NACRW

NORTH AMERICAN
CHEMICAL RESIDUE WORKSHOP

61st Annual





July 27–30, 2025

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NACRW

NORTH AMERICAN CHEMICAL RESIDUE WORKSHOP

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Dear Attendees, Exhibitors, Sponsors and Guests:

Whether you are a long-time attendee or a first-time participant, coming from down the road or across the ocean, I'd like to extend a warm greeting to the 61st North American Chemical Residue Workshop (NACRW) on behalf of the organizing committee! The fantastic technical sessions, interactive poster presentations, single-track program and relaxed atmosphere make NACRW a favorite event for many. It is this unique blend of format, atmosphere and scientific content that elevate NACRW as a singularity of the conference circuit – a fact that I am reminded of each year I attend.

Before going further, we would like to thank our Exhibitors and Sponsors for their generous support. Their financial contributions make it possible to deliver an outstanding scientific line-up, while maintaining affordable registration fees for attendees. Please take time during the conference to engage with our exhibitors and, maybe, find some cool swag at the same time!

We invite you to join us on Sunday, July 27th for the NACRW Veterinary Drugs Working Group meeting. There will also be an informative opportunity to hear Dr Michelangelo Anastassiades from the European Union Reference Lab for Single Residue Methods (EURL-SRM) discuss the analysis of conjugated pesticide residues. Additionally, Dr Steven Lehotay from the USDA Agricultural Research Service will be giving a keynote lecture on Monday, July 28th on the topic of modern residue monitoring methods. We are privileged to have these two outstanding scientists as part of the conference this year.

Our Program Committee has put together a top-shelf technical program for this year's workshop. It covers a wide range of topics, including advances in analytical technology, pesticide and vet drug residue analysis, toxins and contaminants including PFAS, reference materials and targeted versus non-targeted methods. We encourage you to attend the poster sessions, as this gives everybody an opportunity for deeper discussions about this science, and to foster new professional relationships. We are pleased to offer student poster awards, sponsored by FLAG Works, Inc. and the ACS Publications Environmental Science journals. Students will be attending the workshop and will be available at their posters during designated times for a chat. Recipients of student scholarship awards will have the opportunity of presenting their work at a session on Tuesday afternoon. We also encourage attendees to attend the vendor sessions throughout the week. These sessions are a great way to learn more about the products and services they offer for all your testing needs.

A gigantic thank you to the dedicated volunteers who have make this event happen year after year. While the cast changes, their collective efforts each year are part of the magic of NACRW. Seeing this from behind the curtain this year really underscored how many people it takes to make this event the perennial success that it is. To this year's NACRW Organizing Committee, Program Committee, especially Secretary Reagyn Taylor, Program Committee Co-Chairs Lukas Vaclavik and Kai Zhang, Poster Committee Co-Chairs Brian Eitzer and Simon Hird, Student Scholarship Awards Chair, Katie Carlos, and our Executive Director Teri Besse, I will take the liberty of speaking for all NACRW attendees and volunteers in thanking you for your time and dedication to the workshop.

We invite you to make the most of your time at NACRW and enjoy all that beautiful, historic Charleston, South Carolina has to offer. The warm climate coupled with the central location of the conference venue is a great change up for new and veteran attendees alike! Please enjoy an amazing week of scientific discussions and connecting with your colleagues.

Sincerely,

Matthew Noestheden
2025 NACRW Organizing Committee President

Lukas Vaclavik and Kai Zhang
2025 NACRW Program Committee Co-Chairs

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8 - 12 June 2026
Rotterdam, The Netherlands

Pesticides in Food and Drink

EPRW 2026 Chair :
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GENERAL INFORMATION

Registration

Check in once at the registration desk at your earliest opportunity
Sunday - 1:00 pm – 6:00 pm
Monday - 7:30 am – 5:00 pm
Tuesday - 8:00 am – 4:00 pm
Wednesday - 7:45 am – Noon

KEY to Presentation Numbering System

Oral presentations are numbered O-1, O-2, O-3, etc,
Vendor Seminars are numbered V-1, V-2, V-3, etc.
Session A posters are **ODD** numbered P-1, P-3, P-5, etc.
Session B posters are **EVEN** numbered P-2, P-4, P-6, etc.

