



Supplement of

Volatility of organic aerosol and its components in the megacity of Paris

Andrea Paciga et al.

Correspondence to: Spyros N. Pandis (spyros@chemeng.upatras.gr)

The copyright of individual parts of the supplement might differ from the CC-BY 3.0 licence.

22 **Table S1.** Estimated volatility distributions for the OA and the PMF factors.^a

23

24

OA Type	C^*								
	10^{-7}	10^{-6}	10^{-5}	10^{-4}	10^{-3}	10^{-2}	10^{-1}	1	10
Summer 2009									
HOA	-	-	-	0.13	0.14	0.08	0.02	0.06	0.57
COA	-	-	0.13	0.15	0.07	0.2	0.08	0.37	-
MOA	-	-	-	0.03	0.03	0.05	0.28	0.42	0.19
SV-OOA	-	-	-	0.06	0.14	0.15	0.13	0.18	0.34
LV-OOA	0.2	0.24	0.28	0.25	0.03	-	-	-	-
Winter 2010									
HOA	-	-	-	0.11	0.09	0.07	0.12	0.11	0.5
COA	-	0.12	0.11	0.14	0.42	0.11	0.1	-	-
BBOA	-	-	-	0.2	0.09	0.08	0.13	0.09	0.41
OOA	-	-	-	0.3	0.09	0.07	0.09	0.1	0.35

25

26

27 ^aExpressed as fractions of the OA with $C^* \leq 10 \mu\text{g m}^{-3}$.

