

Table 4: Quartz parameter temperature program

Mode 1	Carrier gas	Temperature (°C)	Time (s)
Step 1	100 % He	220	60
Step 2	100 % He	360	60
Step 3	100 % He	525	60
Step 4	100 % He	850	90
Mode 2			
Step 1	98 % He/2 % O ₂	550	30
Step 2	98 % He/2 % O ₂	650	30
Step 3	98 % He/2 % O ₂	720	30
Step 4	98 % He/2 % O ₂	790	40
Step 5	98 % He/2 % O ₂	820	30
Step 6	98 % He/2 % O ₂	860	20
Step 7	98 % He/2 % O ₂	890	40

Table 5. Analytical data of the HPLC/HRMS method

Compound	Elemental composition	MW*	Monitoring Ion*[M+H]	Retention Time minutes	Qualifyin g ion 1* [C ₈ H ₅ O ₃] ⁺	Qualifying ion 2* [C ₁₀ H ₈ NO ₃] ⁺	Precicion ⁺ RSD %	Instrumental LOD pg/injected	Meth.**1 LOD ng/m3
DBP	C ₁₆ H ₂₂ O ₄	278.1518	279.1596	12.3	149.0239	190.0504	14	12	0.04
BBP	C ₁₉ H ₂₀ O ₄	312.1362	313.1440	11.9	very weak	190.0504	13	34	0.09
DChP	C ₂₀ H ₂₆ O ₄	330.1831	331.1909	14.1	149.0239	190.0504	18	30	0.09
DEHP	C ₂₄ H ₃₈ O ₄	390.2770	391.2848	17.0	149.0239	190.0504	17	76	0.2
d ₄ -DBP	C ₁₆ D ₄ H ₁₈ O ₄	282.1831	283.1909	12.3	153.0552	194.0817	15	12	0.04
d ₄ -DnOP	C ₂₄ D ₄ H ₃₄ O ₄	394.3083	395.3161	17.5	153.0552	194.0817	18	76	0.2

* : Monoisotopic mass

** : 47mm filter, 100 m³ total volume, signal-to-noise ration 3/1.+ : Based on standard injections during a 48 hours sequence, *n* = 9.

Table 6. Mass concentrations of elemental carbon, organic carbon, total carbon and organic matter (concentrations are shown in $\mu\text{g}/\text{m}^3$).

Site	EC _{PM10}	EC _{PM2.5}	OC _{PM10}	OC _{PM2.5}	TC _{PM10}	TC _{PM2.5}	OM _{PM10}	OM _{PM2.5}
Oslo University College (corridor)	1.1	1.0	3.2	1.6	4.3	2.5	5.1	2.5
Oslo University College (office)	1.3	0.6	4.3	2.2	5.6	2.8	6.9	3.5
Oslo University College (stairway)	0.7	0.7	3.8	2.8	4.5	3.5	6.1	4.5
Oslo University College (computer room)	0.4	0.4	2.9	2.3	3.3	2.6	4.7	3.6
Oslo University College (hall)	1.2	1.1	3.5	2.3	4.6	3.4	5.6	3.7
Primary school, Lysejordet (corridor)	0.5	0.4	7.9	2.2	8.4	2.6	13	3.5
Primary school, Lysejordet (playroom)	0.3	0.2	13	2.9	14	3.1	21	4.6
Primary school, Smestad (corridor)	1.0	0.6	18	3.8	19	4.4	28	6.0
Primary school, Smestad (library)	0.4	0.4	1.3	1.1	1.7	1.4	2.1	1.7
Kindergarten, Vestjordet	1.1	0.9	5.8	3.3	6.9	4.1	9.3	5.2
Kindergarten, Grefsen	0.5	0.4	4.4	2.4	4.9	2.8	7.1	3.8
Kindergarten, Lindern	1.1	1.5	6.5	5.8	7.6	7.3	10	9.3
Dwelling, Lysejordet (children's room)	0.7	0.6	9.2	5.1	9.9	5.7	15	8.1
Dwelling, Korsvoll (sitting-room)	1.0	0.8	4.7	2.4	5.7	3.2	7.5	3.8
Mean	0.8	0.7	6.3	2.9	7.1	3.5	10	4.6
Min	0.3	0.2	1.3	1.1	1.7	1.4	2.1	1.7
Max	1.3	1.5	18	5.8	19	7.3	28	9.3

PM₁₀: particulate matter with an equivalent aerodynamic diameter $\leq 10 \mu\text{m}$, PM_{2.5}: particulate matter with an equivalent aerodynamic diameter $\leq 2.5 \mu\text{m}$, EC: elemental carbon, OC: organic carbon, TC: total carbon (TC = EC + OC), OM: organic matter (OM = OC x 1.6).

Table 7. Relative contribution of phthalates in different size fractions to organic matter.

Shares are given in percent.

Site	(Phthalate/OM _{PM10})	(Phthalate/OM _{PM2.5})
Oslo University College		
(corridor)	0.9	ND
Oslo University College		
(office)	2.2	ND
Oslo University College		
(stairway)	1.6	ND
Oslo University College		
(computer room)	4.6	ND
Oslo University College		
(hall)	1.5	1.6
Primary school,		
Lysejordet (corridor)	3.2	3.4
Primary school,		
Lysejordet (playroom)	0.7	0.7
Primary school,		
Smestad (corridor)	1.1	1.9
Primary school,		
Smestad (library)	1.2	1.2
Kindergarten,		
Vestjordet	1.3	0.9
Kindergarten,		
Grefsen	4.7	3.7
Kindergarten,		
Lindern	0.7	0.4

Dwelling, Lysejordet		
(children's room)	1.5	1.8
Dwelling, Korsvoll		
(sitting-room)	1.6	1.8
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Mean	1.9	1.7
Min	0.7	0.4
Max	4.7	3.7

ND: Not determined