

SUPPLEMENTARY MATERIAL

Title: Intra-city particulates elemental characteristics and variabilities in Jakarta

Authors: Driejana^{1*}, Novi Kartika Sari^{#2}, Muhayatun Santoso³, Diah Dwiana Lestiani³

¹Air and Waste Management Research Group, Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Jl. Ganesa 10 Bandung, Indonesia, 40132

²Graduate Program of Environmental Engineering, Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Jl. Ganesa 10 Bandung, Indonesia, 40132

³Research Organization for Nuclear Energy, National Research and Innovation Agency BRIN, Jl. Tamansari 71 Bandung, Indonesia

[#]Departement of Environmental Engineering, Institut Teknologi Sumatera, Jl. Terusan Ryacudu, Lampung Selatan, Indonesia, 35365

Table S1.a Pearson correlation of fine particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	0.01	0.10	0.32	0.83	0.76	0.21	0.64	0.75	-0.54	0.58	0.49	0.83	0.29	0.58	0.54	0.67	0.52
Na		x	-0.40	-0.09	0.08	-0.14	-0.07	-0.07	0.29	-0.64	0.36	0.20	0.04	0.79	0.73	0.71	0.40	0.50
Al			x	0.78	-0.27	0.44	0.74	0.69	-0.20	-0.07	0.48	0.30	0.11	-0.07	-0.16	-0.13	0.33	0.10
Si				x	-0.08	0.62	0.92	0.85	0.15	-0.44	0.81	0.46	0.16	0.15	0.09	0.15	0.57	0.42
S					x	0.52	-0.05	0.23	0.70	-0.30	0.20	0.13	0.56	0.22	0.55	0.48	0.31	0.30
K						x	0.60	0.76	0.47	-0.47	0.61	0.51	0.46	0.24	0.32	0.31	0.59	0.56
Ca							x	0.73	0.09	-0.35	0.70	0.25	0.01	0.17	0.08	0.17	0.48	0.45
Ti								x	0.35	-0.56	0.86	0.49	0.53	0.27	0.35	0.39	0.75	0.54
Cr									x	-0.61	0.48	0.32	0.68	0.37	0.59	0.70	0.55	0.52
Mn										x	-0.84	-0.45	-0.57	-0.87	-0.84	-0.85	-0.89	-0.89
Fe											x	0.57	0.53	0.59	0.61	0.65	0.91	0.74
Ni												x	0.36	0.31	0.30	0.23	0.57	0.38
Cu													x	0.36	0.59	0.61	0.73	0.51
Zn														x	0.90	0.83	0.72	0.80
Pb															x	0.93	0.75	0.73
As																x	0.79	0.81
Cl																	x	0.88
Br																		x

Note:
* **Bold number** defines significantly strong correlation between two elements ($r_s \geq 0.8$)
* *Italic number* defines significant p-value 0.05 or less.

Table S1.b Pearson correlation of fine particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	<i>0.42</i>	0.13	0.63	0.60	0.75	0.58	0.65	0.63	0.59	0.76	0.30	-0.50	0.68	0.69	0.61	0.64	0.59
Na		x	-0.03	0.07	0.06	0.47	0.10	0.10	0.24	0.43	0.33	-0.07	-0.20	0.76	0.46	0.39	0.52	0.41
Al			x	0.49	-0.10	0.25	0.52	0.33	-0.09	0.20	0.24	-0.26	-0.05	-0.02	-0.09	-0.21	0.34	0.05
Si				x	0.45	0.36	0.94	0.84	0.32	0.39	0.88	0.17	-0.20	0.34	0.31	0.14	0.51	0.25
S					x	0.39	0.42	0.56	0.50	0.48	0.67	0.44	-0.39	0.43	0.44	0.40	0.16	0.37
K						x	0.32	0.32	0.35	0.50	0.43	-0.01	-0.27	0.58	0.44	0.37	0.66	0.63
Ca							x	0.83	0.31	0.38	0.86	0.12	-0.18	0.31	0.28	0.12	0.46	0.18
Ti								x	0.44	0.49	0.86	0.20	-0.52	0.38	0.35	0.23	0.36	0.20
Cr									x	0.44	0.57	0.41	-0.39	0.44	0.36	0.57	0.14	0.24
Mn										x	0.56	0.14	-0.21	0.54	0.38	0.25	0.28	0.37
Fe											x	0.35	-0.34	0.60	0.47	0.34	0.52	0.39
Ni												x	-0.17	0.08	0.09	0.11	-0.02	0.33
Cu													x	-0.33	-0.48	-0.46	-0.25	-0.26
Zn														x	0.77	0.68	0.63	0.42
Pb															x	0.87	0.49	0.30
As																x	0.32	0.28
Cl																	x	0.54
Br																		x

Note:

* **Bold number** defines significantly strong correlation between two elements ($r_s \geq 0.8$)

* *Italic number* defines significant p-value 0.05 or less.

Table S1.c Pearson correlation of fine particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	0.01	0.10	0.32	0.83	0.76	0.21	0.64	0.75	-0.54	0.58	0.49	0.83	0.29	0.58	0.54	0.67	0.52
Na		x	-0.40	-0.09	0.08	-0.14	-0.07	-0.07	0.29	-0.64	0.36	0.20	0.04	0.79	0.73	0.71	0.40	0.50
Al			x	0.78	-0.27	0.44	0.74	0.69	-0.20	-0.07	0.48	0.30	0.11	-0.07	-0.16	-0.13	0.33	0.10
Si				x	-0.08	0.62	0.92	0.85	0.15	-0.44	0.81	0.46	0.16	0.15	0.09	0.15	0.57	0.42
S					x	0.52	-0.05	0.23	0.70	-0.30	0.20	0.13	0.56	0.22	0.55	0.48	0.31	0.30
K						x	0.60	0.76	0.47	-0.47	0.61	0.51	0.46	0.24	0.32	0.31	0.59	0.56
Ca							x	0.73	0.09	-0.35	0.70	0.25	0.01	0.17	0.08	0.17	0.48	0.45
Ti								x	0.35	-0.56	0.86	0.49	0.53	0.27	0.35	0.39	0.75	0.54
Cr									x	-0.61	0.48	0.32	0.68	0.37	0.59	0.70	0.55	0.52
Mn										x	-0.84	-0.45	-0.57	-0.87	-0.84	-0.85	-0.89	-0.89
Fe											x	0.57	0.53	0.59	0.61	0.65	0.91	0.74
Ni												x	0.36	0.31	0.30	0.23	0.57	0.38
Cu													x	0.36	0.59	0.61	0.73	0.51
Zn														x	0.90	0.83	0.72	0.80
Pb															x	0.93	0.75	0.73
As																x	0.79	0.81
Cl																	x	0.88
Br																		x

Note:

* **Bold number** defines significantly strong correlation between two elements ($r_s \geq 0.8$)* *Italic number* defines significant p-value 0.05 or less.

Table S2 Tukey- Kramer post hoc test results

Element	Results	Fine Particle			Coarse Particle		
		Location			Location		
		CJ-NJ	SJ-NJ	SJ-CJ	CJ-NJ	SJ-NJ	SJ-CJ
BC	diff	1.245	31.331	30.086	-0.011	-0.37	-0.359
	p-value	0.927	0	0	0.991	0	0
Na	diff	-0.411	-1.588	-1.177	-0.436	-0.398	0.038
	p-value	0	0	0	0.001	0.003	0.904
Al	diff	-1.419	-0.013	1.407	-0.991	-0.274	0.718
	p-value	0	0.975	0	0	0	0
Si	diff	0.503	0.048	-0.455	-0.126	-0.688	-0.562
	p-value	0.034	0.969	0.011	0.679	0	0
S	diff	0.503	0.048	-0.455	-0.033	-0.242	-0.209
	p-value	0.034	0.969	0.011	0.934	0.034	0.014
K	diff	0.08	-0.011	-0.091	-0.024	-0.088	-0.064
	p-value	0.016	0.918	0	0.508	0	0.001
Ca	diff	0.015	-0.069	-0.083	0.003	-0.555	-0.558
	p-value	0.312	0	0	1	0	0
Ti	diff	0.003	-0.002	-0.005	0.001	-0.018	-0.02
	p-value	0.004	0.069	0	0.978	0.01	0
Cr	diff	3.016	3.016	0	0.002	-0.001	-0.003
	p-value	0	0	1	0.01	0.025	0
Mn	diff	-13.435	-13.722	-0.287	-0.133	-0.312	-0.179
	p-value	0	0	0.662	0.125	0	0.003
Fe	diff	0.001	-0.087	-0.088	-0.165	-0.508	-0.343
	p-value	0.994	0	0	0.115	0	0
Ni	diff	0	0	-0.001	0	-2.791	-2.791
	p-value	0.239	0.068	0	1	0	0
Cu	diff	113.667	17.931	-95.736	-119.671	-120.043	-0.372
	p-value	0	0.248	0	0	0	0.992
Zn	diff	-0.231	-0.634	-0.403	-0.516	-0.856	-0.34
	p-value	0.048	0	0	0	0	0
Pb	diff	-0.095	-0.361	-0.266	1.493	-0.499	-1.992
	p-value	0.535	0	0.001	0	0	0
As	diff	2.227	-0.251	-2.479	-0.002	-2.569	-2.567
	p-value	0	0	0	0.999	0	0
Cl	diff	0.043	1.732	1.69	-1.196	-1.289	-0.093
	p-value	0.627	0	0	0	0	0.419
Br	diff	0	-0.005	-0.005	-0.205	1.875	2.079
	p-value	0.996	0.003	0	0.002	0	0

