Supplementary Information (SI)

Table S1. Comparison between $D_{act,a}$ calculated in this study and those reported in previous studies. These activation diameters were calculated using the same principle.

Reference		Site	Environment	0.20%	0.40%	0.60%	0.80%	1.0%
This study	**Total mean**			136±43	108±36	91±35	81±34	74±34
	Diurnal	Sao Paulo	Urban	155±46	127±32	110±29	99±29	92±29
	Nocturnal			115±25	87±28	71±28	61±28	54±28
Leng et al.(2013)		Shangai	Urban/Coast	-	-	-	41[a] - 68[b]	-
Burkart et al.(2011)		Vienna	Urban	-	-	69 - 368[c]	-	-
Sihto et al.(2011)		Finland	Forest	-	58 - 99	-	-	-
Quinn et al.(2008)		Gulf of Mexico	Coast	-	70 - 90[d]	-	-	-
			Urban	-	> 90[e]	-	-	-
		Atlantic Ocean	Over Ocean	-	< 80	-	-	-
Furutani et al.(2008)		California	Urban/Coast	-		70 - 110[d]		
				-		~110[f]		
		Pacific Ocean	Over Ocean	**-**		50 - 60		

a - Marine air   d - Anthropogenic emissions or polluted air masses
b - Continental air   e - Urban and industrial sources
c - min-max at SS = 0.5%   f - Fresh Ship Exhaust

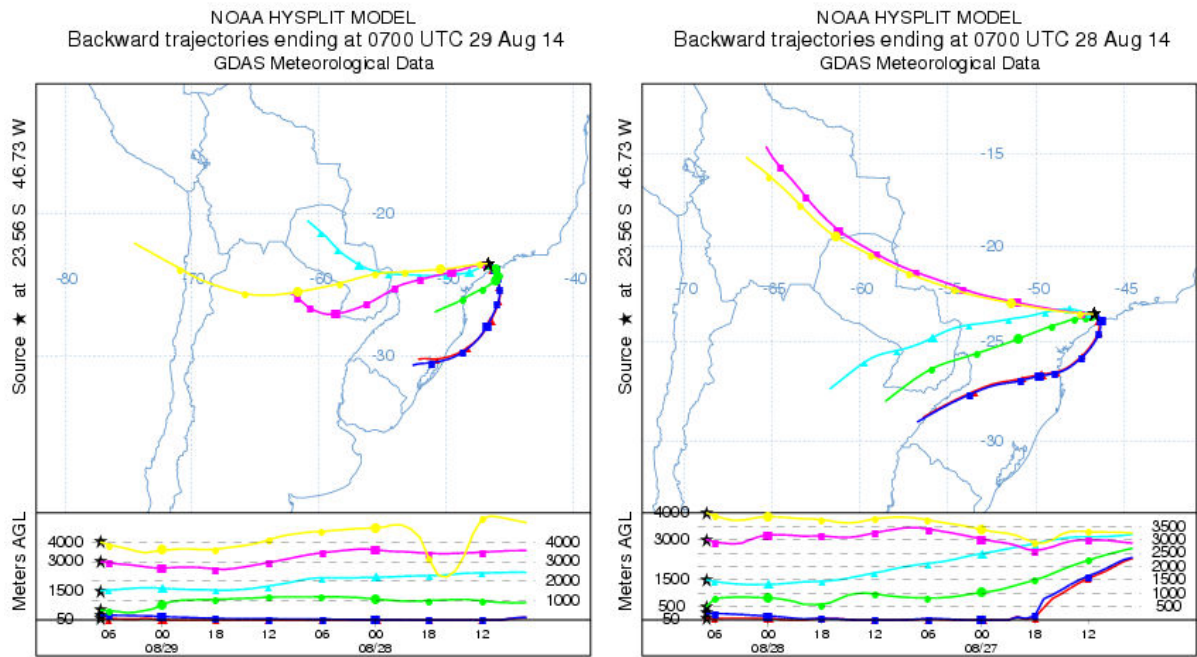
10

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Figure S1. Hysplit backward trajectories models for days 7 and 8. For these period was observed Cl and Pb higher concentrations which were associated with air masses from ocean, as discusses in Section 3.3.

10