Supplement of Atmos. Chem. Phys., 14, 8323–8341, 2014
http://www.atmos-chem-phys.net/14/8323/2014/
doi:10.5194/acp-14-8323-2014-supplement

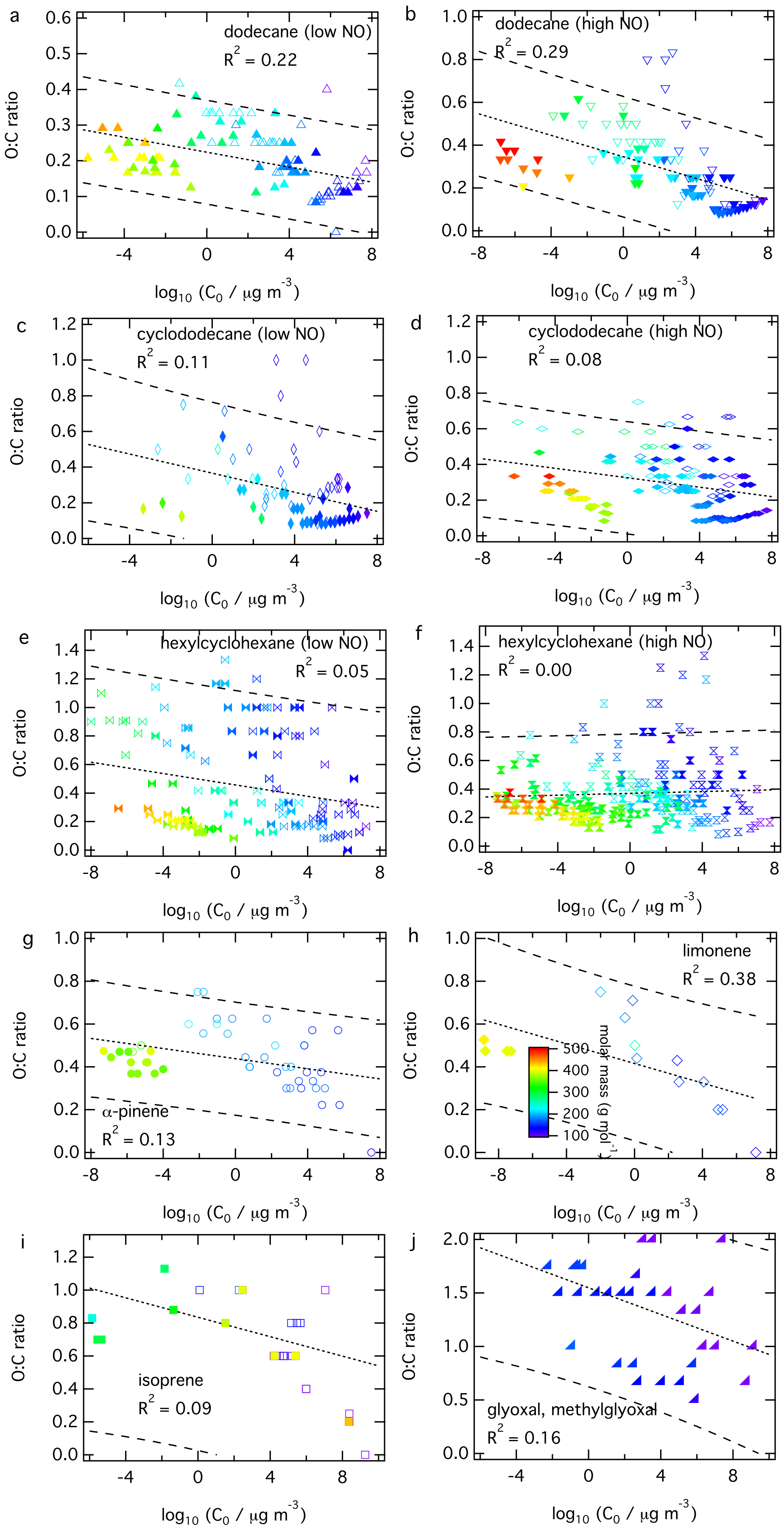
Atmospheric Chemistry and Physics
Open Access

Supplement of

Molecular corridors and kinetic regimes in the multiphase chemical evolution of secondary organic aerosol

M. Shiraiwa et al.

Correspondence to: M. Shiraiwa (m.shiraiwa@mpic.de)


a
dodecane (low NO)
R^2 = 0.22
b
dodecane (high NO)
R^2 = 0.29
c
cyclododecane (low NO)
R^2 = 0.11
d
cyclododecane (high NO)
R^2 = 0.08
e
hexylcyclohexane (low NO)
R^2 = 0.05
f
hexylcyclohexane (high NO)
R^2 = 0.00
g
α-pinene
R^2 = 0.13
h
limonene
R^2 = 0.38
molar mass (g mol^{-1})
500
400
300
200
100
i
isoprene
R^2 = 0.09
j
glyoxal, methylglyoxal
R^2 = 0.16
O:C ratio
$\log_{10}$ (C_0 / μg m^{-3})

1

Figure S1. Atomic O:C ratio vs. volatility (C_0) at 298 K for oxidation products of dodecane at low (a) and high (b) NO condition, cyclododecane at low (c) and high (d) NO condition, and hexylcyclohexane at low (e) and high (f) NO condition and isoprene (g), α-pinene (h), limonene (i), and glyoxal and methylglyoxal (j). The open and solid markers, color-coded with molar mass (g mol^{-1}), correspond to the gas- and particle-phase products, respectively. With a linear regression analysis, the correlation between both quantities has been evaluated (dotted lines) with coefficients of determination (R^2), including prediction intervals at the 95 % confidence level (dashed lines).

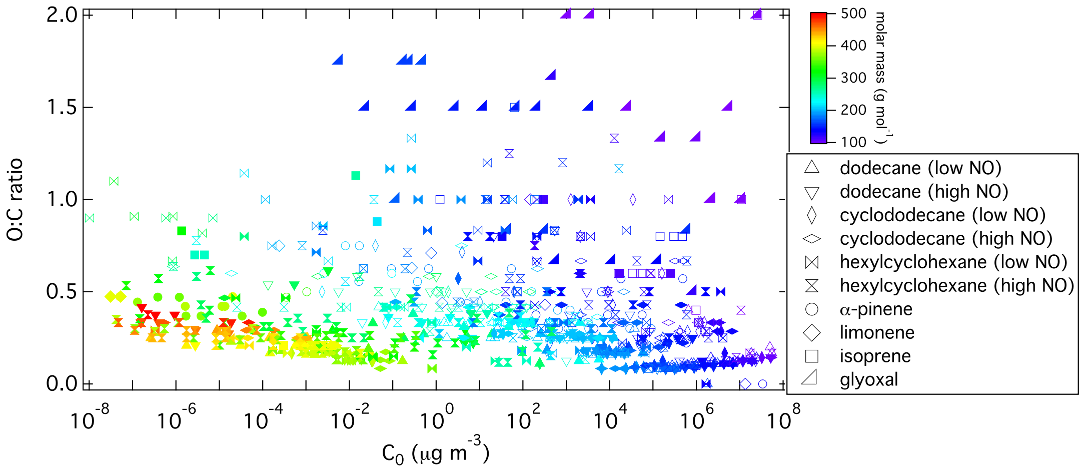


Figure S2. Summary of O:C ratio vs. C_0 for dodecane, cyclododecane, hyxylcyclohexane, α-pinene, limonene, isoprene, and glyoxal. The open and solid markers, color-coded with molar mass (g mol^{-1}), correspond to the gas- and particle-phase products, respectively.