* **Bold number** defines significant result (p-value<0.05)

Table S3.a Pearson correlation of coarse particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	0.32	0.54	0.65	0.85	0.81	0.62	0.75	0.81	0.72	0.86	0.84	-0.88	0.54	0.66	0.72	0.49	0.66
Na		x	-0.02	-0.11	0.32	0.40	-0.02	0.11	0.52	0.77	0.50	0.24	-0.59	0.90	0.79	0.76	0.89	0.82
Al			x	0.96	0.64	0.71	0.88	0.91	0.38	0.33	0.76	0.36	-0.33	-0.03	0.04	0.14	0.16	0.09
Si				x	0.75	0.73	0.94	0.96	0.47	0.33	0.77	0.47	-0.41	-0.04	0.05	0.18	0.10	0.10
S					x	0.75	0.83	0.87	0.80	0.71	0.90	0.70	-0.81	0.47	0.53	0.72	0.47	0.59
K						x	0.70	0.74	0.52	0.72	0.82	0.54	-0.65	0.43	0.42	0.56	0.63	0.58
Ca							x	0.94	0.52	0.38	0.76	0.39	-0.45	0.00	0.08	0.29	0.17	0.13
Ti								x	0.66	0.49	0.90	0.61	-0.60	0.19	0.28	0.41	0.26	0.31
Cr									x	0.80	0.81	0.66	-0.89	0.64	0.76	0.82	0.52	0.66
Mn										x	0.77	0.48	-0.85	0.79	0.79	0.86	0.82	0.88
Fe											x	0.70	-0.82	0.59	0.65	0.71	0.59	0.65
Ni												x	-0.78	0.56	0.63	0.60	0.35	0.64
Cu													x	-0.76	-0.84	-0.84	-0.68	-0.82
Zn														x	0.93	0.86	0.80	0.93
Pb															x	0.87	0.72	0.89
As																x	0.75	0.87
Cl																	x	0.81
Br																		x

Note:

* **Bold number** defines strong correlation between two elements ($r_s > 0.8$)

* *Italic number* defines significant p-value 0.05 or less.

Table S3.b Pearson correlation of coarse particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	0.36	0.92	0.93	0.84	0.88	0.90	0.92	0.83	0.70	0.94	0.17	0.74	0.65	0.77	0.70	0.14	0.64
Na		x	0.35	0.41	0.43	0.47	0.42	0.46	0.32	0.52	0.44	0.18	0.20	0.57	0.44	0.44	0.52	0.36
Al			x	0.96	0.86	0.91	0.91	0.94	0.80	0.81	0.96	0.14	0.73	0.70	0.78	0.74	0.22	0.72
Si				x	0.89	0.92	0.96	0.99	0.83	0.77	0.99	0.14	0.72	0.69	0.76	0.73	0.17	0.62
S					x	0.83	0.90	0.90	0.70	0.75	0.89	0.12	0.71	0.59	0.73	0.64	-0.01	0.58
K						x	0.87	0.89	0.65	0.87	0.90	0.08	0.58	0.65	0.65	0.62	0.23	0.67
Ca							x	0.96	0.82	0.75	0.95	0.20	0.77	0.66	0.75	0.70	0.20	0.59
Ti								x	0.84	0.77	0.99	0.17	0.72	0.70	0.77	0.72	0.18	0.64
Cr									x	0.52	0.87	0.40	0.82	0.66	0.76	0.74	0.21	0.52
Mn										x	0.77	0.01	0.46	0.68	0.59	0.60	0.28	0.68
Fe											x	0.19	0.74	0.72	0.80	0.75	0.22	0.63
Ni												x	0.35	0.31	0.19	0.30	0.15	0.12
Cu													x	0.56	0.65	0.59	0.09	0.46
Zn														x	0.76	0.82	0.43	0.45
Pb															x	0.93	0.32	0.54
As																x	0.32	0.51
Cl																	x	0.34
Br																		x

Note:

* **Bold number** defines strong correlation between two elements ($r_s > 0.8$)

* *Italic number* defines significant p-value 0.05 or less.

Table S3.c Pearson correlation of coarse particulate chemical elements in (a) NJ; (b) CJ; (c) SJ

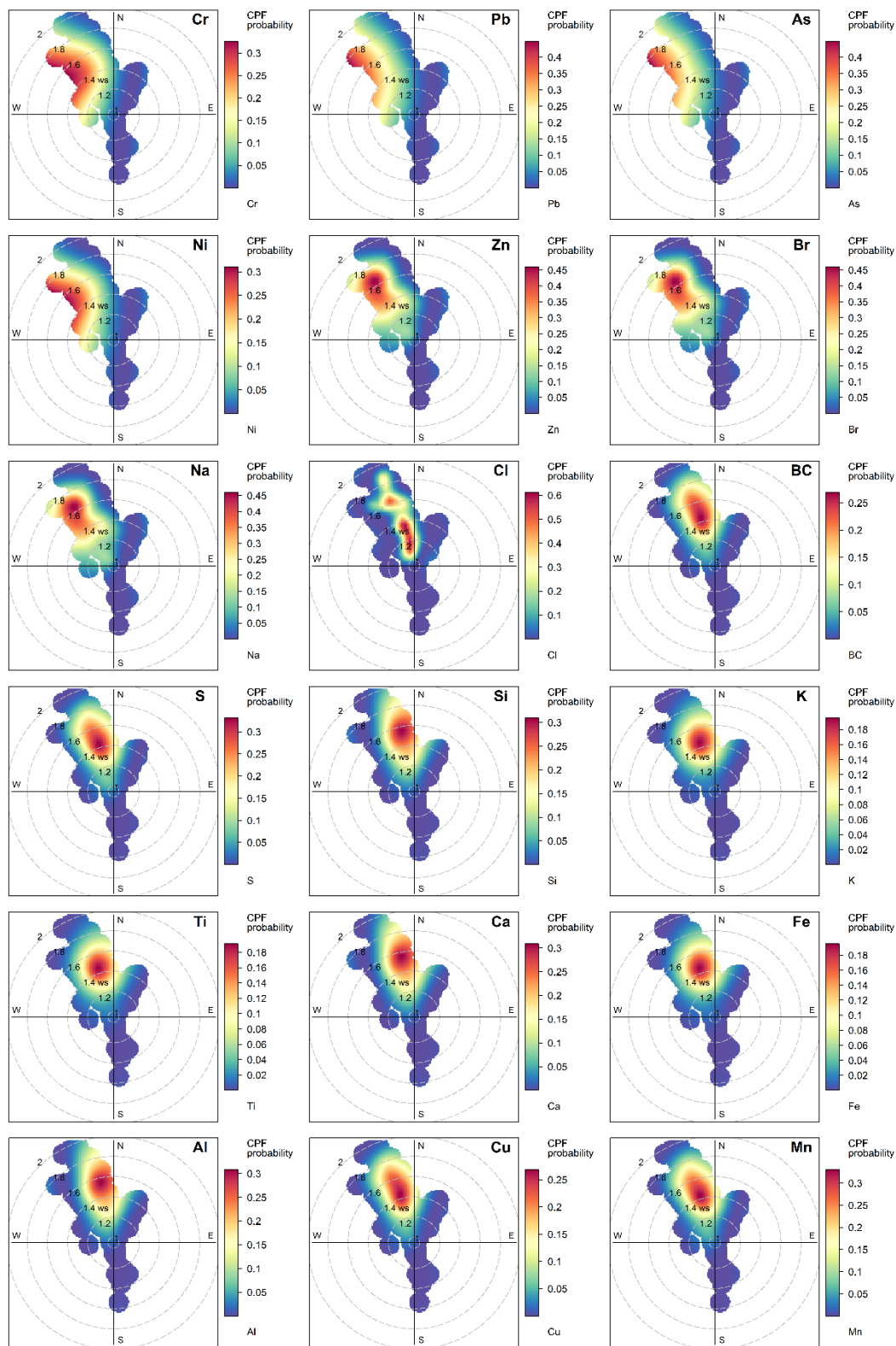
Elements	BC	Na	Al	Si	S	K	Ca	Ti	Cr	Mn	Fe	Ni	Cu	Zn	Pb	As	Cl	Br
BC	x	-0.12	0.75	0.77	0.73	0.86	0.72	0.78	0.76	0.78	0.73	0.16	0.41	0.63	0.53	0.48	-0.39	-0.30
Na		x	0.16	0.16	0.10	0.12	0.16	0.11	-0.05	0.09	0.15	0.17	-0.08	0.06	-0.05	-0.15	0.53	0.12
Al			x	0.94	0.82	0.91	0.92	0.93	0.70	0.94	0.94	0.27	0.35	0.64	0.28	0.32	-0.10	-0.36
Si				x	0.83	0.95	0.95	0.99	0.76	0.94	0.95	0.36	0.38	0.63	0.33	0.35	-0.13	-0.17
S					x	0.81	0.87	0.83	0.69	0.85	0.83	0.11	0.53	0.69	0.35	0.41	-0.29	-0.14
K						x	0.92	0.93	0.76	0.93	0.88	0.31	0.35	0.61	0.37	0.39	-0.15	-0.26
Ca							x	0.94	0.72	0.94	0.89	0.25	0.39	0.61	0.24	0.32	-0.05	-0.17
Ti								x	0.77	0.91	0.96	0.37	0.41	0.64	0.40	0.42	-0.18	-0.17
Cr									x	0.75	0.75	0.33	0.21	0.72	0.36	0.43	-0.31	-0.32
Mn										x	0.92	0.26	0.36	0.60	0.26	0.30	-0.15	-0.26
Fe											x	0.32	0.39	0.67	0.35	0.37	-0.16	-0.21
Ni												x	0.14	0.20	0.30	0.22	-0.12	0.01
Cu													x	0.29	0.30	0.19	-0.38	0.14
Zn														x	0.61	0.69	-0.21	-0.33
Pb															x	0.76	-0.25	-0.05
As																x	-0.32	-0.12
Cl																	x	0.04
Br																		x

