

MONITORING PLASTICS IN RIVERS AND LAKES

Guidelines for the Harmonization of Methodologies



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Abbreviations and acronyms

μATR-FTIR	micro-Attenuated Total Reflection-Fourier Transform Infrared (spectroscopy)
μFTIR	micro-Fourier Transform Infrared (spectroscopy)
ABS	Acrylonitrile butadiene styrene
AI	Artificial intelligence
ATR	Attenuated Total Reflection
AWI	Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research
BFR	Brominated flame retardants
BPA	Bisphenol A
CARS	Coherent Anti-Stokes Raman Scattering
DSC	Differential Scanning Calorimetry
EPS	Expanded polystyrene
EVA	Ethylene vinyl acetate
FPA FTIR	Focal Plane Array (FPA)-based Fourier Transform Infrared (FTIR) Spectroscopy
FTIR	Fourier Transform Infrared (spectroscopy)
FTIR-ATR	Fourier Transform Infrared-Attenuated Total Reflection (spectroscopy)
GC	Gas Chromatography
GC-MS	Gas Chromatography-Mass Spectrometry
GPS	Global positioning system
H ₂ O ₂	Hydrogen peroxide
HDI	Human Development Index
HDPE	High-density polyethylene
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
ISO	International Organization for Standardization
KOH	Potassium hydroxide
LDPE	Low-density polyethylene
LOEC	Lowest observed effect concentration
MIRS	Mid-infrared spectroscopy
MPSS	Munich Plastic Sediment Separator
MS	Mass spectrometry
MSFD	Marine Strategy Framework Directive
NaOAc	Sodium acetate
NGO	Non-governmental organization
NIRS	Near-infrared spectroscopy
NOAA	United States National Oceanographic and Atmospheric Administration

NOEC	No observed effect concentration
OECD	Organisation for Economic Co-operation and Development
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PAN	Polyacrylonitrile
PBDE	Polybrominated diphenyl ether
PC	Polycarbonate
PCB	Polychlorinated biphenyl
PE	Polyethylene
PES	Polyester
PET	Polyethylene terephthalate
PMA	Polymethyl acrylate
PMMA	Polymethyl methacrylate
PO	Polyolefin
POM	Polyoxymethylene
POP	Persistent organic pollutant
PP	Polypropylene
PS	Polystyrene
PTFE	Polytetrafluoroethylene
PUR	Polyurethane
PVA	Polyvinyl alcohol
PVC	Polyvinyl chloride
PVOH	Polyvinyl alcohol
Pyr-GC-MS	Pyrolysis-Gas Chromatography-Mass Spectrometry
QR	Quick response code
RPM	Revolutions per minute
SDS	Sodium dodecyl sulphate
SI	International system of units
TFD GC-MS	Thermal Desorption-Gas Chromatography-Mass Spectrometry

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