

V-1 Monday, July 28, 2025

7:15-8:15 am

Waters

Location: Gold Ballroom, 2nd floor

Wake Up and Get Charged! Enhancing Contaminant Detection by MS with Different Ionization Sources



Sarah Dowd, PhD, Principal MS Applications Specialist, Waters Corporation, Milford, MA USA

Detecting contaminants in complex matrices presents a significant challenge, largely due to the inherent chemical diversity of potential pollutants. The contaminants of interest could originate from natural sources, such as mycotoxins, or be synthetic compounds like pesticides and PFAS. To effectively detect contaminants using a mass spectrometer, they must first be converted into ions. Utilizing various ionization sources enhances flexibility in sample analysis and broadens the range of detectable compounds. This presentation will explore the different ionization techniques available on Waters mass spectrometers and their application in analyzing contaminants in food and environmental samples.

V-2 Monday, July 28, 2025

12:15-1:15 pm

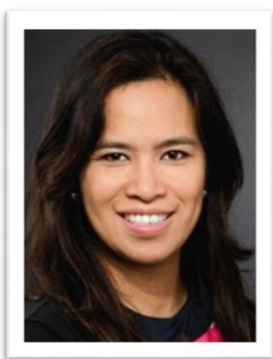
Agilent Technologies

Location: Gold Ballroom, 2nd level

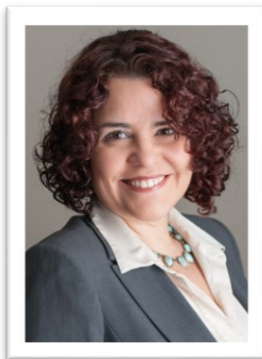
Lunch & Learn: Best Practices in the Laboratory



John Schmitz
Staff Scientist
Specialist
Eurofins

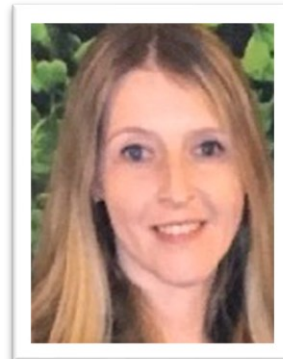


Lorna De Leoz
Director, Global Food
Market
Agilent



Cleyde Helena
Account Manager

Analytical Solutions
Consulting Group



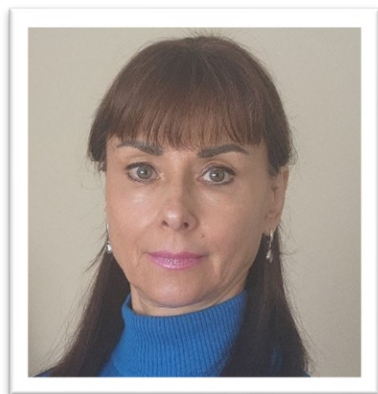
Tanya Jones,
Mass Spectrometry Product

Agilent

Join us for an engaging lunch session where a panel of experts will share insights and discuss best practices in laboratory operations. This is an excellent opportunity to learn from experienced practitioners, ask questions, and gain practical knowledge to enhance your laboratory's efficiency and effectiveness.

Analytical Strategies and Simplified Sample Preparation to Address Challenges Faced by Today's Testing Laboratories

From Root to Resin: Analytical Strategies for Botanical Pesticide Residues



Rima Juskelis, Pesticide Residue Lab Supervisor, NOW Foods

Ensuring the safety of botanical ingredients across a wide range of natural products presents significant analytical challenges, particularly when it comes to pesticide residue testing. From dried roots to concentrated resins, these complex matrices require robust, sensitive, and scalable analytical strategies. This presentation will share how NOW Foods approaches multi-residue pesticide analysis in botanicals using Thermo Scientific instrumentation. Key considerations include adapting workflows to meet diverse matrix demands while maintaining regulatory compliance and data integrity. The session will provide insights into how advanced mass spectrometry platforms support the evolving needs of natural product testing.

Dispersive Liquid-Liquid Micro-extraction for the Automated Sample Preparation of PFAS in a Variety of Matrices as a Viable, Easy-to-use Alternative to Other Extraction Techniques



***Ed George, EFS Regulatory Strategy and KOL Manager
Thermo Fisher Scientific, San Jose, CA***

Dispersive liquid-liquid microextraction (DLLME) is a highly effective sample preparation technique that can be easily automated. Briefly, a small volume of sample with labeled internal standards (15 mL) is acidified, then a specific dispersant and extractant are added to the sample and vortexed to form a cloudy solution. It is then centrifuged, and the top separated organic layer is moved to another vial to which a secondary extractant is added, vortexed, and centrifuged. The PFAS contained in the extractant layer at the bottom of the vial is injected into an LCMS system.

V-4 Tuesday, July 29, 2025

12:15-1:15 pm

Restek Corporation

Location: Gold Ballroom, 2nd level

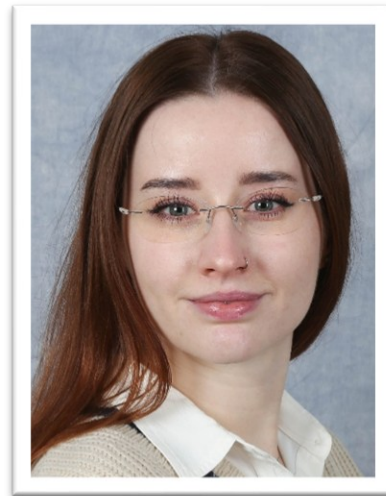
From Complexity to Clarity: Confident Method Development for PFAS and Chemical Residues



