

## 1 Text S1. Calculation of the photolysis correction coefficient

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

$$k_{\text{OVOC}}^* = k_{\text{OVOC}} + \frac{J_{\text{OVOC}}}{[\text{OH}]} = k_{\text{OVOC}} \left( 1 + \frac{J_{\text{OVOC}}}{[\text{OH}]k_{\text{OVOC}}} \right) = f k_{\text{OVOC}} \quad (1)$$

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

$$J_{i,\text{clear sky}} = l \times (\cos\chi)^m \times \exp(-n \times \sec\chi) \quad (2)$$

$$J_{i,\text{ambient}} = J_{i,\text{clear sky}} \times \frac{\text{Measured } J_{\text{NO}_2}}{\text{clear sky } J_{\text{NO}_2}} \quad (3)$$

9 where  $\chi$  is the solar zenith angle,  $l$ ,  $m$ , and  $n$  are empirical parameters for different OVOC species, respectively,  $J_{i,\text{clear sky}}$  is  
10 the clear sky photolysis frequency ( $\text{s}^{-1}$ ), and  $J_{i,\text{ambient}}$  the ambient photolysis frequency ( $\text{s}^{-1}$ ) of individual OVOCs.  
11 Here, the  $f$  values of 8 aldehydes and 5 ketones were calculated as listed in Table S2. For the remaining 195 unspecified  
12 OVOCs measured by Vocus-PTR,  $f$  was set to 1 as these compounds cannot be distinguish as carbonyls by the instrument,  
13 and are expected to undergo no photolytic loss.

## 14 Text S2. Calculation of OH exposure of anthropogenic VOCs

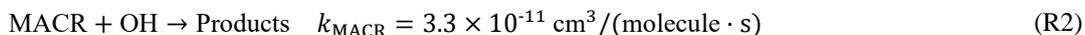
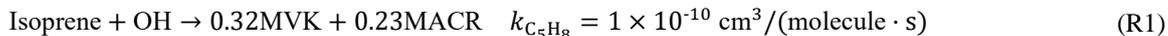
15 A species ratio method is applied to calculate the OH exposure of anthropogenic VOCs ( $[\text{OH}]\Delta t_a$ , s molecule  $\text{cm}^{-3}$ ) (Roberts  
16 et al., 1984). Two species that have similar sources and significantly different OH reaction rate constants, e.g., ethylbenzene  
17 ( $k_E$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

$$[\text{OH}]\Delta t_a = \frac{1}{k_X - k_E} \times \ln \left[ \ln \left( \frac{[\text{X}]}{[\text{E}]} \right)_{\text{source}} - \ln \left( \frac{[\text{X}]}{[\text{E}]} \right)_t \right] \quad (4)$$

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

### 24 Text S3. Calculation of OH exposure of biogenic VOCs

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



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

$$[\text{OH}]\Delta t_b = \frac{\ln \left[ 1 - \frac{[\text{MACR}_{\text{correct}}]}{[\text{C}_5\text{H}_8]} \times \frac{k_{\text{MACR}} - k_{\text{C}_5\text{H}_8}}{0.23k_{\text{C}_5\text{H}_8}} \right]}{k_{\text{C}_5\text{H}_8} - k_{\text{MACR}}} \quad (5)$$

28 where  $k_{\text{C}_5\text{H}_8}$  and  $k_{\text{MACR}}$  are the OH reaction rate constants of isoprene and MACR, respectively;  $[\text{C}_5\text{H}_8]$  is the observed  
29 concentration of isoprene, and  $[\text{MACR}_{\text{correct}}]$  is the corrected concentration of MACR as defined below.

30 Observed MACR was elevated during nighttime when anthropogenic emissions were high, similar to observations in  
31 Guangzhou and Shenzhen, China (Li et al., 2024; Wu et al., 2020a), indicating that MACR is influenced by anthropogenic  
32 sources. As shown in Figure S6, the emission ratio of MACR to acetylene ( $\text{ER}_{\text{MACR}}$ ) was determined by the slope of  $[\text{MACR}]$   
33 and  $[\text{C}_2\text{H}_2]$  during the nighttime (21:00-5:00 LT). The daytime concentration of MACR generated from isoprene oxidation  
34 was then estimated from observed MACR concentration ( $[\text{MACR}_{\text{meas}}]$ ) as follow:

$$[\text{MACR}_{\text{correct}}] = [\text{MACR}_{\text{meas}}] - \text{ER}_{\text{MACR}} \times [\text{C}_2\text{H}_2] \quad (6)$$

35 The subsequent source appointment of MACR indicates that anthropogenic contributions are relatively minor at the DSL site.  
36 Thus, although the weak nighttime correlation between  $[\text{MACR}]$  and  $[\text{C}_2\text{H}_2]$  may introduce substantial uncertainty in the  
37 derived  $\text{ER}_{\text{MACR}}$ , this uncertainty has only a minor effect on the subsequent estimation of isoprene-derived MACR.

### 38 Text S4. The OH reaction rate constants

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

$$k_{\text{OH}} = 1.2 \times 10^{-12} \left( n_C + 9n_O - 10 \left( \frac{n_O}{n_C} \right)^2 \right) \quad (7)$$

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

## 46 Text S5. Uncertainty analysis

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

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

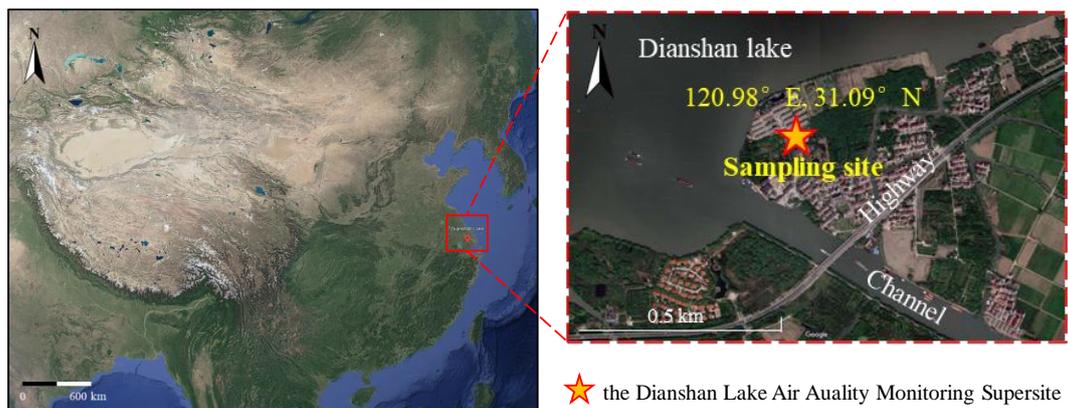
54 Given that many  $m/z$  values detected by Vocus-PTR represent multiple potential isomers with divergent chemical structures,  
55 the uncertainties in  $k_{OH}$  and MIR values for these species can be even larger. Specifically,  $k_{OH}$  uncertainty can reach  $\sim 100\%$   
56 (Wu et al., 2020a). In our base-case OFP calculation, we conservatively applied the minimum MIR among all possible  
57 isomers to prevent overestimation. This approach yielded a total OFP of  $431.9 \mu\text{g m}^{-3}$  for total initial VOCs, with  
58 unspecified NMHCs and OVOCs contributing  $40.8$  and  $33.2 \mu\text{g m}^{-3}$ , respectively. Conversely, when applying the maximum  
59 MIR values, the estimated OFPs for unspecified NMHCs and OVOCs increased to  $55.5$  and  $126.4 \mu\text{g m}^{-3}$ , respectively. This  
60 corresponds to a total OFP of  $539.8 \mu\text{g m}^{-3}$  for total initial VOCs. Consequently, the contribution of unspecified VOCs to the  
61 total OFP ranges from 17.1% (minimum MIR case) to 42.0% (maximum MIR case), confirming their significant role as  $\text{O}_3$   
62 precursors regardless of the isomer assignment. Ultimately, the cumulative uncertainties for the estimated OFP of  
63 unspecified NMHCs and OVOCs were determined to be 0–67.2% and 0–209.8%, respectively.

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

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

75

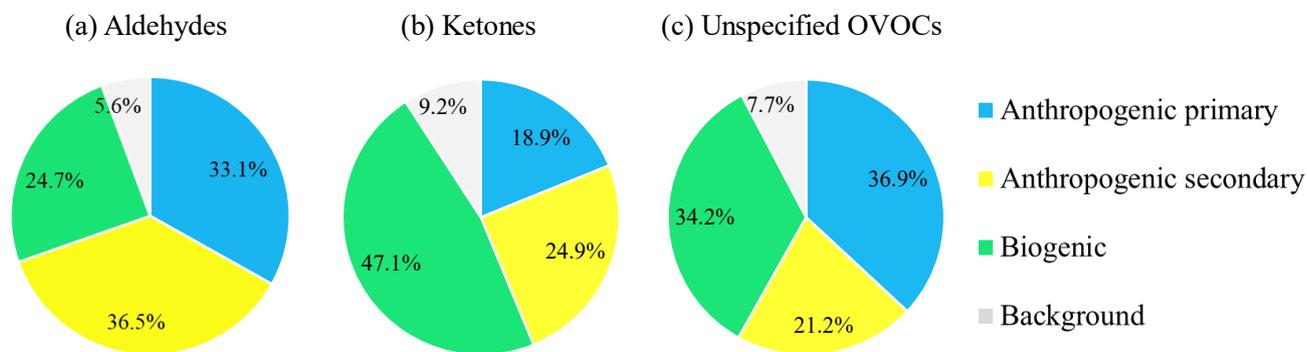
76  
77  
78



79

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

82  
83  
84  
85  
86

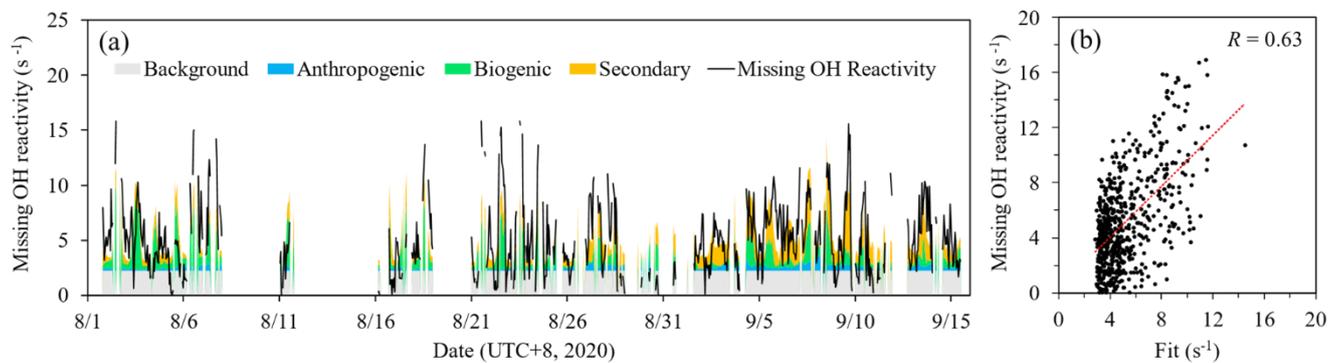


87

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

89  
90

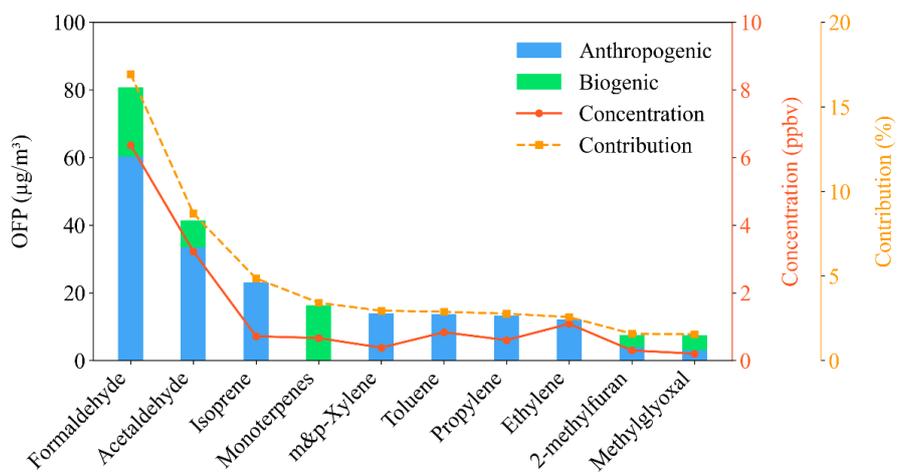
91  
92  
93  
94



95

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

97  
98  
99  
100

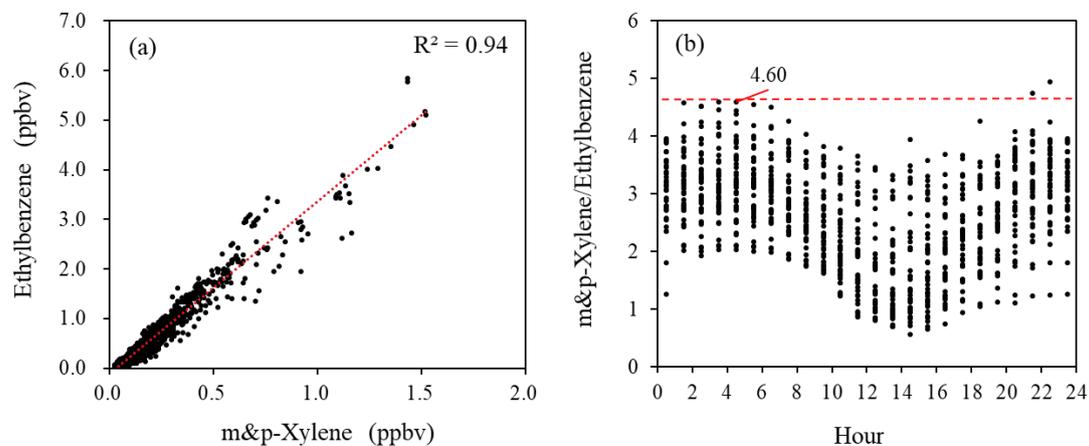


101

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

103

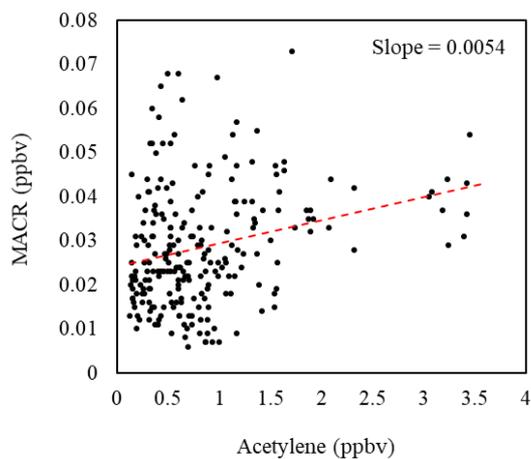
104  
105  
106



107

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

110  
111  
112

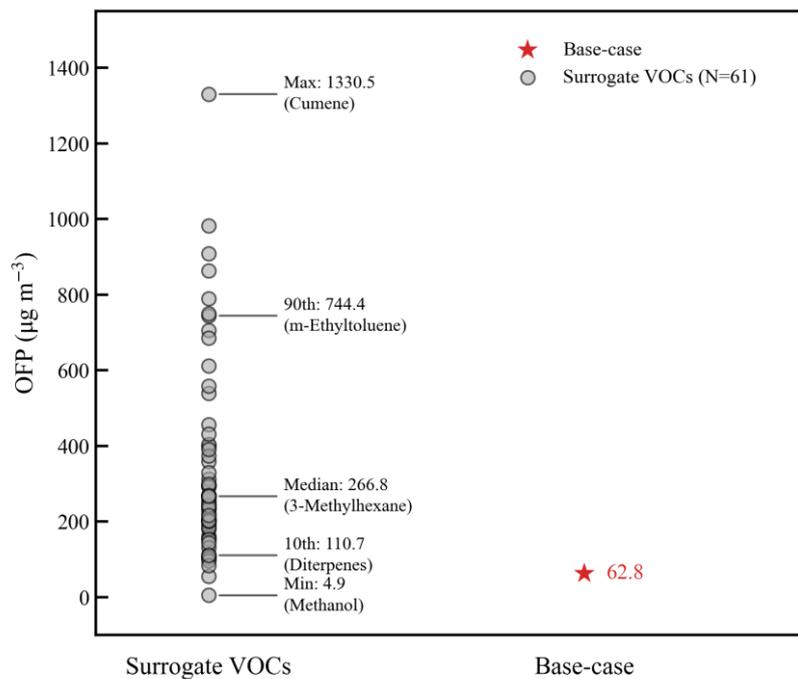


113

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

115

116  
117  
118  
119  
120



121

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

124 **Table S1.** The average, median, 10<sup>th</sup> percentile, and 90<sup>th</sup> percentile concentrations of VOCs detected during the whole  
 125 campaign.

