

November 5, 2026 (14:45-15:30)



VENDOR SEMINAR:

Environmental and Food Organic Xenobiotics - EFOX integrated workflow solutions, built for what's next

ISO 17025-Accredited PFAS and TFA testing in water and liquid foods

Rob O'Brien, Factors Group of Nutritional Companies, BC, Canada

The developed ISO 17025-accredited workflow for the analysis of PFAS in water will be presented, which is implemented using the Thermo Scientific™ TSQ Altis™ Plus EFOX Edition, Vanquish™ Duo UHPLC, and TriPlus™ RSH SMART Autosampler.

The workflow provides:

- Validated analysis of more than 50 PFAS, covering compounds included in Health Canada guidelines, EPA Methods 533 and 537.1, and the WHO 29-PFAS reference set, with detection limits below 1 ng/L for most analytes using only 15 mL of sample.
- Flexible automated sample handling, supporting both dilute-and-shoot analysis with isotopically labelled internal standards and unattended dispersive liquid-liquid microextraction (DLLME) for extraction and pre-concentration.

Automated end-to-end solutions for food and environmental samples

Aristide Ganci, Thermo Fisher Scientific, Villebon-Sur-Yvette, France

Automated analytical workflows for the determination of contaminants, such as PFAS and pesticides, in food and environmental samples will be presented. The approaches combine automated sample preparation, including dispersive liquid-liquid microextraction (DLLME), with targeted LC-MS/MS and high-resolution accurate-mass (HRAM) analysis using the TSQ Altis™ Plus EFOX Edition and Thermo Scientific™ Orbitrap Exploris™ EFOX platforms.

The workflows demonstrate:

- Automated DLLME for sample extraction and pre-concentration, minimizing manual sample handling and solvent consumption while improving workflow reproducibility and analytical sensitivity. Examples from food and environmental matrices will illustrate how automated sample preparation can be integrated with LC-MS workflows to increase laboratory efficiency while maintaining analytical performance.
- Sensitive and robust determination of PFAS and pesticides in complex matrices, using targeted triple quadrupole MS for quantitative analysis and Orbitrap™ HRAM MS for identification and confirmation of contaminants.