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

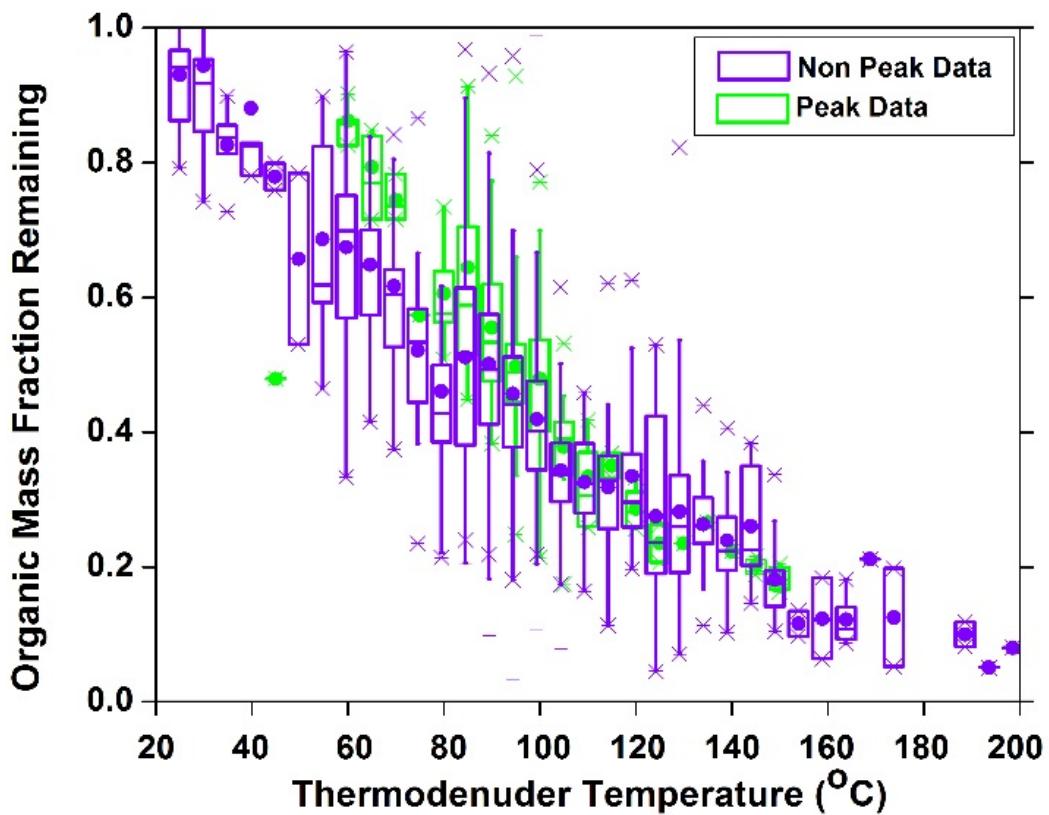
46

47

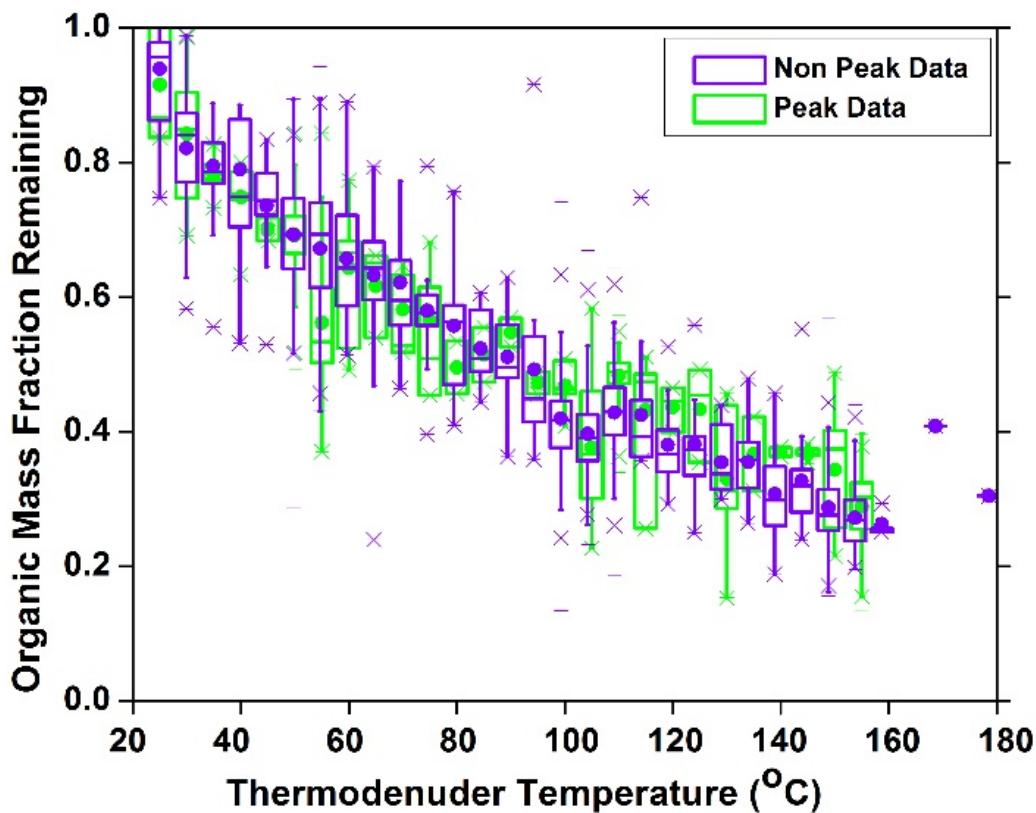
48

49

50



51
 52
 53 **Figure S1.** Organic mass fraction remaining (MFR) as a function of TD temperature for
 54 ambient concentration greater than $1.5 \mu\text{g m}^{-3}$ (peak data – green) and concentrations
 55 lower than $1.5 \mu\text{g m}^{-3}$ (non peak data – purple) for the summer 2009 campaign.
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68



69
 70 **Figure S2.** Organic mass fraction remaining as a function of TD temperature for ambient
 71 concentrations greater than $4.5 \mu\text{g m}^{-3}$ (peak data – green squares) and concentrations
 72 lower than $4.5 \mu\text{g m}^{-3}$ (non peak data – purple circles) for the winter 2010 campaign.
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91