Poster Sessions (Exhibit Hall, Carolina Pre-Function B, meeting level)

Hang posters Sunday afternoon from 3:00 pm to 6:00 pm or Monday morning from 7:00 am to 9:30 am.
Take down posters between 12 noon to 2:00 pm on Wednesday

Posters may be viewed any time Exhibition is open

Poster Session A (odd#) authors must be at their posters from
11:00 am – noon on Monday
and 3:10 – 3:55 pm on Tuesday

Poster Session B (even#) authors must be at their posters from
3:10 pm – 3:40 pm on Monday
and 11:00 – noon on Tuesday

Poster Prizes

Two poster prizes of $250 each will be awarded this year, and the same poster/author(s) are eligible to win both prizes. The People's Choice Poster Award will be determined by popular vote of attendees, and the Judges Choice Poster Award will be determined by the poster committee. The criteria used in each case will be importance of the study, quality of the science, and its presentation (including oral discussion and abstract). **Attendees must place their votes in the ballot box by noon on Wednesday.** ***Be sure to write your name on the back of your voting ticket for the chance to win a door prize.***

Exhibition (Carolina Ballroom, meeting level)

Monday, July 28, 2025, A welcome reception with food and an open bar will be held from 6:30 - 8:30 pm.
Monday: 10 am - 1 pm and 2:30 pm - 4 pm
Tuesday: 10 am - 1 pm and 2:30 pm - 4 pm
Wednesday: 10 am - 12 noon

Coffee and Breaks

Coffee will be available each morning in the Carolina Pre-function A (please refer to the times in the conference program). There will also be mid-morning and afternoon refreshment breaks each day. The Monday and Tuesday mid-morning and afternoon breaks, as well as the Wednesday mid-morning break, will be served in the Exhibition Hall (Carolina Ballroom). On Wednesday afternoon, the break will be served in the Carolina Pre-function A.

Announcements

Moderators will make general announcements from the podium. If you need to have an announcement made, please go to the conference registration desk or see the onsite audio-visual team in the meeting room, and give them your annoucement.

Mobile App

Thanks to the Platinum Sponsors we have a mobile app to view the program, see who is attending the meeting, and connect with them via the app. You should have received an email just prior to the conference with a link to download the app to your mobile phone along with a link that will automatically log you in.

Door Prizes

Door prizes will be drawn at the end of each morning and afternoon oral session. You must be ON TIME at the beginning of each session to receive a door prize ticket. You must be present at each drawing to win.

Get to Know Your Sponsor

Participate in the "Get to Know Your Sponsor" quiz and win an Apple iPad tablet. A quiz will be provided to you in your registration bag. Simply take the quiz to each sponsor booth, get the right answer and the sponsor will place a sticker on your quiz. After you have completed the quiz, return it to the registration desk no later than Wednesday, July 30, at 1:30 pm. We will be announcing the winner Wednesday afternoon.

Copies of Presentations

Oral Presentations: Following the meeting, as time and resources permit, oral presentations will be posted on our web site if author permission is granted. There are limitations to what we can post. Absolutely no files will be posted without a speaker's written permission (historically, two thirds of our speakers have given permission). The Power Point files are converted to PDF format. Various security restrictions may be added to the PDF file per speaker's request (such as disabling "copy text" and "print" functions). Some slides containing confidential or proprietary information may be deleted.

Poster Presentations: Drop your business card in the "reprint request" envelope available at each individual poster board. The author should mail/email you a reprint.

Meeting Website

www.NACRW.org - the website includes information on current and future NACRW meetings, as well as archives going back a few years.

A BIG THANK YOU TO ALL OF OUR VOLUNTEERS, SPONSORS & EXHIBITORS!
The workshop would not be possible without your valuable assistance.



Advancements in Food Safety Testing

At NARCW 2025, we're excited to show our latest solutions for food safety. Whether you're analyzing pesticides, performing high-throughput PFAS analysis, or struggling with poor peak shape or low sensitivity, we're here to help.

Here are some highlights for this year's show:

Better Cleanup = Higher Throughput for Pesticides Analysis

Power up your pesticides analysis with our optimized Resprep FL+Carboprep Plus SPE cartridges. Cleaner extracts mean less GC downtime and >10x higher sample throughput—all thanks to a convenient drop-in replacement.

Eliminate Hardware Effects from Your LC Column

Many compounds interact with stainless steel columns, causing loss in sensitivity and separation. Restek's Inert LC columns can be used to ensure your chromatography is the best it can be.

