

Supplementary Materials: Trace Organic Removal during River Bank Filtration for Two Types of Sediment

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Table S1. Information on the water composition of the lake water used as column inlet (averaged over the duration of the experiment, n = 8).

Na ⁺ (mg L ⁻¹)	K ⁺ (mg L ⁻¹)	Ca ²⁺ (mg L ⁻¹)	Mg ²⁺ (mg L ⁻¹)	Cl ⁻ (mg L ⁻¹)	SO ₄ ²⁻ (mg L ⁻¹)	HCO ₃ ⁻ (mg L ⁻¹)
46.4	10.1	81.2	9.6	60.5	110.8	181
NH ₄ -N (mg L ⁻¹)	NO ₃ -N (mg L ⁻¹)	P _{total} (µg L ⁻¹)	DOC (mg L ⁻¹)	TOC (mg L ⁻¹)	EC (µS cm ⁻¹)	pH (-)
0.06	2.3	28.8	7.4	8.0	721	8.1

Table S2. Compilation of details describing the analytical method used for trace pollutant analysis (UHPLC-MSMS).

Compound Name	Formula	Retention	ESI	MRM Transitions						LOQ
				1.	MRM Transition		2.	MRM Transition		
		Time (min)		Quantification	Cone Voltage (V)	Collision Energy (eV)	Qualification	Cone Voltage (V)	Collision Energy (eV)	($\mu\text{g L}^{-1}$)
acesulfame	C ₄ H ₅ NO ₄ S	2.0	-	161.8 > 82	30	20	161.8 > 78	30	20	0.1
candesartan	C ₂₄ H ₂₀ N ₆ O ₃	6.8	+	441.1 > 263.1	14	10	441.1 > 192.1	14	26	0.01
carbamazepine	C ₁₅ H ₁₂ N ₂ O	6.1	+	237 > 164.2	36	18	237 > 179.1	36	34	0.01
<i>DiOH-CBZ</i>	C ₁₅ H ₁₄ N ₂ O ₃	5.1	+	270.9 > 180.1	24	28	270.9 > 253	24	6	0.02
FAA	C ₁₂ H ₁₃ N ₃ O ₂	3.6	+	232.1 > 83.1	4	18	232.1 > 214.1	4	12	0.01
gabapentin	C ₉ H ₁₇ NO ₂	3.0	+	172.1 > 154.1	2	14	172.1 > 137	2	10	0.01
<i>gabapentin-lactame</i>	C ₉ H ₁₅ NO	5.6	+	154.1 > 95.0	30	20	154.1 > 67	30	20	0.01
metoprolol	C ₁₅ H ₂₅ NO ₃	4.0	+	268.2 > 116.1	30	16	268.2 > 71.7	30	12	0.01
olmesartan	C ₂₄ H ₂₆ N ₆ O ₃	5.4	+	447.2 > 207.1	2	16	447.2 > 190.2	2	38	0.01
<i>oxypurinol</i>	C ₅ H ₄ N ₄ O ₂	1.6	+	153 > 136	10	20	153 > 80	10	10	0.05
<i>PEMA</i>	C ₁₁ H ₁₄ N ₂ O ₂	3.7	+	207.1 > 162.1	70	18	207.1 > 91.1	70	26	0.01
pregabalin	C ₈ H ₁₇ NO ₂	3.0	+	160.1 > 83.0	30	20	160.1 > 55	30	20	0.01
primidone	C ₁₂ H ₁₄ N ₂ O ₂	4.6	+	219 > 162.1	60	18	219 > 119.1	60	32	0.01
<i>valsartan acid</i>	C ₁₄ H ₁₀ N ₄ O ₂	5.6	+	267 > 206.1	35	25	267 > 151	35	27	0.01

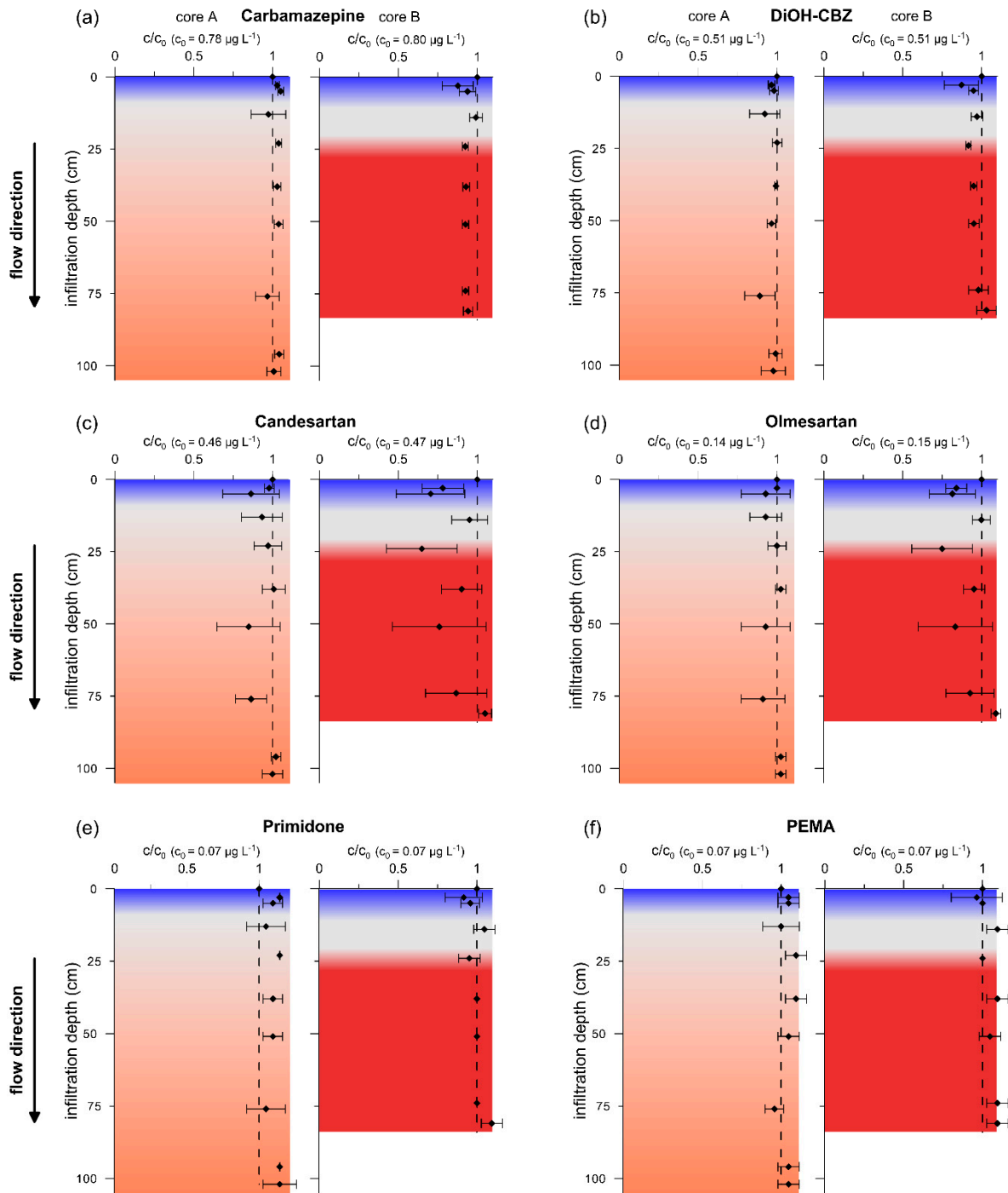


Figure S1. Concentration depth profiles observed for compounds that behaved persistent during this study.