

SUPPLEMENTARY MATERIALS

The Unignorable Near-ground PM_{2.5}, UFP, PAHs, and BC Levels around a Traffic Prohibited Night Market

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Table S1. PM_{2.5} concentration and composition in high concentration season

Pollutants	Upwind-Weekday		Exposure-Weekday		Upwind-Weekend		Exposure-Weekend	
	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%
PM _{2.5}	26	100	29	100	47	100.00	59	100
Li	<0.00056	-	<0.00056	-	<0.00056	-	<0.00056	-
Be	<0.00001	-	<0.00001	-	0.0003	0.00	<0.00001	-
Na	0.2772	1.08	0.3017	1.03	0.2878	0.61	0.6506	1.11
Mg	0.0551	0.21	0.0469	0.16	0.0892	0.19	0.0868	0.15
Al	0.0998	0.39	0.1308	0.45	0.1162	0.25	0.1085	0.18
K	0.5101	1.99	0.5079	1.74	0.9945	2.11	1.1921	2.03
Ca	<0.02531	-	<0.02531	-	<0.02531	-	<0.02531	-
Ti	0.0030	0.01	0.0024	0.01	0.0020	0.00	0.0028	0.00
V	0.0025	0.01	0.0026	0.01	0.0049	0.01	0.0058	0.01
Cr	0.0046	0.02	0.0042	0.01	0.0036	0.01	0.0040	0.01
Mn	0.0187	0.07	0.0181	0.06	0.0105	0.02	0.0115	0.02
Fe	0.1944	0.76	0.2305	0.79	0.1276	0.27	0.1306	0.22
Co	0.0003	0.00	<0.00009	-	<0.00009	-	<0.00009	-
Ni	0.0065	0.03	0.0243	0.08	0.0051	0.01	0.0057	0.01
Cu	0.0135	0.05	0.0291	0.10	0.0142	0.03	0.0153	0.03
Zn	0.1420	0.55	0.1834	0.63	0.0727	0.15	0.0931	0.16
Ga	<0.00013	-	<0.00013	-	<0.00013	-	<0.00013	-
As	0.0017	0.01	0.0016	0.01	0.0027	0.01	0.0031	0.01
Se	<0.00054	-	<0.00054	-	0.0019	0.00	0.0024	0.00
Rb	0.0008	0.00	0.0008	0.00	0.0008	0.00	0.0012	0.00
Sr	0.0012	0.00	0.0010	0.00	0.0084	0.02	0.0097	0.02
Mo	0.0032	0.01	<0.00103	-	<0.00103	-	<0.00103	-
Ru	<0.00002	-	<0.00002	-	<0.00002	-	<0.00002	-
Pd	<0.00015	-	<0.00015	-	<0.00015	-	<0.00015	-
Ag	<0.00058	-	<0.00058	-	<0.00058	-	<0.00058	-
Cd	0.0005	0.00	0.0007	0.00	0.0006	0.00	0.0008	0.00
In	<0.00010	-	<0.00010	-	<0.00010	-	<0.00010	-
Sn	<0.00328	-	<0.00328	-	<0.00328	-	<0.00328	-
Sb	0.0011	0.00	0.0016	0.01	0.0017	0.00	0.0021	0.00
Cs	<0.00052	-	<0.00052	-	<0.00052	-	<0.00052	-
Ba	0.0669	0.26	0.0706	0.24	0.0206	0.04	0.0165	0.03

Table S1 (continue). PM_{2.5} concentration and composition in high concentration season