Note:

* **Bold number** defines strong correlation between two elements ($r_s > 0.8$)* *Italic number* defines significant p-value 0.05 or less.

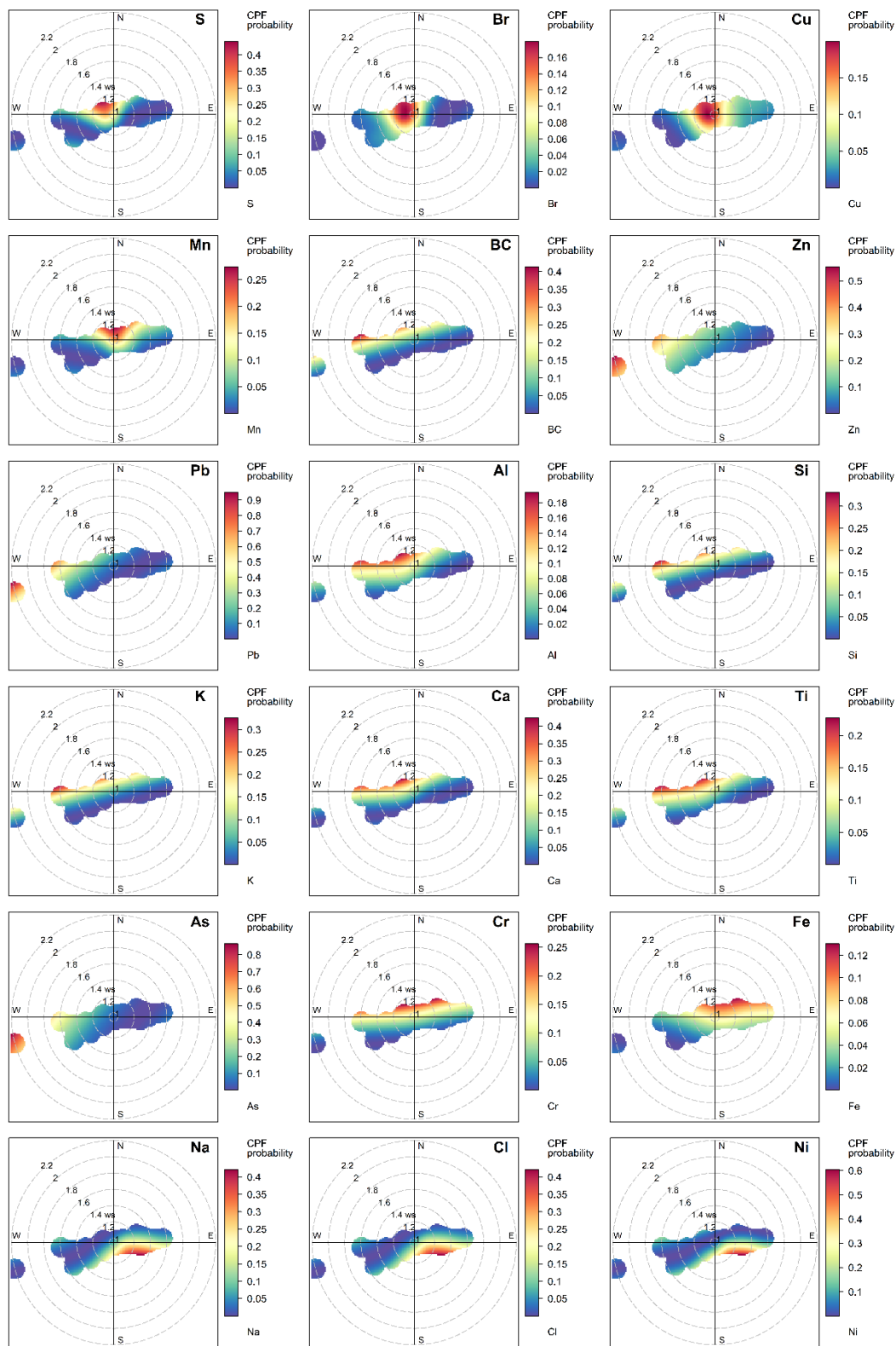
Table S4. Varimax Loading of Coarse Particulates

Location	CJ				SJ			
Element	PC1	PC2	PC3	PC4	PC1	PC2	PC3	PC4
BC	0.898	0.245	0.134	0.157	0.789	0.369	-	0.149
Na	0.243	0.750	0.750	-	-	-	0.843	-
Al	0.898	0.266	0.266	-	0.947	0.138	0.127	0.118
Si	0.922	0.295	0.295	0.115	0.957	0.142	0.115	0.129
S	0.910	0.223	0.223	-	0.824	0.183	0.134	0.291
K	0.849	0.403	0.403	-	0.934	0.206	-	0.100
Ca	0.888	0.297	0.297	0.161	0.937	-	0.187	0.141
Ti	0.903	0.321	0.321	0.127	0.939	0.217	-	0.146
Cr	0.752	0.174	0.205	0.504	0.814	0.292	-	-
Mn	0.690	0.479	0.204	-	0.942	-	-	0.152
Fe	0.900	0.330	0.179	0.166	0.950	0.169	0.131	0.132
Ni	-	0.131	-	0.808	N/A	N/A	N/A	N/A
Cu	0.722	-	0.167	0.516	0.245	-	-	0.917
Zn	0.488	0.722	-	0.258	0.552	0.682	-	-
Pb	0.638	0.560	0.203	0.284	0.139	0.931	-	0.141
As	0.587	0.620	-	0.317	0.193	0.912	-	-
Cl	-	0.435	0.736	0.219	-	-	0.783	-
Br	0.572	0.196	0.578	N/A	0.530	-	0.503	0.424
SS Loading	9.525	3.366	1.996	1.807	9.016	2.658	2.444	1.387
%Variance	47.6	16.8	10	9	50.1	14.8	13.6	7.7
% Cumulative Variance	47.6	64.5	74.4	83.5	50.1	64.8	78.4	86.1