Categories	Components or m/z	Formula	Concentration (ppbv)				Detector
			Average	Median	10 <sup>th</sup> percentile	90 <sup>th</sup> percentile	
Alkanes	Ethane	C <sub>2</sub> H <sub>6</sub>	1.43	1.10	0.56	2.59	GC-MS/FID
	Propane	C <sub>3</sub> H <sub>8</sub>	4.63	2.38	1.20	13.39	GC-MS/FID
	Isobutane	C <sub>4</sub> H <sub>10</sub>	1.11	0.85	0.32	2.18	GC-MS/FID
	n-Butane	C <sub>4</sub> H <sub>10</sub>	1.38	1.08	0.45	2.62	GC-MS/FID
	Cyclopentane	C <sub>5</sub> H <sub>10</sub>	0.05	0.04	0.02	0.11	GC-MS/FID
	Isopentane	C <sub>5</sub> H <sub>12</sub>	0.73	0.59	0.23	1.34	GC-MS/FID
	n-Pentane	C <sub>5</sub> H <sub>12</sub>	0.38	0.30	0.12	0.71	GC-MS/FID
	2,2-Dimethylbutane	C <sub>6</sub> H <sub>14</sub>	0.04	0.03	0.02	0.06	GC-MS/FID
	Methylcyclopentane	C <sub>6</sub> H <sub>12</sub>	0.12	0.05	0.01	0.27	GC-MS/FID
	2,3-Dimethylbutane	C <sub>6</sub> H <sub>14</sub>	0.01	0.01	0.00	0.03	GC-MS/FID
	2-Methylpentane	C <sub>6</sub> H <sub>14</sub>	0.15	0.12	0.05	0.29	GC-MS/FID
	3-Methylpentane	C <sub>6</sub> H <sub>14</sub>	0.12	0.10	0.03	0.23	GC-MS/FID
	n-Hexane	C <sub>6</sub> H <sub>14</sub>	1.67	0.15	0.05	8.97	GC-MS/FID
	2,4-Dimethylpentane	C <sub>7</sub> H <sub>16</sub>	0.01	0.00	0.00	0.02	GC-MS/FID
	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	0.12	0.05	0.01	0.28	GC-MS/FID
	2-Methylhexane	C <sub>7</sub> H <sub>16</sub>	0.05	0.03	0.01	0.10	GC-MS/FID
	2,3-Dimethylpentane	C <sub>7</sub> H <sub>16</sub>	0.02	0.01	0.00	0.04	GC-MS/FID
	3-Methylhexane	C <sub>7</sub> H <sub>16</sub>	0.06	0.03	0.01	0.12	GC-MS/FID
	2,2,4-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	0.02	0.01	0.00	0.04	GC-MS/FID
	n-Heptane	C <sub>7</sub> H <sub>16</sub>	0.10	0.04	0.01	0.23	GC-MS/FID
	Methylcyclohexane	C <sub>7</sub> H <sub>14</sub>	0.07	0.04	0.01	0.13	GC-MS/FID
	2,3,4-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	0.01	0.00	0.00	0.01	GC-MS/FID
	2-Methylheptane	C <sub>8</sub> H <sub>18</sub>	0.03	0.02	0.00	0.05	GC-MS/FID
	3-Methylheptane	C <sub>8</sub> H <sub>18</sub>	0.02	0.01	0.00	0.03	GC-MS/FID
	n-Octane	C <sub>8</sub> H <sub>18</sub>	0.03	0.02	0.01	0.06	GC-MS/FID
	n-Nonane	C <sub>9</sub> H <sub>20</sub>	0.02	0.01	0.01	0.03	GC-MS/FID
	n-Decane	C <sub>10</sub> H <sub>22</sub>	0.02	0.02	0.01	0.05	GC-MS/FID
	n-Undecane	C <sub>11</sub> H <sub>24</sub>	0.02	0.02	0.01	0.05	GC-MS/FID
	n-Dodecane	C <sub>12</sub> H <sub>26</sub>	0.04	0.02	0.01	0.07	GC-MS/FID
	Alkenes	Ethylene	C <sub>2</sub> H <sub>4</sub>	1.18	0.96	0.48	2.07
Propylene		C <sub>3</sub> H <sub>6</sub>	0.58	0.47	0.21	1.09	GC-MS/FID
trans-2-Butene		C <sub>4</sub> H <sub>8</sub>	0.03	0.02	0.01	0.07	GC-MS/FID
1-Butene		C <sub>4</sub> H <sub>8</sub>	0.07	0.06	0.03	0.12	GC-MS/FID
cis-2-Butene		C <sub>4</sub> H <sub>8</sub>	0.04	0.03	0.02	0.08	GC-MS/FID
trans-2-Pentene		C <sub>5</sub> H <sub>10</sub>	0.01	0.01	0.00	0.01	GC-MS/FID
	1-Pentene	C <sub>5</sub> H <sub>10</sub>	0.01	0.01	0.00	0.02	GC-MS/FID

	cis-2-Pentene	C <sub>5</sub> H <sub>10</sub>	0.00	0.00	0.00	0.01	GC-MS/FID
	Isoprene	C <sub>5</sub> H <sub>8</sub>	0.35	0.12	0.01	1.09	GC-MS/FID
	1-Hexene	C <sub>6</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	GC-MS/FID
Alkyne	Acetylene	C <sub>2</sub> H <sub>2</sub>	0.79	0.70	0.26	1.38	GC-MS/FID
	Benzene	C <sub>6</sub> H <sub>6</sub>	0.25	0.21	0.08	0.47	GC-MS/FID
	Toluene	C <sub>7</sub> H <sub>8</sub>	1.44	0.83	0.26	3.60	GC-MS/FID
	Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	0.24	0.18	0.06	0.52	GC-MS/FID
	m/p-Xylene	C <sub>8</sub> H <sub>10</sub>	0.72	0.46	0.09	1.68	GC-MS/FID
	Styrene	C <sub>8</sub> H <sub>8</sub>	0.06	0.04	0.01	0.14	GC-MS/FID
	o-Xylene	C <sub>8</sub> H <sub>10</sub>	0.22	0.14	0.03	0.50	GC-MS/FID
	Cumene	C <sub>9</sub> H <sub>12</sub>	0.02	0.01	0.01	0.04	GC-MS/FID
Aromatics	n-Propylbenzene	C <sub>9</sub> H <sub>12</sub>	0.01	0.01	0.01	0.02	GC-MS/FID
	m-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	0.02	0.01	0.01	0.04	GC-MS/FID
	p-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	GC-MS/FID
	1,3,5-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	GC-MS/FID
	o-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	GC-MS/FID
	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	0.02	0.02	0.01	0.05	GC-MS/FID
	1,2,3-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	0.01	0.01	0.00	0.03	GC-MS/FID
	m-Diethylbenzene	C <sub>10</sub> H <sub>14</sub>	0.01	0.01	0.00	0.01	GC-MS/FID
	p-Diethylbenzene	C <sub>10</sub> H <sub>14</sub>	0.01	0.01	0.00	0.02	GC-MS/FID
	Formaldehyde	CH <sub>2</sub> O	5.57	5.13	2.50	9.33	Kore-PTR
	Acetaldehyde	C <sub>2</sub> H <sub>4</sub> O	2.99	2.94	1.64	4.46	Kore-PTR
	Acrolein	C <sub>3</sub> H <sub>4</sub> O	0.04	0.03	0.02	0.06	GC-MS/FID
Aldehydes	Propanal	C <sub>3</sub> H <sub>6</sub> O	0.04	0.04	0.02	0.06	GC-MS/FID
	MACR	C <sub>4</sub> H <sub>6</sub> O	0.07	0.05	0.02	0.16	GC-MS/FID
	Butanal	C <sub>4</sub> H <sub>8</sub> O	0.06	0.04	0.02	0.11	GC-MS/FID
	Pentanal	C <sub>5</sub> H <sub>10</sub> O	0.02	0.02	0.00	0.04	GC-MS/FID
	Hexanal	C <sub>6</sub> H <sub>12</sub> O	0.12	0.07	0.01	0.29	GC-MS/FID
	Acetone	C <sub>3</sub> H <sub>6</sub> O	3.30	2.66	1.15	6.12	GC-MS/FID
	Butenone	C <sub>4</sub> H <sub>6</sub> O	0.05	0.03	0.01	0.11	GC-MS/FID
Ketones	2-Butanone	C <sub>4</sub> H <sub>8</sub> O	0.24	0.18	0.07	0.43	GC-MS/FID
	2-Pentanone	C <sub>5</sub> H <sub>10</sub> O	0.02	0.02	0.00	0.04	GC-MS/FID
	3-Pentanone	C <sub>5</sub> H <sub>10</sub> O	0.01	0.01	0.00	0.02	GC-MS/FID
	64.0313	C <sub>5</sub> H <sub>4</sub>	0.04	0.04	0.01	0.08	Vocus-PTR
	66.0469	C <sub>5</sub> H <sub>6</sub>	0.13	0.12	0.05	0.22	Vocus-PTR
	80.0626	C <sub>6</sub> H <sub>8</sub>	0.66	0.56	0.20	1.27	Vocus-PTR
	82.0782	C <sub>6</sub> H <sub>10</sub>	0.17	0.15	0.09	0.25	Vocus-PTR
Other HCs	90.0469	C <sub>7</sub> H <sub>6</sub>	1.66	1.30	0.32	3.38	Vocus-PTR
	94.0782	C <sub>7</sub> H <sub>10</sub>	0.28	0.26	0.08	0.48	Vocus-PTR
	96.0939	C <sub>7</sub> H <sub>12</sub>	0.08	0.06	0.04	0.13	Vocus-PTR
	98.1096	C <sub>7</sub> H <sub>14</sub>	0.01	0.01	0.01	0.02	Vocus-PTR

---

102.0469	C <sub>8</sub> H <sub>6</sub>	0.05	0.04	0.00	0.09	Vocus-PTR
108.0939	C <sub>8</sub> H <sub>12</sub>	0.16	0.14	0.04	0.26	Vocus-PTR
110.1095	C <sub>8</sub> H <sub>14</sub>	0.06	0.05	0.03	0.10	Vocus-PTR
112.1252	C <sub>8</sub> H <sub>16</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
116.0626	C <sub>9</sub> H <sub>8</sub>	0.02	0.02	0.00	0.04	Vocus-PTR
118.0782	C <sub>9</sub> H <sub>10</sub>	0.10	0.08	0.02	0.18	Vocus-PTR
122.1095	C <sub>9</sub> H <sub>14</sub>	0.06	0.06	0.03	0.10	Vocus-PTR
124.1252	C <sub>9</sub> H <sub>16</sub>	0.03	0.02	0.01	0.04	Vocus-PTR
126.1408	C <sub>9</sub> H <sub>18</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
128.0626	C <sub>10</sub> H <sub>8</sub>	0.08	0.06	0.02	0.15	Vocus-PTR
130.0782	C <sub>10</sub> H <sub>10</sub>	0.02	0.01	0.00	0.03	Vocus-PTR
132.0939	C <sub>10</sub> H <sub>12</sub>	0.05	0.04	0.01	0.09	Vocus-PTR
136.1252	C <sub>10</sub> H <sub>16</sub>	0.34	0.16	0.04	0.94	Vocus-PTR
138.1408	C <sub>10</sub> H <sub>18</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
140.0626	C <sub>11</sub> H <sub>8</sub>	0.03	0.02	0.00	0.06	Vocus-PTR
140.1565	C <sub>10</sub> H <sub>20</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
142.0782	C <sub>11</sub> H <sub>10</sub>	0.03	0.02	0.01	0.05	Vocus-PTR
144.0939	C <sub>11</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
146.1095	C <sub>11</sub> H <sub>14</sub>	0.02	0.02	0.01	0.04	Vocus-PTR
148.1252	C <sub>11</sub> H <sub>16</sub>	0.03	0.03	0.01	0.06	Vocus-PTR
150.1408	C <sub>11</sub> H <sub>18</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
152.1565	C <sub>11</sub> H <sub>20</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
154.0782	C <sub>12</sub> H <sub>10</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
154.1721	C <sub>11</sub> H <sub>22</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
156.0939	C <sub>12</sub> H <sub>12</sub>	0.02	0.01	0.00	0.03	Vocus-PTR
158.1095	C <sub>12</sub> H <sub>14</sub>	0.02	0.02	0.00	0.03	Vocus-PTR
160.1252	C <sub>12</sub> H <sub>16</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
162.1408	C <sub>12</sub> H <sub>18</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
164.1565	C <sub>12</sub> H <sub>20</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
166.1721	C <sub>12</sub> H <sub>22</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
168.0939	C <sub>13</sub> H <sub>12</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
168.1878	C <sub>12</sub> H <sub>24</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
170.1095	C <sub>13</sub> H <sub>14</sub>	0.02	0.01	0.00	0.02	Vocus-PTR
172.1252	C <sub>13</sub> H <sub>16</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
174.1408	C <sub>13</sub> H <sub>18</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
176.1565	C <sub>13</sub> H <sub>20</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
178.0782	C <sub>14</sub> H <sub>10</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
178.1721	C <sub>13</sub> H <sub>22</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
180.1878	C <sub>13</sub> H <sub>24</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
182.1095	C <sub>14</sub> H <sub>14</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
182.2034	C <sub>13</sub> H <sub>26</sub>	0.00	0.00	0.00	0.01	Vocus-PTR

---

	184.1252	C <sub>14</sub> H <sub>16</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
	186.1408	C <sub>14</sub> H <sub>18</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
	188.1565	C <sub>14</sub> H <sub>20</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
	190.1721	C <sub>14</sub> H <sub>22</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
	192.1878	C <sub>14</sub> H <sub>24</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
	194.2034	C <sub>14</sub> H <sub>26</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
	196.2191	C <sub>14</sub> H <sub>28</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
	204.1878	C <sub>15</sub> H <sub>24</sub>	0.03	0.02	0.01	0.05	Vocus-PTR
	60.0211	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	3.24	2.59	1.08	5.77	Vocus-PTR
	62.0368	C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	0.05	0.04	0.01	0.09	Vocus-PTR
	68.0262	C <sub>4</sub> H <sub>4</sub> O	0.07	0.06	0.03	0.10	Vocus-PTR
	72.0211	C <sub>3</sub> H <sub>2</sub> O <sub>2</sub>	0.15	0.13	0.05	0.28	Vocus-PTR
	74.0368	C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	1.54	1.03	0.35	3.17	Vocus-PTR
	76.016	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	0.03	0.02	0.00	0.05	Vocus-PTR
	76.0524	C <sub>2</sub> H <sub>4</sub> O <sub>3</sub>	0.87	0.76	0.33	1.46	Vocus-PTR
	78.0317	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	1.09	0.91	0.40	1.98	Vocus-PTR
	80.0262	C <sub>2</sub> H <sub>6</sub> O <sub>3</sub>	0.06	0.04	0.02	0.12	Vocus-PTR
	82.0418	C <sub>5</sub> H <sub>6</sub> O	0.23	0.21	0.06	0.41	Vocus-PTR
	84.0211	C <sub>4</sub> H <sub>4</sub> O <sub>2</sub>	0.09	0.08	0.04	0.13	Vocus-PTR
	84.0575	C <sub>5</sub> H <sub>8</sub> O	0.05	0.04	0.02	0.08	Vocus-PTR
	86.0368	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	0.30	0.26	0.11	0.51	Vocus-PTR
	88.016	C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	0.19	0.15	0.11	0.31	Vocus-PTR
	88.0524	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0.97	0.70	0.28	1.71	Vocus-PTR
	90.0317	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	0.29	0.18	0.06	0.67	Vocus-PTR
Other OVOCs	90.0681	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	0.29	0.21	0.08	0.56	Vocus-PTR
	92.0473	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	0.39	0.24	0.07	0.85	Vocus-PTR
	94.0418	C <sub>6</sub> H <sub>6</sub> O	0.11	0.06	0.02	0.16	Vocus-PTR
	96.0211	C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	0.33	0.20	0.09	0.81	Vocus-PTR
	96.0575	C <sub>6</sub> H <sub>8</sub> O	0.04	0.04	0.01	0.08	Vocus-PTR
	98.0368	C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	0.19	0.19	0.09	0.29	Vocus-PTR
	98.0731	C <sub>6</sub> H <sub>10</sub> O	0.07	0.05	0.02	0.11	Vocus-PTR
	100.016	C <sub>4</sub> H <sub>4</sub> O <sub>3</sub>	0.07	0.05	0.03	0.11	Vocus-PTR
	100.0524	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0.32	0.26	0.13	0.57	Vocus-PTR
	102.0317	C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	0.07	0.06	0.03	0.12	Vocus-PTR
	102.0681	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	0.08	0.05	0.03	0.13	Vocus-PTR
	104.0473	C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>	0.06	0.05	0.02	0.12	Vocus-PTR
	104.0837	C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	0.04	0.04	0.02	0.07	Vocus-PTR
	106.0266	C <sub>3</sub> H <sub>6</sub> O <sub>4</sub>	0.07	0.06	0.03	0.10	Vocus-PTR
	106.0418	C <sub>7</sub> H <sub>6</sub> O	0.12	0.09	0.04	0.23	Vocus-PTR
	106.063	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	0.32	0.22	0.06	0.63	Vocus-PTR
	108.0575	C <sub>7</sub> H <sub>8</sub> O	0.16	0.15	0.05	0.29	Vocus-PTR

110.0368	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	0.01	0.02	0.01	0.04	Vocus-PTR
110.0731	C <sub>7</sub> H <sub>10</sub> O	0.04	0.03	0.01	0.07	Vocus-PTR
112.016	C <sub>5</sub> H <sub>4</sub> O <sub>3</sub>	0.13	0.12	0.05	0.22	Vocus-PTR
112.0524	C <sub>6</sub> H <sub>8</sub> O <sub>2</sub>	0.11	0.11	0.04	0.19	Vocus-PTR
112.0888	C <sub>7</sub> H <sub>12</sub> O	0.02	0.01	0.01	0.03	Vocus-PTR
113.9953	C <sub>4</sub> H <sub>2</sub> O <sub>4</sub>	0.02	0.02	0.00	0.04	Vocus-PTR
114.0317	C <sub>5</sub> H <sub>6</sub> O <sub>3</sub>	0.11	0.10	0.05	0.17	Vocus-PTR
114.0681	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	0.10	0.09	0.04	0.18	Vocus-PTR
114.1044	C <sub>7</sub> H <sub>14</sub> O	0.01	0.01	0.00	0.02	Vocus-PTR
116.0109	C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	0.04	0.03	0.02	0.08	Vocus-PTR
116.0473	C <sub>5</sub> H <sub>8</sub> O <sub>3</sub>	0.08	0.07	0.04	0.15	Vocus-PTR
116.0837	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	0.12	0.10	0.04	0.23	Vocus-PTR
118.0266	C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	0.07	0.07	0.04	0.10	Vocus-PTR
118.063	C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	0.04	0.03	0.02	0.08	Vocus-PTR
118.0994	C <sub>7</sub> H <sub>4</sub> O <sub>2</sub>	0.04	0.03	0.02	0.08	Vocus-PTR
120.0211	C <sub>4</sub> H <sub>8</sub> O <sub>4</sub>	0.03	0.02	0.01	0.05	Vocus-PTR
120.0422	C <sub>8</sub> H <sub>8</sub> O	0.02	0.02	0.01	0.03	Vocus-PTR
120.0575	C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	0.08	0.06	0.02	0.13	Vocus-PTR
122.0368	C <sub>8</sub> H <sub>10</sub> O	0.07	0.06	0.02	0.12	Vocus-PTR
122.0731	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	0.05	0.04	0.01	0.09	Vocus-PTR
124.0524	C <sub>8</sub> H <sub>12</sub> O	0.17	0.14	0.05	0.31	Vocus-PTR
124.0888	C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	0.04	0.04	0.01	0.07	Vocus-PTR
126.0681	C <sub>8</sub> H <sub>14</sub> O	0.04	0.04	0.02	0.08	Vocus-PTR
126.1044	C <sub>5</sub> H <sub>4</sub> O <sub>4</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
128.0109	C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>	0.02	0.02	0.01	0.04	Vocus-PTR
128.0473	C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	0.04	0.03	0.01	0.07	Vocus-PTR
128.0837	C <sub>8</sub> H <sub>16</sub> O	0.05	0.05	0.02	0.10	Vocus-PTR
128.1201	C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
130.0266	C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	0.08	0.07	0.04	0.11	Vocus-PTR
130.063	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	0.03	0.03	0.01	0.06	Vocus-PTR
130.0994	C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
132.0422	C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	0.03	0.03	0.02	0.05	Vocus-PTR
132.0786	C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	0.04	0.03	0.02	0.06	Vocus-PTR
132.115	C <sub>8</sub> H <sub>6</sub> O <sub>2</sub>	0.01	0.01	0.01	0.03	Vocus-PTR
134.0368	C <sub>9</sub> H <sub>10</sub> O	0.03	0.03	0.00	0.05	Vocus-PTR
134.0731	C <sub>7</sub> H <sub>4</sub> O <sub>3</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
136.016	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
136.0524	C <sub>9</sub> H <sub>12</sub> O	0.07	0.06	0.01	0.13	Vocus-PTR
136.0888	C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	0.02	0.02	0.00	0.04	Vocus-PTR
138.0317	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	0.02	0.02	0.01	0.04	Vocus-PTR
138.0681	C <sub>9</sub> H <sub>14</sub> O	0.06	0.05	0.02	0.10	Vocus-PTR

