November 7, 2024 (13:30–14:15)

VENDOR SEMINAR:

Innovative workflows for the multi-residue analysis of organic contaminants

"Pesticide Smart Kit": A new comprehensive approach for multiresidue pesticide analysis

Valérie Thibert, Thermo Fisher Scientific, Villebon-Sur-Yvette, France

Pre-configured "out of the box" pesticide workflow methods have been specifically designed and optimized for multi-class pesticides analysis. These solutions include the hardware, software, built-in instrument acquisition methods, and customizable data processing methods including view settings and report templates, along with details of sample extraction and consumables for fast implementation. This new approach, which enables the detection, identification, and quantitation of up to 700 pesticides by GC-MS/MS and LC-MS/MS or LC-HRMS, combines results in a unique software user interface to confirm the identity of residues quickly and accurately, especially those amenable by both techniques. Here we will present analytical strategies related to the use of Thermo Scientific™ TSQ Altis Plus™ (LC-MS/MS) and Orbitrap Exploris™ MX (LC-HRMS).

Automated and high throughput PFAS workflows

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

The choice between direct injection and the need for (automated) sample preparation is an important consideration in PFAS analysis. This largely depends on the instrument's dynamic range and detection limits compared to the one required by regulation, as well as the complexity of the analyzed matrix.

We will present two innovative workflows:

- High throughput analysis of PFAS in drinking water through direct injection conducted on a high sensitivity Thermo Scientific™ TSQ Altis™ Plus, which allows for rapid analysis meeting very low regulatory limits.
- A new versatile automated sample preparation workflow based on dispersive liquid liquid micro extraction (DLLME), with extraction and pre-concentration conducted on a Thermo Scientific™ TriPlus™ RSH SMART and sample measured on an Orbitrap Exploris™ MX.