266	$C_9H_6O_4$	5.16E-11[j]	/	0.00±0.00	0.00±0.00	/	/
178.063	$C_{10}H_{10}O_3$	4.33E-11[j]	/	0.00±0.00	0.00±0.00	/	/
178.0994	$C_{11}H_{14}O_2$	3.44E-11[j]	/	0.01±0.00	0.00±0.00	/	/
178.1357	$C_{12}H_{18}O$	1.63E-10[i]	/	0.00±0.00	0.00±0.00	/	/
180.0422	$C_9H_8O_4$	5.16E-11[j]	/	0.01±0.01	0.01±0.00	/	/
180.0786	$C_{10}H_{12}O_3$	4.33E-11[j]	1.44	0.01±0.01	0.01±0.01	0.14±0.09	0.08±0.06
180.115	$C_{11}H_{16}O_2$	3.44E-11[j]	/	0.01±0.01	0.01±0.00	/	/
180.1514	$C_{12}H_{20}O$	2.51E-11[j]	/	0.00±0.00	0.00±0.00	/	/
182.0731	$C_{13}H_{10}O$	2.63E-11[j]	/	0.01±0.01	0.01±0.00	/	/
182.1307	$C_{11}H_{18}O_2$	3.44E-11[j]	/	0.01±0.00	0.00±0.00	/	/
182.1671	$C_{12}H_{22}O$	2.51E-11[j]	/	0.00±0.00	0.00±0.00	/	/
184.0735	$C_9H_{12}O_4$	5.16E-11[j]	/	0.00±0.00	0.00±0.00	/	/
184.1463	$C_{11}H_{20}O_2$	3.44E-11[j]	2.52	0.01±0.01	0.00±0.00	0.15±0.10	0.07±0.05
184.1827	$C_{12}H_{24}O$	1.90E-11[i]	1.66	0.00±0.00	0.00±0.00	0.04±0.03	0.03±0.02
186.0892	$C_9H_{14}O_4$	5.16E-11[j]	/	0.00±0.00	0.00±0.00	/	/
186.1044	$C_{13}H_{14}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
188.0837	$C_{12}H_{12}O_2$	3.57E-11[j]	/	0.00±0.00	0.00±0.00	/	/
188.1201	$C_{13}H_{16}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
190.063	$C_{11}H_{10}O_3$	4.47E-11[j]	/	0.00±0.00	0.00±0.00	/	/
190.0994	$C_{12}H_{14}O_2$	3.57E-11[j]	/	0.00±0.00	0.00±0.00	/	/
190.1357	$C_{13}H_{18}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
192.0422	$C_{10}H_8O_4$	5.33E-11[j]	/	0.00±0.00	0.00±0.00	/	/
192.115	$C_{12}H_{16}O_2$	3.57E-11[j]	/	0.00±0.00	0.00±0.00	/	/
192.1514	$C_{13}H_{20}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
194.0579	$C_{10}H_{10}O_4$	5.33E-11[j]	/	0.01±0.00	0.00±0.00	/	/
194.0943	$C_{11}H_{14}O_3$	4.47E-11[j]	/	0.00±0.00	0.00±0.00	/	/
194.1307	$C_{12}H_{18}O_2$	3.57E-11[j]	/	0.00±0.00	0.00±0.00	/	/
194.1671	$C_{13}H_{22}O$	2.63E-11[j]	/	0.00±0.01	0.00±0.00	/	/
196.0888	$C_{14}H_{12}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/

196.1463	$C_{12}H_{20}O_2$	3.57E-11[j]	/	0.00±0.00	0.00±0.00	/	/
196.1827	$C_{13}H_{24}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
198.0681	$C_{13}H_{10}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
198.0892	$C_{10}H_{14}O_4$	5.33E-11[j]	/	0.00±0.00	0.00±0.00	/	/
198.162	$C_{12}H_{22}O_2$	3.57E-11[j]	/	0.01±0.01	0.00±0.00	/	/
198.1983	$C_{13}H_{26}O$	2.63E-11[j]	/	0.00±0.00	0.00±0.00	/	/
200.0837	$C_{13}H_{12}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
200.1201	$C_{14}H_{16}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
202.0994	$C_{13}H_{14}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
202.1357	$C_{14}H_{18}O$	2.75E-11[j]	3.16	0.00±0.00	0.00±0.00	0.07±0.05	0.05±0.03
204.115	$C_{13}H_{16}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
204.1514	$C_{14}H_{20}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
206.1307	$C_{13}H_{18}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
206.1671	$C_{14}H_{22}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
208.1463	$C_{13}H_{20}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
208.1827	$C_{14}H_{24}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
210.1983	$C_{14}H_{26}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
212.1776	$C_{13}H_{24}O_2$	3.69E-11[j]	/	0.00±0.00	0.00±0.00	/	/
212.214	$C_{14}H_{28}O$	2.75E-11[j]	/	0.00±0.00	0.00±0.00	/	/
220.1463	$C_{14}H_{20}O_2$	3.82E-11[j]	/	0.00±0.00	0.00±0.00	/	/
57.0214	C_2H_3NO	1.00E-13[g]	/	0.00±0.00	0.00±0.00	/	/
59.0371	C_2H_5NO	8.60E-12[h]	/	0.08±0.06	0.03±0.02	/	/
71.0371	C_3H_5NO	4.50E-11[i]	/	0.03±0.02	0.02±0.01	/	/
73.0164	$C_2H_3NO_2$	1.20E-12[h]	/	0.03±0.03	0.02±0.02	/	/
73.0527	C_3H_7NO	1.25E-11[e]	/	0.17±0.30	0.33±0.19	/	/
75.0684	C_3H_9NO	1.31E-11[j]	5.42	0.00±0.00	0.00±0.00	0.03±0.02	0.02±0.01
85.0527	C_4H_7NO	6.10E-11[i]	/	0.02±0.01	0.01±0.01	/	/
87.032	$C_3H_5NO_2$	1.20E-11[f]	/	0.05±0.05	0.02±0.01	/	/
87.0684	C_4H_9NO	1.12E-10[f]	1.58	0.03±0.04	0.02±0.01	0.19±0.15	0.14±0.09
99.0684	C_5H_9NO	1.63E-11[j]	2.41	0.01±0.02	0.02±0.01	0.12±0.08	0.18±0.10
101.0477	$C_4H_7NO_2$	1.20E-11[i]	/	0.08±0.04	0.05±0.04	/	/
101.084	$C_5H_{11}NO$	2.10E-11[f]	/	0.01±0.01	0.01±0.01	/	/
113.0477	$C_5H_7NO_2$	2.57E-11[j]	/	0.02±0.02	0.01±0.01	/	/
113.084	$C_6H_{11}NO$	9.20E-11[i]	/	0.02±0.01	0.01±0.01	/	/
121.0527	C_7H_7NO	7.90E-11[i]	/	0.04±0.03	0.03±0.02	/	/
139.0269	$C_6H_5NO_3$	1.00E-13[f]	/	0.02±0.01	0.01±0.01	/	/
153.0426	$C_7H_7NO_3$	3.00E-12[f]	/	0.01±0.01	0.01±0.00	/	/

The k_{OH} are referenced from [a] Jenkin et al.(2018), [b] Atkinson and Arey et al.(2003), [c] EPA Atmospheric Oxidation Program estimation, [d] Gilman et al.(2015), [e] Pfannerstill et al.(2019), [f] Carter et al.(2010), [g] Koss et al.(2018), [h] NIST Database, [i] Sanchez et al.(2021), [j] Donahue et al.(2013).

'/': MIR value not available.

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