***Ramkumar Dhandapani, PhD,
Director of Product Management
Restek Corporation***



***Shun-Hsin Liang, PhD
LC Senior Principal Scientist
Restek Corporation***

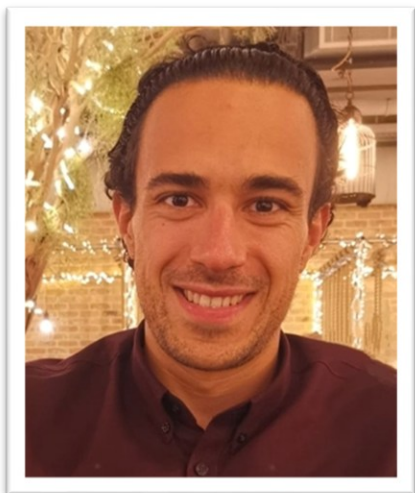


***Alexis Shelow
Sample Preparation Scientist
Restek Corporation***

Between time constraints, sample turnover demands, cost pressures, and evolving regulations, developing and optimizing testing methods for PFAS (including ultrashort-chain compounds) and chemical residues is increasingly complex. This session will explore the challenges of building accurate, reliable methods for these critical compound classes. Attendees will gain practical insights into simplifying method development through purpose-built tools, enhanced SPE workflows, and innovative inert LC and LPGC column formats that support higher throughput and consistent performance.

Anyone looking to improve laboratory efficiency in PFAS and chemical residue analysis will benefit from attending this session.

Microplastic Reference Materials: Spherical and Fibrous Standards for ISO-Compliant Environmental and Toxicological Testing



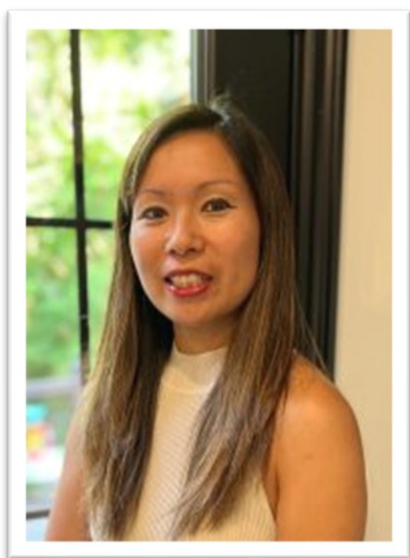
Davide Gastaldello, PhD
Dr. Ehrenstorfer, Project Manager, LGC Standards

As microplastic contamination becomes a critical global concern, the demand for standardized, high-quality reference materials is rapidly increasing. Our new range of microplastic reference materials is certified to ISO 17025 and designed to support laboratories in achieving accurate, reproducible results across environmental, food, and toxicological testing. This portfolio uniquely includes both spherical and fibrous microplastics, aligning with the latest ISO methods and addressing the most commonly encountered particle types in real-world matrices.

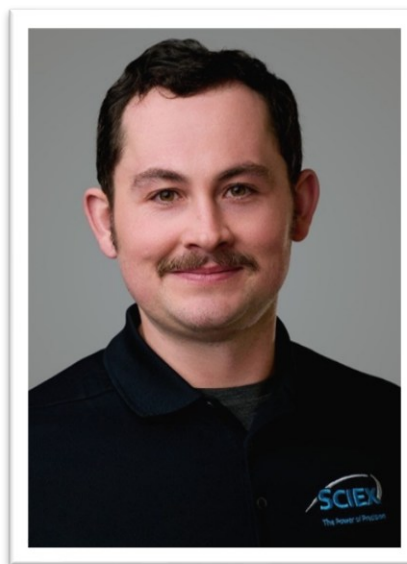
Each product is characterized by both D_v (volume-based median diameter) and D_n (number-based median diameter) values, enabling precise particle size distribution analysis and enhancing method validation and comparability. Comprehensive analytical characterization includes Pyrolysis-GC/MS, the novel air characterization technique, and Direct Image Analysis for particle size distribution, ensuring robust quality control and traceability. All materials are traceable to NIST standards, providing confidence in measurement accuracy and regulatory compliance.

These reference materials are ideal for method development, regulatory testing, and inter-laboratory harmonization. By offering well-defined, pure polymer particles with realistic morphologies and sizes, our microplastic RMs empower scientists to better understand microplastic behavior, exposure pathways, and health impacts—ultimately supporting global efforts in pollution mitigation and public health protection.

Where Does HRMS Fit in Food Testing?



Holly Lee, PhD
*Staff Scientist, Food Market,
Global Technical Marketing,
SCIEX*



Karl Oetjen, PhD
*Market Development Manager - Environmental,
Industrial, Food & Beverage
SCIEX*

Nominal mass triple quadrupole systems have traditionally been used in food testing for their high sensitivity. However, high resolution mass spectrometry (HRMS) is increasingly adopted for its superior selectivity, enabling effective differentiation of analytes from matrix interferences. Recent innovations in accurate mass systems such as the ZenoTOF 7600 have significantly improved sensitivity through technologies like the Zeno trap, which recovers up to 90% of duty cycle losses. This results in more intense, high quality MS/MS spectra that support confident identification and quantitation of low level analytes, even in complex matrices. Here, we demonstrate the power of HRMS in removing interferences for the analysis of per and polyfluoroalkyl substances (PFAS) and confirming detections at levels aligned with EU recommendations and AOAC SMPR criteria across diverse food matrices. Beyond quantitation, HRMS also enables advanced applications such as comprehensive contaminant screening, food origin tracing, and authenticity verification, positioning it as a versatile and forward looking solution for modern food testing laboratories.