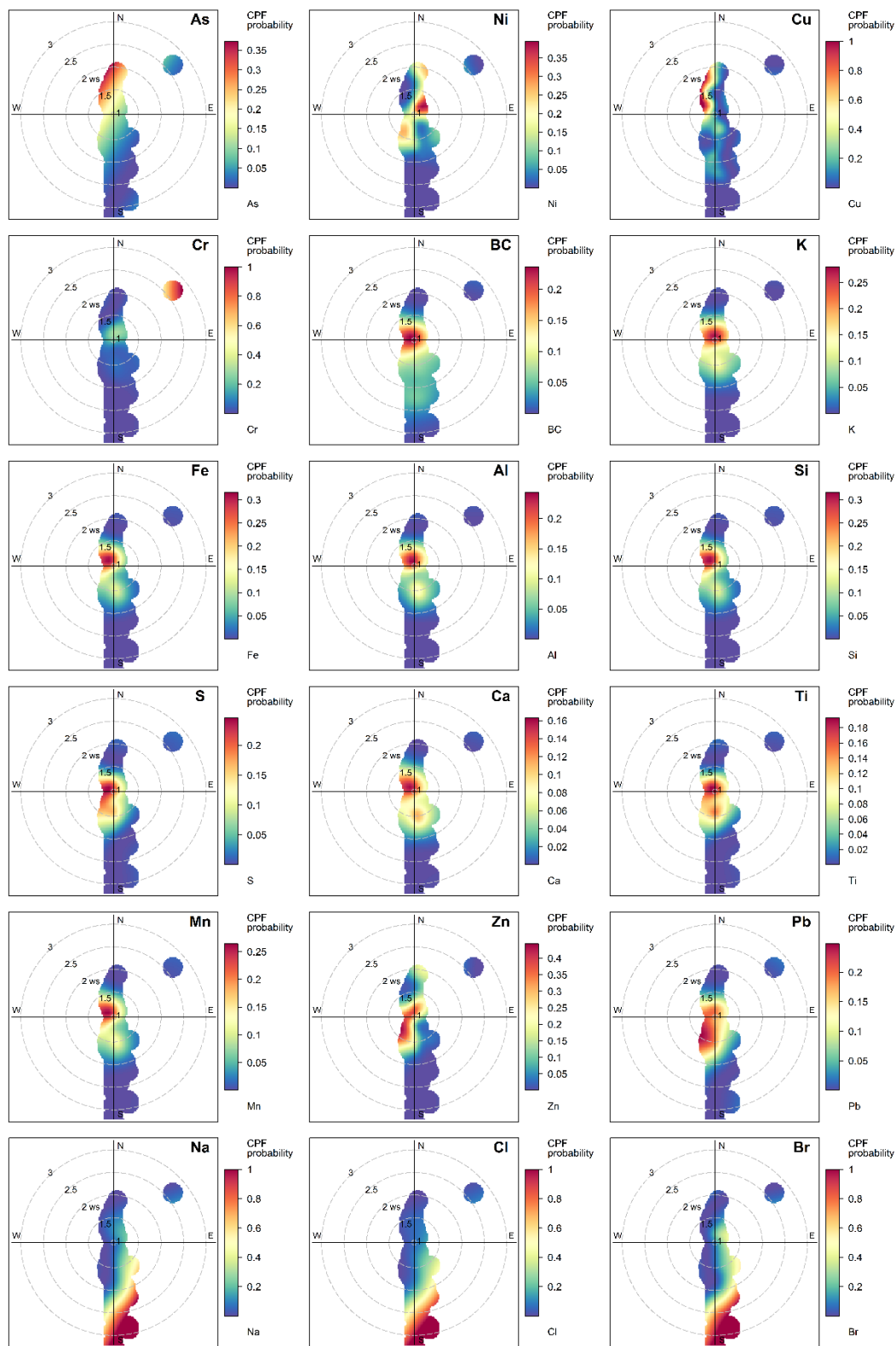
(a)

Figure S2.CBPF of Coarse Particle Element in NJ



(b)

Figure S2. CBPF of Coarse Particle Element in CJ



(c)

Figure S3. CBPF of Coarse Element in SJ

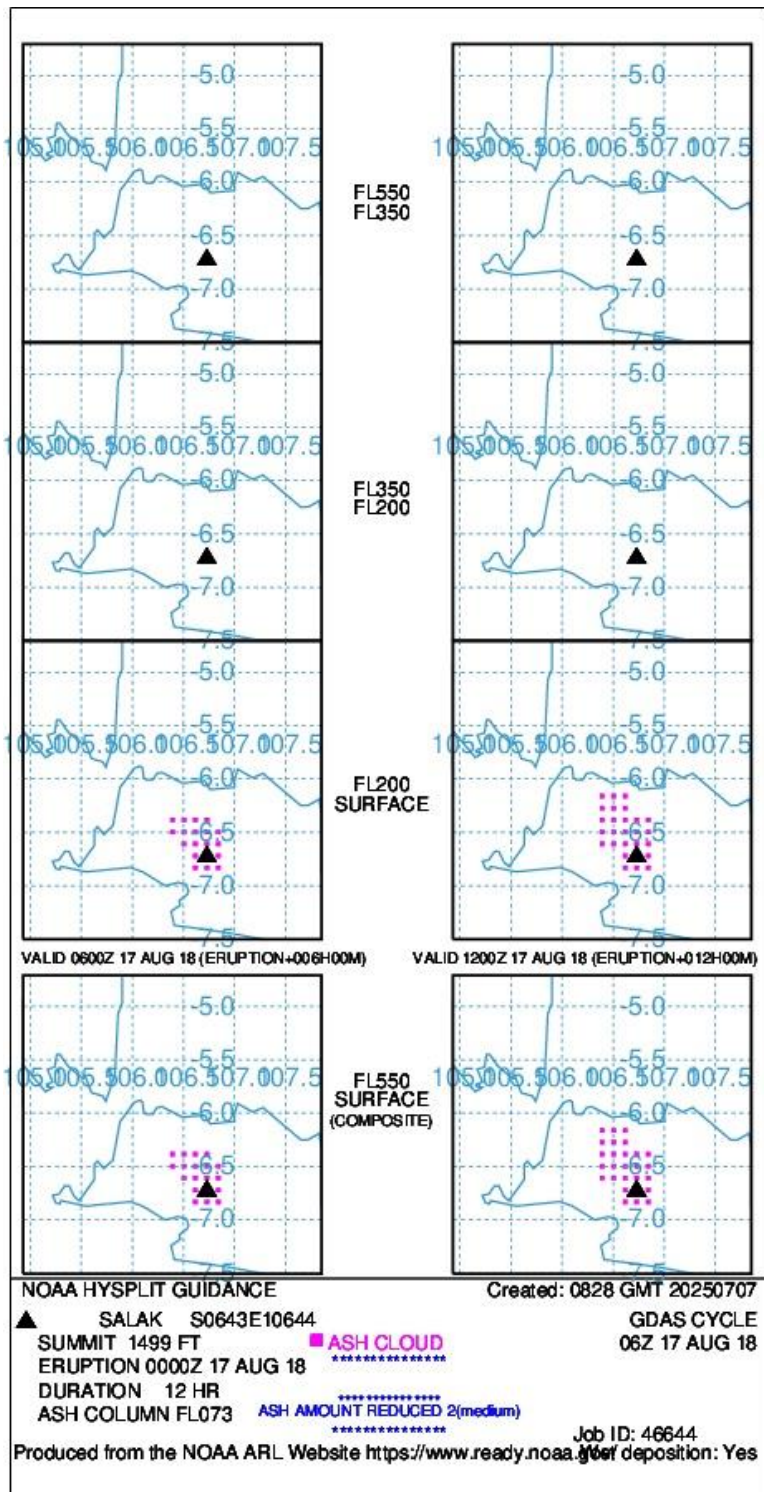


Figure S4. Ash cloud movement from Mount Salak,
approximately 70 km South of Jakarta during the highest wind speed events
(Hysplit dispersion model result)