Elevating Your PFAS Analysis with Higher Throughput

Complex food matrices are hard on conventional SPE cartridges, making them prone to clogging, which impacts their speed and effectiveness. Resprep PFAS with Filter Aid SPE cartridges are designed to be rugged and reliable, speeding up sample prep of these matrices.

Talk to one of our technical experts at the show!

Visit us at table 8 for more information
or visit us at www.restek.com/food today!

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PFAS analysis

Thermo Scientific™ TSQ Altis™ Plus Triple Quadrupole Mass Spectrometer with Vanquish™ Duo UHPLC

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New Thermo Fisher innovative solutions for PFAS analysis

Leverage our broad technology portfolio to stay ahead in the lab and offer added value for your customers

Workflows for PFAS testing must deliver reliable, repeatable results with a high return on investment and offer ease-of-use for fast-paced laboratories. They must be fit-for-purpose, compliant, and flexible to adapt to changing regulations.

- Only Thermo Fisher offers a standard dual LC channel configuration that allows running multiple methods on a single LC-MS/MS platform. The PFAS Dual Channel EPA Analyzer has two independent LC flow paths that are plumbed into a triple quadruple mass spectrometer. It is ready-to-go for methods 533, 537.1, 1633, or 8327. The dual LC system allows two separate EPA methods or the same method on each channel with the ability to combine results into a single data file, or simply assign separate channels for ‘dirty’ and ‘clean’ samples to avoid cross-contamination.
- Option to use a cost-effective high resolution Orbitrap mass detector with a single method designed for ease-of-use, requiring no retention time alignment windows or complex acquisition modes. Greatly expand your PFAS analyte scope for targeted PFAS and gain ability to do retrospective analysis.
- Dispersive liquid-liquid microextraction (DLLME)- A truly novel automated sample preparation platform applied to PFAS in a variety of matrices. The technique takes less than ten minutes per sample and provides high enrichment factors with cost savings by eliminating the need for solid phase extraction (SPE) and greatly reduces the required sample size and solvent volume.

Learn more about **thermofisher.com/PFAStesting**

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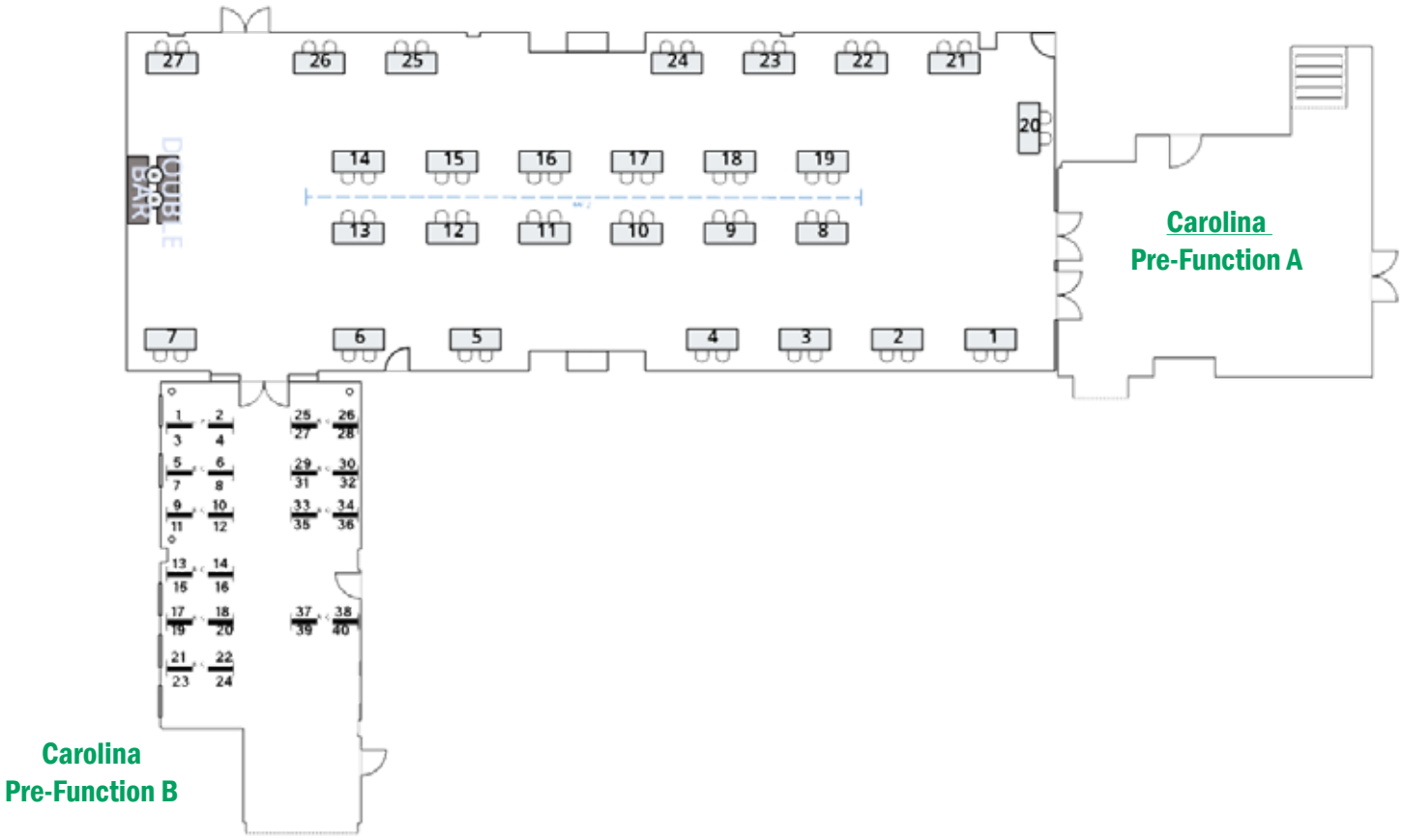
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MAP OF FRANCIS MARION HOTEL



