

Characteristic chemical profile of Particulate Matter (PM_{2.5})— A Comparative Study Between Two Periods, Case study in Medellin, Colombia

Supplementary material.

Table S1. Detailed sampling collection information

Station	Type	Mean Temp (°C)	Mean HR (%)	Max PPT (mm/day)	Max WS (Km/h)	Elevation (m.a.s.l)
Poblado	Urban Traffic	22.00	63.00	39.88	9.27	1501
Laureles	Urban Background	23.00	53.67	4.06	13.63	1488
Robledo	Urban Background	24.00	59.00	23.88	8.00	1560
Santa Elena	Rural Background	21.33	69.83	6.40	10.31	2570
Jardin	Rural Background	24.26	49.10	13.64	14.27	1790
Girardota	Suburban Industrial	22.00	92.00	51.70	7.00	1473
Belen	Urban Background	22.93	69.56	57.09	14.00	1614
La Ye	Suburban Background	18.00	90.00	8.20	3.50	1981

Table S2. Detailed concentration species by station

Concentration	Station (n)								
	Poblado fp (25)	Laureles (25)	Robledo (25)	Santa Elena (6)	Jardin (6)	Girardota (11)	Belen (118)	La Ye (10)	Poblado sp (10)
PM2.5 ($\mu\text{g}/\text{m}^3$)	27.6897	25.2905	27.2465	8.0530	14.4352	16.7156	21.7288	17.3365	21.2475
Be (ng/m^3)	-	-	-	-	-	2.3056	0.0125	5.9027	7.5231
Na (ng/m^3)	1107.0900	161.9386	419.4459	0.5248	0.8378	224.5974	441.1846	221.5601	238.9190
Mg (ng/m^3)	4.8908	0.1279	8.9868	0.3976	12.8074	110.7895	99.6990	101.9700	122.6428
Al (ng/m^3)	52.6808	9.9406	31.0783	12.9368	5.7288	58.8355	501.8804	28.1198	64.5552
Si (ng/m^3)	218.2619	46.5332	186.0874	50.2369	89.7074	145.4957	261.2178	69.5382	159.6401
K (ng/m^3)	476.3555	74.4281	229.9834	46.0747	124.210	278.8183	258.7355	154.6293	340.1554
Ca (ng/m^3)	132.3713	16.3320	69.8190	16.5349	16.0219	106.9149	330.4626	85.4803	121.5511
Ti (ng/m^3)	20.0673	2.4364	11.9699	26.3937	3.7975	6.4253	20.9315	5.3467	7.5716
V (ng/m^3)	0.2147	0.0455	0.2207	0.1183	0.2260	0.7871	1.5884	0.2881	0.7097
Cr (ng/m^3)	1.4818	0.1351	0.5157	0.8712	0.1650	1.7648	1.8839	1.2928	5.0333
Mn (ng/m^3)	12.4783	1.1216	5.9568	1.0421	1.6926	5.0959	5.1908	3.6220	5.8127
Fe (ng/m^3)	130.5928	14.4270	86.2473	12.5201	24.1210	105.2621	289.7795	61.5718	82.7606
Co (ng/m^3)	0.3795	0.0805	0.3902	0.3975	0.3995	4.3333	0.2799	4.8812	7.1865
Ni (ng/m^3)	0.9739	0.0870	0.5198	0.5733	0.1528	1.3719	3.4443	1.3054	2.6119
Cu (ng/m^3)	23.4082	1.7401	12.4353	0.6529	0.4297	13.6773	8.5824	11.3589	16.3593
Zn (ng/m^3)	161.4123	12.3015	41.1372	3.9307	2.9870	55.4839	88.5245	34.9278	71.9038
As (ng/m^3)	0.4095	0.0486	0.2030	0.0755	0.0966	0.7482	1.1339	0.6491	0.8842
Se (ng/m^3)	1.8689	0.2142	0.6119	0.3288	0.5249	0.5983	0.8138	0.4291	0.9984
Mo (ng/m^3)	0.4100	0.0937	0.5081	0.2703	0.4316	1.6433	0.2977	0.6394	2.4997
Ag (ng/m^3)	0.4342	0.0921	0.4463	0.2863	0.4570	1.8157	0.0728	1.5559	2.4237
Cd (ng/m^3)	0.8493	0.1207	0.7191	0.4612	0.7363	0.3999	0.3189	0.2657	0.3068
Sb (ng/m^3)	0.6873	0.1175	0.5083	0.3260	0.5205	2.9435	1.2410	4.4721	5.0715
Ba (ng/m^3)	6.9228	1.4680	7.1170	4.5647	7.2870	10.0250	13.7146	9.9137	17.4884
Hg (ng/m^3)	0.4221	0.0761	0.3690	0.2367	0.3779	0.5289	0.1074	0.5676	0.9116
Pb (ng/m^3)	24.3600	2.2872	8.1800	0.4453	1.7631	-	5.9977	-	-
Total metals (ng/m^3)	2.3790	0.3462	1.1235	0.1802	0.2955	1.1407	2.3371	0.8103	1.2855

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Fluoruro ($\mu\text{g}/\text{m}^3$)	0.0211	0.0461	0.0471	0.0100	0.0681	0.0720	0.0211	0.0633	0.0618
Cloruro ($\mu\text{g}/\text{m}^3$)	0.0873	0.0791	0.0982	0.0580	0.0463	0.0290	0.1564	0.0280	0.0365
Nitrato ($\mu\text{g}/\text{m}^3$)	0.3160	0.6603	1.2129	0.0229	1.8857	0.1234	0.6171	0.0429	0.0665
Sulfato ($\mu\text{g}/\text{m}^3$)	3.4495	3.1885	2.5947	1.0443	0.8736	2.0336	1.8058	1.8454	2.4103
Total anions ($\mu\text{g}/\text{m}^3$)	3.8739	3.9740	3.9529	1.1352	2.8737	2.2578	2.6003	1.9796	2.5751
OC ($\mu\text{g}/\text{m}^3$)	7.8892	5.9380	9.4261	0.7265	2.7811	6.8264	7.2865	7.6607	8.1316
EC ($\mu\text{g}/\text{m}^3$)	7.9738	5.2501	9.6742	0.8981	1.2377	3.9704	0.8963	2.9945	4.3949
TC ($\mu\text{g}/\text{m}^3$)	15.8630	11.1881	19.1003	1.6246	4.0188	10.7968	8.1828	10.6552	12.5265