PM2.5 concentrations data measured in this study

Table S5.a Daily Elemental Concentration of PM2.5 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	PM _{2.5} (µgm ⁻³)	BC (µgm ⁻³)	Na (µgm ⁻³)	Al (µgm ⁻³)	Si (µgm ⁻³)	S (µgm ⁻³)	K (µgm ⁻³)	Ca (µgm ⁻³)	Ti (µgm ⁻³)	Cr (µgm ⁻³)	Mn (µgm ⁻³)	Fe (µgm ⁻³)	Ni (µgm ⁻³)	Cu (µgm ⁻³)	Zn (µgm ⁻³)	Pb (µgm ⁻³)	As (µgm ⁻³)	Cl (µgm ⁻³)	Br (µgm ⁻³)
1	40.626	6.409	0.187	0.065	0.212	2.768	0.384	0.118	0.011	0.003	0.008	0.186	0.002	0.015	0.133	0.048	0.009	0.029	0.016
2	30.815	4.661	1.094	0.105	0.346	1.259	0.322	0.174	0.013	0.002	0.041	0.294	0.002	0.010	0.718	0.060	0.012	0.053	0.024
3	25.823	3.453	0.546	0.026	0.191	1.714	0.228	0.131	0.006	0.001	0.007	0.136	0.000	0.005	0.209	0.036	0.007	0.011	0.012
4	19.691	3.432	0.599	0.059	0.230	1.403	0.289	0.141	0.006	0.002	0.006	0.140	0.002	0.002	0.138	0.021	0.004	0.011	0.010
5	15.880	3.424	0.532	0.038	0.193	0.843	0.235	0.106	0.006	0.001	0.007	0.147	0.001	0.007	0.079	0.018	0.005	0.014	0.012
6	26.721	4.389	1.886	0.023	0.181	1.639	0.273	0.095	0.006	0.001	0.017	0.186	0.002	0.009	1.028	0.082	0.008	0.025	0.017
7	23.758	3.815	0.793	0.058	0.230	1.476	0.354	0.140	0.009	0.001	0.008	0.170	0.002	0.004	0.278	0.035	0.006	0.017	0.017
8	31.723	4.334	1.865	0.044	0.227	1.710	0.313	0.159	0.008	0.002	0.023	0.220	0.002	0.009	1.321	0.083	0.018	0.047	0.031
9	14.227	2.507	0.758	0.053	0.106	0.828	0.151	0.076	0.005	0.001	0.006	0.097	0.001	0.007	0.365	0.035	0.007	0.013	0.011
10	21.167	3.235	0.296	0.052	0.171	1.437	0.202	0.113	0.005	0.000	0.004	0.104	0.001	0.003	0.066	0.016	0.003	0.009	0.007
11	13.176	2.781	0.333	0.027	0.179	0.651	0.177	0.100	0.006	0.001	0.005	0.115	0.002	0.004	0.092	0.016	0.003	0.012	0.011
12	17.576	3.654	0.091	0.132	0.297	0.796	0.370	0.174	0.009	0.001	0.007	0.171	0.002	0.007	0.147	0.016	0.003	0.019	0.016
13	14.386	3.168	0.543	0.117	0.293	0.657	0.239	0.172	0.010	0.000	0.006	0.208	0.002	0.005	0.150	0.028	0.005	0.020	0.010

Table S5.b Daily Elemental Concentration of PM2.5 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	PM _{2.5} (µgm ⁻³)	BC (µgm ⁻³)	Na (µgm ⁻³)	Al (µgm ⁻³)	Si (µgm ⁻³)	S (µgm ⁻³)	K (µgm ⁻³)	Ca (µgm ⁻³)	Ti (µgm ⁻³)	Cr (µgm ⁻³)	Mn (µgm ⁻³)	Fe (µgm ⁻³)	Ni (µgm ⁻³)	Cu (µgm ⁻³)	Zn (µgm ⁻³)	Pb (µgm ⁻³)	As (µgm ⁻³)	Cl (µgm ⁻³)	Br (µgm ⁻³)
1	33.204	5.347	0.825	0.091	0.148	1.607	0.514	0.103	0.010	0.002	0.022	0.125	0.000	0.020	0.308	0.047	0.011	0.021	0.013
2	26.079	5.264	0.342	0.013	0.196	1.393	0.221	0.119	0.010	0.003	0.005	0.146	0.002	0.013	0.134	0.034	0.009	0.012	0.006
3	38.204	6.008	0.739	0.026	0.204	2.423	0.312	0.138	0.011	0.002	0.008	0.204	0.003	0.027	0.236	0.060	0.012	0.019	0.026
4	42.316	4.519	0.415	0.042	0.152	1.686	0.307	0.112	0.006	0.002	0.004	0.135	0.003	0.007	0.087	0.014	0.005	0.016	0.020
5	38.311	5.909	0.870	0.015	0.258	2.695	0.362	0.171	0.014	0.003	0.013	0.242	0.003	0.022	0.257	0.035	0.009	0.024	0.013
6	19.867	4.599	0.462	0.107	0.253	0.722	0.234	0.184	0.012	0.001	0.006	0.179	0.003	0.008	0.105	0.018	0.002	0.022	0.008
7	25.542	3.955	0.310	0.042	0.124	1.160	0.310	0.077	0.005	0.001	0.003	0.082	0.002	0.007	0.060	0.016	0.003	0.015	0.011
8	23.280	4.397	0.212	0.036	0.203	1.443	0.227	0.136	0.011	0.001	0.014	0.143	0.001	0.008	0.058	0.015	0.003	0.013	0.010
9	29.653	4.409	0.547	0.039	0.149	1.405	0.379	0.098	0.008	0.001	0.005	0.126	0.002	0.019	0.089	0.018	0.003	0.022	0.015
10	24.264	3.946	0.434	0.016	0.165	1.568	0.224	0.107	0.007	0.001	0.006	0.127	0.001	0.005	0.117	0.039	0.007	0.014	0.010
11	40.900	5.951	0.360	0.054	0.298	2.223	0.449	0.178	0.013	0.002	0.010	0.197	0.002	0.010	0.123	0.026	0.007	0.030	0.024
12	39.533	5.609	1.024	0.041	0.229	2.236	0.448	0.160	0.011	0.002	0.023	0.205	0.001	0.008	0.495	0.028	0.007	0.025	0.024
13	40.509	5.213	0.442	0.036	0.222	2.486	0.410	0.161	0.009	0.001	0.013	0.178	0.002	0.005	0.114	0.024	0.004	0.021	0.017
14	31.667	4.803	0.339	0.037	0.211	2.314	0.282	0.135	0.011	0.002	0.009	0.162	0.002	0.016	0.099	0.027	0.005	0.015	0.014
15	31.924	5.093	0.291	0.075	0.212	1.906	0.315	0.141	0.011	0.001	0.009	0.153	0.002	0.012	0.071	0.022	0.003	0.021	0.015
16	26.127	5.585	0.319	0.065	0.246	1.067	0.366	0.158	0.011	0.002	0.006	0.166	0.002	0.008	0.095	0.032	0.008	0.027	0.015
17	38.788	5.535	0.493	0.087	0.230	2.243	0.407	0.155	0.011	0.001	0.016	0.172	0.002	0.027	0.157	0.032	0.006	0.026	0.015
18	22.731	3.518	0.317	0.026	0.148	1.552	0.259	0.108	0.008	0.001	0.008	0.117	0.002	0.006	0.080	0.016	0.003	0.011	0.008
19	23.889	4.925	0.844	0.094	0.237	1.302	0.315	0.184	0.010	0.002	0.011	0.173	0.001	0.007	0.070	0.016	0.003	0.018	0.011
20	32.140	5.228	0.043	0.161	0.377	3.117	0.304	0.238	0.017	0.002	0.013	0.268	0.002	0.011	0.136	0.025	0.004	0.021	0.012
21	36.117	6.010	0.640	0.077	0.318	2.098	0.506	0.206	0.014	0.003	0.030	0.243	0.002	0.011	0.193	0.030	0.007	0.031	0.020
22	37.133	5.399	0.396	0.044	0.253	2.678	0.335	0.179	0.012	0.002	0.006	0.187	0.002	0.011	0.164	0.053	0.012	0.018	0.008
23	33.182	5.024	0.912	0.032	0.198	1.855	0.387	0.122	0.008	0.002	0.034	0.164	0.003	0.008	0.166	0.028	0.005	0.022	0.024
24	24.174	4.909	1.072	0.073	0.268	1.355	0.323	0.161	0.012	0.001	0.013	0.198	0.002	0.008	0.268	0.028	0.004	0.021	0.012
25	33.016	5.683	0.525	0.066	0.279	2.054	0.472	0.148	0.011	0.002	0.006	0.187	0.002	0.008	0.117	0.019	0.005	0.026	0.021
26	43.706	6.747	0.655	0.016	0.221	3.192	0.541	0.144	0.012	0.003	0.024	0.215	0.003	0.010	0.274	0.036	0.007	0.023	0.018
27	35.714	5.875	0.842	0.065	0.261	2.208	0.470	0.173	0.010	0.002	0.008	0.201	0.001	0.010	0.355	0.060	0.010	0.030	0.015
28	15.038	2.779	0.141	0.032	0.129	1.129	0.158	0.089	0.006	0.001	0.002	0.101	0.002	0.004	0.041	0.006	0.001	0.009	0.005
29	27.561	5.066	1.003	0.036	0.211	1.299	0.354	0.136	0.009	0.001	0.005	0.175	0.001	0.007	0.435	0.040	0.007	0.061	0.016
30	27.319	4.595	0.291	0.041	0.218	1.315	0.309	0.127	0.007	0.001	0.003	0.137	0.002	0.006	0.092	0.027	0.005	0.021	0.014
31	26.847	5.265	0.533	0.061	0.243	0.971	0.492	0.172	0.010	0.001	0.003	0.151	0.002	0.006	0.101	0.022	0.005	0.025	0.017
32	22.792	3.935	0.436	0.023	0.175	1.674	0.268	0.127	0.010	0.000	0.001	0.129	0.001	0.027	0.067	0.021	0.004	0.017	0.013