Pollutants	Upwind-Weekday		Exposure-Weekday		Upwind-Weekend		Exposure-Weekend	
	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%
Pt	0.0006	0.00	0.0008	0.00	0.0006	0.00	0.0011	0.00
Hg	<0.00032	-	<0.00032	-	<0.00032	-	<0.00032	-
Pb	0.0177	0.07	0.0183	0.06	0.0341	0.07	0.0342	0.06
Rh	<0.00011	-	<0.00011	-	<0.00011	-	<0.00011	-
NO ₃ ⁻	3.8612	15.06	4.0423	13.83	7.7804	16.53	6.8835	11.74
SO ₄ ²⁻	2.3210	9.05	2.2739	7.78	5.3077	11.28	4.9256	8.40
Cl ⁻	1.1605	4.53	1.2327	4.22	0.8330	1.77	0.8660	1.48
F ⁻	0.0802	0.31	0.0835	0.29	0.0833	0.18	0.0795	0.14
Na ⁺	0.2894	1.13	0.2189	0.75	0.2470	0.52	0.4839	0.83
Mg ²⁺	<0.10417	-	<0.10417	-	<0.10417	-	<0.10417	-
K ⁺	0.4470	1.74	0.5501	1.88	0.7322	1.56	0.8632	1.47
Ca ²⁺	<0.10417	-	<0.10417	-	<0.10417	-	<0.10417	-
NH ₄ ⁺	2.0101	7.84	2.1371	7.31	4.0319	8.57	3.5254	6.01
EC	1.21	4.70	2.41	8.23	1.98	4.20	2.40	4.09
OC	2.53	9.87	2.73	9.33	3.64	7.73	4.13	7.04
OC/EC	2.10	-	1.13	-	1.84	-	1.72	-
Metal	1.42	5.54	1.58	5.40	1.80	3.82	2.38	4.05
Ions	10.17	39.66	10.54	36.06	19.02	40.41	17.63	30.06
TOC	3.74	14.57	5.13	17.56	5.61	11.93	6.53	11.13
Toal	15.33	59.76	17.25	59.02	26.43	56.16	26.53	45.24

Table S2. PM_{2.5} concentration and composition in low concentration season

Pollutants	Upwind-Weekday		Exposure-Weekday		Upwind-Weekend		Exposure-Weekend	
	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%
PM _{2.5}	13	100.00	15	100.00	7	100.00	17	100.00
Li	0.0022	0.02	0.0036	0.02	0.0028	0.04	0.0063	0.04
Be	<0.00001	-	<0.00001	-	<0.00001	-	<0.00001	-
Na	0.1996	1.53	0.3374	2.31	0.1795	2.47	0.3850	2.27
Mg	0.0297	0.23	0.0263	0.18	0.0285	0.39	0.0390	0.23
Al	0.0223	0.17	0.0153	0.10	0.0224	0.31	0.0291	0.17
K	0.2340	1.80	0.3127	2.14	0.2377	3.27	0.4312	2.54
Ca	<0.02531	-	<0.02531	-	<0.02531	-	<0.02531	-
Ti	0.0012	0.01	<0.00038	-	<0.00038	-	<0.00038	-
V	0.0059	0.05	0.0049	0.03	0.0014	0.02	0.0011	0.01
Cr	0.0061	0.05	0.0031	0.02	0.0027	0.04	0.0033	0.02
Mn	0.0047	0.04	0.0046	0.03	0.0025	0.03	0.0030	0.02
Fe	0.1417	1.09	0.1778	1.22	0.1120	1.54	0.1108	0.65
Co	<0.00009	-	<0.00009	-	<0.00009	-	<0.00009	-
Ni	0.0032	0.02	0.0024	0.02	0.0013	0.02	0.0018	0.01
Cu	0.0072	0.06	0.0051	0.04	0.0076	0.11	0.0072	0.04
Zn	0.0821	0.63	0.0465	0.32	0.0464	0.64	0.0501	0.29
Ga	<0.00013	-	<0.00013	-	<0.00013	-	<0.00013	-
As	<0.00032	-	<0.00032	-	<0.00032	-	<0.00032	-
Se	<0.00054	-	<0.00054	-	<0.00054	-	<0.00054	-
Rb	0.0005	0.00	0.0005	0.00	0.0004	0.00	0.0005	0.00
Sr	0.0008	0.01	0.0006	0.00	0.0007	0.01	0.0011	0.01
Mo	0.0042	0.03	<0.00103	-	<0.00103	-	<0.00103	-
Ru	<0.00002	-	<0.00002	-	<0.00002	-	<0.00002	-
Pd	<0.00015	-	<0.00015	-	<0.00015	-	<0.00015	-
Ag	<0.00058	-	<0.00058	-	<0.00058	-	<0.00058	-
Cd	0.0001	0.00	0.0002	0.00	0.0001	0.00	0.0001	0.00
In	<0.00010	-	<0.00010	-	<0.00010	-	<0.00010	-
Sn	<0.00328	-	<0.00328	-	<0.00328	-	<0.00328	-
Sb	0.0005	0.00	0.0004	0.00	0.0006	0.01	0.0004	0.00
Cs	<0.00052	-	<0.00052	-	<0.00052	-	<0.00052	-
Ba	0.0200	0.15	0.0187	0.13	0.0037	0.05	0.0058	0.03