EXHIBITION HALL AND POSTER SESSIONS

Location: Carolina Ballroom



Booth #1
Thermo Fisher Scietific

Booth #5
A Chemtek Inc.

Booth #6
YMC America

Booth #7
United Chemical Technologies

Booth #8
Restek Corp.

Booth #9
Cambridge Isotope Laboratories

Booth #11
Peak Scientific

Booth #12
ITSP Solutions, Inc.

Booth #13
Agilent Technologies

Booth #14
LGC Standards

Booth #17
Providion

Booth #18
Phenomenex Inc.

Booth #19
SCIEX

Booth #23
Waters

Booth #24
Cole Parmer

Booth #25
Spex, NSI, HPS, Chiron

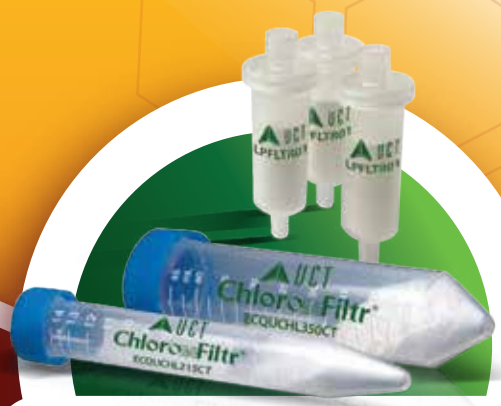
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Booth #27
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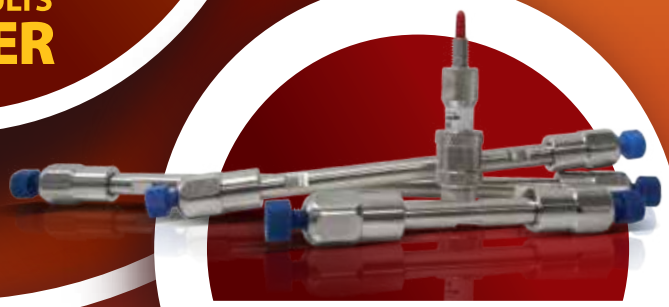
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V-1 Monday, July 28, 2025 7:15-8:15 am

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.

V-3 Tuesday, July 29, 2025 7:15-8:15 am

Thermo Fisher Scientific

Location: Gold Ballroom, 2nd level

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

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.

V-5 Wednesday, July 30, 2025 7:15-8:15 am

LGC Standards

Location: Gold Ballroom, 2nd level

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

Davide Gastaldello, PhD, *Dr. Ehrenstorfer & o2si Global Product 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.

continued on next page

Each product is characterized by both Dv (volume-based median diameter) and Dn (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.