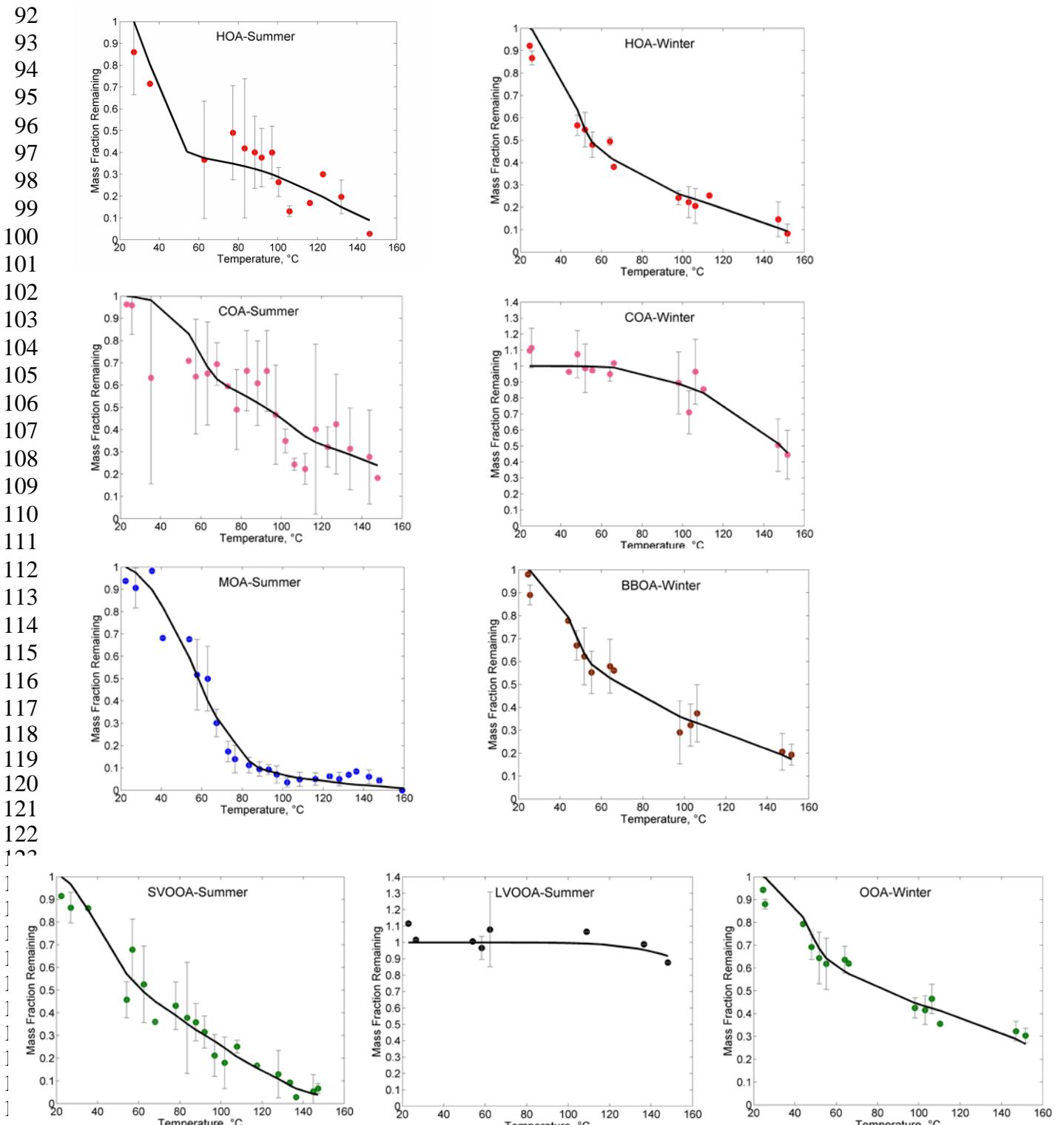


Figure S3. Corrected thermograms along with the error bars representing the standard deviation of the data, with best-fit volatility distributions (solid line) for PMF factors. A few points in the LV-OOA summer graph with very high uncertainties are not shown.

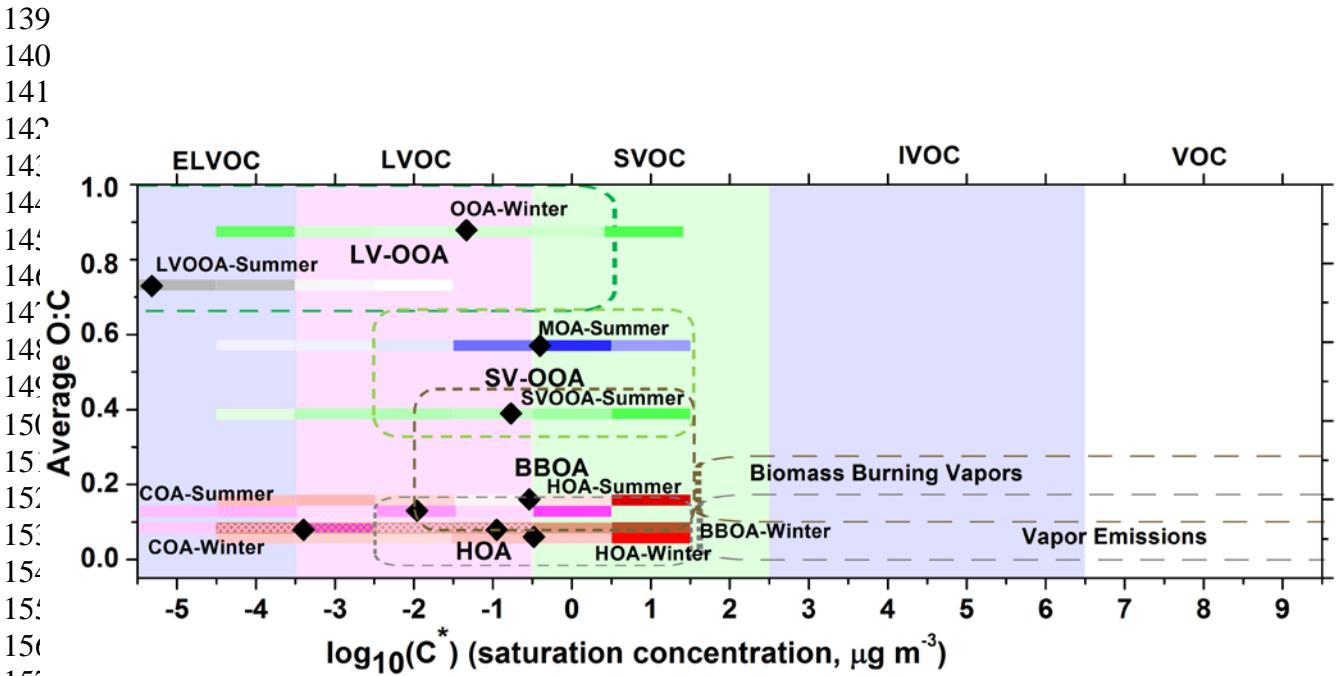


Figure S4. $\log_{10}(C^*)$ saturation concentration and approximate O:C (oxidation state on the left y-axis) for classes of organic species as shown in Donahue et al. (2012) along with estimated factors from the summer and winter campaigns discussed in this work.

161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184