

**Automatic flow-through system for exploration of the human
bioaccessibility of endocrine disrupting compounds from microplastics**

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Figure S1. Scanning electron micrograph (400-fold magnification) without and with gold-covered samples a) illustrating the dual SPE beads of the reversed-phase Oasis Prime HLB sorbent material, and b) particle size distribution of the reversed-phase Oasis Prime HLB sorbent material.

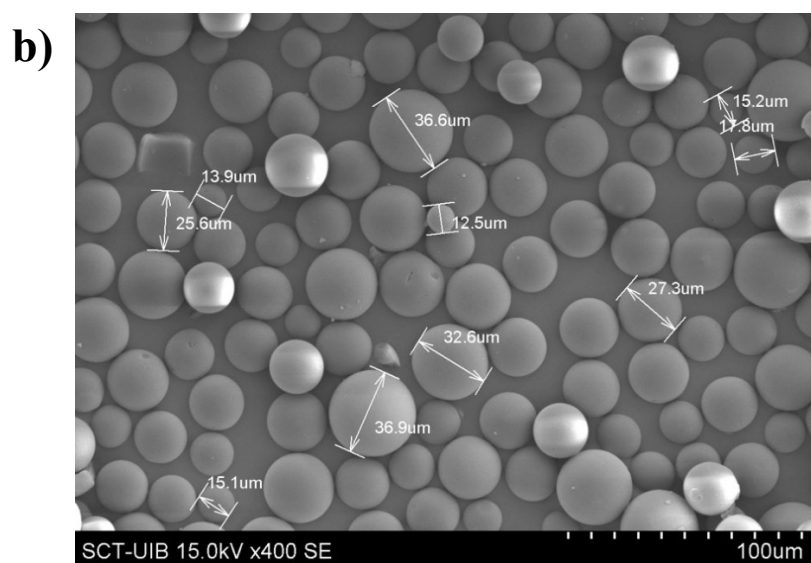
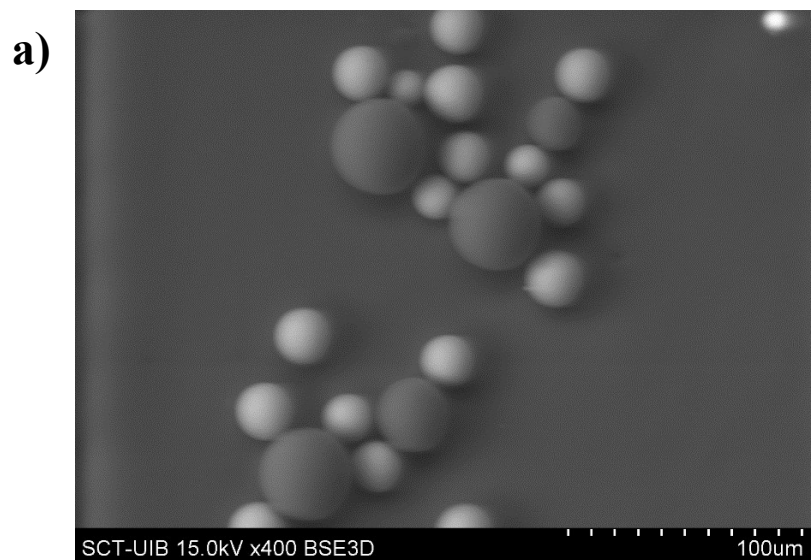


Figure S2. Extraction efficiency of phthalate congeners and BPA in gastrointestinal extracts (UBM) using 120 mg Oasis HLB Prime and increasing volumes of eluent.