138.1044	C <sub>7</sub> H <sub>8</sub> O <sub>3</sub>	0.04	0.03	0.01	0.09	Vocus-PTR
140.0473	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	0.03	0.03	0.02	0.06	Vocus-PTR
140.0837	C <sub>9</sub> H <sub>16</sub> O	0.02	0.02	0.01	0.04	Vocus-PTR
140.1201	C <sub>7</sub> H <sub>10</sub> O <sub>3</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
142.063	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
142.0994	C <sub>9</sub> H <sub>18</sub> O	0.03	0.03	0.01	0.05	Vocus-PTR
142.1357	C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	0.02	0.01	0.01	0.03	Vocus-PTR
144.0422	C <sub>7</sub> H <sub>12</sub> O <sub>3</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
144.0786	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
144.115	C <sub>9</sub> H <sub>6</sub> O <sub>2</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
146.0368	C <sub>6</sub> H <sub>10</sub> O <sub>4</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
146.0579	C <sub>10</sub> H <sub>10</sub> O	0.02	0.01	0.01	0.03	Vocus-PTR
146.0731	C <sub>8</sub> H <sub>18</sub> O <sub>2</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
146.1307	C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
148.0524	C <sub>10</sub> H <sub>12</sub> O	0.01	0.01	0.00	0.02	Vocus-PTR
148.0888	C <sub>8</sub> H <sub>6</sub> O <sub>3</sub>	0.02	0.01	0.00	0.03	Vocus-PTR
150.0317	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
150.0681	C <sub>10</sub> H <sub>14</sub> O	0.02	0.02	0.01	0.03	Vocus-PTR
150.1044	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	0.02	0.02	0.01	0.04	Vocus-PTR
152.0473	C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	0.05	0.04	0.01	0.08	Vocus-PTR
152.0837	C <sub>10</sub> H <sub>16</sub> O	0.02	0.02	0.01	0.04	Vocus-PTR
152.1201	C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>	0.04	0.04	0.02	0.07	Vocus-PTR
154.0266	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
154.063	C <sub>9</sub> H <sub>14</sub> O <sub>2</sub>	0.02	0.01	0.00	0.03	Vocus-PTR
154.0994	C <sub>10</sub> H <sub>18</sub> O	0.02	0.02	0.01	0.03	Vocus-PTR
154.1357	C <sub>7</sub> H <sub>8</sub> O <sub>4</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
156.0422	C <sub>8</sub> H <sub>12</sub> O <sub>3</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
156.0786	C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	0.01	0.01	0.01	0.02	Vocus-PTR
156.115	C <sub>10</sub> H <sub>20</sub> O	0.03	0.02	0.01	0.05	Vocus-PTR
158.0579	C <sub>7</sub> H <sub>10</sub> O <sub>4</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
160.0888	C <sub>11</sub> H <sub>12</sub> O	0.02	0.01	0.00	0.02	Vocus-PTR
160.1463	C <sub>9</sub> H <sub>20</sub> O <sub>2</sub>	0.03	0.02	0.01	0.04	Vocus-PTR
162.0317	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>	0.07	0.05	0.01	0.12	Vocus-PTR
162.0681	C <sub>11</sub> H <sub>14</sub> O	0.02	0.02	0.01	0.03	Vocus-PTR
162.1044	C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	0.01	0.01	0.00	0.01	Vocus-PTR
164.0473	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
164.0837	C <sub>11</sub> H <sub>16</sub> O	0.01	0.01	0.00	0.02	Vocus-PTR
164.1201	C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
166.0266	C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	0.05	0.05	0.01	0.11	Vocus-PTR
166.063	C <sub>10</sub> H <sub>14</sub> O <sub>2</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
166.0994	C <sub>11</sub> H <sub>18</sub> O	0.02	0.02	0.01	0.03	Vocus-PTR

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

194.1671	C <sub>13</sub> H <sub>22</sub> O	0.00	0.00	0.00	0.01	Vocus-PTR
196.0888	C <sub>14</sub> H <sub>12</sub> O	0.00	0.00	0.00	0.01	Vocus-PTR
196.1463	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
196.1827	C <sub>13</sub> H <sub>24</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
198.0681	C <sub>13</sub> H <sub>10</sub> O <sub>2</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
198.0892	C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
198.162	C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	0.01	0.01	0.00	0.02	Vocus-PTR
198.1983	C <sub>13</sub> H <sub>26</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
200.0837	C <sub>13</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
200.1201	C <sub>14</sub> H <sub>16</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
202.0994	C <sub>13</sub> H <sub>14</sub> O <sub>2</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
202.1357	C <sub>14</sub> H <sub>18</sub> O	0.00	0.00	0.00	0.01	Vocus-PTR
204.115	C <sub>13</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
204.1514	C <sub>14</sub> H <sub>20</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
206.1307	C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>	0.00	0.00	0.00	0.00	Vocus-PTR
206.1671	C <sub>14</sub> H <sub>22</sub> O	0.00	0.00	0.00	0.01	Vocus-PTR
208.1463	C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
208.1827	C <sub>14</sub> H <sub>24</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
210.1983	C <sub>14</sub> H <sub>26</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
212.1776	C <sub>13</sub> H <sub>24</sub> O <sub>2</sub>	0.00	0.00	0.00	0.01	Vocus-PTR
212.214	C <sub>14</sub> H <sub>28</sub> O	0.00	0.00	0.00	0.00	Vocus-PTR
220.1463	C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>	0.01	0.00	0.00	0.01	Vocus-PTR
57.0214	C <sub>2</sub> H <sub>3</sub> NO	0.00	0.00	0.00	0.01	Vocus-PTR
59.0371	C <sub>2</sub> H <sub>5</sub> NO	0.06	0.05	0.01	0.13	Vocus-PTR
71.0371	C <sub>3</sub> H <sub>5</sub> NO	0.03	0.03	0.01	0.05	Vocus-PTR
73.0164	C <sub>2</sub> H <sub>3</sub> NO <sub>2</sub>	0.03	0.03	0.01	0.04	Vocus-PTR
73.0527	C <sub>3</sub> H <sub>7</sub> NO	0.23	0.11	0.02	0.50	Vocus-PTR
75.0684	C <sub>3</sub> H <sub>9</sub> NO	0.00	0.00	0.00	0.00	Vocus-PTR
85.0527	C <sub>4</sub> H <sub>7</sub> NO	0.02	0.02	0.00	0.02	Vocus-PTR
87.032	C <sub>3</sub> H <sub>5</sub> NO <sub>2</sub>	0.05	0.04	0.02	0.08	Vocus-PTR
87.0684	C <sub>4</sub> H <sub>9</sub> NO	0.04	0.02	0.01	0.08	Vocus-PTR
99.0684	C <sub>5</sub> H <sub>9</sub> NO	0.01	0.01	0.00	0.02	Vocus-PTR
101.0477	C <sub>4</sub> H <sub>7</sub> NO <sub>2</sub>	0.08	0.07	0.03	0.13	Vocus-PTR
101.084	C <sub>5</sub> H <sub>11</sub> NO	0.02	0.02	0.01	0.03	Vocus-PTR
113.0477	C <sub>5</sub> H <sub>7</sub> NO <sub>2</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
113.084	C <sub>6</sub> H <sub>11</sub> NO	0.01	0.01	0.00	0.02	Vocus-PTR
121.0527	C <sub>7</sub> H <sub>7</sub> NO	0.04	0.03	0.01	0.06	Vocus-PTR
139.0269	C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	0.02	0.02	0.01	0.03	Vocus-PTR
153.0426	C <sub>7</sub> H <sub>7</sub> NO <sub>3</sub>	0.01	0.01	0.00	0.02	Vocus-PTR

127 **Table S2.** The photolysis correction coefficient of carbonyls.

<b>Carbonyls</b>	<b><math>k_{\text{OVOC}}</math></b> $10^{-12} \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	<b><math>f</math></b>
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

128

OVOCs	ER <sub>ovoc</sub>	ER <sub>precursor</sub>	k <sub>precursor</sub>	ER <sub>biogenic</sub>	Background
	ppbv ppbv <sup>-1</sup> acetylene	ppbv ppbv <sup>-1</sup> acetylene	cm <sup>3</sup> molecule <sup>-1</sup> s <sup>-1</sup>	ppbv ppbv <sup>-1</sup> 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 <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	1.09	0.82	3.02E-11	0.84	0.26
C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	0.03	0.25	2.29E-12	0.01	0.00
C <sub>4</sub> H <sub>4</sub> O	0.04	1.47	1.38E-12	0.02	0.00
C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	0.01	5.49	6.63E-13	0.09	0.00
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	0.90	2.63	1.14E-12	0.51	0.00
C <sub>2</sub> H <sub>4</sub> O <sub>3</sub>	0.00	0.29	2.42E-12	0.00	0.00
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	0.53	9.77	1.43E-12	0.11	0.03
C <sub>2</sub> H <sub>6</sub> O <sub>3</sub>	0.83	10.00	4.94E-13	0.27	0.02
C <sub>3</sub> H <sub>4</sub> O	0.03	1.38	5.43E-13	0.01	0.00
C <sub>3</sub> H <sub>6</sub> O	0.13	7.27	1.05E-12	0.09	0.00
C <sub>4</sub> H <sub>4</sub> O <sub>2</sub>	0.03	3.36	1.07E-12	0.02	0.01
C <sub>3</sub> H <sub>8</sub> O	0.03	0.45	1.66E-12	0.01	0.00
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	0.07	0.46	1.13E-11	0.10	0.00
C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	0.08	0.06	1.00E-14	0.04	0.00
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0.84	0.00	1.00E-14	0.00	0.09
C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	0.17	6.43	1.32E-12	0.05	0.00
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	0.28	3.60	3.29E-12	0.00	0.00
C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	0.06	0.64	2.05E-11	0.11	0.01
C <sub>6</sub> H <sub>6</sub> O	0.08	0.66	3.01E-12	0.03	0.01
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	0.17	9.61	1.24E-12	0.00	0.01
C <sub>6</sub> H <sub>8</sub> O	0.00	10.00	2.37E-13	0.02	0.00
C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	0.09	0.81	4.47E-12	0.06	0.00
C <sub>6</sub> H <sub>10</sub> O	0.04	1.34	1.66E-13	0.01	0.01

C <sub>4</sub> H <sub>4</sub> O <sub>3</sub>	0.03	1.32	9.09E-13	0.00	0.00
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0.07	4.21	1.77E-12	0.08	0.02
C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	0.02	10.00	2.15E-13	0.02	0.01
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	0.06	0.04	3.29E-12	0.01	0.01
C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>	0.02	10.00	1.97E-13	0.03	0.00
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	0.02	0.28	3.26E-12	0.01	0.00
C <sub>3</sub> H <sub>6</sub> O <sub>4</sub>	0.05	0.56	2.27E-12	0.02	0.00
C <sub>7</sub> H <sub>6</sub> O	0.07	0.18	1.21E-11	0.02	0.00
C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	0.31	7.12	1.91E-13	0.06	0.00
C <sub>7</sub> H <sub>8</sub> O	0.11	0.34	7.94E-12	0.05	0.02
C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	0.05	9.77	1.02E-12	0.08	0.01
C <sub>7</sub> H <sub>10</sub> O	0.00	10.00	7.44E-14	0.02	0.00
C <sub>5</sub> H <sub>4</sub> O <sub>3</sub>	0.07	6.18	9.02E-13	0.02	0.01
C <sub>6</sub> H <sub>8</sub> O <sub>2</sub>	0.03	10.00	3.63E-13	0.04	0.02
C <sub>7</sub> H <sub>12</sub> O	0.01	0.07	3.82E-12	0.00	0.00
C <sub>4</sub> H <sub>2</sub> O <sub>4</sub>	0.02	2.99	4.42E-13	0.00	0.00
C <sub>5</sub> H <sub>6</sub> O <sub>3</sub>	0.04	9.98	1.13E-12	0.02	0.00
C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	0.01	10.00	2.03E-13	0.04	0.02
C <sub>7</sub> H <sub>14</sub> O	0.01	0.04	5.03E-12	0.00	0.00
C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	0.02	0.97	1.85E-12	0.00	0.00
C <sub>5</sub> H <sub>8</sub> O <sub>3</sub>	0.03	9.99	6.25E-14	0.03	0.01
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	0.08	0.00	6.71E-11	0.02	0.01
C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	0.03	0.04	1.54E-12	0.03	0.01
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	0.01	0.43	1.97E-12	0.01	0.00
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	0.03	0.22	1.91E-12	0.00	0.00
C <sub>7</sub> H <sub>4</sub> O <sub>2</sub>	0.00	0.67	9.06E-13	0.01	0.00
C <sub>4</sub> H <sub>8</sub> O <sub>4</sub>	0.01	0.21	1.66E-12	0.01	0.00
C <sub>8</sub> H <sub>8</sub> O	0.04	10.00	9.42E-14	0.01	0.01
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	0.03	10.00	2.44E-13	0.02	0.01
C <sub>8</sub> H <sub>10</sub> O	0.04	0.17	1.48E-11	0.01	0.01
C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	0.04	4.60	2.21E-12	0.05	0.00
C <sub>8</sub> H <sub>12</sub> O	0.00	10.00	8.91E-14	0.02	0.01
C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	0.01	0.28	3.62E-12	0.01	0.01
C <sub>8</sub> H <sub>14</sub> O	0.00	0.03	1.00E-10	0.01	0.00
C <sub>5</sub> H <sub>4</sub> O <sub>4</sub>	0.01	0.43	2.23E-12	0.00	0.00
C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>	0.00	3.22	6.17E-13	0.01	0.00
C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	0.01	10.00	1.20E-13	0.02	0.01
C <sub>8</sub> H <sub>16</sub> O	0.00	0.01	2.25E-11	0.00	0.00
C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	0.02	2.50	8.08E-13	0.02	0.01
C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	0.01	10.00	6.32E-14	0.01	0.01
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	0.01	0.01	6.89E-11	0.01	0.00

C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	0.01	2.50	3.87E-13	0.01	0.00
C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	0.02	9.49	3.59E-14	0.01	0.01
C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.01	1.89E-11	0.00	0.00
C <sub>8</sub> H <sub>6</sub> O <sub>2</sub>	0.01	9.97	4.49E-14	0.01	0.01
C <sub>9</sub> H <sub>10</sub> O	0.01	0.01	2.63E-11	0.00	0.00
C <sub>7</sub> H <sub>4</sub> O <sub>3</sub>	0.00	0.04	3.51E-12	0.00	0.00
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	0.02	0.03	7.24E-12	0.04	0.00
C <sub>9</sub> H <sub>12</sub> O	0.01	0.21	9.70E-12	0.00	0.00
C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	0.00	1.40	5.15E-13	0.00	0.00
C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	0.02	10.00	3.31E-13	0.02	0.00
C <sub>9</sub> H <sub>14</sub> O	0.02	0.12	3.87E-14	0.01	0.00
C <sub>7</sub> H <sub>8</sub> O <sub>3</sub>	0.00	10.00	7.66E-14	0.01	0.00
C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.45	1.02E-12	0.01	0.00
C <sub>9</sub> H <sub>16</sub> O	0.00	0.32	1.82E-12	0.00	0.00
C <sub>7</sub> H <sub>10</sub> O <sub>3</sub>	0.00	9.99	3.72E-14	0.01	0.00
C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	0.01	10.00	6.70E-14	0.01	0.00
C <sub>9</sub> H <sub>18</sub> O	0.01	0.04	2.19E-12	0.00	0.00
C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	0.01	0.02	8.01E-12	0.01	0.00
C <sub>7</sub> H <sub>12</sub> O <sub>3</sub>	0.00	0.07	3.42E-12	0.00	0.00
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	0.01	0.00	3.85E-11	0.00	0.00
C <sub>9</sub> H <sub>6</sub> O <sub>2</sub>	0.00	0.09	1.05E-12	0.00	0.00
C <sub>6</sub> H <sub>10</sub> O <sub>4</sub>	0.00	0.83	4.86E-13	0.01	0.00
C <sub>10</sub> H <sub>10</sub> O	0.01	0.03	7.50E-12	0.00	0.00
C <sub>8</sub> H <sub>18</sub> O <sub>2</sub>	0.00	0.14	8.13E-12	0.00	0.00
C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>	0.01	0.10	4.28E-12	0.00	0.00
C <sub>10</sub> H <sub>12</sub> O	0.01	0.11	5.52E-12	0.00	0.00
C <sub>8</sub> H <sub>6</sub> O <sub>3</sub>	0.00	4.57	1.00E-14	0.00	0.00
C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	0.00	10.00	6.80E-14	0.01	0.00
C <sub>10</sub> H <sub>14</sub> O	0.01	0.02	3.13E-11	0.01	0.00
C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	0.06	2.16	1.59E-12	0.02	0.00
C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	0.01	0.11	3.92E-12	0.01	0.00
C <sub>10</sub> H <sub>16</sub> O	0.03	0.00	1.27E-11	0.01	0.00
C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>	0.00	0.23	1.02E-12	0.00	0.00
C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	0.00	10.00	3.15E-14	0.01	0.00
C <sub>9</sub> H <sub>14</sub> O <sub>2</sub>	0.00	0.36	9.25E-13	0.00	0.00
C <sub>10</sub> H <sub>18</sub> O	0.00	0.05	4.23E-12	0.00	0.00
C <sub>7</sub> H <sub>8</sub> O <sub>4</sub>	0.01	0.63	1.04E-12	0.00	0.00
C <sub>8</sub> H <sub>12</sub> O <sub>3</sub>	0.00	10.00	3.32E-14	0.00	0.00
C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.06	7.83E-12	0.01	0.00
C <sub>7</sub> H <sub>10</sub> O <sub>4</sub>	0.00	9.99	2.40E-14	0.00	0.00
C <sub>11</sub> H <sub>12</sub> O	0.00	0.14	1.57E-12	0.00	0.00