Table S2 (continue). PM_{2.5} concentration and composition in low concentration season

Pollutants	Upwind-Weekday		Exposure-Weekday		Upwind-Weekend		Exposure-Weekend	
	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%	Conc. (mg/m ³)	%
Pt	0.0001	0.00	0.0001	0.00	0.0001	0.00	0.0001	0.00
Hg	<0.00032	-	<0.00032	-	<0.00032	-	<0.00032	-
Pb	0.0063	0.05	0.0050	0.03	0.0056	0.08	0.0070	0.04
Rh	<0.00011	-	<0.00011	-	<0.00011	-	<0.00011	-
NO ₃ ⁻	0.4776	3.67	0.6503	4.45	0.1555	2.14	0.1505	0.89
SO ₄ ²⁻	2.9729	22.86	3.1182	21.32	1.4189	19.54	1.1144	6.56
Cl ⁻	0.0592	0.45	<0.04167	-	<0.04167	-	0.0924	0.54
F ⁻	0.0620	0.48	0.0978	0.67	0.0692	0.95	0.0670	0.39
Na ⁺	0.0761	0.58	0.1417	0.97	<0.05208	-	0.1594	0.94
Mg ²⁺	<0.10417	-	<0.10417	-	<0.10417	-	<0.10417	-
K ⁺	<0.07292	-	0.2054	1.40	<0.07292	-	0.2086	1.23
Ca ²⁺	<0.10417	-	<0.10417	-	<0.10417	-	<0.10417	-
NH ₄ ⁺	0.8454	6.50	0.7834	5.36	0.2982	4.11	<0.05208	-
EC	0.64	4.88	0.61	4.18	0.42	5.72	0.98	5.75
OC	1.10	8.45	1.26	8.65	0.66	9.15	1.06	6.26
OC/EC	1.73	-	2.07	-	1.60	-	1.09	-
metal	0.77	5.94	0.97	6.60	0.66	9.03	1.08	6.37
ions	4.49	34.54	5.00	34.16	1.94	26.75	1.79	10.54
TOC	1.73	13.33	1.88	12.82	1.08	14.87	2.03	11.95
Total	7.00	53.81	7.84	53.58	3.68	50.65	4.91	28.86

Table S3. Derivative sulfate and nitrate potential in Night Market A

Sampling situation	Site	SOR	NOR	Derived PM _{2.5} potential
High concentration	WY-UP	0.155	0.064	Primitiveness
	WY-EX	0.154	0.067	Primitiveness
	WD-UP	0.338	0.169	Sulfur / Nitrate
	WD-EX	0.318	0.153	Sulfur / Nitrate
Low concentration	WY-UP	0.281	0.020	Sulfur
	WY-EX	0.290	0.027	Sulfur
	WD-UP	0.135	0.007	Primitiveness
	WD-EX	0.107	0.006	Primitiveness