atmosphere

Simultaneous Monitoring of Particle-Bound PAHs Inside a Low-Energy School Building and Outdoors Over Two Weeks in France

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Table S1. Indoor and outdoor sample Volumes (in units of m^3) for each sampling period during the field campaign.

Sampling period	Indoor Sample Volume (m^3)	Outdoor Sample Volume (m^3)
14/April/2014 – 17/April/2014	33.12	119.01
17/April/2014 – 21/April/2014	56.00	181.32
21/April/2014 – 24/April/2014	31.73	119.70
24/April/2014 – 28/April/2014	48.77	174.15
28/April/2014 – 02/May/2014	47.78	166.59
02/May/2014 – 06/May/2014	48.08	172.05

Table S2. Calibration parameters for the PAHs quantification with LOD and LOQ for the analytical instrument (LC for Liquid Chromatography) in μg L^{-1}, converted in injected mass (pg) and considering Airborne Concentrations (AC) in (pg m^{-3}).

PAH Compounds	Abbreviation	Linear Regression	Determination Coefficient R^2	Accuracy (%)	LOD_{LC} (μgL^{-1})	LOQ_{LC} (μgL^{-1})	LOD_{LC}[a] (pg)	LOQ_{LC}[a] (pg)	LOD_{AC}[b] (pg m^{-3})	LOQ_{AC}[b] (pg m^{-3})	VC_{intra}[c] (%)	VC_{inter}[c] (%)
Naphtalene	NAP	y = 164 401x	0.9995	10	0.10	0.47	2.0	9.4	0.75	3.52	3.1	2.4
Acenaphtylene (UV - 229 nm)	ACY	y = 2 241x	0.9998	10	0.10	0.47	2.0	9.4	0.75	3.52	7.9	7.3
Acenaphtene	ACE	y = 350 901x	0.9993	10	0.10	0.47	2.0	9.4	0.75	3.52	1.3	1.3
Fluorene	FLU	y = 1 254 167x	0.9997	10	0.05	0.10	1.0	2.0	0.37	0.75	0.3	0.4
Phenanthrene	PHE	y = 582 417x	0.9997	10	0.05	0.10	1.0	2.0	0.37	0.75	1.1	0.8
Anthracene	ANT	y = 3 080 115x	0.9989	10	0.01	0.05	0.2	1.0	0.07	0.37	0.3	0.9
Fluoranthene	FLN	y = 128 572x	0.9991	10	0.10	0.47	2.0	9.4	0.75	3.52	7.7	6.0
Pyrene	PYR	y = 296 637x	0.9994	10	0.10	0.47	2.0	9.4	0.75	3.52	3.6	3.4
Benzo[a]anthracene	B[a]A	y = 971 500x	0.9993	10	0.05	0.10	1.0	2.0	0.37	0.75	1.0	1.9
Chrysene	CHR	y = 851 409x	0.9995	10	0.05	0.10	1.0	2.0	0.37	0.75	1.1	0.8
Benzo[b]fluoranthene	B[b]F	y = 359 208x	0.9991	10	0.05	0.10	1.0	2.0	0.37	0.75	1.6	1.1
Benzo[k]fluoranthene	B[k]F	y = 1 796 491x	0.9994	10	0.01	0.05	0.2	1.0	0.07	0.37	2.2	1.6
Benzo[a]pyrene	B[a]P	y = 1 014 880x	0.9995	10	0.01	0.05	0.2	1.0	0.07	0.37	0.3	0.8
Dibenzo[a,h]anthracene	DB[a,h]A	y = 407 514x	0.9997	10	0.10	0.47	2.0	9.4	0.75	3.52	0.8	1.8
Benzo[g,h,i]perylene	B[g,h,i]P	y = 289 902x	0.9993	20	0.10	0.47	2.0	9.4	0.75	3.52	0.1	3.5
Indeno[1,2,3-c,d]pyrene	INP	y = 89 879x	0.9990	20	0.10	0.47	2.0	9.4	0.75	3.52	1.7	6.1

[a] The resulting LOD and LOQ have been converted in mass term by multiplying the LOD/LOQ_{LC} by the injection volume (injection loop of 20 μL); [b] LOD and LOQ considering Airborne Concentration (AC) obtained by multiplying LOD_{LC} and LOQ_{LC} (in units of μg L^{-1}) by the final concentration volume of 300 μL and divided by a sampling volume of 40 m^3; [c] Variation Coefficient intra-day (VC_{intra}) and inter-day (VC_{inter}) calculated based on RSD on 3 different concentrations. Results presented have been obtained with concentration of 1 μg/L.

Table S3. Toxic Equivalency Factor (TEF) values extracted from the works reported by Malcolm and Dobson (1994) and by Nisbet and LaGoy (1992).

Aromatic Ring Number	PAH Compounds	TEF value
2	NAP	0.001
3	ACY	0.001
	ACE	0.001
	FLU	0.001
	PHE	0.001
	ANT	0.01
4	FLN	0.001
	PYR	0.001
	B[a]A	0.1
	CHR	0.01
5	B[b]F	0.100
	B[k]F	0.100
	B[a]P	1
	DB[a.h]A	1
6	B[g.h.i]P	0.01
	IND	0.1