C <sub>9</sub> H <sub>20</sub> O <sub>2</sub>	0.01	6.62	2.41E-13	0.01	0.00
C <sub>9</sub> H <sub>6</sub> O <sub>3</sub>	0.00	1.59	7.64E-13	0.02	0.00
C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>	0.01	1.08	1.36E-12	0.01	0.00
C <sub>11</sub> H <sub>14</sub> O	0.00	0.03	3.49E-12	0.00	0.00
C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	0.00	5.90	1.00E-14	0.00	0.00
C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	0.00	10.00	4.38E-14	0.00	0.00
C <sub>11</sub> H <sub>16</sub> O	0.00	0.03	2.86E-12	0.00	0.00
C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	0.00	10.00	1.67E-13	0.03	0.01
C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	0.00	0.40	5.64E-13	0.00	0.00
C <sub>10</sub> H <sub>14</sub> O <sub>2</sub>	0.01	1.16	2.83E-13	0.01	0.00
C <sub>11</sub> H <sub>18</sub> O	0.00	0.06	2.42E-12	0.00	0.00
C <sub>12</sub> H <sub>8</sub> O	0.00	8.32	1.31E-14	0.00	0.00
C <sub>10</sub> H <sub>16</sub> O <sub>2</sub>	0.01	0.07	5.79E-12	0.00	0.00
C <sub>11</sub> H <sub>20</sub> O	0.00	0.01	1.23E-11	0.00	0.00
C <sub>8</sub> H <sub>10</sub> O <sub>4</sub>	0.00	4.63	3.12E-14	0.00	0.00
C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	0.01	0.15	2.42E-12	0.00	0.00
C <sub>11</sub> H <sub>22</sub> O	0.00	0.36	1.06E-12	0.00	0.00
C <sub>8</sub> H <sub>12</sub> O <sub>4</sub>	0.00	10.00	2.02E-14	0.00	0.00
C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.00	1.88E-11	0.00	0.00
C <sub>11</sub> H <sub>10</sub> O <sub>2</sub>	0.00	0.05	2.18E-12	0.00	0.00
C <sub>12</sub> H <sub>14</sub> O	0.01	0.04	2.94E-12	0.00	0.00
C <sub>10</sub> H <sub>8</sub> O <sub>3</sub>	0.00	10.00	2.18E-14	0.00	0.00
C <sub>11</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.11	1.59E-12	0.00	0.00
C <sub>12</sub> H <sub>16</sub> O	0.00	2.23	1.30E-13	0.00	0.00
C <sub>9</sub> H <sub>6</sub> O <sub>4</sub>	0.00	0.35	2.21E-13	0.00	0.00
C <sub>10</sub> H <sub>10</sub> O <sub>3</sub>	0.00	0.05	1.88E-12	0.00	0.00
C <sub>11</sub> H <sub>14</sub> O <sub>2</sub>	0.00	1.53	7.01E-14	0.00	0.00
C <sub>12</sub> H <sub>18</sub> O	0.00	9.65	2.16E-14	0.00	0.00
C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>	0.00	10.00	3.42E-14	0.00	0.00
C <sub>10</sub> H <sub>12</sub> O <sub>3</sub>	0.00	0.12	2.14E-12	0.00	0.00
C <sub>11</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.07	2.20E-12	0.00	0.00
C <sub>12</sub> H <sub>20</sub> O	0.00	0.01	8.47E-12	0.00	0.00
C <sub>13</sub> H <sub>10</sub> O	0.00	0.04	3.46E-12	0.00	0.00
C <sub>11</sub> H <sub>18</sub> O <sub>2</sub>	0.00	0.20	5.83E-13	0.00	0.00
C <sub>12</sub> H <sub>22</sub> O	0.00	0.04	2.13E-12	0.00	0.00
C <sub>9</sub> H <sub>12</sub> O <sub>4</sub>	0.00	0.17	7.73E-13	0.00	0.00
C <sub>11</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.03	6.08E-12	0.00	0.00
C <sub>12</sub> H <sub>24</sub> O	0.00	0.01	3.22E-12	0.00	0.00
C <sub>9</sub> H <sub>14</sub> O <sub>4</sub>	0.00	0.13	6.70E-13	0.00	0.00
C <sub>13</sub> H <sub>14</sub> O	0.00	0.02	1.84E-12	0.00	0.00
C <sub>12</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.08	8.53E-13	0.00	0.00

C <sub>13</sub> H <sub>16</sub> O	0.00	0.15	3.63E-13	0.00	0.00
C <sub>11</sub> H <sub>10</sub> O <sub>3</sub>	0.00	0.09	9.02E-13	0.00	0.00
C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>	0.00	0.03	2.00E-12	0.00	0.00
C <sub>13</sub> H <sub>18</sub> O	0.00	0.01	8.84E-12	0.00	0.00
C <sub>10</sub> H <sub>8</sub> O <sub>4</sub>	0.00	0.04	1.06E-12	0.00	0.00
C <sub>12</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.02	2.46E-12	0.00	0.00
C <sub>13</sub> H <sub>20</sub> O	0.00	0.01	7.64E-12	0.00	0.00
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	0.00	0.29	7.49E-13	0.00	0.00
C <sub>11</sub> H <sub>14</sub> O <sub>3</sub>	0.00	0.22	4.89E-13	0.00	0.00
C <sub>12</sub> H <sub>18</sub> O <sub>2</sub>	0.00	0.01	8.64E-12	0.00	0.00
C <sub>13</sub> H <sub>22</sub> O	0.00	0.01	1.01E-11	0.00	0.00
C <sub>14</sub> H <sub>12</sub> O	0.00	0.06	9.30E-13	0.00	0.00
C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.02	6.95E-12	0.00	0.00
C <sub>13</sub> H <sub>24</sub> O	0.00	0.01	7.93E-12	0.00	0.00
C <sub>13</sub> H <sub>10</sub> O <sub>2</sub>	0.00	0.05	5.30E-13	0.00	0.00
C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	0.00	0.24	6.42E-13	0.00	0.00
C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	0.00	0.04	7.68E-12	0.00	0.00
C <sub>13</sub> H <sub>26</sub> O	0.00	0.01	6.18E-12	0.00	0.00
C <sub>13</sub> H <sub>12</sub> O <sub>2</sub>	0.00	0.01	2.57E-12	0.00	0.00
C <sub>14</sub> H <sub>16</sub> O	0.00	0.27	1.85E-13	0.00	0.00
C <sub>13</sub> H <sub>14</sub> O <sub>2</sub>	0.00	0.93	4.12E-14	0.00	0.00
C <sub>14</sub> H <sub>18</sub> O	0.00	0.03	1.41E-12	0.00	0.00
C <sub>13</sub> H <sub>16</sub> O <sub>2</sub>	0.00	0.01	2.98E-12	0.00	0.00
C <sub>14</sub> H <sub>20</sub> O	0.00	0.00	2.47E-11	0.00	0.00
C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>	0.00	0.01	7.26E-12	0.00	0.00
C <sub>14</sub> H <sub>22</sub> O	0.00	0.01	1.62E-11	0.00	0.00
C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.01	4.91E-12	0.00	0.00
C <sub>14</sub> H <sub>24</sub> O	0.00	0.01	5.08E-12	0.00	0.00
C <sub>14</sub> H <sub>26</sub> O	0.00	0.01	8.98E-12	0.00	0.00
C <sub>13</sub> H <sub>24</sub> O <sub>2</sub>	0.00	0.02	3.94E-12	0.00	0.00
C <sub>14</sub> H <sub>28</sub> O	0.00	0.01	3.45E-12	0.00	0.00
C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>	0.00	0.02	5.48E-12	0.00	0.00
C <sub>2</sub> H <sub>3</sub> NO	0.00	0.00	1.14E-11	0.00	0.00
C <sub>2</sub> H <sub>5</sub> NO	0.01	0.31	3.82E-12	0.02	0.01
C <sub>3</sub> H <sub>5</sub> NO	0.01	0.74	1.19E-12	0.01	0.00
C <sub>2</sub> H <sub>3</sub> NO <sub>2</sub>	0.02	0.01	3.98E-12	0.01	0.00
C <sub>3</sub> H <sub>7</sub> NO	0.41	0.00	1.00E-14	0.01	0.00
C <sub>3</sub> H <sub>9</sub> NO	0.00	0.01	5.37E-12	0.00	0.00
C <sub>4</sub> H <sub>7</sub> NO	0.01	1.23	8.63E-13	0.00	0.00
C <sub>3</sub> H <sub>5</sub> NO <sub>2</sub>	0.02	0.38	2.81E-12	0.00	0.00
C <sub>4</sub> H <sub>9</sub> NO	0.02	0.51	1.22E-11	0.00	0.00

C <sub>5</sub> H <sub>9</sub> NO	0.02	0.04	1.10E-12	0.00	0.00
C <sub>4</sub> H <sub>7</sub> NO <sub>2</sub>	0.02	0.10	5.49E-12	0.03	0.00
C <sub>5</sub> H <sub>11</sub> NO	0.01	0.05	4.35E-12	0.00	0.00
C <sub>5</sub> H <sub>7</sub> NO <sub>2</sub>	0.01	0.51	1.24E-12	0.00	0.00
C <sub>6</sub> H <sub>11</sub> NO	0.00	0.15	3.49E-12	0.00	0.00
C <sub>7</sub> H <sub>7</sub> NO	0.02	10.00	2.42E-13	0.01	0.01
C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	0.01	0.01	1.49E-11	0.00	0.00
C <sub>7</sub> H <sub>7</sub> NO <sub>3</sub>	0.00	0.35	1.14E-13	0.00	0.00

---

130

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

133

<b>OVOCs</b>	<b>R</b>	<b>Anthropogenic primary</b>	<b>Anthropogenic secondary</b>	<b>Biogenic</b>	<b>Background</b>
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 <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	0.60	34.7%	11.3%	41.5%	12.5%
C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	0.65	37.3%	17.6%	36.9%	8.1%
C <sub>4</sub> H <sub>4</sub> O	0.75	24.9%	29.8%	43.3%	1.9%
C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	0.76	3.1%	36.7%	58.3%	1.9%
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	0.65	50.5%	5.2%	44.4%	0.0%
C <sub>2</sub> H <sub>4</sub> O <sub>3</sub>	0.62	15.8%	62.5%	13.0%	8.6%
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	0.65	44.8%	29.8%	19.4%	6.0%
C <sub>2</sub> H <sub>6</sub> O <sub>3</sub>	0.67	46.4%	5.7%	45.3%	2.6%
C <sub>5</sub> H <sub>4</sub> O	0.72	47.5%	27.2%	23.5%	1.8%
C <sub>5</sub> H <sub>6</sub> O	0.82	24.7%	25.6%	49.0%	0.7%
C <sub>4</sub> H <sub>4</sub> O <sub>2</sub>	0.73	17.2%	38.9%	33.3%	10.7%
C <sub>5</sub> H <sub>8</sub> O	0.83	37.6%	27.8%	28.9%	5.7%
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	0.78	21.8%	31.6%	44.8%	1.9%
C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	0.83	52.4%	0.0%	45.7%	1.9%
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0.69	84.4%	0.0%	0.0%	15.6%
C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	0.64	34.0%	45.7%	19.8%	0.4%
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	0.79	53.2%	46.8%	0.0%	0.0%

C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	0.62	10.8%	36.0%	47.2%	6.0%
C <sub>6</sub> H <sub>6</sub> O	0.68	36.5%	19.5%	34.7%	9.4%
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	0.62	38.3%	56.6%	0.1%	5.0%
C <sub>6</sub> H <sub>8</sub> O	0.71	0.0%	28.1%	60.4%	11.5%
C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	0.74	29.6%	29.9%	39.7%	0.8%
C <sub>6</sub> H <sub>10</sub> O	0.81	45.7%	8.1%	23.5%	22.7%
C <sub>4</sub> H <sub>4</sub> O <sub>3</sub>	0.30	36.6%	45.6%	12.5%	5.3%
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0.67	15.5%	31.6%	40.5%	12.5%
C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	0.75	11.5%	30.8%	32.0%	25.8%
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	0.58	62.3%	2.2%	22.2%	13.2%
C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>	0.81	16.1%	25.4%	58.5%	0.0%
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	0.71	36.1%	36.1%	19.6%	8.1%
C <sub>3</sub> H <sub>6</sub> O <sub>4</sub>	0.48	39.9%	29.2%	27.9%	3.0%
C <sub>7</sub> H <sub>6</sub> O	0.72	43.0%	25.3%	31.7%	0.0%
C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	0.72	68.9%	9.3%	21.8%	0.0%
C <sub>7</sub> H <sub>8</sub> O	0.77	28.9%	13.3%	40.2%	17.6%
C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	0.56	10.1%	30.9%	55.5%	3.5%
C <sub>7</sub> H <sub>10</sub> O	0.73	0.0%	30.6%	65.8%	3.6%
C <sub>5</sub> H <sub>4</sub> O <sub>3</sub>	0.60	27.9%	39.6%	20.6%	12.0%
C <sub>6</sub> H <sub>8</sub> O <sub>2</sub>	0.68	10.1%	27.4%	42.7%	19.7%
C <sub>7</sub> H <sub>12</sub> O	0.79	29.5%	23.9%	31.6%	15.0%
C <sub>4</sub> H <sub>2</sub> O <sub>4</sub>	0.53	34.5%	63.2%	0.2%	2.1%
C <sub>5</sub> H <sub>6</sub> O <sub>3</sub>	0.60	10.5%	79.6%	8.5%	1.4%
C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	0.82	7.7%	37.2%	38.0%	17.1%
C <sub>7</sub> H <sub>14</sub> O	0.77	30.9%	23.8%	18.7%	26.6%
C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	0.46	28.0%	68.7%	0.1%	3.2%
C <sub>5</sub> H <sub>8</sub> O <sub>3</sub>	0.80	31.4%	16.9%	41.8%	9.9%
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	0.73	63.0%	1.1%	18.9%	17.0%
C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	0.56	34.6%	2.5%	53.0%	9.9%
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	0.63	16.7%	43.6%	33.6%	6.1%
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	0.70	60.6%	19.6%	11.0%	8.8%
C <sub>7</sub> H <sub>4</sub> O <sub>2</sub>	0.44	11.8%	21.7%	66.5%	0.0%
C <sub>4</sub> H <sub>8</sub> O <sub>4</sub>	0.80	33.3%	25.5%	34.4%	6.8%

C <sub>8</sub> H <sub>8</sub> O	0.80	33.8%	21.9%	19.9%	24.4%
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	0.80	18.1%	45.6%	27.6%	8.6%
C <sub>8</sub> H <sub>10</sub> O	0.84	28.4%	25.3%	20.9%	25.4%
C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	0.69	13.1%	43.3%	43.7%	0.0%
C <sub>8</sub> H <sub>12</sub> O	0.71	0.0%	24.5%	54.6%	20.9%
C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	0.69	8.7%	15.7%	46.5%	29.0%
C <sub>8</sub> H <sub>14</sub> O	0.55	1.0%	41.5%	54.3%	3.2%
C <sub>5</sub> H <sub>4</sub> O <sub>4</sub>	0.52	31.4%	56.2%	0.3%	12.1%
C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>	0.61	2.1%	35.8%	59.8%	2.3%
C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	0.76	7.2%	40.1%	38.0%	14.7%
C <sub>8</sub> H <sub>16</sub> O	0.62	40.4%	19.3%	27.5%	12.8%
C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	0.60	13.1%	19.6%	53.9%	13.5%
C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	0.72	8.4%	20.2%	47.5%	23.9%
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	0.72	28.4%	12.7%	35.5%	23.4%
C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	0.76	16.2%	21.8%	56.4%	5.5%
C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	0.67	27.6%	14.8%	31.7%	26.0%
C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	0.70	15.5%	15.9%	38.7%	29.9%
C <sub>8</sub> H <sub>6</sub> O <sub>2</sub>	0.73	29.1%	30.2%	21.8%	18.9%
C <sub>9</sub> H <sub>10</sub> O	0.78	52.9%	8.8%	31.5%	6.8%
C <sub>7</sub> H <sub>4</sub> O <sub>3</sub>	0.57	15.4%	14.7%	60.0%	9.9%
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	0.60	24.1%	4.0%	66.7%	5.2%
C <sub>9</sub> H <sub>12</sub> O	0.67	21.3%	36.6%	34.8%	7.3%
C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	0.62	13.4%	28.5%	39.7%	18.3%
C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	0.74	12.6%	62.4%	24.3%	0.7%
C <sub>9</sub> H <sub>14</sub> O	0.79	41.9%	0.3%	42.6%	15.2%
C <sub>7</sub> H <sub>8</sub> O <sub>3</sub>	0.78	5.9%	14.1%	60.2%	19.8%
C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	0.70	6.9%	6.3%	72.4%	14.4%
C <sub>9</sub> H <sub>16</sub> O	0.63	15.6%	47.4%	31.0%	6.0%
C <sub>7</sub> H <sub>10</sub> O <sub>3</sub>	0.75	2.4%	26.4%	46.2%	25.0%
C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	0.78	23.5%	43.6%	32.9%	0.0%
C <sub>9</sub> H <sub>18</sub> O	0.54	37.5%	9.9%	45.0%	7.6%
C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	0.55	40.8%	14.7%	41.5%	3.0%
C <sub>7</sub> H <sub>12</sub> O <sub>3</sub>	0.71	15.1%	23.5%	53.0%	8.3%