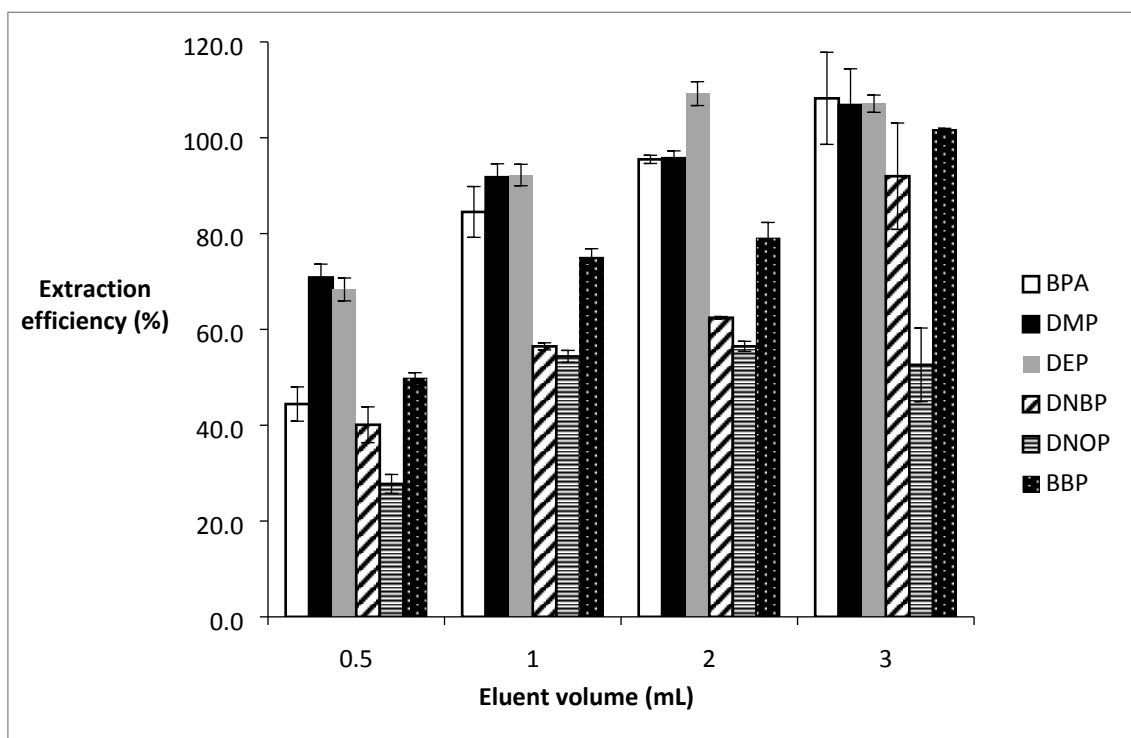


Figure S3. Illustration of raw chromatograms of oral bioaccessible fractions of microplastic-laden xenobiotics as obtained by dynamic flow-through extraction followed by in-line solid-phase extraction and HPLC analysis.

