

Supporting Information

Short-term exposure testing of six different passive samplers for the monitoring of hydrophobic contaminants in water

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Material and methods

Table SI-1 presents all compounds for which analysis was carried out, whether they were detected or not, in extracts of the various passive samplers. If analytes were not detected, estimates of limits of detection are also provided. All analytes were spiked into the river water during this test except 1-methylnaphthalene, 2-methylnaphthalene and 2,6-dimethylnaphthalene which were analysed in extracts from MESCO II and silicone rod samplers but were not part of the list of analytes spiked in the river water for the purpose of this test. The source of log K_{OW} values for the PRCs is given in the main text.

Table SI-1. List of chemicals analysed and/or detected by the various passive sampling devices tested in this study

Analyte	Log K_{ow}	Chemcatcher	SPMD	Silicone strip	MESCO I (m)	MESCO II	Silicone rod
1-Methylnaphthalene	3.86					A/D	A/D
2-Methylnaphthalene	3.86					A/D	A/D
Biphenyl	3.90					A/D	A/D
2,6-Dimethylnaphthalene	4.37					A/D	A/D
Acenaphthylene	3.9	A/D	A/D			A/D	A/D
Acenaphthene	3.92	A/D	A/D	A/D		A/D	A/D
Fluorene	4.18	A/D	A/D	A/D	A/D	A/D	A/D
Phenanthrene	4.57	A/D	A/D	A/D	A/D	A/D	A/D
Anthracene	4.54	A/D	A/D	A/D	A/D	A/D	A/D
Fluoranthene	5.22	A/D	A/D	A/D	A/D	A/D	A/D
Pyrene	5.18	A/D	A/D	A/D	A/D	A/D	A/D
Benz[a]anthracene	5.91	A/D	A/D	A/D	A/D	A/D	A/D
Chrysene	5.86	A/D	A/D	A/D	A/D	A/D	A/D
Benzo[b]fluoranthene	5.80	A/D	A/D	A/D	A/D	A/D	A/D
Benzo[k]fluoranthene	6.00	A/D	A/D		A/D	A/D	A/D
Benzo[a]pyrene	6.04	A/D	A/D	A/D	A/D	A/D	A/D
Indeno[1,2,3-cd]pyrene	6.50	A (20)	A/D	A/D			
Dibenz[a,h]anthracene	6.75	A (20)	A/D	A/D			

Benzo[ghi]perylene	6.50	A (20)	A/D	A/D			
Hexachlorobenzene	5.50	A/D	A/D	A/D	A/D	A/D	A/D
CB28	5.67		A/D	A/D	A/D	A/D	A/D
CB52	5.84		A/D	A/D	A/D	A/D	A/D
CB101	6.38		A/D	A/D	A/D	A/D	A/D
p,p'-DDE	6.14	A/D	A/D	A/D	A/D	A/D	A/D
CB118	6.74		A/D	A/D			
CB138	6.86		A/D	A/D	A/D	A/D	A/D
CB153	6.92		A/D	A/D	A/D	A/D	A/D
CB180	7.36		A/D	A/D	A/D	A/D	A/D
A: analysed and D: detected; if compound was analysed but was not detected, then value in bracket is the estimated limit of detection (ng L ⁻¹)							

Performance reference compounds (PRCs) spiked into the various types of passive sampling devices tested in this study are listed in **Table SI-2**. The source of log K_{OW} values for the PRCs is given in the main text.

Table SI-2. PRC spiked into the different passive sampling devices used during this tank test

	Sampler type						
	Log K_{OW}	Chemcatcher	SPMD	Silicone strip	MESCO I (m)	MESCO II	Silicone rod
BIP-d ₁₀	3.9	✓					
ACE- d ₁₀	3.92	✓	✓	✓			
FLUE- d ₁₀	4.18	✓	✓			✓	✓
PHE- d ₁₀	4.57	✓	✓	✓		✓	✓
ANT- d ₁₀	4.54					✓	✓
FLUO- d ₁₀	5.22		✓	✓		✓	✓
PYR- d ₁₀	5.18	✓				✓	✓
CHRY- d ₁₂	5.86		✓				
BaA- d ₁₂	5.91					✓	✓
CB004	4.9			✓			
CB155	6.41			✓			
CB204	7.3			✓			

BIP: biphenyl; ACE: acenaphthene; FLUE: fluorene; PHE: phenanthrene; ANT: anthracene; FLUO: fluoranthene; PYR: pyrene; CHRY: chrysene; BaA: benzo[a]anthracene; CB: chlorinated biphenyl.