

UHPLC-HRMS ANALYSIS OF PFAS IN FRESHWATER FROM THE LOWER DANUBE AREA

CODREANU Andreea-Miruna¹, <https://orcid.org/0009-0000-6512-5064>

CĂLMUC Valentina-Andreea¹, <https://orcid.org/0000-0001-9710-9886>

MILEA Adelina Ștefania¹, <https://orcid.org/0000-0002-2707-4304>

DÎRȚU Alin^{1,2}, <https://orcid.org/0000-0002-8144-5807>

ITICESCU Cătălina^{1,3}, <https://orcid.org/0000-0001-8350-9424>

GEORGESCU Puiu Lucian^{1,3}, <https://orcid.org/0000-0001-9455-9291>

1 REXDAN Research Infrastructure, “Dunărea de Jos” University of Galați, Galați, Romania;

2 Faculty of Chemistry, Department of Analytical Chemistry, „Alexandru Ioan Cuza” University of Iași, Iași, Romania;

3 Faculty of Sciences and Environment, Department of Chemistry, Physics and Environment, “Dunărea de Jos” University of Galați, Galați, Romania.

Per- and polyfluoroalkyl substances (PFAS) are widely used, long lasting synthetic chemicals, components of which break down very slowly over time. This study presents the qualitative analysis of the most common 18 PFAS in freshwater samples using a Ultra-High-Performance Liquid Chromatography – High Resolution Mass Spectrometry (UHPLC-HRMS) analytical technique. The samples were collected in spring and summer of 2023 from 7 stations along the Lower Danube River. Prior to the analysis, the water samples were submitted to automated solid phase extraction (SPE). The UHPLC-HRMS system provided excellent qualitative confirmation in Full MS mode. This method was shown to be fit-for-purpose and may be explored for future expansion into other environmental and food matrices.

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