Supplementary material for:

Assessing the influence of long-range transport of aerosols on the PM2.5 chemical composition and concentration in the Aburrá Valley

Maria P. Velásquez-García[1,3,4*], K. Santiago Hernández[2], James Vergara-Correa[1], Richard J. Pope[3,4], Miryam Gomez-Marín[1] and Angela M. Rendón[2]

[1] Grupo de Higiene y Gestión Ambiental, Politécnico Jaime Isaza Cadavid, Medellín, Colombia
[2] Grupo de Investigación en Ingeniería y Gestión Ambiental, Universidad de Antioquia, Medellín, Colombia
[3] School of Earth and Environment, University of Leeds, Leeds, UK
[4] National Centre for Earth Observation, University of Leeds, Leeds, UK

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Corresponding author: Maria P. Velásquez-García
E-mail: mpvelasquez@unal.edu.co
Politécnico Jaime Isaza Cadavid
Medellín, Colombia

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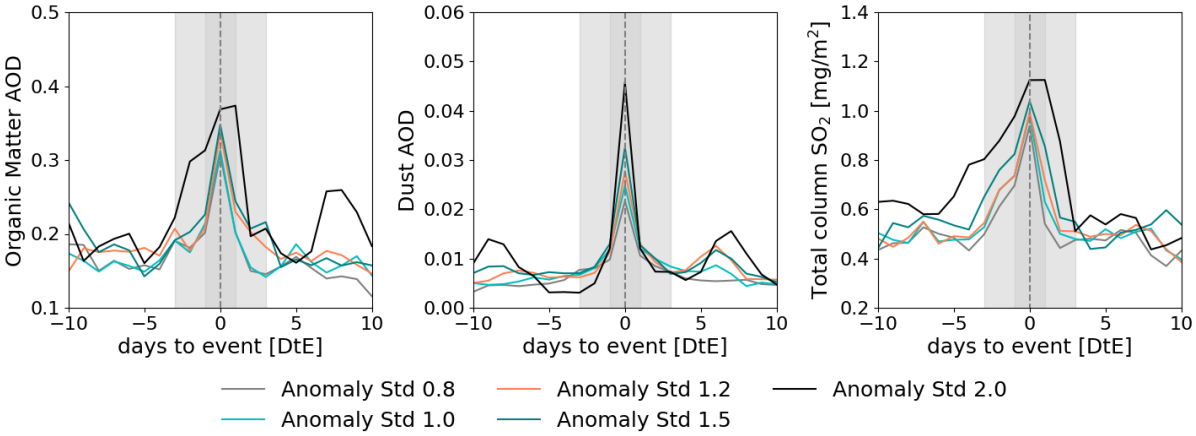

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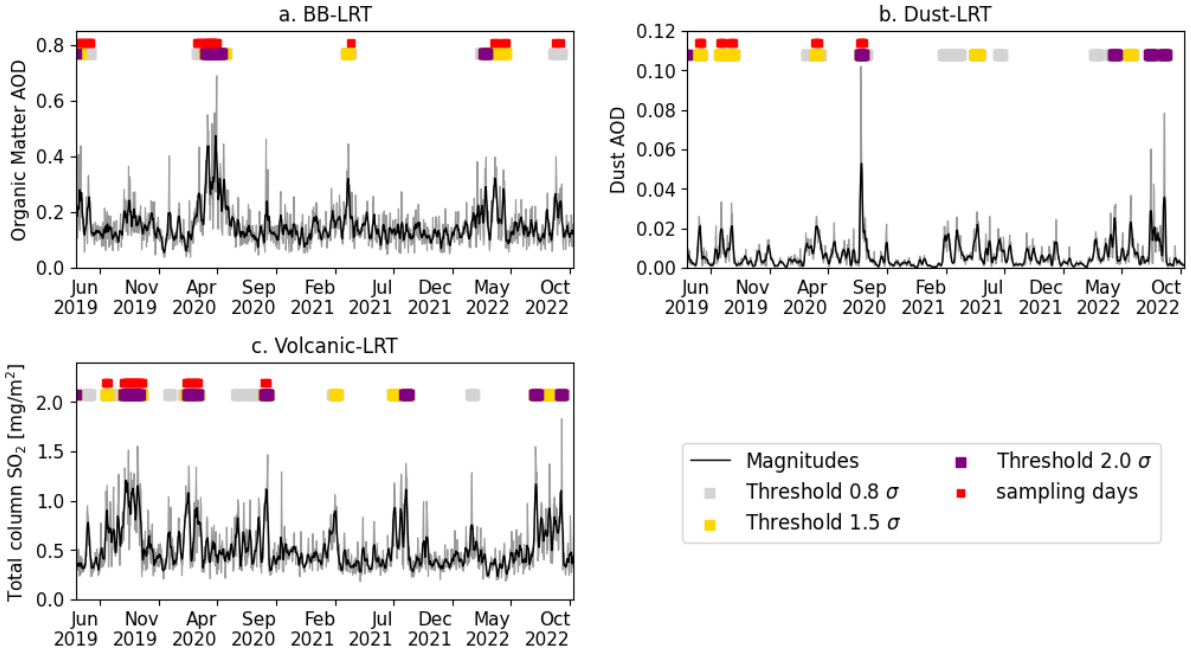