C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	0.65	44.1%	8.5%	39.0%	8.4%
C <sub>9</sub> H <sub>6</sub> O <sub>2</sub>	0.63	7.2%	8.5%	70.0%	14.3%
C <sub>6</sub> H <sub>10</sub> O <sub>4</sub>	0.62	12.0%	14.0%	65.7%	8.4%
C <sub>10</sub> H <sub>10</sub> O	0.82	29.3%	19.9%	26.4%	24.3%
C <sub>8</sub> H <sub>18</sub> O <sub>2</sub>	0.61	15.1%	34.1%	42.9%	7.8%
C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>	0.74	35.9%	13.9%	49.1%	1.1%
C <sub>10</sub> H <sub>12</sub> O	0.81	32.2%	27.7%	35.2%	5.0%
C <sub>8</sub> H <sub>6</sub> O <sub>3</sub>	0.75	3.8%	6.8%	74.2%	15.2%
C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	0.66	11.9%	50.3%	26.5%	11.3%
C <sub>10</sub> H <sub>14</sub> O	0.71	34.6%	23.9%	41.3%	0.2%
C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	0.76	33.2%	32.4%	34.0%	0.4%
C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	0.67	12.3%	10.3%	57.2%	20.2%
C <sub>10</sub> H <sub>16</sub> O	0.69	61.3%	1.9%	34.3%	2.5%
C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>	0.65	21.1%	54.8%	19.7%	4.4%
C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	0.65	0.0%	11.8%	59.2%	28.9%
C <sub>9</sub> H <sub>14</sub> O <sub>2</sub>	0.66	7.2%	13.0%	50.9%	28.8%
C <sub>10</sub> H <sub>18</sub> O	0.69	25.3%	31.3%	18.8%	24.6%
C <sub>7</sub> H <sub>8</sub> O <sub>4</sub>	0.73	15.6%	53.7%	27.2%	3.5%
C <sub>8</sub> H <sub>12</sub> O <sub>3</sub>	0.77	12.7%	38.7%	35.9%	12.7%
C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	0.70	9.1%	29.9%	45.7%	15.3%
C <sub>7</sub> H <sub>10</sub> O <sub>4</sub>	0.78	10.0%	36.0%	33.0%	21.1%
C <sub>11</sub> H <sub>12</sub> O	0.53	18.8%	11.2%	67.0%	3.0%
C <sub>9</sub> H <sub>20</sub> O <sub>2</sub>	0.55	22.2%	28.7%	46.4%	2.7%
C <sub>9</sub> H <sub>6</sub> O <sub>3</sub>	0.38	2.7%	13.9%	66.4%	16.9%
C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>	0.55	14.3%	33.8%	48.3%	3.7%
C <sub>11</sub> H <sub>14</sub> O	0.58	29.8%	9.2%	45.7%	15.3%
C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	0.64	0.0%	32.2%	43.8%	24.0%
C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	0.62	11.8%	19.4%	45.6%	23.1%
C <sub>11</sub> H <sub>16</sub> O	0.59	19.2%	9.4%	64.6%	6.8%
C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	0.67	0.0%	14.3%	64.5%	21.2%
C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	0.65	9.4%	12.9%	77.7%	0.0%
C <sub>10</sub> H <sub>14</sub> O <sub>2</sub>	0.70	18.5%	10.2%	65.2%	6.1%
C <sub>11</sub> H <sub>18</sub> O	0.70	18.1%	13.1%	52.4%	16.4%

C <sub>12</sub> H <sub>8</sub> O	0.61	13.0%	30.6%	29.8%	26.6%
C <sub>10</sub> H <sub>16</sub> O <sub>2</sub>	0.66	17.4%	12.8%	56.2%	13.6%
C <sub>11</sub> H <sub>20</sub> O	0.68	18.9%	24.0%	33.4%	23.7%
C <sub>8</sub> H <sub>10</sub> O <sub>4</sub>	0.67	8.8%	27.2%	35.8%	28.1%
C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	0.77	36.2%	33.5%	30.2%	0.0%
C <sub>11</sub> H <sub>22</sub> O	0.54	11.9%	43.7%	37.1%	7.3%
C <sub>8</sub> H <sub>12</sub> O <sub>4</sub>	0.74	9.3%	41.3%	35.1%	14.3%
C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	0.57	14.8%	13.3%	60.8%	11.0%
C <sub>11</sub> H <sub>10</sub> O <sub>2</sub>	0.59	8.4%	18.0%	71.0%	2.6%
C <sub>12</sub> H <sub>14</sub> O	0.82	41.9%	7.0%	49.7%	1.4%
C <sub>10</sub> H <sub>8</sub> O <sub>3</sub>	0.69	0.0%	23.6%	67.6%	8.8%
C <sub>11</sub> H <sub>12</sub> O <sub>2</sub>	0.55	13.6%	10.5%	69.6%	6.4%
C <sub>12</sub> H <sub>16</sub> O	0.56	14.3%	33.1%	45.7%	6.8%
C <sub>9</sub> H <sub>6</sub> O <sub>4</sub>	0.68	0.6%	58.1%	31.7%	9.6%
C <sub>10</sub> H <sub>10</sub> O <sub>3</sub>	0.65	8.5%	12.7%	72.4%	6.4%
C <sub>11</sub> H <sub>14</sub> O <sub>2</sub>	0.56	10.8%	7.2%	68.7%	13.3%
C <sub>12</sub> H <sub>18</sub> O	0.66	7.3%	18.8%	44.8%	29.1%
C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>	0.70	0.0%	14.9%	69.9%	15.2%
C <sub>10</sub> H <sub>12</sub> O <sub>3</sub>	0.58	9.5%	9.1%	69.5%	11.9%
C <sub>11</sub> H <sub>16</sub> O <sub>2</sub>	0.59	14.6%	7.7%	66.4%	11.4%
C <sub>12</sub> H <sub>20</sub> O	0.60	19.2%	29.6%	45.8%	5.5%
C <sub>13</sub> H <sub>10</sub> O	0.56	8.0%	6.4%	72.2%	13.5%
C <sub>11</sub> H <sub>18</sub> O <sub>2</sub>	0.65	19.6%	29.9%	45.7%	4.9%
C <sub>12</sub> H <sub>22</sub> O	0.57	25.4%	27.4%	40.4%	6.8%
C <sub>9</sub> H <sub>12</sub> O <sub>4</sub>	0.64	4.5%	43.0%	42.4%	10.1%
C <sub>11</sub> H <sub>20</sub> O <sub>2</sub>	0.70	8.2%	27.0%	45.1%	19.7%
C <sub>12</sub> H <sub>24</sub> O	0.50	26.3%	17.6%	54.6%	1.5%
C <sub>9</sub> H <sub>14</sub> O <sub>4</sub>	0.64	11.0%	42.0%	43.1%	3.9%
C <sub>13</sub> H <sub>14</sub> O	0.56	22.1%	8.9%	62.7%	6.3%
C <sub>12</sub> H <sub>12</sub> O <sub>2</sub>	0.55	12.2%	13.8%	66.0%	8.0%
C <sub>13</sub> H <sub>16</sub> O	0.78	38.0%	5.2%	45.3%	11.6%
C <sub>11</sub> H <sub>10</sub> O <sub>3</sub>	0.65	6.2%	17.3%	60.8%	15.8%
C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>	0.59	12.4%	10.5%	70.3%	6.8%

C <sub>13</sub> H <sub>18</sub> O	0.56	20.4%	6.5%	70.6%	2.6%
C <sub>10</sub> H <sub>8</sub> O <sub>4</sub>	0.66	8.4%	52.3%	32.0%	7.2%
C <sub>12</sub> H <sub>16</sub> O <sub>2</sub>	0.59	14.0%	9.7%	75.0%	1.4%
C <sub>13</sub> H <sub>20</sub> O	0.63	34.4%	22.9%	38.5%	4.3%
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	0.62	14.9%	39.2%	40.2%	5.7%
C <sub>11</sub> H <sub>14</sub> O <sub>3</sub>	0.56	15.0%	41.0%	42.6%	1.4%
C <sub>12</sub> H <sub>18</sub> O <sub>2</sub>	0.58	5.8%	6.9%	72.4%	15.0%
C <sub>13</sub> H <sub>22</sub> O	0.52	21.9%	16.6%	52.1%	9.4%
C <sub>14</sub> H <sub>12</sub> O	0.57	9.1%	7.9%	71.1%	11.8%
C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	0.62	9.1%	34.3%	50.1%	6.5%
C <sub>13</sub> H <sub>24</sub> O	0.56	20.0%	34.1%	35.4%	10.5%
C <sub>13</sub> H <sub>10</sub> O <sub>2</sub>	0.54	4.3%	11.2%	82.9%	1.6%
C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	0.81	37.5%	42.3%	19.7%	0.5%
C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	0.53	16.2%	14.1%	52.3%	17.4%
C <sub>13</sub> H <sub>26</sub> O	0.55	20.2%	23.1%	49.5%	7.2%
C <sub>13</sub> H <sub>12</sub> O <sub>2</sub>	0.62	7.0%	8.2%	73.7%	11.1%
C <sub>14</sub> H <sub>16</sub> O	0.61	17.5%	10.4%	66.8%	5.2%
C <sub>13</sub> H <sub>14</sub> O <sub>2</sub>	0.52	11.7%	11.8%	64.4%	12.0%
C <sub>14</sub> H <sub>18</sub> O	0.54	18.4%	7.2%	59.5%	14.8%
C <sub>13</sub> H <sub>16</sub> O <sub>2</sub>	0.55	11.6%	13.1%	74.1%	1.2%
C <sub>14</sub> H <sub>20</sub> O	0.65	30.6%	24.5%	36.1%	8.9%
C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>	0.75	34.6%	26.2%	33.0%	6.2%
C <sub>14</sub> H <sub>22</sub> O	0.67	31.1%	35.1%	32.6%	1.3%
C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>	0.59	10.1%	9.0%	66.3%	14.6%
C <sub>14</sub> H <sub>24</sub> O	0.59	21.0%	24.0%	44.0%	11.0%
C <sub>14</sub> H <sub>26</sub> O	0.53	15.6%	36.1%	44.4%	3.8%
C <sub>13</sub> H <sub>24</sub> O <sub>2</sub>	0.63	5.7%	33.0%	35.3%	25.9%
C <sub>14</sub> H <sub>28</sub> O	0.50	16.1%	27.9%	50.8%	5.2%
C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>	0.46	24.3%	28.8%	40.5%	6.4%
C <sub>2</sub> H <sub>3</sub> NO	0.64	35.1%	15.7%	29.7%	19.4%
C <sub>2</sub> H <sub>5</sub> NO	0.45	16.8%	33.6%	36.1%	13.5%
C <sub>3</sub> H <sub>5</sub> NO	0.41	11.0%	32.2%	56.1%	0.7%
C <sub>2</sub> H <sub>3</sub> NO <sub>2</sub>	0.65	58.1%	3.5%	32.3%	6.1%

C <sub>3</sub> H <sub>7</sub> NO	0.80	95.6%	0.0%	4.4%	0.0%
C <sub>3</sub> H <sub>9</sub> NO	0.56	34.5%	31.2%	19.5%	14.8%
C <sub>4</sub> H <sub>7</sub> NO	0.64	27.9%	39.9%	25.7%	6.5%
C <sub>3</sub> H <sub>5</sub> NO <sub>2</sub>	0.67	34.2%	47.2%	9.3%	9.3%
C <sub>4</sub> H <sub>9</sub> NO	0.68	23.5%	53.4%	19.3%	3.7%
C <sub>3</sub> H <sub>9</sub> NO	0.63	78.2%	4.7%	10.6%	6.5%
C <sub>4</sub> H <sub>7</sub> NO <sub>2</sub>	0.39	23.4%	12.6%	57.2%	6.9%
C <sub>3</sub> H <sub>11</sub> NO	0.65	32.7%	21.1%	40.1%	6.1%
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	0.63	27.6%	61.2%	7.8%	3.5%
C <sub>6</sub> H <sub>11</sub> NO	0.55	10.9%	25.0%	52.0%	12.1%
C <sub>7</sub> H <sub>7</sub> NO	0.79	23.2%	34.4%	18.2%	24.2%
C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	0.61	57.6%	15.0%	14.9%	12.5%
C <sub>7</sub> H <sub>7</sub> NO <sub>3</sub>	0.67	37.3%	10.7%	23.9%	28.1%

---

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

Categories	Components or m/z	Formula	$k_{OH}$ $\text{cm}^3 \text{molecule}^{-1} \text{s}^{-1}$	MIR $\text{g g}^{-1}$	Concentration (ppbv)		OFP ( $\mu\text{g m}^{-3}$ )	
					Observed	Initial	Observed	Initial
Alkanes	Ethane	C <sub>2</sub> H <sub>6</sub>	2.49E-13 <sup>a</sup>	0.28	1.41±0.87	1.42±0.84	0.53±0.33	0.53±0.32
	Propane	C <sub>3</sub> H <sub>8</sub>	1.11E-12 <sup>a</sup>	0.49	3.84±4.85	3.96±4.93	3.71±4.68	3.82±4.76
	Isobutane	C <sub>4</sub> H <sub>10</sub>	2.11E-12 <sup>a</sup>	1.23	0.85±0.66	0.92±0.67	2.71±2.09	2.94±2.14
	n-Butane	C <sub>4</sub> H <sub>10</sub>	2.38E-12 <sup>a</sup>	1.15	1.07±0.71	1.16±0.71	3.19±2.13	3.47±2.12
	Cyclopentane	C <sub>5</sub> H <sub>10</sub>	4.77E-12 <sup>a</sup>	2.39	0.04±0.03	0.05±0.03	0.31±0.24	0.37±0.25
	Isopentane	C <sub>5</sub> H <sub>12</sub>	3.74E-12 <sup>a</sup>	1.45	0.57±0.41	0.66±0.44	2.68±1.89	3.10±2.07
	n-Pentane	C <sub>5</sub> H <sub>12</sub>	3.76E-12 <sup>a</sup>	1.31	0.30±0.21	0.35±0.22	1.26±0.87	1.46±0.92
	2,2-Dimethylbutane	C <sub>6</sub> H <sub>14</sub>	2.23E-12 <sup>a</sup>	1.17	0.04±0.02	0.05±0.02	0.20±0.08	0.22±0.09
	Methylcyclopentane	C <sub>6</sub> H <sub>12</sub>	7.56E-12 <sup>a</sup>	2.19	0.05±0.09	0.07±0.10	0.42±0.70	0.54±0.80
	2,3-Dimethylbutane	C <sub>6</sub> H <sub>14</sub>	5.86E-12 <sup>a</sup>	0.97	0.01±0.01	0.01±0.01	0.04±0.03	0.05±0.04
	2-Methylpentane	C <sub>6</sub> H <sub>14</sub>	5.25E-12 <sup>a</sup>	1.50	0.11±0.08	0.14±0.08	0.65±0.44	0.79±0.48
	3-Methylpentane	C <sub>6</sub> H <sub>14</sub>	5.20E-12 <sup>b</sup>	1.80	0.09±0.07	0.11±0.07	0.64±0.47	0.77±0.52
	n-Hexane	C <sub>6</sub> H <sub>14</sub>	4.97E-12 <sup>a</sup>	1.24	1.54±3.60	1.74±4.14	7.36±17.20	7.88±18.57
	2,4-Dimethylpentane	C <sub>7</sub> H <sub>16</sub>	5.76E-12 <sup>a</sup>	1.55	0.00±0.00	0.01±0.00	0.03±0.03	0.04±0.03
	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	6.69E-12 <sup>a</sup>	1.25	0.06±0.08	0.07±0.09	0.28±0.37	0.35±0.42
	2-Methylhexane	C <sub>7</sub> H <sub>16</sub>	6.86E-12 <sup>c</sup>	1.19	0.03±0.02	0.03±0.03	0.13±0.13	0.17±0.15
	2,3-Dimethylpentane	C <sub>7</sub> H <sub>16</sub>	6.57E-12 <sup>a</sup>	1.34	0.01±0.01	0.01±0.01	0.05±0.05	0.07±0.06
	3-Methylhexane	C <sub>7</sub> H <sub>16</sub>	7.15E-12 <sup>c</sup>	1.61	0.03±0.03	0.04±0.04	0.22±0.22	0.30±0.27
	2,2,4-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	3.34E-12 <sup>a</sup>	1.26	0.01±0.01	0.01±0.01	0.08±0.08	0.09±0.08
	n-Heptane	C <sub>7</sub> H <sub>16</sub>	6.23E-12 <sup>a</sup>	1.07	0.05±0.07	0.06±0.08	0.22±0.32	0.28±0.38
	Methylcyclohexane	C <sub>7</sub> H <sub>14</sub>	9.26E-12 <sup>a</sup>	1.70	0.04±0.03	0.06±0.04	0.31±0.25	0.43±0.30
	2,3,4-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	6.60E-12 <sup>a</sup>	1.03	0.00±0.00	0.01±0.00	0.02±0.02	0.03±0.02
	2-Methylheptane	C <sub>8</sub> H <sub>18</sub>	8.28E-12 <sup>c</sup>	1.07	0.01±0.02	0.02±0.02	0.08±0.09	0.10±0.10
	3-Methylheptane	C <sub>8</sub> H <sub>18</sub>	8.56E-12 <sup>c</sup>	1.24	0.01±0.01	0.01±0.01	0.05±0.05	0.07±0.06
	n-Octane	C <sub>8</sub> H <sub>18</sub>	8.48E-12 <sup>a</sup>	0.90	0.02±0.02	0.03±0.03	0.10±0.10	0.15±0.13
	n-Nonane	C <sub>9</sub> H <sub>20</sub>	1.02E-11 <sup>a</sup>	0.78	0.01±0.01	0.02±0.01	0.06±0.03	0.09±0.05
	n-Decane	C <sub>10</sub> H <sub>22</sub>	1.31E-11 <sup>a</sup>	0.68	0.02±0.03	0.03±0.06	0.08±0.11	0.14±0.26
	n-Undecane	C <sub>11</sub> H <sub>24</sub>	1.19E-11 <sup>a</sup>	0.61	0.02±0.03	0.03±0.06	0.08±0.12	0.14±0.25
n-Dodecane	C <sub>12</sub> H <sub>26</sub>	1.31E-11 <sup>a</sup>	0.55	0.04±0.10	0.06±0.21	0.16±0.44	0.25±0.87	
Alkenes	Ethylene	C <sub>2</sub> H <sub>4</sub>	8.52E-12 <sup>a</sup>	9.00	1.09±0.63	1.61±0.97	12.24±7.08	18.18±10.92
	Propylene	C <sub>3</sub> H <sub>6</sub>	2.44E-11 <sup>a</sup>	11.66	0.60±0.34	1.21±0.70	13.22±7.45	26.43±15.39
	trans-2-Butene	C <sub>4</sub> H <sub>8</sub>	6.31E-11 <sup>a</sup>	15.16	0.03±0.02	0.06±0.04	1.03±0.75	2.23±1.54
	1-Butene	C <sub>4</sub> H <sub>8</sub>	3.10E-11 <sup>a</sup>	9.73	0.06±0.03	0.11±0.05	1.35±0.65	2.72±1.20
	cis-2-Butene	C <sub>4</sub> H <sub>8</sub>	5.28E-11 <sup>a</sup>	14.24	0.04±0.02	0.08±0.04	1.29±0.72	2.77±1.30
	trans-2-Pentene	C <sub>5</sub> H <sub>10</sub>	6.70E-11 <sup>a</sup>	10.56	0.01±0.01	0.01±0.04	0.19±0.45	0.43±1.20
	1-Pentene	C <sub>5</sub> H <sub>10</sub>	3.22E-11 <sup>a</sup>	7.21	0.01±0.01	0.02±0.02	0.18±0.15	0.38±0.34
	cis-2-Pentene	C <sub>5</sub> H <sub>10</sub>	6.50E-11 <sup>a</sup>	10.38	0.01±0.01	0.01±0.01	0.19±0.18	0.42±0.41
	Isoprene	C <sub>5</sub> H <sub>8</sub>	1.00E-10 <sup>a</sup>	10.61	0.72±0.63	1.08±0.86	23.16±20.46	34.85±27.74