V-6 Wednesday, July 30, 2025 12 noon-1:00 pm

SCIEX

Location: Gold Ballroom, 2nd level

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***

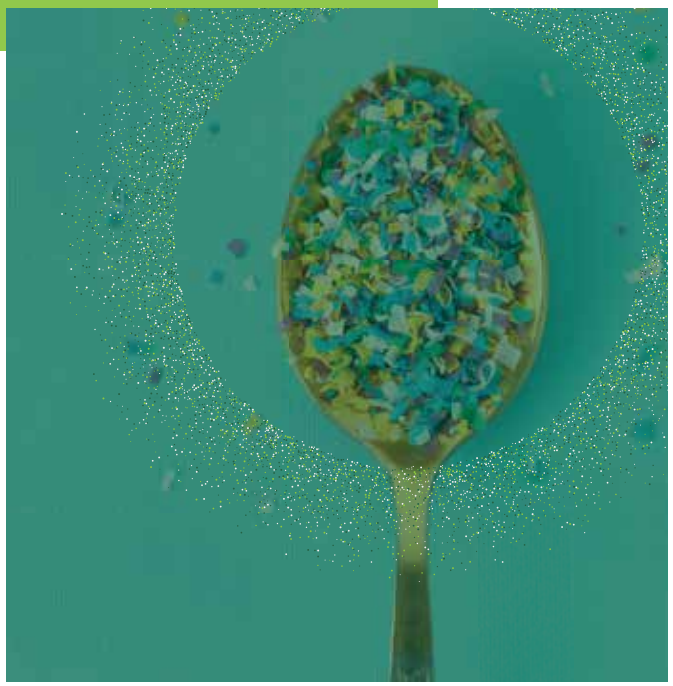
Nominal mass triple quadrupole systems have traditionally been used in food testing for their high sensitivity. However, high resolution mass spectrometry (HRMS) is increasingly adopted for its superior selectivity, enabling effective differentiation of analytes from matrix interferences. Recent innovations 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.

Microplastic contamination is rising in the environment, food, pharmaceuticals, and humans.

As concerns over health impacts grow, laboratories face the daunting challenge of testing for microplastics amidst the early development of regulations and methodologies. Reference materials and research chemicals are vital for advancing microplastic understanding and developing testing methods and regulations.

Introducing our NEW Microplastic Reference Materials

Our PE and PP microplastics each have 5 different particle sizes available and our N66 and PET fibres available in one size each. All provided in a 50mg pack size to meet your requirements. Empowering you to stay ahead, drive innovation and confidently meet emerging regulatory standards.



Have confidence in your results

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Improve efficiency

Includes both fibres and spherical particles – enabling testing of a full spectrum of microplastics.

Reliably contribute to environmental and consumer safety

Pure polymers with specific particle size distribution for targeted testing:

- Enables targeted testing to identify specific microplastic types in environmental matrices.
- Accurate, non-biased investigation on the true harmful effect of specific plastics without interference from other materials.
- Simplified and reliable sample preparation.
- Facilitates development of regulatory and legal frameworks to safeguard environmental and human health.

Part Code	Part Description	Pack Size (mg)
DRE-MP-PE-20	Microplastic Polyethylene PE Nominal 20µm (Dv50 = 40µm; Dn50 = 20µm)	50
DRE-MP-PE-35	Microplastic Polyethylene PE Nominal 35µm (Dv50 = 80µm; Dn50 = 3µm)	50
DRE-MP-PE-65	Microplastic Polyethylene PE Nominal 65µm (Dv50 = 130µm; Dn50 = 3µm)	50
DRE-MP-PE-50	Microplastic Polyethylene PE Nominal 50µm (Dv50 = 120µm; Dn50 = 3µm)	50
DRE-MP-PE-100	Microplastic Polyethylene PE Nominal 100µm (Dv50 = 160µm; Dn50 = 3µm)	50
DRE-MP-PP-20	Microplastic Polypropylene PP Nominal 20µm (Dv50 = 40µm; Dn50 = 6µm)	50
DRE-MP-PP-35	Microplastic Polypropylene PP Nominal 35µm (Dv50 = 120µm; Dn50 = 3µm)	50
DRE-MP-PP-65	Microplastic Polypropylene PP Nominal 65µm (Dv50 = 140µm; Dn50 = 3µm)	50
DRE-MP-PP-50	Microplastic Polypropylene PP Nominal 50µm (Dv50 = 110µm; Dn50 = 4µm)	50
DRE-MP-PP-100	Microplastic Polypropylene PP Nominal 100µm (Dv50 = 180µm; Dn50 = 3µm)	50
DRE-MP-N66-15	Microplastics Nylon 66 fibres Nominal 15µm, 6mm long	50
DRE-MP-PET-10	Microplastics Polyester PET fibres Nominal 10µm, 6mm long	50

Speak to an expert
lgcstandards.com/contact-us

Oral and Poster Presenters

(alphabetical order by Last Name)

Please note that oral and poster abstracts are available in the mobile app digital program.