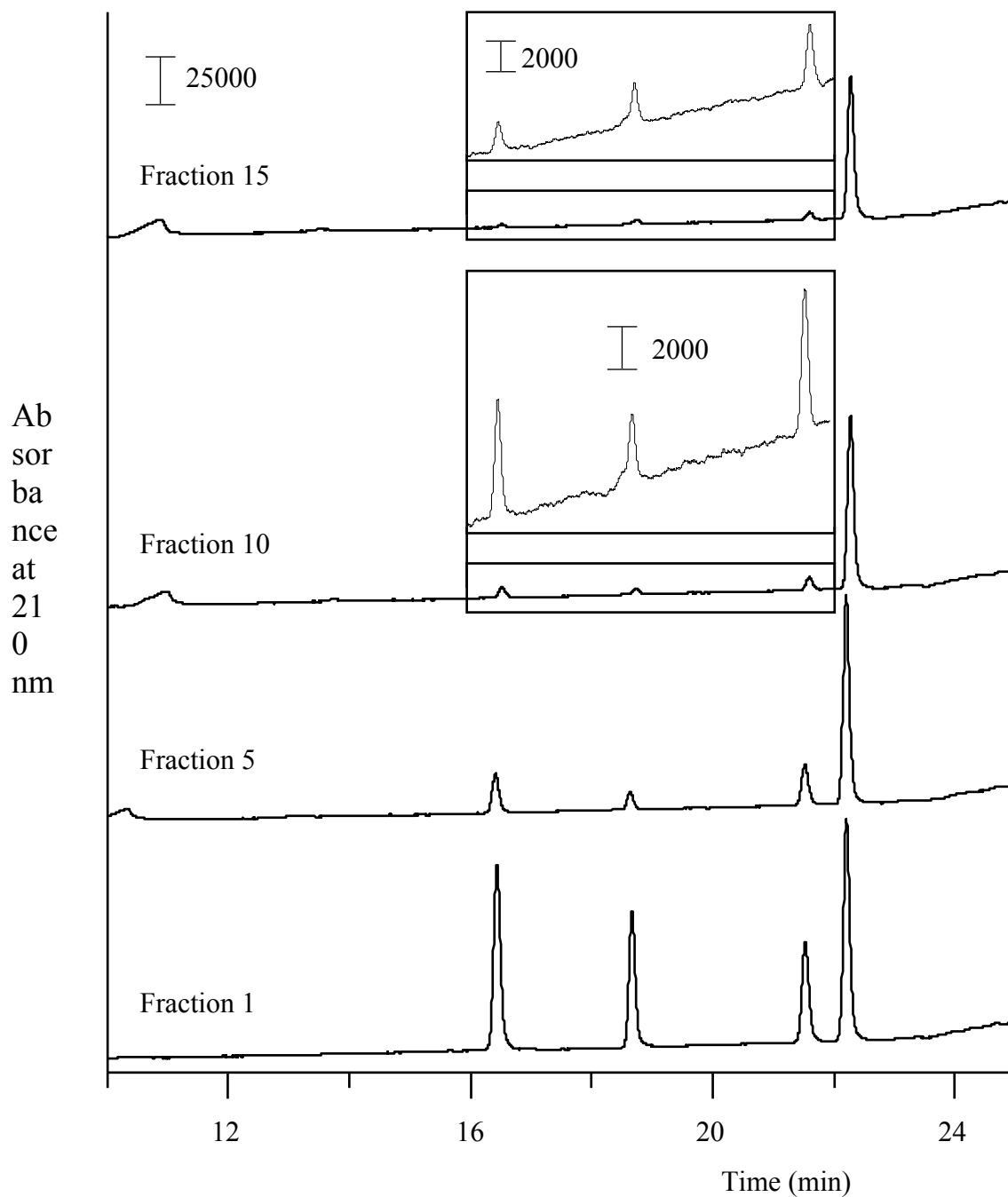


Table S1. Composition of the gastrointestinal fluids according to UBM method

Reagents	Composition (mg L ⁻¹)			
	Saliva	Gastric	Duodenal	Bile
KCl	896	824	564	376
NaH ₂ PO ₄	888	266		
KSCN	200			
Na ₂ SO ₄	570			
NaCl	298	2752	7012	5260
CaCl ₂ .2H ₂ O		400		
NH ₄ Cl		306		
NaHCO ₃			5607	5786
KH ₂ PO ₄			80	
MgCl ₂			50	
NaOH (1 mol L ⁻¹) (mL L ⁻¹)	1.8			
HCl 37 % (mL L ⁻¹)		8.15	0.18	0.18
Urea	200	85	100	250
Glucose		650		
Glucuronic acid		20		
Glucosamine hydrochloride		330		
Alpha amylase	145			
Mucin	50	3000		
Uric acid	15			
Bovine Serum Albumin		1000	1000	1800
Pepsin		1000		
CaCl ₂ .2H ₂ O			200	222
Pancreatin			3000	
Lipase			500	
Bile				6000
Final pH	6.5 ± 0.5	1.1 ± 0.1	7.4 ± 0.2	8.0 ± 0.2

Table S2. Composition of the gastrointestinal fluids according to Versanvoort's method

Reagents	Composition (mg L ⁻¹)			
	Saliva	Gastric	Duodenal	Bile
KCl	896	824	564	376
NaH ₂ PO ₄	888	266		
KSCN	200			
Na ₂ SO ₄	570			
NaCl	298	2752	7012	5260
CaCl ₂ ·2H ₂ O		400		
NH ₄ Cl		306		
NaHCO ₃	1694		3388	5785
KH ₂ PO ₄			80	
MgCl ₂)			50	
HCl 37 % (mL L ⁻¹)		6.5	0.180	0.150
Urea	200	85	100	250
Glucose		650		
Glucuronic acid		20		
Glucosamine hydrochloride		330		
Alpha amylase	290			
Mucin	25	3000		
Uric acid	15			
Bovine Serum Albumin		1000	1000	1800
Pepsin		2500		
CaCl ₂ ·2H ₂ O			200	222
Pancreatin			9000	
Lipase			1500	
Bile				30000
Final pH	6.8 ± 0.2	1.3 ± 0.02	8.1 ± 0.2	8.2 ± 0.2