Alkyne	1-Hexene	C <sub>6</sub> H <sub>12</sub>	3.70E-11 <sup>a</sup>	5.49	0.01±0.01	0.03±0.02	0.26±0.15	0.56±0.36	
	Acetylene	C <sub>2</sub> H <sub>2</sub>	7.50E-13 <sup>a</sup>	0.95	0.76±0.45	0.78±0.44	0.84±0.50	0.86±0.49	
	Benzene	C <sub>6</sub> H <sub>6</sub>	1.20E-12 <sup>a</sup>	0.72	0.24±0.16	0.26±0.16	0.61±0.41	0.64±0.40	
	Toluene	C <sub>7</sub> H <sub>8</sub>	5.60E-12 <sup>a</sup>	4.00	0.84±0.82	1.03±0.91	13.75±13.43	16.93±14.93	
	Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	7.00E-12 <sup>a</sup>	3.04	0.16±0.13	0.20±0.14	2.28±1.87	2.92±2.00	
	m/p-Xylene	C <sub>8</sub> H <sub>10</sub>	1.87E-11 <sup>b</sup>	7.80	0.38±0.43	0.57±0.53	14.05±15.88	21.15±19.71	
	Styrene	C <sub>8</sub> H <sub>8</sub>	5.80E-11 <sup>a</sup>	1.73	0.04±0.04	0.07±0.09	0.29±0.34	0.59±0.71	
	o-Xylene	C <sub>8</sub> H <sub>10</sub>	1.36E-11 <sup>a</sup>	7.64	0.12±0.13	0.17±0.15	4.41±4.73	6.22±5.44	
	Cumene	C <sub>9</sub> H <sub>12</sub>	6.30E-12 <sup>a</sup>	6.23	0.02±0.03	0.02±0.03	0.50±0.95	0.62±1.10	
Aromatics	n-Propylbenzene	C <sub>9</sub> H <sub>12</sub>	5.80E-12 <sup>a</sup>	2.03	0.01±0.00	0.01±0.00	0.09±0.05	0.12±0.05	
	m-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	1.86E-11 <sup>b</sup>	7.39	0.01±0.01	0.02±0.01	0.46±0.36	0.79±0.50	
	p-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	1.23E-11 <sup>a</sup>	4.44	0.01±0.01	0.01±0.01	0.21±0.15	0.32±0.19	
	1,3,5-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	5.86E-11 <sup>a</sup>	11.76	0.01±0.00	0.01±0.01	0.42±0.31	0.92±0.68	
	o-Ethyltoluene	C <sub>9</sub> H <sub>12</sub>	1.19E-11 <sup>b</sup>	5.59	0.01±0.01	0.01±0.01	0.26±0.18	0.40±0.23	
	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	3.25E-11 <sup>a</sup>	8.87	0.01±0.01	0.03±0.02	0.63±0.57	1.25±1.10	
	1,2,3-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	3.27E-11 <sup>a</sup>	11.97	0.01±0.01	0.02±0.01	0.54±0.40	1.09±0.77	
	m-Diethylbenzene	C <sub>10</sub> H <sub>14</sub>	1.42E-11 <sup>c</sup>	7.10	0.01±0.01	0.01±0.01	0.25±0.25	0.41±0.40	
	p-Diethylbenzene	C <sub>10</sub> H <sub>14</sub>	8.11E-12 <sup>c</sup>	4.43	0.01±0.00	0.01±0.00	0.15±0.09	0.23±0.08	
Aldehydes	Formaldehyde	CH <sub>2</sub> O	9.37E-12 <sup>a</sup>	9.46	6.16±3.72	4.52±2.89	80.76±47.18	57.28±36.61	
	Acetaldehyde	C <sub>2</sub> H <sub>4</sub> O	1.53E-11 <sup>a</sup>	6.54	3.16±1.76	2.29±1.43	41.46±22.60	29.48±18.38	
	Acrolein	C <sub>3</sub> H <sub>4</sub> O	1.83E-11 <sup>a</sup>	7.45	0.04±0.03	0.03±0.02	0.87±0.51	0.56±0.39	
	Propanal	C <sub>3</sub> H <sub>6</sub> O	2.00E-11 <sup>a</sup>	7.08	0.04±0.03	0.03±0.02	0.82±0.46	0.55±0.36	
	MACR	C <sub>4</sub> H <sub>6</sub> O	2.90E-11 <sup>a</sup>	6.01	0.10±0.09	0.08±0.06	2.11±1.60	1.50±1.17	
	Butanal	C <sub>4</sub> H <sub>8</sub> O	2.40E-11 <sup>a</sup>	5.97	0.06±0.05	0.03±0.02	1.53±0.99	0.56±0.43	
	Pentanal	C <sub>5</sub> H <sub>10</sub> O	2.80E-11 <sup>a</sup>	5.08	0.02±0.02	0.01±0.01	0.50±0.39	0.21±0.16	
	Hexanal	C <sub>6</sub> H <sub>12</sub> O	3.00E-11 <sup>a</sup>	4.35	0.08±0.15	0.04±0.03	3.12±2.82	0.70±0.53	
	Acetone	C <sub>3</sub> H <sub>6</sub> O	1.70E-13 <sup>a</sup>	0.36	3.48±3.34	1.89±1.36	4.40±3.11	1.77±1.27	
	Butenone	C <sub>4</sub> H <sub>6</sub> O	2.00E-11 <sup>a</sup>	9.65	0.22±0.07	0.14±0.11	2.26±2.21	4.08±3.20	
	Ketones	2-Butanone	C <sub>4</sub> H <sub>8</sub> O	1.22E-12 <sup>a</sup>	1.48	0.24±0.22	0.17±0.12	1.30±1.06	0.80±0.57
		2-Pentanone	C <sub>5</sub> H <sub>10</sub> O	4.40E-12 <sup>a</sup>	2.81	0.03±0.03	0.02±0.01	0.37±0.37	0.18±0.14
3-Pentanone		C <sub>5</sub> H <sub>10</sub> O	2.00E-12 <sup>a</sup>	1.24	0.02±0.01	0.01±0.01	0.09±0.06	0.04±0.03	
Other HCs	64.0313	C <sub>3</sub> H <sub>4</sub>	6.00E-12 <sup>j</sup>	8.84	0.04±0.03	0.05±0.03	1.02±0.67	1.33±0.83	
	66.0469	C <sub>5</sub> H <sub>6</sub>	9.20E-11 <sup>d</sup>	6.98	0.00±0.10	0.00±0.00	0.00±0.00	0.00±0.00	
	80.0626	C <sub>6</sub> H <sub>8</sub>	7.20E-12 <sup>j</sup>	6.98	0.00±0.52	0.00±0.00	0.00±0.00	0.00±0.00	
	82.0782	C <sub>6</sub> H <sub>10</sub>	6.97E-12 <sup>b</sup>	5.10	0.15±0.13	0.21±0.11	3.15±2.39	3.87±2.00	
	90.0469	C <sub>7</sub> H <sub>6</sub>	8.40E-12 <sup>j</sup>	5.37	1.11±0.92	1.12±0.86	-3.02±-2.48	-3.02±-2.31	
	94.0782	C <sub>7</sub> H <sub>10</sub>	4.68E-11 <sup>e</sup>	5.37	0.00±0.20	0.00±0.00	0.00±0.00	0.00±0.00	
	96.0939	C <sub>7</sub> H <sub>12</sub>	9.64E-12 <sup>b</sup>	6.61	0.07±0.05	0.10±0.06	1.97±1.34	2.86±1.68	
	98.1096	C <sub>7</sub> H <sub>14</sub>	9.64E-12 <sup>f</sup>	1.08	0.01±0.01	0.01±0.01	0.05±0.03	0.07±0.04	
	102.0469	C <sub>8</sub> H <sub>6</sub>	1.00E-12 <sup>d</sup>	1.47	0.04±0.03	0.04±0.03	0.25±0.20	0.25±0.18	
	108.0939	C <sub>8</sub> H <sub>12</sub>	1.07E-10 <sup>e</sup>	4.03	0.16±0.13	0.26±0.17	3.33±2.46	5.13±3.38	

110.1095	C <sub>8</sub> H <sub>14</sub>	9.64E-12 <sup>b</sup>	5.63	0.05±0.04	0.07±0.04	1.50±1.10	2.07±1.15
112.1252	C <sub>8</sub> H <sub>16</sub>	3.80E-11 <sup>f</sup>	1.12	0.01±0.01	0.02±0.01	0.05±0.06	0.10±0.05
116.0626	C <sub>9</sub> H <sub>8</sub>	7.80E-11 <sup>b</sup>	1.55	0.02±0.02	0.05±0.04	0.16±0.13	0.37±0.29
118.0782	C <sub>9</sub> H <sub>10</sub>	5.04E-11 <sup>b</sup>	3.32	0.07±0.06	0.15±0.10	1.24±1.07	2.68±1.81
122.1095	C <sub>9</sub> H <sub>14</sub>	1.08E-11 <sup>j</sup>	1.31	0.06±0.04	0.10±0.06	0.45±0.26	0.70±0.40
124.1252	C <sub>9</sub> H <sub>16</sub>	3.10E-11 <sup>f</sup>	1.31	0.02±0.02	0.05±0.03	0.19±0.14	0.37±0.20
126.1408	C <sub>9</sub> H <sub>18</sub>	4.00E-11 <sup>f</sup>	1.22	0.01±0.00	0.01±0.01	0.04±0.02	0.09±0.05
128.0626	C <sub>10</sub> H <sub>8</sub>	2.30E-11 <sup>b</sup>	3.34	0.06±0.08	0.11±0.08	1.17±1.50	2.03±1.48
130.0782	C <sub>10</sub> H <sub>10</sub>	2.85E-11 <sup>g</sup>	3.31	0.01±0.01	0.03±0.02	0.27±0.21	0.55±0.42
132.0939	C <sub>10</sub> H <sub>12</sub>	3.30E-11 <sup>g</sup>	2.97	0.04±0.03	0.09±0.05	0.74±0.51	1.52±0.95
136.1252	C <sub>10</sub> H <sub>16</sub>	5.30E-11 <sup>g</sup>	4.04	0.63±0.44	0.75±0.45	16.31±10.74	18.40±11.15
138.1408	C <sub>10</sub> H <sub>18</sub>	2.10E-11 <sup>b</sup>	3.31	0.01±0.01	0.02±0.01	0.22±0.14	0.40±0.22
140.0626	C <sub>11</sub> H <sub>8</sub>	1.32E-11 <sup>j</sup>	2.73	0.02±0.03	0.03±0.03	0.38±0.44	0.59±0.45
140.1565	C <sub>10</sub> H <sub>20</sub>	4.10E-11 <sup>f</sup>	0.99	0.00±0.00	0.01±0.01	0.03±0.02	0.07±0.03
142.0782	C <sub>11</sub> H <sub>10</sub>	5.00E-11 <sup>g</sup>	3.06	0.02±0.05	0.04±0.04	0.46±0.89	0.83±0.83
144.0939	C <sub>11</sub> H <sub>12</sub>	7.80E-11 <sup>g</sup>	3.06	0.01±0.01	0.03±0.02	0.23±0.17	0.52±0.35
146.1095	C <sub>11</sub> H <sub>14</sub>	5.80E-11 <sup>e</sup>	8.88	0.02±0.01	0.04±0.02	0.96±0.67	2.15±1.30
148.1252	C <sub>11</sub> H <sub>16</sub>	5.00E-11 <sup>g</sup>	2.12	0.02±0.02	0.05±0.03	0.35±0.26	0.76±0.47
150.1408	C <sub>11</sub> H <sub>18</sub>	1.32E-11 <sup>j</sup>	2.73	0.01±0.01	0.02±0.01	0.26±0.17	0.42±0.25
152.1565	C <sub>11</sub> H <sub>20</sub>	1.34E-10 <sup>i</sup>	0.73	0.01±0.00	0.02±0.01	0.04±0.02	0.09±0.05
154.0782	C <sub>12</sub> H <sub>10</sub>	1.44E-11 <sup>j</sup>	0.63	0.01±0.01	0.02±0.01	0.04±0.05	0.07±0.05
154.1721	C <sub>11</sub> H <sub>22</sub>	4.40E-11 <sup>f</sup>	1.04	0.00±0.00	0.01±0.01	0.04±0.02	0.08±0.04
156.0939	C <sub>12</sub> H <sub>12</sub>	6.00E-11 <sup>g</sup>	2.78	0.01±0.03	0.03±0.03	0.29±0.57	0.55±0.54
158.1095	C <sub>12</sub> H <sub>14</sub>	1.44E-11 <sup>j</sup>	0.63	0.02±0.01	0.03±0.02	0.07±0.04	0.12±0.07
160.1252	C <sub>12</sub> H <sub>16</sub>	5.80E-11 <sup>e</sup>	7.95	0.01±0.01	0.03±0.02	0.74±0.52	1.67±0.98
162.1408	C <sub>12</sub> H <sub>18</sub>	1.13E-10 <sup>g</sup>	4.23	0.01±0.01	0.04±0.02	0.48±0.31	1.10±0.63
164.1565	C <sub>12</sub> H <sub>20</sub>	1.44E-11 <sup>j</sup>	0.80	0.01±0.01	0.01±0.01	0.05±0.04	0.09±0.06
166.1721	C <sub>12</sub> H <sub>22</sub>	1.50E-10 <sup>i</sup>	0.63	0.00±0.00	0.01±0.00	0.01±0.01	0.03±0.02
168.0939	C <sub>13</sub> H <sub>12</sub>	1.56E-11 <sup>j</sup>	0.60	0.01±0.01	0.02±0.01	0.05±0.03	0.08±0.05
168.1878	C <sub>12</sub> H <sub>24</sub>	1.90E-11 <sup>f</sup>	1.02	0.00±0.00	0.01±0.00	0.04±0.02	0.07±0.03
170.1095	C <sub>13</sub> H <sub>14</sub>	1.54E-10 <sup>i</sup>	0.60	0.01±0.02	0.03±0.02	0.07±0.08	0.14±0.10
172.1252	C <sub>13</sub> H <sub>16</sub>	1.56E-11 <sup>j</sup>	0.60	0.01±0.01	0.01±0.01	0.04±0.03	0.06±0.04
174.1408	C <sub>13</sub> H <sub>18</sub>	3.85E-11 <sup>e</sup>	7.13	0.01±0.01	0.02±0.01	0.40±0.36	0.85±0.56
176.1565	C <sub>13</sub> H <sub>20</sub>	1.13E-10 <sup>g</sup>	0.60	0.01±0.02	0.03±0.02	0.07±0.07	0.15±0.10
178.0782	C <sub>14</sub> H <sub>10</sub>	1.68E-11 <sup>j</sup>	1.60	0.01±0.00	0.01±0.01	0.07±0.05	0.13±0.09
178.1721	C <sub>13</sub> H <sub>22</sub>	1.56E-11 <sup>j</sup>	0.70	0.01±0.00	0.01±0.01	0.04±0.03	0.06±0.04
180.1878	C <sub>13</sub> H <sub>24</sub>	1.56E-11 <sup>j</sup>	0.53	0.00±0.00	0.00±0.00	0.01±0.00	0.01±0.01
182.1095	C <sub>14</sub> H <sub>14</sub>	1.68E-11 <sup>j</sup>	1.60	0.01±0.01	0.02±0.01	0.15±0.11	0.26±0.16
182.2034	C <sub>13</sub> H <sub>26</sub>	1.90E-11 <sup>i</sup>	0.96	0.00±0.00	0.01±0.00	0.03±0.01	0.05±0.02
184.1252	C <sub>14</sub> H <sub>16</sub>	1.70E-10 <sup>i</sup>	1.60	0.01±0.01	0.02±0.01	0.12±0.09	0.29±0.19
186.1408	C <sub>14</sub> H <sub>18</sub>	1.68E-11 <sup>j</sup>	1.60	0.01±0.01	0.01±0.01	0.10±0.08	0.16±0.09