***Figure S2**. OM-AOD, Du-AOD and TCSO2 time series and event periods for (a) BB-LRT, (b) Dust-LRT and (c) Volcanic-LRT along with chemical sampling days for the selected events.*

Table S1. *Median magnitudes in ng/m3 of the concentration of PM2.5 chemical compounds during the study period and during and around (before and after) the identified events of BB-LRT, Dust-LRT and Volcanic-LRT. The ratio OC/EC and SOC/OC are also included, these are dimensionless.*

	Median	Median BB-LRT	Median Around BB-LRT	Median Dust-LRT	Median Around Dust-LRT	Median Volcanic-LRT	Median Around Volcanic-LRT
Be	0.01	0.02	0.01	0.01	0.02	0.01	0.01
Na	202.69	331.22	101.71	11.69	221.57	539.06	194.07
Mg	77.04	109.44	64.61	78.81	81.64	112.55	85.34
Al	445.42	542.72	318.58	525.32	414.15	671.58	450.85
Si	231.83	282.48	165.82	273.42	215.55	349.54	234.66
K	240.44	256.3	233.41	289.36	207.07	210.85	203.13
Ca	259.26	313.05	187.94	262.92	259.26	416.02	257.21
Ti	18.34	25.99	14.82	24.2	20.51	31.27	18.93
V	1.26	1.39	0.85	1.44	1.29	1.83	1.34
Cr	1.46	1.67	0.87	1.47	1.47	2.3	1.37
Mn	3.97	4.64	3.45	4.44	4.05	5.76	3.8
Fe	210.14	285.44	139.29	285.44	239.16	346.95	234.13
Co	0.21	0.17	0.14	0.23	0.19	0.25	0.23
Ni	1.79	1.71	1.58	2	1.63	2.67	1.9
Cu	6.83	6.62	6.94	4.38	5.37	5.18	3.93
Zn	24.65	29.25	25.76	19.4	22.86	26.76	20.31
As	0.98	0.7	1	0.77	0.9	0.62	0.77
Se	0.56	0	0.74	0.37	0.66	0.77	0.61
Mo	0.29	0.26	0.3	0.2	0.23	0.24	0.19
Ag	0.02	0.01	0.04	0.02	0.01	0.02	0.01
Cd	0.13	0.18	0.11	0.08	0.15	0.13	0.14
Sb	0.79	0.62	0.75	0.74	0.83	0.8	0.8
Ba	11.5	13.3	10.96	10.71	10.16	17.66	10.88
Hg	0.08	0.04	0.08	0.05	0.08	0.1	0.08
Pb	3.31	2.71	3.11	2.81	3.67	3.19	3.16
Fluoride	13.29	34.04	10.8	27.58	22.39	14.01	19.72
Chloride	71.75	253.53	149.07	96.1	186.56	101.93	103.37
Nitrate	400.79	529.11	595.34	394.31	441.75	384.72	396.03
Sulphate	1376.4	2790.83	1899.46	1826.07	1472.98	1096.26	1474.96
Potassium	88.76	118.94	111.8	96.88	87.13	134.67	37.2
magnesium	10.55	13.74	11.97	11.92	12.15	8.51	9.49
Calcium	24.97	31.52	27	30.79	29.96	19.93	21.76
Sodium	164.6	124.84	22.62	134.06	267.04	322.77	125.08
C	6269.62	10191.5	6902.07	6661.92	7437.02	8214.57	6440.68
OC	5568.07	9249.99	5978.83	5762.34	6728.79	7375.77	5719.63
EC	694	778.54	782.29	778.54	729.04	724.98	696.7
OC1	1162.73	2001.79	1237.05	1101.18	1320.94	1352.2	1115.57
OC2	1217.86	2286.4	1247.75	1217.86	1444.06	1495.25	1218.81

