

Showcasing research from TESLA laboratory, Institute of Analytical Chemistry, University of Graz, Austria.

Feasibility of closing the PFAS mass balance: exploring the potential of liquid sampling atmospheric pressure glow discharge (LS-APGD) with Orbitrap mass spectrometry for neutral PFAS

The work demonstrates that LS-APGD shows potential for analysing neutral, semi-volatile PFAS as well as unfunctionalized fluorocarbons (perfluoroalkanes). This work marks the first systematic optimisation of LS-APGD in negative ionization mode for a wide variety of organic compounds. In addition, this is the first instance that LS-APGD has been shown to operate with nonpolar solvents. The body of work presented in this manuscript represents a significant expansion of the capabilities of the already versatile LS-APGD ion source.

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