188.1565	C <sub>14</sub> H <sub>20</sub>	1.68E-11 <sup>j</sup>	1.60	0.01±0.01	0.02±0.01	0.12±0.10	0.21±0.14
190.1721	C <sub>14</sub> H <sub>22</sub>	3.10E-11 <sup>f</sup>	0.58	0.01±0.01	0.02±0.01	0.04±0.03	0.09±0.06
192.1878	C <sub>14</sub> H <sub>24</sub>	1.68E-11 <sup>j</sup>	0.65	0.00±0.00	0.01±0.01	0.03±0.02	0.05±0.03
194.2034	C <sub>14</sub> H <sub>26</sub>	1.68E-11 <sup>j</sup>	0.50	0.00±0.00	0.00±0.00	0.01±0.00	0.01±0.01
196.2191	C <sub>14</sub> H <sub>28</sub>	1.90E-11 <sup>i</sup>	0.91	0.00±0.00	0.01±0.00	0.02±0.01	0.04±0.02
204.1878	C <sub>15</sub> H <sub>24</sub>	3.30E-11 <sup>i</sup>	4.04	0.02±0.02	0.03±0.02	0.72±0.58	1.10±0.78
60.0211	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	7.20E-13 <sup>b</sup>	0.68	3.38±2.17	1.79±1.22	6.16±3.02	3.26±2.22
62.0368	C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	1.45E-11 <sup>e</sup>	3.13	0.05±0.06	0.04±0.03	0.44±0.24	0.35±0.23
68.0262	C <sub>4</sub> H <sub>4</sub> O	4.00E-11 <sup>d</sup>	9.15	0.07±0.04	0.06±0.04	2.07±1.13	1.54±1.03
72.0211	C <sub>3</sub> H <sub>2</sub> O <sub>2</sub>	1.50E-11 <sup>s</sup>	11.38	0.21±0.13	0.00±0.00	7.39±4.46	0.00±0.00
74.0368	C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	2.20E-12 <sup>s</sup>	1.22	1.62±1.59	1.27±0.84	6.52±4.47	5.13±3.40
76.016	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	7.80E-12 <sup>j</sup>	0.54	0.03±0.04	0.01±0.00	0.06±0.04	0.01±0.01
76.0524	C <sub>2</sub> H <sub>4</sub> O <sub>3</sub>	1.62E-11 <sup>e</sup>	0.94	0.75±0.74	0.54±0.33	2.40±1.39	1.73±1.07
78.0317	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	7.80E-12 <sup>j</sup>	/	1.03±0.71	0.94±0.60	/	/
80.0262	C <sub>2</sub> H <sub>6</sub> O <sub>3</sub>	2.00E-11 <sup>d</sup>	/	0.04±0.06	0.03±0.02	/	/
82.0418	C <sub>3</sub> H <sub>6</sub> O	3.71E-11 <sup>d</sup>	6.90	0.30±0.15	0.21±0.14	7.58±3.92	5.20±3.50
84.0211	C <sub>4</sub> H <sub>4</sub> O <sub>2</sub>	4.45E-11 <sup>d</sup>	/	0.10±0.05	0.05±0.03	/	/
84.0575	C <sub>3</sub> H <sub>8</sub> O	1.15E-11 <sup>b</sup>	1.15	0.06±0.04	0.04±0.02	0.27±0.14	0.16±0.11
86.0368	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	8.00E-13 <sup>d</sup>	0.96	0.35±0.20	0.17±0.12	1.29±0.77	0.62±0.44
88.016	C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	1.00E-13 <sup>d</sup>	0.40	0.15±0.16	0.10±0.07	0.23±0.11	0.16±0.11
88.0524	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	9.00E-13 <sup>s</sup>	0.37	0.76±0.77	0.66±0.37	1.11±0.75	0.96±0.54
90.0317	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	2.40E-11 <sup>j</sup>	0.06	0.34±0.37	0.20±0.12	0.08±0.06	0.05±0.03
90.0681	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	2.70E-11 <sup>f</sup>	2.44	0.26±0.26	0.22±0.13	2.60±1.67	2.18±1.24
92.0473	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	2.40E-11 <sup>j</sup>	3.15	0.38±0.44	0.17±0.12	4.86±3.96	2.15±1.57
94.0418	C <sub>6</sub> H <sub>6</sub> O	2.80E-11 <sup>d</sup>	2.76	0.11±0.06	0.10±0.06	1.25±0.72	1.10±0.70
96.0211	C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	3.56E-11 <sup>d</sup>	/	0.22±0.36	0.13±0.07	/	/
96.0575	C <sub>6</sub> H <sub>8</sub> O	1.32E-10 <sup>d</sup>	7.09	0.04±0.04	0.02±0.02	1.36±0.92	0.61±0.48
98.0368	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	1.36E-11 <sup>s</sup>	/	0.23±0.10	0.14±0.10	/	/
98.0731	C <sub>6</sub> H <sub>10</sub> O	6.00E-12 <sup>f</sup>	1.35	0.06±0.06	0.04±0.03	0.36±0.22	0.25±0.16
100.016	C <sub>4</sub> H <sub>4</sub> O <sub>3</sub>	2.00E-11 <sup>s</sup>	/	0.04±0.05	0.03±0.02	/	/
100.0524	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	3.03E-11 <sup>d</sup>	1.01	0.29±0.27	0.14±0.10	1.30±0.80	0.65±0.45
102.0317	C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	4.30E-11 <sup>s</sup>	0.28	0.07±0.05	0.03±0.02	0.09±0.06	0.04±0.03
102.0681	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	8.71E-12 <sup>e</sup>	0.61	0.05±0.05	0.06±0.04	0.15±0.09	0.17±0.10
104.0473	C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>	3.05E-11 <sup>j</sup>	2.67	0.08±0.05	0.05±0.03	1.05±0.58	0.57±0.40
104.0837	C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	2.20E-11 <sup>f</sup>	0.48	0.04±0.03	0.02±0.01	0.08±0.05	0.05±0.03
106.0266	C <sub>3</sub> H <sub>6</sub> O <sub>4</sub>	2.55E-11 <sup>j</sup>	/	0.07±0.04	0.06±0.04	/	/
106.0418	C <sub>7</sub> H <sub>6</sub> O	1.20E-11 <sup>b</sup>	-0.67	0.11±0.12	0.08±0.05	-0.34±-0.24	-0.25±-0.16
106.063	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	3.05E-11 <sup>j</sup>	3.35	0.19±0.28	0.30±0.18	3.08±2.42	4.78±2.92
108.0575	C <sub>7</sub> H <sub>8</sub> O	2.62E-11 <sup>b</sup>	2.40	0.17±0.11	0.14±0.09	1.96±1.23	1.59±1.04
110.0368	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	8.01E-11 <sup>s</sup>	/	0.01±0.03	0.01±0.01	/	/
110.0731	C <sub>7</sub> H <sub>10</sub> O	2.33E-11 <sup>s</sup>	/	0.05±0.03	0.02±0.02	/	/

Other OVOCs

112.016	C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	4.90E-11 <sup>s</sup>	/	0.12±0.10	0.08±0.05	/	/
112.0524	C <sub>6</sub> H <sub>8</sub> O <sub>2</sub>	5.70E-11 <sup>s</sup>	/	0.12±0.08	0.06±0.04	/	/
112.0888	C <sub>7</sub> H <sub>12</sub> O	1.00E-11 <sup>h</sup>	/	0.02±0.02	0.01±0.01	/	/
113.9953	C <sub>4</sub> H <sub>2</sub> O <sub>4</sub>	3.60E-11 <sup>j</sup>	/	0.02±0.01	0.02±0.01	/	/
114.0317	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	1.00E-10 <sup>s</sup>	/	0.12±0.09	0.06±0.04	/	/
114.0681	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	2.00E-11 <sup>s</sup>	/	0.12±0.07	0.05±0.04	/	/
114.1044	C <sub>7</sub> H <sub>14</sub> O	2.14E-11 <sup>b</sup>	1.31	0.01±0.01	0.01±0.00	0.06±0.04	0.04±0.02
116.0109	C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	3.60E-11 <sup>j</sup>	/	0.03±0.03	0.02±0.01	/	/
116.0473	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	5.00E-12 <sup>s</sup>	/	0.09±0.06	0.06±0.04	/	/
116.0837	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	6.00E-12 <sup>h</sup>	0.18	0.09±0.07	0.08±0.05	0.08±0.06	0.08±0.05
118.0266	C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	3.60E-11 <sup>j</sup>	/	0.07±0.04	0.05±0.04	/	/
118.063	C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	3.41E-11 <sup>j</sup>	0.62	0.04±0.04	0.02±0.01	0.12±0.08	0.07±0.05
118.0994	C <sub>7</sub> H <sub>4</sub> O <sub>2</sub>	1.90E-11 <sup>f</sup>	1.45	0.03±0.03	0.03±0.02	0.20±0.13	0.22±0.13
120.0211	C <sub>4</sub> H <sub>8</sub> O <sub>4</sub>	2.90E-11 <sup>j</sup>	/	0.02±0.02	0.01±0.01	/	/
120.0422	C <sub>8</sub> H <sub>8</sub> O	3.60E-11 <sup>j</sup>	/	0.02±0.01	0.02±0.01	/	/
120.0575	C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	1.60E-11 <sup>b</sup>	-0.59	0.07±0.08	0.04±0.03	-0.23±-0.14	-0.14±-0.09
122.0368	C <sub>8</sub> H <sub>10</sub> O	3.80E-11 <sup>s</sup>	/	0.08±0.05	0.04±0.03	/	/
122.0731	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	4.66E-11 <sup>s</sup>	2.12	0.05±0.03	0.04±0.03	0.59±0.37	0.47±0.29
124.0524	C <sub>8</sub> H <sub>12</sub> O	7.50E-11 <sup>b</sup>	/	0.15±0.16	0.09±0.06	/	/
124.0888	C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	4.04E-11 <sup>e</sup>	/	0.04±0.03	0.02±0.01	/	/
126.0681	C <sub>8</sub> H <sub>14</sub> O	2.90E-11 <sup>j</sup>	/	0.05±0.03	0.02±0.01	/	/
126.1044	C <sub>3</sub> H <sub>4</sub> O <sub>4</sub>	9.88E-11 <sup>e</sup>	/	0.03±0.02	0.01±0.01	/	/
128.0109	C <sub>6</sub> H <sub>8</sub> O <sub>3</sub>	4.15E-11 <sup>j</sup>	/	0.01±0.03	0.01±0.00	/	/
128.0473	C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	1.32E-10 <sup>s</sup>	/	0.03±0.05	0.02±0.01	/	/
128.0837	C <sub>8</sub> H <sub>16</sub> O	2.90E-11 <sup>j</sup>	4.72	0.06±0.04	0.03±0.02	1.69±1.06	0.78±0.59
128.1201	C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	1.10E-11 <sup>e</sup>	1.40	0.01±0.01	0.00±0.00	0.06±0.04	0.04±0.02
130.0266	C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	4.15E-11 <sup>j</sup>	/	0.08±0.04	0.04±0.03	/	/
130.063	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	3.66E-11 <sup>j</sup>	4.90	0.04±0.02	0.02±0.01	1.10±0.69	0.56±0.41
130.0994	C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	5.00E-12 <sup>f</sup>	0.84	0.02±0.01	0.01±0.01	0.08±0.05	0.05±0.03
132.0422	C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	4.15E-11 <sup>j</sup>	/	0.03±0.02	0.02±0.01	/	/
132.0786	C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	3.66E-11 <sup>j</sup>	1.12	0.03±0.02	0.03±0.02	0.23±0.15	0.17±0.11
132.115	C <sub>8</sub> H <sub>6</sub> O <sub>2</sub>	1.90E-11 <sup>f</sup>	1.61	0.01±0.01	0.01±0.00	0.10±0.07	0.05±0.04
134.0368	C <sub>9</sub> H <sub>10</sub> O	3.05E-11 <sup>j</sup>	/	0.03±0.02	0.02±0.01	/	/
134.0731	C <sub>7</sub> H <sub>4</sub> O <sub>3</sub>	4.50E-12 <sup>h</sup>	0.89	0.02±0.02	0.02±0.01	0.10±0.06	0.08±0.05
136.016	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	3.86E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
136.0524	C <sub>9</sub> H <sub>12</sub> O	1.20E-11 <sup>s</sup>	/	0.09±0.09	0.06±0.04	/	/
136.0888	C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	1.18E-10 <sup>h</sup>	1.90	0.02±0.02	0.02±0.01	0.21±0.16	0.17±0.11
138.0317	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	3.86E-11 <sup>j</sup>	/	0.02±0.02	0.01±0.00	/	/
138.0681	C <sub>9</sub> H <sub>14</sub> O	1.00E-10 <sup>h</sup>	4.49	0.06±0.04	0.04±0.03	1.61±1.02	1.01±0.70
138.1044	C <sub>7</sub> H <sub>8</sub> O <sub>3</sub>	6.00E-12 <sup>f</sup>	4.63	0.04±0.03	0.03±0.02	1.08±0.70	0.88±0.58
140.0473	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	3.86E-11 <sup>j</sup>	/	0.04±0.02	0.02±0.01	/	/

140.0837	C <sub>9</sub> H <sub>16</sub> O	3.05E-11 <sup>j</sup>	/	0.02±0.01	0.01±0.01	/	/
140.1201	C <sub>7</sub> H <sub>10</sub> O <sub>3</sub>	4.35E-11 <sup>e</sup>	1.54	0.02±0.01	0.01±0.01	0.16±0.09	0.09±0.06
142.063	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>	3.86E-11 <sup>j</sup>	/	0.02±0.02	0.01±0.01	/	/
142.0994	C <sub>9</sub> H <sub>18</sub> O	3.05E-11 <sup>j</sup>	8.62	0.03±0.02	0.02±0.01	1.52±0.95	0.98±0.67
142.1357	C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	1.20E-11 <sup>f</sup>	1.08	0.01±0.02	0.01±0.01	0.10±0.06	0.08±0.05
144.0422	C <sub>7</sub> H <sub>12</sub> O <sub>3</sub>	4.60E-12 <sup>g</sup>	/	0.02±0.01	0.02±0.01	/	/
144.0786	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	3.86E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
144.115	C <sub>9</sub> H <sub>6</sub> O <sub>2</sub>	6.00E-12 <sup>f</sup>	0.60	0.01±0.01	0.01±0.00	0.04±0.02	0.03±0.02
146.0368	C <sub>6</sub> H <sub>10</sub> O <sub>4</sub>	3.18E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
146.0579	C <sub>10</sub> H <sub>10</sub> O	4.51E-11 <sup>j</sup>	0.23	0.02±0.01	0.01±0.01	0.03±0.02	0.02±0.01
146.0731	C <sub>8</sub> H <sub>18</sub> O <sub>2</sub>	3.70E-11 <sup>g</sup>	/	0.01±0.01	0.01±0.00	/	/
146.1307	C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>	1.28E-10 <sup>i</sup>	1.54	0.01±0.01	0.01±0.01	0.10±0.07	0.08±0.05
148.0524	C <sub>10</sub> H <sub>12</sub> O	3.18E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
148.0888	C <sub>8</sub> H <sub>6</sub> O <sub>3</sub>	5.00E-11 <sup>h</sup>	0.80	0.02±0.01	0.01±0.01	0.08±0.05	0.07±0.05
150.0317	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	4.03E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
150.0681	C <sub>10</sub> H <sub>14</sub> O	1.00E-10 <sup>g</sup>	/	0.02±0.01	0.01±0.01	/	/
150.1044	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	1.80E-11 <sup>f</sup>	/	0.02±0.02	0.02±0.01	/	/
152.0473	C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	8.50E-11 <sup>g</sup>	1.71	0.06±0.03	0.06±0.04	0.71±0.40	0.73±0.46
152.0837	C <sub>10</sub> H <sub>16</sub> O	3.18E-11 <sup>j</sup>	1.60	0.02±0.01	0.01±0.01	0.23±0.16	0.14±0.10
152.1201	C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>	4.30E-12 <sup>h</sup>	0.49	0.04±0.02	0.03±0.02	0.13±0.07	0.12±0.07
154.0266	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	4.77E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
154.063	C <sub>9</sub> H <sub>14</sub> O <sub>2</sub>	1.00E-10 <sup>g</sup>	/	0.02±0.01	0.01±0.01	/	/
154.0994	C <sub>10</sub> H <sub>18</sub> O	3.18E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
154.1357	C <sub>7</sub> H <sub>8</sub> O <sub>4</sub>	2.50E-11 <sup>h</sup>	4.63	0.01±0.01	0.00±0.00	0.28±0.17	0.15±0.09
156.0422	C <sub>8</sub> H <sub>12</sub> O <sub>3</sub>	4.77E-11 <sup>j</sup>	/	0.02±0.01	0.01±0.01	/	/
156.0786	C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	4.03E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
156.115	C <sub>10</sub> H <sub>20</sub> O	3.18E-11 <sup>j</sup>	/	0.02±0.02	0.01±0.01	/	/
158.0579	C <sub>7</sub> H <sub>10</sub> O <sub>4</sub>	4.77E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
160.0888	C <sub>11</sub> H <sub>12</sub> O	2.39E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
160.1463	C <sub>9</sub> H <sub>20</sub> O <sub>2</sub>	1.43E-10 <sup>i</sup>	/	0.02±0.03	0.02±0.01	/	/
162.0317	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>	4.19E-11 <sup>j</sup>	/	0.05±0.04	0.02±0.02	/	/
162.0681	C <sub>11</sub> H <sub>14</sub> O	1.45E-10 <sup>i</sup>	2.25	0.02±0.01	0.01±0.01	0.28±0.18	0.19±0.13
162.1044	C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	2.39E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
164.0473	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	4.19E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
164.0837	C <sub>11</sub> H <sub>16</sub> O	1.00E-10 <sup>g</sup>	/	0.01±0.01	0.01±0.00	/	/
164.1201	C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	2.39E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
166.0266	C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	4.98E-11 <sup>j</sup>	/	0.07±0.05	0.03±0.02	/	/
166.063	C <sub>10</sub> H <sub>14</sub> O <sub>2</sub>	4.19E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.00	/	/
166.0994	C <sub>11</sub> H <sub>18</sub> O	3.31E-11 <sup>j</sup>	/	0.02±0.01	0.01±0.01	/	/
166.1357	C <sub>12</sub> H <sub>8</sub> O	2.39E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
168.0575	C <sub>10</sub> H <sub>16</sub> O <sub>2</sub>	2.51E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/

168.115	C <sub>11</sub> H <sub>20</sub> O	3.31E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
168.1514	C <sub>8</sub> H <sub>10</sub> O <sub>4</sub>	1.90E-11 <sup>f</sup>	/	0.01±0.00	0.00±0.00	/	/
170.0579	C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	4.98E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
170.1307	C <sub>11</sub> H <sub>22</sub> O	3.31E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.01	/	/
170.1671	C <sub>8</sub> H <sub>12</sub> O <sub>4</sub>	1.54E-10 <sup>i</sup>	/	0.00±0.01	0.00±0.00	/	/
172.0735	C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	4.98E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
172.1463	C <sub>11</sub> H <sub>10</sub> O <sub>2</sub>	1.90E-11 <sup>f</sup>	0.57	0.00±0.00	0.00±0.00	0.02±0.01	0.01±0.01
174.0681	C <sub>12</sub> H <sub>14</sub> O	3.44E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
174.1044	C <sub>10</sub> H <sub>22</sub> O <sub>2</sub>	2.51E-11 <sup>j</sup>	/	0.01±0.00	0.01±0.00	/	/
176.0473	C <sub>10</sub> H <sub>8</sub> O <sub>3</sub>	4.33E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
176.0837	C <sub>11</sub> H <sub>12</sub> O <sub>2</sub>	3.44E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.00	/	/
176.1201	C <sub>12</sub> H <sub>16</sub> O	1.61E-10 <sup>i</sup>	/	0.00±0.00	0.00±0.00	/	/
178.0266	C <sub>9</sub> H <sub>6</sub> O <sub>4</sub>	5.16E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
178.063	C <sub>10</sub> H <sub>10</sub> O <sub>3</sub>	4.33E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
178.0994	C <sub>11</sub> H <sub>14</sub> O <sub>2</sub>	3.44E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
178.1357	C <sub>12</sub> H <sub>18</sub> O	1.63E-10 <sup>i</sup>	/	0.00±0.00	0.00±0.00	/	/
180.0422	C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>	5.16E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.00	/	/
180.0786	C <sub>10</sub> H <sub>12</sub> O <sub>3</sub>	4.33E-11 <sup>j</sup>	1.44	0.01±0.01	0.01±0.01	0.14±0.09	0.08±0.06
180.115	C <sub>11</sub> H <sub>16</sub> O <sub>2</sub>	3.44E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.00	/	/
180.1514	C <sub>12</sub> H <sub>20</sub> O	2.51E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
182.0731	C <sub>13</sub> H <sub>10</sub> O	2.63E-11 <sup>j</sup>	/	0.01±0.01	0.01±0.00	/	/
182.1307	C <sub>11</sub> H <sub>18</sub> O <sub>2</sub>	3.44E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
182.1671	C <sub>12</sub> H <sub>22</sub> O	2.51E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
184.0735	C <sub>9</sub> H <sub>12</sub> O <sub>4</sub>	5.16E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
184.1463	C <sub>11</sub> H <sub>20</sub> O <sub>2</sub>	3.44E-11 <sup>j</sup>	2.52	0.01±0.01	0.00±0.00	0.15±0.10	0.07±0.05
184.1827	C <sub>12</sub> H <sub>24</sub> O	1.90E-11 <sup>i</sup>	1.66	0.00±0.00	0.00±0.00	0.04±0.03	0.03±0.02
186.0892	C <sub>9</sub> H <sub>14</sub> O <sub>4</sub>	5.16E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
186.1044	C <sub>13</sub> H <sub>14</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
188.0837	C <sub>12</sub> H <sub>12</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
188.1201	C <sub>13</sub> H <sub>16</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
190.063	C <sub>11</sub> H <sub>10</sub> O <sub>3</sub>	4.47E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
190.0994	C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
190.1357	C <sub>13</sub> H <sub>18</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
192.0422	C <sub>10</sub> H <sub>8</sub> O <sub>4</sub>	5.33E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
192.115	C <sub>12</sub> H <sub>16</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
192.1514	C <sub>13</sub> H <sub>20</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
194.0579	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	5.33E-11 <sup>j</sup>	/	0.01±0.00	0.00±0.00	/	/
194.0943	C <sub>11</sub> H <sub>14</sub> O <sub>3</sub>	4.47E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
194.1307	C <sub>12</sub> H <sub>18</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
194.1671	C <sub>13</sub> H <sub>22</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.01	0.00±0.00	/	/
196.0888	C <sub>14</sub> H <sub>12</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/