OC3	470.91	764.49	481.52	498.86	581.24	599.19	470.99
OC4	725.17	1221.59	806.68	807.4	945.4	886.61	759.74
OC5	9.53	13.12	11.01	14.16	17.58	20.42	11.16
PyC	1902.34	3231.61	1982.31	1855.19	2001.91	2703.61	2105.51
EC1	277.01	453.57	284.18	271.09	251.99	324.86	303.31
EC2	1383.02	2080.26	1041.19	1183.03	1130.96	1454.13	1632.26
EC3	652.09	778.04	766.96	1030.82	1013.25	915.21	751.53
EC4	88.97	77.92	97.08	233.35	185.49	150.8	103.67
EC5	17.29	22.44	18.85	20.16	20.42	19.9	16.87
EC6	18.34	24.83	19.2	20.56	19.43	20.68	15.97
OC/EC	7.84	11.29	7.21	7.71	7.76	9.51	8.13
SOC	1871.01	5034.98	1085.18	3064.9	3064.06	2928.61	2429.04
SOC/OC	0.34	0.54	0.2	0.46	0.41	0.46	0.39

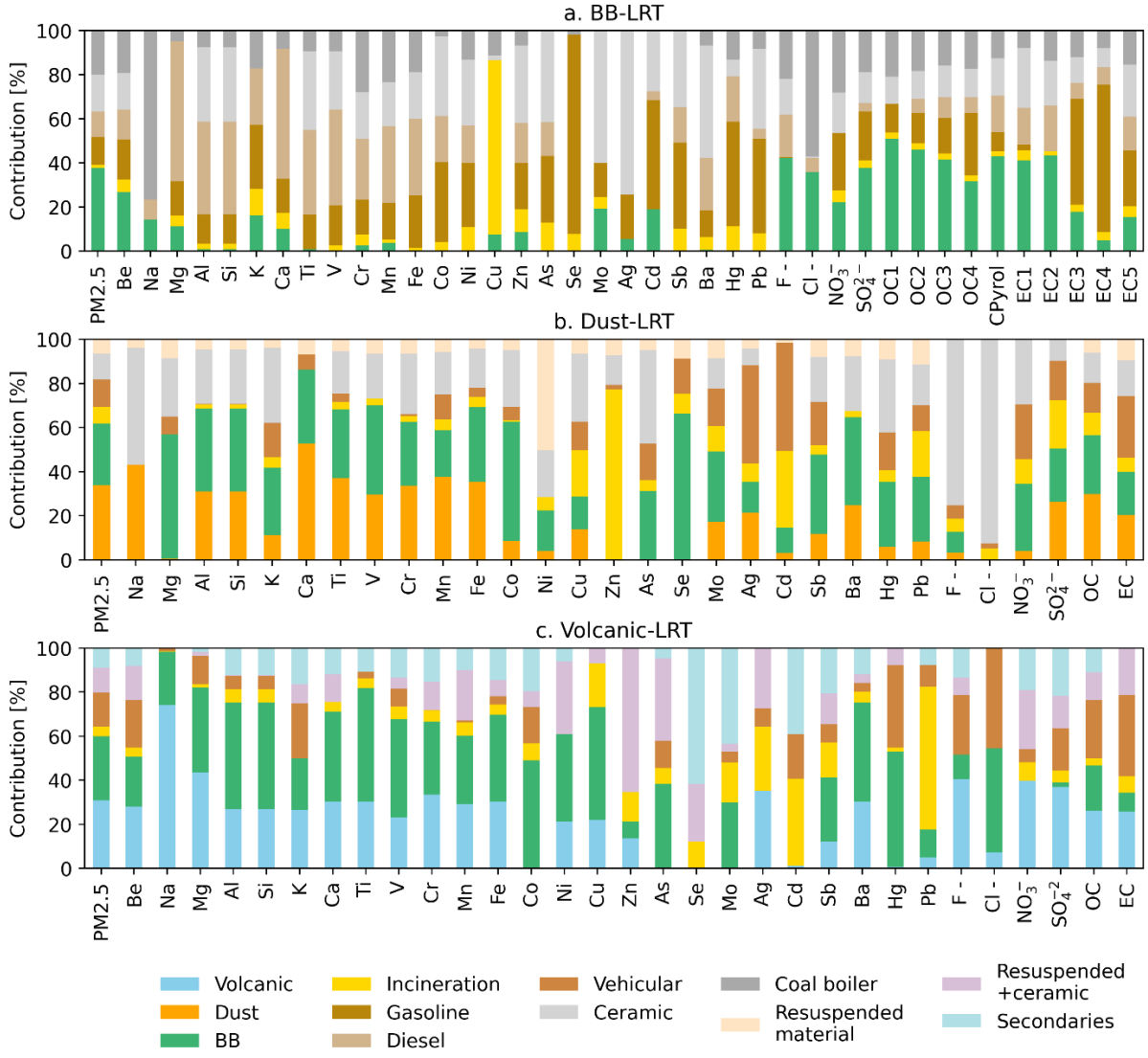

Figure S3. *PMF's Factor profiles for the models run for the set of sampling days for (a) BB aerosols, (b) dust and (c) volcanic aerosols.*

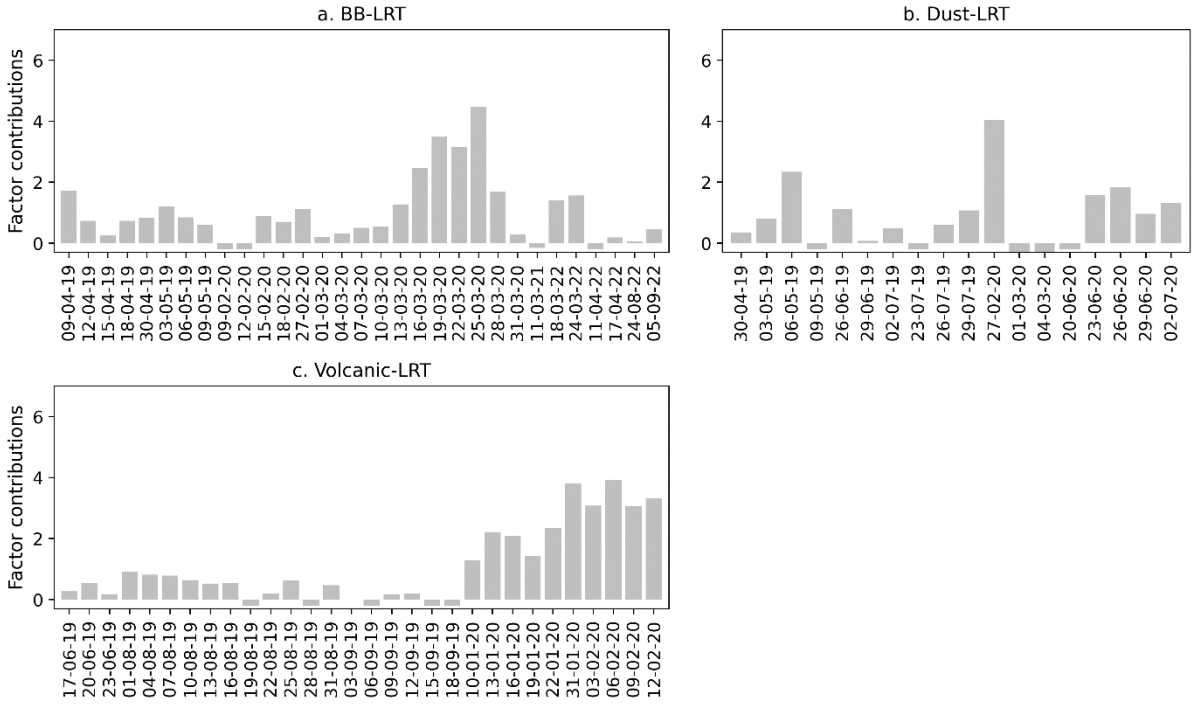

***Figure S4**. Factor contribution for BB, dust, and volcanic emissions factors identified in the PMF models for BB-LRT, Dust-LRT, and Volcanic-LRT*