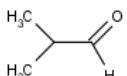
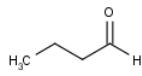
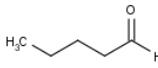
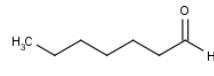
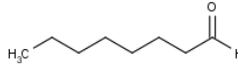
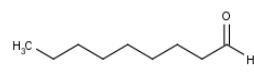
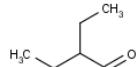
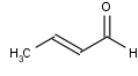
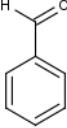


Supplementary material

Chemicals list

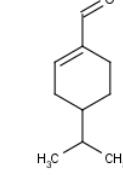
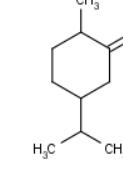
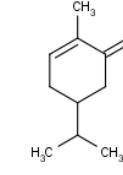
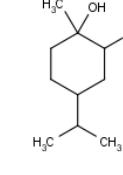
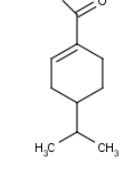
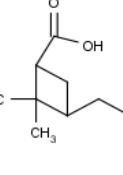
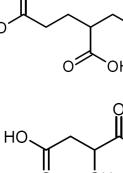
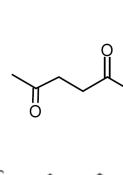
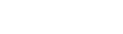
All chemicals were purchased from Sigma-Aldrich Co. (St. Louis, USA) with the exception of 4-oxopentanal purchased from Diverchim SA (Montataire, France). Compounds chosen as relevant compounds for atmospheric species are noted “**Generic compounds**”, compounds specifically chosen for limonene ozonolysis products identification and quantification are noted “**Limonene application**”, compounds used as precursors for SOA generation experiments are noted “**Precursors**”.

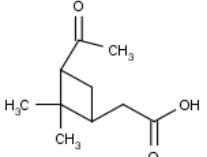
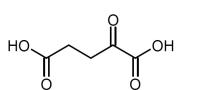
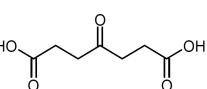
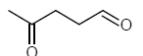
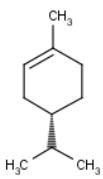
Compound	Supplier, purity	Formula
Generic compounds		
methacroleine	Aldrich, 95%	
butanal	Fluka, ≥99.0%	
pentanal	Aldrich, 97%	
heptanal	Aldrich, ≥92%	
octanal	Aldrich, 99%	
nonanal	Aldrich, ≥95%	
2-ethylbutanal	Aldrich, ≥92%	
2-butenal	Aldrich, 97%	
benzaldehyde	Sigma-Aldrich, ≥99%	

Compound	Supplier, purity	Formula
Generic compounds (continued)		
citronellal	Aldrich, $\geq 95\%$	
citral	Aldrich, 95%	
ethyl-3-methyl-4-oxocrotonate	Aldrich, $\geq 97\%$	
glyoxal	Sigma-Aldrich, 40 wt. % in H ₂ O	
glutaraldehyde	Sigma-Aldrich, grade I, 70% in H ₂ O	
3-penten-2-one	Aldrich, 70%	
2-hexanone	Fluka, $\geq 99.5\%$	
4-heptanone	Aldrich, 98%	
dimethylglyoxal	Fluka, $\geq 99.0\%$	
3-methyl-2,4-pentanedione	Aldrich, 85%	
methylglyoxal	Fluka, ~40% in H ₂ O	
crotyl alcohol	Aldrich, 96%	
1-butanol	Riedel-de-Haën, $\geq 99.8\%$	
3-hexanol	Aldrich, $\geq 97\%$	

Compound	Supplier, purity	Formula
Generic compounds (continued)		
1-nonanol	Aldrich, 98%	
farnesol	Aldrich, 95%	
phenol	Sigma-Aldrich, ≥99%	
4-methoxyphenol	Aldrich, 99%	
<i>t</i> -butyl-4-hydroxybutyrate	Aldrich, ^{CPR} product	
(S)-3-butene-1,2-diol	Aldrich, ≥97.0%	
diethyleneglycol	Sigma-Aldrich, ≥99.0%	
tetraethyleneglycol	Aldrich, 99%	
propionic acid	Fluka, ≥98%	
crotonic acid	Aldrich, 98%	
methacrylic acid	Aldrich, 99%	
valeric acid	Aldrich, ≥99%	
2-ethylbutyric acid	Aldrich, 99%	
heptanoic acid	Aldrich, 96%	

Compound	Supplier, purity	Formula
Generic compounds (continued)		
benzoic acid	Sigma-Aldrich, ≥99.5%	
monomethylfumarate	Aldrich, 97%	
oxalic acid	Sigma-Aldrich, ≥99.0%	
succinic acid	Sigma-Aldrich, ≥99.0%	
3-ethyl-3-methylglutaric acid	Aldrich, 97%	
2,2-dimethyl-3-hydroxypropionic acid	Aldrich, ^{CPR} product	
8-hydroxyoctanoic acid	Aldrich, ≥98.5%	
caffeic acid	Sigma, ≥98.0%	
hydroxyacetone	Aldrich, 90%	
pyruvic acid	Aldrich, 98%	
3-hydroxy-3-methyl-2-butanone	Aldrich, 95%	
2-hydroxycyclohexanone	Aldrich, ^{CPR} product	

Compound	Supplier, purity	Formula
Limonene application		
perillaldehyde	Aldrich, 92%	
(+)-dihydrocarvone	Aldrich, 98%	
(+)-carvone	Fluka, 98.5%	
(1S,2S,4R)-(+)-limonene-1,2-diol	Aldrich, ≥97.0%	
perillic acid	Aldrich, 95%	
pinic acid	Aldrich	
3-carboxyhexanedioic acid	Aldrich	
D-malic acid	Supelco, analytical standard	
levulinic acid	Aldrich, 98%	
6-oxoheptanoic acid	Aldrich, 90%	

Compound	Supplier, purity	Formula
Limonene application (continued)		
cis-pinonic acid	Aldrich, 98%	
α -ketoglutaric acid	Fluka, $\geq 99.0\%$	
4-oxoheptanedioic acid	Aldrich, 98%	
4-oxopentanal	Diverchim, > 90%	
SOA precursors		
(R)-(+)-limonene	Fluka, $\geq 99.0\%$	
isoprene	Aldrich, 99%	