Table S5.c Daily Elemental Concentration of PM2.5 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	PM _{2.5} (µgm ⁻³)	BC (µgm ⁻³)	Na (µgm ⁻³)	Al (µgm ⁻³)	Si (µgm ⁻³)	S (µgm ⁻³)	K (µgm ⁻³)	Ca (µgm ⁻³)	Ti (µgm ⁻³)	Cr (µgm ⁻³)	Mn (µgm ⁻³)	Fe (µgm ⁻³)	Ni (µgm ⁻³)	Cu (µgm ⁻³)	Zn (µgm ⁻³)	Pb (µgm ⁻³)	As (µgm ⁻³)	Cl (µgm ⁻³)	Br (µgm ⁻³)
1	4.153	0.268	0.227	0.041	0.009	0.182	0.021	0.005	0.000	0.001	0.004	0.007	0.002	0.004	0.009	0.010	0.001	0.000	0.003
2	18.408	2.449	0.117	0.008	0.068	0.900	0.191	0.033	0.004	0.001	0.001	0.044	0.002	0.003	0.021	0.006	0.002	0.007	0.008
3	14.656	3.172	0.227	0.041	0.038	0.148	0.207	0.018	0.002	0.000	0.004	0.032	0.000	0.004	0.043	0.048	0.006	0.013	0.005
4	30.760	3.431	0.581	0.000	0.089	1.990	0.232	0.041	0.004	0.001	0.002	0.084	0.003	0.006	0.159	0.043	0.007	0.016	0.011
5	29.463	3.501	0.179	0.043	0.131	1.754	0.293	0.067	0.006	0.002	0.004	0.103	0.002	0.004	0.044	0.012	0.003	0.018	0.014
6	22.979	3.142	0.244	0.007	0.072	1.249	0.226	0.037	0.004	0.001	0.003	0.060	0.002	0.004	0.057	0.009	0.002	0.013	0.010
7	17.952	3.187	0.227	0.024	0.097	0.461	0.193	0.054	0.004	0.001	0.002	0.057	0.001	0.005	0.030	0.011	0.002	0.021	0.008
8	27.340	3.115	0.158	0.041	0.092	0.997	0.215	0.051	0.005	0.001	0.011	0.068	0.001	0.021	0.059	0.019	0.003	0.019	0.009
9	20.721	3.406	0.142	0.038	0.108	0.929	0.251	0.052	0.005	0.000	0.002	0.064	0.001	0.003	0.024	0.011	0.001	0.013	0.008
10	23.185	2.639	0.151	0.030	0.111	1.332	0.200	0.053	0.005	0.001	0.003	0.070	0.001	0.004	0.085	0.029	0.007	0.017	0.008
11	26.160	3.462	0.200	0.042	0.123	1.112	0.269	0.054	0.006	0.002	0.004	0.085	0.001	0.002	0.058	0.008	0.003	0.018	0.009
12	26.419	3.305	0.144	0.083	0.129	1.702	0.280	0.063	0.006	0.000	0.007	0.084	0.001	0.002	0.042	0.008	0.003	0.015	0.009
13	30.134	3.676	0.304	0.038	0.130	1.993	0.268	0.054	0.005	0.002	0.003	0.088	0.001	0.019	0.103	0.015	0.004	0.016	0.011
14	30.338	2.752	0.227	0.026	0.093	1.451	0.240	0.048	0.006	0.002	0.002	0.062	0.001	0.002	0.041	0.006	0.002	0.012	0.009
15	31.794	3.569	0.195	0.088	0.163	1.652	0.315	0.078	0.007	0.001	0.010	0.096	0.001	0.003	0.054	0.011	0.003	0.020	0.010
16	25.708	2.932	0.178	0.024	0.099	1.399	0.251	0.065	0.006	0.001	0.006	0.064	0.001	0.002	0.050	0.011	0.004	0.013	0.008
17	15.457	2.815	0.279	0.035	0.111	0.600	0.213	0.063	0.005	0.001	0.002	0.066	0.001	0.003	0.033	0.011	0.004	0.019	0.007
18	34.444	3.695	0.170	0.099	0.177	2.302	0.349	0.090	0.008	0.002	0.009	0.110	0.001	0.003	0.071	0.013	0.004	0.024	0.011
19	33.576	4.093	0.265	0.066	0.172	1.639	0.349	0.076	0.007	0.002	0.011	0.121	0.002	0.003	0.075	0.022	0.007	0.019	0.008
20	25.503	2.742	0.244	0.064	0.118	1.500	0.240	0.059	0.006	0.001	0.002	0.070	0.001	0.003	0.086	0.071	0.009	0.013	0.007
21	30.954	3.129	0.556	0.059	0.193	2.098	0.330	0.111	0.007	0.002	0.004	0.107	0.001	0.001	0.110	0.016	0.003	0.016	0.011
22	23.982	3.626	0.447	0.067	0.158	1.544	0.319	0.101	0.008	0.001	0.007	0.094	0.001	0.001	0.056	0.005	0.002	0.017	0.012
23	31.919	4.067	0.301	0.112	0.226	1.908	0.453	0.086	0.011	0.001	0.012	0.134	0.001	0.006	0.054	0.012	0.004	0.021	0.013
24	35.525	3.912	0.457	0.062	0.158	2.389	0.348	0.071	0.010	0.002	0.006	0.134	0.001	0.003	0.122	0.068	0.011	0.020	0.009
25	31.968	3.793	0.179	0.015	0.115	1.401	0.299	0.061	0.005	0.001	0.006	0.079	0.001	0.003	0.071	0.039	0.005	0.017	0.010
26	18.031	2.344	0.170	0.017	0.082	1.167	0.186	0.062	0.004	0.001	0.003	0.060	0.001	0.001	0.038	0.003	0.002	0.010	0.008
27	26.388	2.895	0.104	0.079	0.132	1.105	0.233	0.065	0.006	0.001	0.006	0.081	0.001	0.002	0.057	0.012	0.004	0.014	0.012
28	17.536	3.344	0.171	0.105	0.176	0.740	0.305	0.080	0.007	0.001	0.005	0.094	0.001	0.003	0.038	0.010	0.003	0.014	0.010
29	5.736	3.131	0.510	0.075	0.185	1.857	0.301	0.098	0.008	0.001	0.003	0.107	0.001	0.037	0.052	0.008	0.002	0.018	0.014
30	43.859	2.972	0.206	0.035	0.114	1.572	0.251	0.064	0.005	0.001	0.001	0.076	0.002	0.034	0.061	0.021	0.005	0.019	0.012