196.1463	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
196.1827	C <sub>13</sub> H <sub>24</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
198.0681	C <sub>13</sub> H <sub>10</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
198.0892	C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	5.33E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
198.162	C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	3.57E-11 <sup>j</sup>	/	0.01±0.01	0.00±0.00	/	/
198.1983	C <sub>13</sub> H <sub>26</sub> O	2.63E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
200.0837	C <sub>13</sub> H <sub>12</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
200.1201	C <sub>14</sub> H <sub>16</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
202.0994	C <sub>13</sub> H <sub>14</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
202.1357	C <sub>14</sub> H <sub>18</sub> O	2.75E-11 <sup>j</sup>	3.16	0.00±0.00	0.00±0.00	0.07±0.05	0.05±0.03
204.115	C <sub>13</sub> H <sub>16</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
204.1514	C <sub>14</sub> H <sub>20</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
206.1307	C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
206.1671	C <sub>14</sub> H <sub>22</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
208.1463	C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
208.1827	C <sub>14</sub> H <sub>24</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
210.1983	C <sub>14</sub> H <sub>26</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
212.1776	C <sub>13</sub> H <sub>24</sub> O <sub>2</sub>	3.69E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
212.214	C <sub>14</sub> H <sub>28</sub> O	2.75E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
220.1463	C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>	3.82E-11 <sup>j</sup>	/	0.00±0.00	0.00±0.00	/	/
57.0214	C <sub>2</sub> H <sub>3</sub> NO	1.00E-13 <sup>e</sup>	/	0.00±0.00	0.00±0.00	/	/
59.0371	C <sub>2</sub> H <sub>3</sub> NO	8.60E-12 <sup>b</sup>	/	0.08±0.06	0.03±0.02	/	/
71.0371	C <sub>3</sub> H <sub>5</sub> NO	4.50E-11 <sup>i</sup>	/	0.03±0.02	0.02±0.01	/	/
73.0164	C <sub>2</sub> H <sub>3</sub> NO <sub>2</sub>	1.20E-12 <sup>b</sup>	/	0.03±0.03	0.02±0.02	/	/
73.0527	C <sub>3</sub> H <sub>7</sub> NO	1.25E-11 <sup>e</sup>	/	0.17±0.30	0.33±0.19	/	/
75.0684	C <sub>3</sub> H <sub>9</sub> NO	1.31E-11 <sup>j</sup>	5.42	0.00±0.00	0.00±0.00	0.03±0.02	0.02±0.01
85.0527	C <sub>4</sub> H <sub>7</sub> NO	6.10E-11 <sup>i</sup>	/	0.02±0.01	0.01±0.01	/	/
87.032	C <sub>3</sub> H <sub>5</sub> NO <sub>2</sub>	1.20E-11 <sup>f</sup>	/	0.05±0.05	0.02±0.01	/	/
87.0684	C <sub>4</sub> H <sub>9</sub> NO	1.12E-10 <sup>f</sup>	1.58	0.03±0.04	0.02±0.01	0.19±0.15	0.14±0.09
99.0684	C <sub>3</sub> H <sub>9</sub> NO	1.63E-11 <sup>j</sup>	2.41	0.01±0.02	0.02±0.01	0.12±0.08	0.18±0.10
101.0477	C <sub>4</sub> H <sub>7</sub> NO <sub>2</sub>	1.20E-11 <sup>i</sup>	/	0.08±0.04	0.05±0.04	/	/
101.084	C <sub>5</sub> H <sub>11</sub> NO	2.10E-11 <sup>f</sup>	/	0.01±0.01	0.01±0.01	/	/
113.0477	C <sub>5</sub> H <sub>7</sub> NO <sub>2</sub>	2.57E-11 <sup>j</sup>	/	0.02±0.02	0.01±0.01	/	/
113.084	C <sub>6</sub> H <sub>11</sub> NO	9.20E-11 <sup>i</sup>	/	0.02±0.01	0.01±0.01	/	/
121.0527	C <sub>7</sub> H <sub>7</sub> NO	7.90E-11 <sup>i</sup>	/	0.04±0.03	0.03±0.02	/	/
139.0269	C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	1.00E-13 <sup>f</sup>	/	0.02±0.01	0.01±0.01	/	/
153.0426	C <sub>7</sub> H <sub>7</sub> NO <sub>3</sub>	3.00E-12 <sup>f</sup>	/	0.01±0.01	0.01±0.00	/	/

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

140 ‘/’: MIR value not available.

## 141 **References**

- 142 Atkinson, R. and Arey, J.: Atmospheric Degradation of Volatile Organic Compounds, *Chem. Rev.*, 103, 4605–4638,  
143 <https://doi.org/10.1021/cr0206420>, 2003.
- 144 Carter, W. P.: Development of the SAPRC-07 chemical mechanism, *Atmos. Environ.*, 44, 5324–5335, 2010.
- 145 De Gouw, J., Middlebrook, A., Warneke, C., Goldan, P., Kuster, W., Roberts, J., Fehsenfeld, F., Worsnop, D., Canagaratna,  
146 M., Pszenny, A., and others: Budget of organic carbon in a polluted atmosphere: Results from the New England Air Quality  
147 Study in 2002, *J. Geophys. Res. Atmospheres*, 110, 2005.
- 148 De Gouw, J., Gilman, J., Kim, S.-W., Alvarez, S., Dusanter, S., Graus, M., Griffith, S., Isaacman-VanWertz, G., Kuster, W.,  
149 Lefer, B., and others: Chemistry of volatile organic compounds in the Los Angeles Basin: Formation of oxygenated  
150 compounds and determination of emission ratios, *J. Geophys. Res. Atmospheres*, 123, 2298–2319, 2018.
- 151 Donahue, N. M., Chuang, W., Epstein, S. A., Kroll, J. H., Worsnop, D. R., Robinson, A. L., Adams, P. J., and Pandis, S. N.:  
152 Why do organic aerosols exist? Understanding aerosol lifetimes using the two-dimensional volatility basis set, *Environ.*  
153 *Chem.*, 10, 151–157, <https://doi.org/10.1071/EN13022>, 2013.
- 154 Gilman, J. B., Lerner, B. M., Kuster, W. C., Goldan, P. D., Warneke, C., Veres, P. R., Roberts, J. M., de Gouw, J. A., Burling,  
155 I. R., and Yokelson, R. J.: Biomass burning emissions and potential air quality impacts of volatile organic compounds and  
156 other trace gases from fuels common in the US, *Atmospheric Chem. Phys.*, 15, 13915–13938, [https://doi.org/10.5194/acp-](https://doi.org/10.5194/acp-15-13915-2015)  
157 [15-13915-2015](https://doi.org/10.5194/acp-15-13915-2015), 2015.
- 158 Jenkin, M. E., Valorso, R., Aumont, B., Rickard, A. R., and Wallington, T. J.: Estimation of rate coefficients and branching  
159 ratios for gas-phase reactions of OH with aliphatic organic compounds for use in automated mechanism construction,  
160 *Atmospheric Chem. Phys.*, 18, 9297–9328, <https://doi.org/10.5194/acp-18-9297-2018>, 2018.
- 161 Jensen, A. R., Koss, A. R., Hales, R. B., and de Gouw, J. A.: Measurements of volatile organic compounds in ambient air by  
162 gas-chromatography and real-time Vocus PTR-TOF-MS: calibrations, instrument background corrections, and introducing a  
163 PTR Data Toolkit, *Atmospheric Meas. Tech.*, 16, 5261–5285, <https://doi.org/10.5194/amt-16-5261-2023>, 2023.
- 164 Koss, A. R., Sekimoto, K., Gilman, J. B., Selimovic, V., Coggon, M. M., Zarzana, K. J., Yuan, B., Lerner, B. M., Brown, S.  
165 S., Jimenez, J. L., Krechmer, J., Roberts, J. M., Warneke, C., Yokelson, R. J., and de Gouw, J.: Non-methane organic gas  
166 emissions from biomass burning: identification, quantification, and emission factors from PTR-ToF during the FIREX 2016  
167 laboratory experiment, *Atmospheric Chem. Phys.*, 18, 3299–3319, <https://doi.org/10.5194/acp-18-3299-2018>, 2018.
- 168 Li, H., Riva, M., Rantala, P., Heikkinen, L., Daellenbach, K., Krechmer, J. E., Flaud, P.-M., Worsnop, D., Kulmala, M.,  
169 Villenave, E., Perraudin, E., Ehn, M., and Bianchi, F.: Terpenes and their oxidation products in the French Landes forest:  
170 insights from Vocus PTR-TOF measurements, *Atmospheric Chem. Phys.*, 20, 1941–1959, [https://doi.org/10.5194/acp-20-](https://doi.org/10.5194/acp-20-1941-2020)  
171 [1941-2020](https://doi.org/10.5194/acp-20-1941-2020), 2020.
- 172 Li, Z.-J., He, L.-Y., Ma, H.-N., Peng, X., Tang, M.-X., Du, K., and Huang, X.-F.: Sources of atmospheric oxygenated volatile  
173 organic compounds in different air masses in Shenzhen, China, *Environ. Pollut.*, 340, 122871,

174 <https://doi.org/10.1016/j.envpol.2023.122871>, 2024.

175 Mellouki, A., Wallington, T. J., and Chen, J.: Atmospheric Chemistry of Oxygenated Volatile Organic Compounds: Impacts  
176 on Air Quality and Climate, *Chem. Rev.*, 115, 3984–4014, <https://doi.org/10.1021/cr500549n>, 2015.

177 Pfannerstill, E. Y., Wang, N., Edtbauer, A., Bourtsoukidis, E., Crowley, J. N., Dienhart, D., Eger, P. G., Ernle, L., Fischer, H.,  
178 Hottmann, B., Paris, J.-D., Stöner, C., Tadic, I., Walter, D., Lelieveld, J., and Williams, J.: Shipborne measurements of total  
179 OH reactivity around the Arabian Peninsula and its role in ozone chemistry, *Atmospheric Chem. Phys.*, 19, 11501–11523,  
180 <https://doi.org/10.5194/acp-19-11501-2019>, 2019.

181 Qi, J., Yuan, B., Wang, W., Wang, S., He, X., Chen, Y., Peng, Y., Huangfu, Y., Li, X.-B., and Shao, M.: Reassessing the  
182 missing OH reactivity based on organic molecular formulas: Comparison between urban and regional environments, *Atmos.*  
183 *Environ.*, 353, 121240, <https://doi.org/10.1016/j.atmosenv.2025.121240>, 2025.

184 Roberts, J. M., Fehsenfeld, F. C., Liu, S. C., Bollinger, M. J., Hahn, C., Albritton, D. L., and Sievers, R. E.: Measurements of  
185 aromatic hydrocarbon ratios and NO<sub>x</sub> concentrations in the rural troposphere: Observation of air mass photochemical aging  
186 and NO<sub>x</sub> removal, *Atmospheric Environ.* 1967, 18, 2421–2432, 1984.

187 Rohrer, F. and Berresheim, H.: Strong correlation between levels of tropospheric hydroxyl radicals and solar ultraviolet  
188 radiation, *Nature*, 442, 184–187, <https://doi.org/10.1038/nature04924>, 2006.

189 Sanchez, D., Seco, R., Gu, D., Guenther, A., Mak, J., Lee, Y., Kim, D., Ahn, J., Blake, D., Herndon, S., Jeong, D., Sullivan,  
190 J. T., Mcgee, T., Park, R., and Kim, S.: Contributions to OH reactivity from unexplored volatile organic compounds  
191 measured by PTR-ToF-MS – a case study in a suburban forest of the Seoul metropolitan area during the Korea–United States  
192 Air Quality Study (KORUS-AQ) 2016, *Atmospheric Chem. Phys.*, 21, 6331–6345, [https://doi.org/10.5194/acp-21-6331-](https://doi.org/10.5194/acp-21-6331-2021)  
193 2021, 2021.

194 Saunders, S. M., Jenkin, M. E., Derwent, R. G., and Pilling, M. J.: Protocol for the development of the Master Chemical  
195 Mechanism, MCM v3 (Part A): tropospheric degradation of non-aromatic volatile organic compounds, *Atmospheric Chem.*  
196 *Phys.*, 3, 161–180, 2003.

197 Sekimoto, K., Li, S.-M., Yuan, B., Koss, A., Coggon, M., Warneke, C., and De Gouw, J.: Calculation of the sensitivity of  
198 proton-transfer-reaction mass spectrometry (PTR-MS) for organic trace gases using molecular properties, *Int. J. Mass*  
199 *Spectrom.*, 421, 71–94, <https://doi.org/10.1016/j.ijms.2017.04.006>, 2017.

200 Stroud, C. A., Roberts, J. M., Goldan, P. D., Kuster, W. C., Murphy, P. C., Williams, E. J., Hereid, D., Parrish, D., Sueper, D.,  
201 Trainer, M., Fehsenfeld, F. C., Apel, E. C., Riemer, D., Wert, B., Henry, B., Fried, A., Martinez-Harder, M., Harder, H.,  
202 Brune, W. H., Li, G., Xie, H., and Young, V. L.: Isoprene and its oxidation products, methacrolein and methylvinyl ketone, at  
203 an urban forested site during the 1999 Southern Oxidants Study, *J. Geophys. Res. Atmospheres*, 106, 8035–8046,  
204 <https://doi.org/10.1029/2000JD900628>, 2001.

205 Wang, C., Yuan, B., Wu, C., Wang, S., Qi, J., Wang, B., Wang, Z., Hu, W., Chen, W., Ye, C., Wang, W., Sun, Y., Wang, C.,  
206 Huang, S., Song, W., Wang, X., Yang, S., Zhang, S., Xu, W., Ma, N., Zhang, Z., Jiang, B., Su, H., Cheng, Y., Wang, X., and  
207 Shao, M.: Measurements of higher alkanes using NO<sup>+</sup> chemical ionization in PTR-ToF-MS: important contributions of

208 higher alkanes to secondary organic aerosols in China, *Atmospheric Chem. Phys.*, 20, 14123–14138,  
209 <https://doi.org/10.5194/acp-20-14123-2020>, 2020.

210 Wu, C., Wang, C., Wang, S., Wang, W., Yuan, B., Qi, J., Wang, B., Wang, H., Wang, C., Song, W., Wang, X., Hu, W., Lou, S.,  
211 Ye, C., Peng, Y., Wang, Z., Huangfu, Y., Xie, Y., Zhu, M., Zheng, J., Wang, X., Jiang, B., Zhang, Z., and Shao, M.:  
212 Measurement report: Important contributions of oxygenated compounds to emissions and chemistry of volatile organic  
213 compounds in urban air, *Atmospheric Chem. Phys.*, 20, 14769–14785, <https://doi.org/10.5194/acp-20-14769-2020>, 2020a.

214 Wu, C., Wang, C., Wang, S., Wang, W., Yuan, B., Qi, J., Wang, B., Wang, H., Wang, C., Song, W., Wang, X., Hu, W., Lou, S.,  
215 Ye, C., Peng, Y., Wang, Z., Huangfu, Y., Xie, Y., Zhu, M., Zheng, J., Wang, X., Jiang, B., Zhang, Z., and Shao, M.:  
216 Measurement report: Important contributions of oxygenated compounds to emissions and chemistry of volatile organic  
217 compounds in urban air, *Atmospheric Chem. Phys.*, 20, 14769–14785, <https://doi.org/10.5194/acp-20-14769-2020>, 2020b.

218 Yang, G., Huo, J., Wang, L., Wang, Y., Wu, S., Yao, L., Fu, Q., and Wang, L.: Total OH Reactivity Measurements in a  
219 Suburban Site of Shanghai, *J. Geophys. Res. Atmospheres*, 127, e2021JD035981, <https://doi.org/10.1029/2021JD035981>,  
220 2022.

221 Yuan, B., Chen, W., Shao, M., Wang, M., Lu, S., Wang, B., Liu, Y., Chang, C.-C., and Wang, B.: Measurements of ambient  
222 hydrocarbons and carbonyls in the Pearl River Delta (PRD), China, *Atmospheric Res.*, 116, 93–104,  
223 <https://doi.org/10.1016/j.atmosres.2012.03.006>, 2012.

224 Yuan, B., Koss, A. R., Warneke, C., Coggon, M., Sekimoto, K., and de Gouw, J. A.: Proton-Transfer-Reaction Mass  
225 Spectrometry: Applications in Atmospheric Sciences, *Chem. Rev.*, 117, 13187–13229,  
226 <https://doi.org/10.1021/acs.chemrev.7b00325>, 2017.

227

228