

Supplementary Materials

Table Captions

Table S1. The campaigns of the study and average values of meteorological parameters.

Table S2. Mean mass concentration in neq m^{-3} of water soluble ions.

Table S3. Statistics for metals indoor and outdoor concentrations for PM10.

Table S1. The campaigns of the study and average values of meteorological parameters.

Period	PM fraction	Sampling site		Sampling time period		Number of filters 24h	Chemical Analysis			Meteorological conditions (average values)			
		indoors	outdoors	period A= 00:00-12:00	period B= 12:00-24:00		ions	OC/EC	metals	Temp. (°C)	Relative humidity (%)	Wind speed (m/s)	Precipitation (mm)
Campaign 1 22/12/2012-11/1/2013	PM10	✓	✓	✓	✓	40 indoors & 40 outdoors	✓	✓	✓	8.8±3.3	72±13	1.7±0.7	0.2±0.7
Campaign 2 12/1/2013-28/1/13	PM2.5	✓	✓	✓	✓	31 indoors & 31 outdoors	✓	✓		10±2.9	75±7.0	2.5±1.0	0.2±0.5
Campaign 3 31/1/2013-21/2/2013	PM2.5		✓			16 outdoors	✓	✓		11±2.1	74±11	2.1±0.7	0.2±0.3

Table S2. Mean mass concentration in neq m⁻³ of water soluble ions.

(neq m ⁻³)	PM10 (Campaign 1)						PM2.5 (Campaign 2)						PM2.5 (Campaign 3)
	A+B		A		B		A+B		A		B		out
	in	out	in	out	in	out	in	out	in	out	in	out	out
Cl⁻	13.3	27.9	13.9	22.3	12.8	32.7	13.2	22.9	14.2	23.5	12.2	22.4	22.8
NO₃⁻	24.1	52.8	24.9	46.6	23.4	58.3	16.7	30	17.3	27.4	16.3	32.5	33.5
PO₄³⁻	47.7	50.7	43.9	45.8	51.5	54.7	45.9	47.7	42.3	43.1	50.1	51.7	14.2
SO₄²⁻	71.6	103	69.8	94.1	73.3	111.4	38	58.5	40.8	61.4	35.3	55.7	151
sum	163	241	159	215	168	264	122	167	122	163	123	171	225
NH₄⁺	43.9	70	46	67.4	41.6	72.7	19.4	30.6	23.6	35.5	n.d.	30.4	36.7
K⁺	19.2	23.6	19.5	17.7	19.1	25.9	19.5	21.5	17.3	16.3	22.8	21.5	13.8
Mg²	10	10.8	8.76	10.4	9.24	12.2	10.8	13.3	10.3	11.9	12.1	13.5	8.5
Ca²⁺	114	96	73.1	79.1	71.7	106	70	72	59.2	69.7	59.7	72.1	90.4
Na⁺	76.5	77.8	66.1	69.9	71.3	83.9	153	99.6	87.5	94	113	99.6	103
sum	263	278	213	244	213	301	272	237	198	227	207	237	252
Cneq/Aneq	1.61	1.15	1.34	1.14	1.27	1.14	2.23	1.42	1.63	1.4	1.68	1.39	1.12

Table S3. Statistics for metals concentration in PM10 (in $\mu\text{g m}^{-3}$).

			A+B		A		B	
			in	out	in	out	in	out
Campaign 1 (PM10)	Cu	average	2.8E-02	2.3E-02	1.6E-02	1.8E-02	3.8E-02	2.7E-02
		stdev	2.9E-02	2.0E-02	1.4E-02	1.9E-02	3.5E-02	2.0E-02
	Pb	average	4.8E-03	6.0E-03	4.7E-03	4.5E-03	4.8E-03	6.9E-03
		stdev	3.4E-03	4.9E-03	2.0E-03	2.6E-03	3.7E-03	5.8E-03
	Cr	average	2.2E-02	2.1E-02	2.7E-02	1.9E-02	1.9E-02	2.3E-02
		stdev	1.9E-02	1.2E-02	2.7E-02	1.1E-02	8.1E-03	1.3E-02
	Ni	average	5.8E-03	7.4E-03	6.1E-03	6.8E-03	5.7E-03	7.8E-03
		stdev	2.1E-03	3.5E-03	2.3E-03	3.2E-03	2.0E-03	3.7E-03
	Cd	average	2.0E-04	2.0E-04	2.0E-04	2.0E-04	2.0E-04	2.0E-04
		stdev	1.0E-04	1.0E-04	1.0E-04	1.0E-04	2.0E-04	1.0E-04
	Zn	average	1.2E-01	1.2E-01	1.0E-01	1.1E-01	1.3E-01	1.3E-01
		stdev	8.3E-02	8.2E-02	8.0E-02	8.9E-02	8.5E-02	7.7E-02
	Fe	average	7.8E-01	7.9E-01	7.1E-01	6.9E-01	8.5E-01	8.7E-01
		stdev	6.3E-01	5.0E-01	6.6E-01	4.5E-01	6.1E-01	5.3E-01