PM2-5 – 10 concentrations data measured in this study

Table S6.a Daily Elemental Concentration of PM2.5-10 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	PM _{2.5-10} (μgm^{-3})	BC (μgm^{-3})	Na (μgm^{-3})	Al (μgm^{-3})	Si (μgm^{-3})	S (μgm^{-3})	K (μgm^{-3})	Ca (μgm^{-3})	Ti (μgm^{-3})	Cr (μgm^{-3})	Mn (μgm^{-3})	Fe (μgm^{-3})	Ni (μgm^{-3})	Cu (μgm^{-3})	Zn (μgm^{-3})	Pb (μgm^{-3})	As (μgm^{-3})	Cl (μgm^{-3})	Br (μgm^{-3})
1	57.794	1.824	0.587	1.087	2.588	1.489	0.355	2.003	0.094	0.006	0.045	1.501	0.004	0.016	0.634	0.051	0.009	0.584	0.018
2	56.083	1.452	2.043	0.943	1.952	1.046	0.340	1.481	0.073	0.006	0.109	1.386	0.002	0.014	1.840	0.087	0.010	1.278	0.035
3	30.876	1.036	0.847	0.797	1.750	0.770	0.219	1.345	0.065	0.004	0.025	0.948	0.002	0.007	0.343	0.019	0.005	0.291	0.012
4	44.442	1.137	1.091	0.972	2.152	1.068	0.317	1.858	0.075	0.004	0.034	1.180	0.002	0.007	0.354	0.018	0.007	0.700	0.008
5	48.042	1.233	1.009	0.991	2.042	0.988	0.328	1.654	0.073	0.003	0.036	1.145	0.002	0.008	0.287	0.019	0.007	0.953	0.012
6	52.456	1.414	1.640	0.877	1.818	0.928	0.283	1.400	0.071	0.005	0.038	1.295	0.003	0.010	1.287	0.087	0.011	0.869	0.019
7	50.193	1.276	1.480	1.201	2.409	1.094	0.339	1.785	0.088	0.004	0.041	1.493	0.003	0.009	0.947	0.044	0.006	0.839	0.019
8	51.675	1.419	2.044	0.700	1.530	1.096	0.314	1.331	0.063	0.005	0.069	1.237	0.003	0.013	3.209	0.127	0.011	1.151	0.052
9	21.961	0.717	0.779	0.583	1.193	0.418	0.143	0.918	0.044	0.002	0.014	0.704	0.002	0.006	0.348	0.019	0.003	0.433	0.006
10	35.195	1.109	0.506	0.956	2.024	0.742	0.240	1.614	0.071	0.004	0.022	1.045	0.001	0.007	0.159	0.017	0.003	0.206	0.004
11	33.455	1.141	0.487	0.839	1.748	0.679	0.261	1.216	0.058	0.003	0.027	0.951	0.002	0.007	0.287	0.021	0.005	0.253	0.010
12	43.256	1.241	1.015	0.876	1.870	0.652	0.335	1.335	0.063	0.003	0.026	1.021	0.002	0.007	0.468	0.018	0.005	0.678	0.011
13	42.798	1.277	0.935	0.902	1.928	0.730	0.298	1.411	0.066	0.003	0.029	1.098	0.002	0.008	0.397	0.038	0.004	0.758	0.012

Table S6.b Daily Elemental Concentration of PM2.5-10 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	M _{2.5-10} (μgm^{-3})	BC (μgm^{-3})	Na (μgm^{-3})	Al (μgm^{-3})	Si (μgm^{-3})	S (μgm^{-3})	K (μgm^{-3})	Ca (μgm^{-3})	Ti (μgm^{-3})	Cr (μgm^{-3})	Mn (μgm^{-3})	Fe (μgm^{-3})	Ni (μgm^{-3})	Cu (μgm^{-3})	Zn (μgm^{-3})	Pb (μgm^{-3})	As (μgm^{-3})	Cl (μgm^{-3})	Br (μgm^{-3})
1	24.574	0.802	1.120	0.526	0.985	0.427	0.193	0.869	0.040	0.002	0.022	0.599	0.003	0.006	0.215	0.016	0.004	1.222	0.004
2	20.286	0.919	0.171	0.561	1.177	0.401	0.140	0.774	0.045	0.005	0.011	0.642	0.002	0.013	0.129	0.009	0.003	0.132	0.004
3	38.167	1.273	1.042	1.019	2.018	0.860	0.249	1.555	0.082	0.009	0.023	1.207	0.004	0.018	0.275	0.030	0.008	0.893	0.018
4	36.737	1.321	0.683	0.729	1.670	0.975	0.246	1.409	0.071	0.005	0.016	0.954	0.003	0.010	0.140	0.015	0.004	0.182	0.010
5	40.244	1.668	0.841	1.048	2.148	0.976	0.282	1.788	0.085	0.009	0.025	1.254	0.003	0.018	0.332	0.031	0.006	0.502	0.009
6	49.283	1.356	0.417	0.817	1.687	0.507	0.279	1.469	0.066	0.007	0.024	0.967	0.002	0.011	0.171	0.020	0.005	0.575	0.012
7	29.014	1.019	1.143	0.534	1.257	0.621	0.205	0.997	0.051	0.003	0.015	0.655	0.002	0.007	0.082	0.011	0.003	0.143	0.005
8	38.293	1.210	0.456	0.790	1.698	1.004	0.241	1.408	0.064	0.005	0.026	0.929	0.002	0.010	0.103	0.013	0.004	0.088	0.005
9	24.583	0.839	0.279	0.518	1.029	0.409	0.151	0.818	0.040	0.002	0.014	0.572	0.002	0.007	0.073	0.006	0.002	0.259	0.005
10	39.139	1.219	0.807	0.842	1.769	0.994	0.258	1.592	0.068	0.007	0.024	0.989	0.003	0.012	0.231	0.040	0.009	0.322	0.007
11	32.583	1.024	0.259	0.684	1.499	0.540	0.192	1.238	0.059	0.005	0.018	0.780	0.003	0.007	0.092	0.011	0.004	0.172	0.008
12	45.000	1.475	1.332	0.985	2.073	1.191	0.340	1.660	0.086	0.005	0.052	1.163	0.001	0.011	0.169	0.030	0.006	0.512	0.025
13	31.772	1.062	0.132	0.700	1.432	0.708	0.192	1.228	0.054	0.004	0.019	0.754	0.003	0.007	0.110	0.009	0.003	0.161	0.008
14	49.486	1.527	0.445	1.002	2.229	1.377	0.301	1.926	0.086	0.009	0.029	1.206	0.003	0.027	0.244	0.033	0.008	0.230	0.014
15	48.409	1.498	0.680	1.114	2.299	1.171	0.347	2.126	0.089	0.007	0.042	1.265	0.003	0.026	0.166	0.023	0.005	0.415	0.014
16	47.190	1.434	0.501	0.801	1.704	0.656	0.295	1.358	0.064	0.005	0.023	0.893	0.003	0.011	0.114	0.016	0.005	0.243	0.011
17	40.470	1.301	0.496	0.887	1.853	1.017	0.281	1.542	0.070	0.005	0.032	1.011	0.002	0.017	0.214	0.022	0.005	0.232	0.010
18	25.462	0.867	0.434	0.590	1.342	0.640	0.182	1.239	0.062	0.004	0.019	0.759	0.002	0.007	0.115	0.009	0.002	0.180	0.007
19	26.931	0.817	0.507	0.549	1.146	0.413	0.154	1.045	0.045	0.003	0.014	0.611	0.002	0.005	0.055	0.009	0.002	0.773	0.006
20	65.474	2.036	0.801	1.614	3.299	1.670	0.423	2.558	0.131	0.011	0.050	1.851	0.002	0.020	0.375	0.049	0.009	0.395	0.011
21	47.483	1.397	0.947	1.045	2.151	1.051	0.367	1.748	0.087	0.007	0.077	1.191	0.003	0.012	0.305	0.022	0.006	0.556	0.015
22	40.233	1.357	1.404	0.794	2.275	1.100	0.291	2.090	0.093	0.008	0.031	1.224	0.003	0.014	0.363	0.026	0.007	0.365	0.006
23	34.273	1.080	0.825	0.862	1.786	0.896	0.271	1.340	0.067	0.004	0.045	0.946	0.002	0.008	0.218	0.018	0.005	0.263	0.013
24	31.638	1.353	1.277	0.991	2.101	0.925	0.322	1.764	0.081	0.006	0.033	1.127	0.002	0.012	0.415	0.018	0.005	1.233	0.011
25	48.444	1.541	0.920	1.265	2.628	1.369	0.428	1.968	0.102	0.007	0.040	1.426	0.003	0.012	0.201	0.026	0.005	0.253	0.015
26	38.275	1.389	0.735	0.948	2.021	1.174	0.322	1.619	0.080	0.006	0.039	1.137	0.003	0.010	0.223	0.015	0.005	0.149	0.007
27	33.111	1.207	0.516	0.872	1.672	0.809	0.239	1.365	0.065	0.003	0.024	0.911	0.002	0.008	0.294	0.034	0.008	0.340	0.008
28	23.897	0.881	0.236	0.658	1.365	0.563	0.171	1.179	0.053	0.005	0.014	0.744	0.002	0.010	0.067	0.008	0.002	0.228	0.004
29	37.288	1.319	0.772	0.915	2.037	0.858	0.314	1.642	0.080	0.007	0.033	1.170	0.003	0.013	0.440	0.028	0.007	0.405	0.008
30	39.449	1.382	0.445	1.005	2.258	0.853	0.340	1.784	0.081	0.005	0.030	1.159	0.002	0.012	0.155	0.016	0.006	0.319	0.007
31	26.764	0.944	0.307	0.579	1.225	0.458	0.226	0.940	0.044	0.002	0.016	0.621	0.001	0.004	0.083	0.006	0.002	0.315	0.006
32	37.319	1.212	0.729	0.776	1.690	1.135	0.265	1.691	0.070	0.004	0.022	0.931	0.002	0.016	0.112	0.018	0.003	0.279	0.007

