Supporting Information

Identification of nanoplastics in aquatic matrices: A critical review

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3 pages, including 1 tables

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Table S1 Plastic indicator compounds and characteristic ions

Plastic	Pyrolysis product	Marker compounds (m/z)	Retention time (min)	Ref.
PP	2,4-Dimethyl-1-heptene	70, 83, ***126***[a]	5.15	(Okoffo *et al.*, 2020)
PS	5-Hexene-1,3,5-triyltribenzene (styrene trimer)	***91***, 117, 194, 312	16.77	(Okoffo *et al.*, 2020)
PE	1-Decene	***83***, 97, 111, 140	6.97	(Okoffo *et al.*, 2020)
Polyethylene terephthalate (PET)	Vinyl benzoate	***105***, 77, 148, 51	8.42	(Okoffo *et al.*, 2020)
Polycarbonate (PC)	Bisphenol A	***213***, 119, 91, 165, 288	15.41	(Okoffo *et al.*, 2020)
PMMA	Methyl methacrylate	69, ***100***, 89	3.41	(Okoffo *et al.*, 2020)
PP	2,4-Dimethyl-1-heptene	***70***, 126	4.94	(Ye *et al.*, 2024)
PS	5-Hexene-1,3,5-triyltribenzene (styrene trimer)	***91***, 117, 312	15.19	(Ye *et al.*, 2024)
PE	1-Decene	***97***, 111, 140	6.07	(Ye *et al.*, 2024)
PET	Benzoic acid	***105***, 102, 77, 51	7.93	(Ye *et al.*, 2024)
PC	Bisphenol A	***213***, 288	14.77	(Ye *et al.*, 2024)
PVC	Naphthalene	***128***, 102, 51, 64	8.01	(Ye *et al.*, 2024)
PMMA	Methyl methacrylate	***69***, 100	3.17	(Ye *et al.*, 2024)
Polyadiohexylenediamine (PA66)	Cyclopentanone	***55***, 84	4.05	(Ye *et al.*, 2024)
Polyamide 6 (PA6)	Caprolactam	***113***, 85	8.86	(Ye *et al.*, 2024)
Polylactic acid (PLA)	*(S,S)*-Lactide	***56***, 45	7.58	(Ye *et al.*, 2024)
Poly (butyleneadipate-co-terephthalate) (PBAT)	butane-1,4-diyl dibenzoate	***105***, 54, 77, 122	14.79	(Ye *et al.*, 2024)

[a] values in bold italics were used for calibration and quantification.

References

Okoffo, E.D., Ribeiro, F., O'brien, J.W., O'brien, S., Tscharke, B.J., Gallen, M., Samanipour, S., Mueller, J.F., Thomas, K.V., 2020. Identification and quantification of selected plastics in biosolids by pressurized liquid extraction combined with double-shot pyrolysis gas chromatography–mass spectrometry. Sci. Total Environ. 715, 136924.

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