Figure Captions

Figure S1 (a). Relationship between indoor and outdoor OC for PM10

Figure S1 (b). Relationship between indoor and outdoor EC for PM10

Figure S1 (c). Relationship between indoor and outdoor OC for PM2.5

Figure S1 (d). Relationship between indoor and outdoor EC for PM2.5

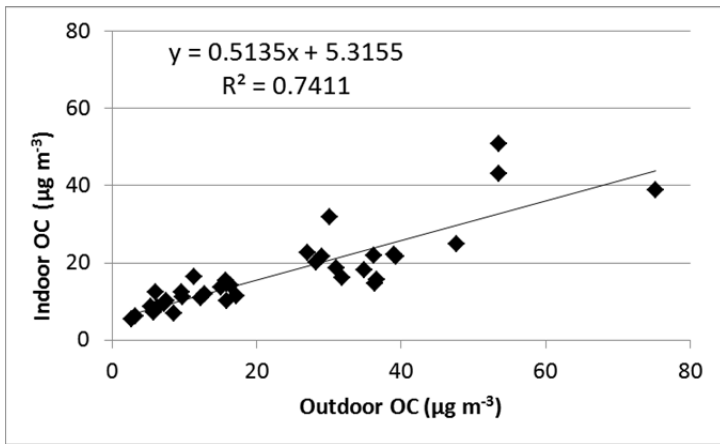


Fig.S1 (a)

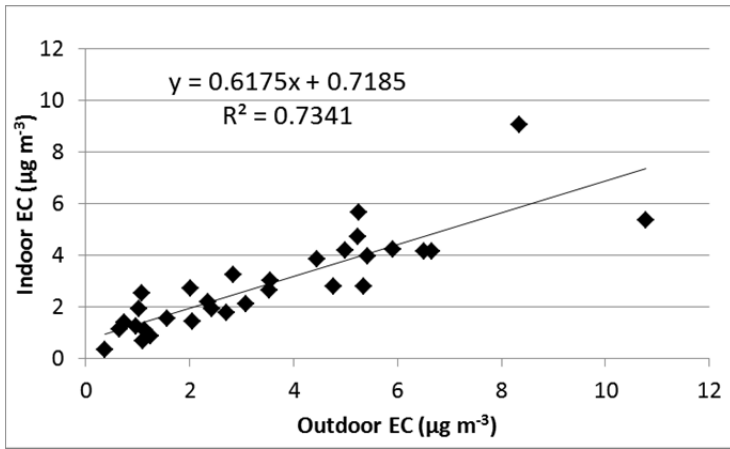


Fig.S1 (b)

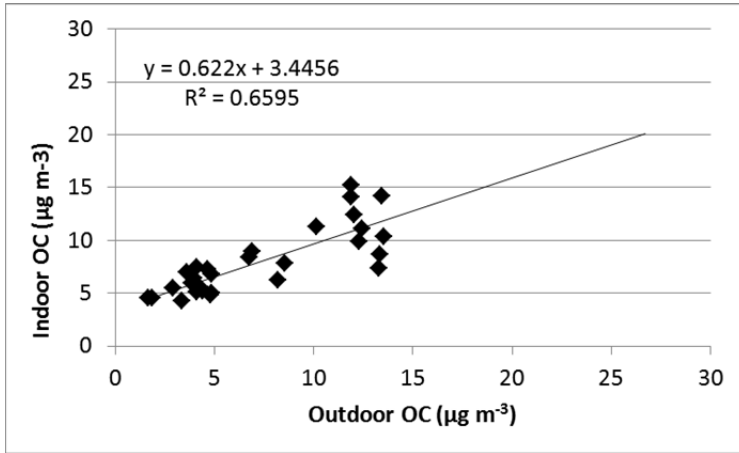


Fig. S1 (c)

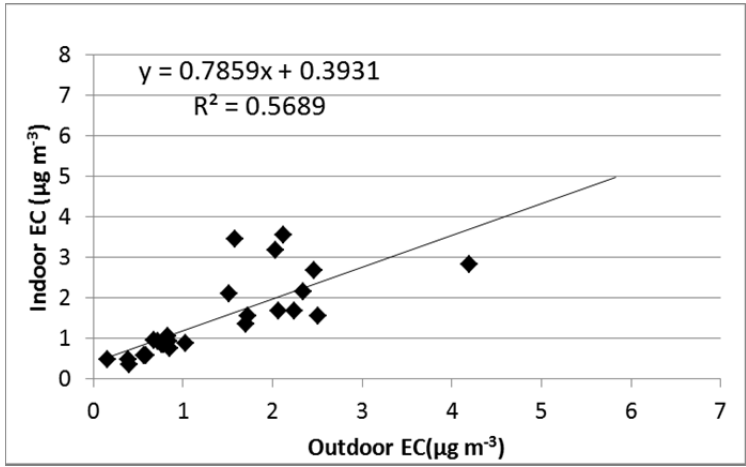


Fig. S1 (d)