Table S6.c Daily Elemental Concentration of PM2.5-10 Composition in (a) NJ; (b) CJ; (c) SJ

Sample	PM _{2.5-10} (µgm ⁻³)	BC (µgm ⁻³)	Na (µgm ⁻³)	Al (µgm ⁻³)	Si (µgm ⁻³)	S (µgm ⁻³)	K (µgm ⁻³)	Ca (µgm ⁻³)	Ti (µgm ⁻³)	Cr (µgm ⁻³)	Mn (µgm ⁻³)	Fe (µgm ⁻³)	Ni (µgm ⁻³)	Cu (µgm ⁻³)	Zn (µgm ⁻³)	Pb (µgm ⁻³)	As (µgm ⁻³)	Cl (µgm ⁻³)	Br (µgm ⁻³)
1	8.605	0.422	0.449	0.174	0.437	0.261	0.064	0.323	0.018	0.001	0.005	0.214	0.001	0.005	0.022	0.007	0.002	0.225	0.003
2	13.667	0.524	0.714	0.249	0.605	0.288	0.114	0.404	0.024	0.002	0.008	0.305	0.002	0.002	0.024	0.004	0.001	0.255	0.005
3	15.355	0.913	0.026	0.258	0.581	0.199	0.153	0.399	0.028	0.002	0.007	0.310	0.001	0.004	0.063	0.033	0.008	0.177	0.003
4	27.564	0.749	1.360	0.414	0.951	0.610	0.176	0.672	0.035	0.003	0.013	0.565	0.002	0.004	0.191	0.027	0.006	0.489	0.007
5	29.129	0.913	0.153	0.635	1.275	0.609	0.210	0.893	0.053	0.003	0.016	0.681	0.003	0.005	0.062	0.014	0.002	0.206	0.006
6	23.950	0.905	0.692	0.471	0.968	0.610	0.181	0.821	0.039	0.003	0.013	0.513	0.001	0.002	0.070	0.008	0.002	0.671	0.005
7	27.866	0.933	0.452	0.398	0.884	0.320	0.160	0.597	0.035	0.002	0.013	0.453	0.002	0.007	0.059	0.016	0.001	0.199	0.007
8	34.162	1.082	0.470	0.662	1.347	0.992	0.219	0.999	0.053	0.002	0.025	0.736	0.002	0.011	0.094	0.016	0.003	0.129	0.007
9	30.992	0.987	0.690	0.456	0.868	0.629	0.193	0.699	0.037	0.002	0.012	0.467	0.001	0.003	0.035	0.006	0.002	0.193	0.006
10	26.090	0.768	0.768	0.564	1.116	0.584	0.173	0.850	0.049	0.002	0.013	0.572	0.002	0.004	0.162	0.018	0.005	0.366	0.005
11	36.442	0.975	0.606	0.610	1.210	0.620	0.208	0.850	0.051	0.003	0.016	0.638	0.002	0.004	0.113	0.012	0.003	0.095	0.005
12	39.252	0.961	0.297	0.713	1.393	0.804	0.243	1.158	0.056	0.003	0.032	0.756	0.002	0.005	0.071	0.009	0.003	0.133	0.008
13	36.245	1.033	0.437	0.756	1.578	1.109	0.248	1.243	0.067	0.003	0.022	0.880	0.001	0.017	0.178	0.015	0.004	0.100	0.010
14	23.920	0.768	0.073	0.521	1.010	0.616	0.172	0.791	0.041	0.002	0.015	0.545	0.001	0.004	0.061	0.004	0.002	0.107	0.003
15	36.387	1.015	0.443	0.737	1.408	0.698	0.219	1.004	0.056	0.003	0.019	0.730	0.001	0.008	0.096	0.003	0.002	0.105	0.004
16	24.264	0.781	0.226	0.488	1.047	0.727	0.181	0.952	0.044	0.002	0.016	0.552	0.002	0.003	0.067	0.010	0.002	0.159	0.006
17	25.330	0.777	1.025	0.655	1.169	0.420	0.182	0.896	0.051	0.001	0.016	0.627	0.002	0.004	0.041	0.012	0.002	0.725	0.010
18	35.622	1.184	0.301	0.960	1.829	0.955	0.256	1.252	0.077	0.004	0.031	0.982	0.001	0.006	0.140	0.013	0.002	0.273	0.007
19	56.271	1.429	0.555	1.346	2.494	1.185	0.380	1.923	0.104	0.004	0.052	0.982	0.003	0.010	0.164	0.028	0.006	0.205	0.011
20	22.864	0.720	0.468	0.565	1.160	0.594	0.176	0.892	0.049	0.002	0.012	0.605	0.003	0.003	0.133	0.014	0.004	0.297	0.003
21	31.803	0.906	0.583	0.760	1.600	0.810	0.252	1.247	0.062	0.003	0.028	0.815	0.001	0.002	0.139	0.009	0.002	0.725	0.006
22	32.726	0.846	1.256	0.730	1.441	0.737	0.239	1.280	0.056	0.002	0.020	0.719	0.001	0.004	0.069	0.005	0.001	0.725	0.007
23	33.215	0.946	1.226	1.028	1.902	0.789	0.272	1.177	0.078	0.003	0.027	0.970	0.003	0.004	0.064	0.012	0.003	0.253	0.006
24	33.196	1.030	0.541	1.045	1.981	0.902	0.268	1.371	0.091	0.003	0.032	1.168	0.002	0.006	0.158	0.023	0.005	0.165	0.007
25	28.708	1.132	0.436	0.808	1.371	0.882	0.219	0.962	0.060	0.003	0.020	0.747	0.001	0.003	0.177	0.061	0.009	0.113	0.004
26	17.465	0.554	0.652	0.442	0.839	0.436	0.135	0.828	0.033	0.002	0.013	0.452	0.001	0.002	0.049	0.002	0.003	0.659	0.006
27	22.559	0.868	0.248	0.616	1.153	0.468	0.179	0.898	0.046	0.003	0.018	0.601	0.001	0.003	0.060	0.006	0.002	0.270	0.004
28	32.579	0.924	0.535	0.655	1.301	0.476	0.248	0.856	0.049	0.002	0.018	0.666	0.002	0.003	0.049	0.009	0.003	0.495	0.009
29	18.483	0.513	0.528	0.433	0.850	0.481	0.135	0.638	0.033	0.001	0.011	0.450	0.001	0.006	0.032	0.004	0.001	0.535	0.007
30	30.085	0.908	0.590	0.697	1.294	0.918	0.213	1.124	0.058	0.002	0.019	0.686	0.001	0.022	0.089	0.019	0.004	0.304	0.006