Presentation	Name	Agency
P-18	Thamer AlMudhehi	Saudi Food and Drug Authority
P-17	Saeed Alzahrani	Saudi Food and Drug A authority
O-20	Michelangelo Anastassiades	Pesticide Residue Laboratory of CVUA Stuttgart
P-11	Phillip Anderson	Eurofins
P-14	George Antonious	Kentucky State University
P-22	Carsten Baessmann	Bruker Daltonics GmbH & Co. KG
O-07, P-08	Paulo Barci, Ph. D.	Bayer Crop Science LATAM
O-06	Laura Basirico, PhD	Louisiana State University
P-27	Daniel Biggerstaff, Ph.D.	O2si Smart Solutions an LGC Standards Company
O-27	Julie Brunkhorst	Trilogy Analytical Laboratory
O-23	Carolyn Burdette	NIST
O-18	Katherine Carlos	US Food and Drug Administration
O-05	Amy Cuthbertson	NIST
P-16	Pushpa Deore, Dr.	Pravin Masalewale (Suhana)
O-15	Sarah Dowd	Waters Corporation
O-03	Ally Fairman	Now Foods
O-10	Katherine Fiedler	US Food and Drug Administration
P-23	Artem Filipenko	Bruker Scientific, LLC
VDWG-01, O-13, P-07	Maïwenn Le Floch	ANSES
P-26	Elizabeth Ford	LGC Standards
P-15	MING GAO	Mérieux NutriSciences
O-04, P-35	Ed George	Thermo Fisher Scientific
O-28, P-34	Yoshiro Hiramatsu	Shimadzu Scientific Instrument
P-28	JACOB JALALI	PERKINELMER INC
O-09	Zhao Jin	North Dakota State University
VDWG-01	Robin Kämpf	KLZH Switzerland
O-12	Ian Kelleher	Department of Agriculture Ireland
P-12	Lauren Kelley	Eurofins Food Chemistry Testing
P-13	Chang Jo Kim	South Korea Ministry of Agriculture, Food and Rural Affairs
O-02	Sarah King	Eurofins Analytical Laboratories
P-04	Maggie Knight	College of Charleston
P-03	Han Le	University of Texas at Arlington
O-11, P-31	Holly Lee	SCIEX
P-37	Margot Lee	Waters Corporation

Please note that oral and poster abstracts are available in the mobile app digital program.

Presentation	Name	Agency
O-01 Keynote, VDWG-02	Steven Lehotay	USDA Agricultural Research Service
O-26, P-21	Lorna De Leoz	Agilent Technologies Inc
P-30	Shun-Hsin Liang	Restek Corporation
P-20	Ingrid Marques, PhD	US Arid Land Agricultural Research Center, USDA
O-16	Pingping Meng	East Carolina University
P-38	Naren Meruva	Waters Corporation
P-36	Mike Mourgas	Thermo Fisher Scientific
O-21	Jacolin Murray	National Institute of Standards and Technology
O-17, P-05	Maria Guerra de Navarro	Florida International University
P-32	Karl Oetjen	SCIEX
P-25	Zeljka Popovic	GERSTEL Inc
P-24	Taylor Prichard	GERSTEL
O-14	Jared Ragland	National Institute of Standards and Technology
P-29	Maryam Sayeed	Phenomenex Inc
O-19	Alexis Shelow	Restek
O-24	HuiChen Stavros, Ph.D.	O2si Smart Solutions an LGC Standards Company
P-09	Alicia Stell	CEM Corporation
P-01	Tian Sun	North Dakota State University
P-02	Chaofan Sun	North Dakota State University
P-10	Carlos Tamez	Connecticut Agricultural Experiment Station
VDWG-03	Lalin Theverapperuma	EICopilot CA-USA
O-08	Evan Walters	Biotage
P-06	Trent Wilkerson	Ramstein High School, Germany
O-25	Weili Xiong	US Food and Drug Administration
O-22	Lei Zhang, Ph.D.	Alta Scientific Co., Ltd.
P-33	Valeria Zerda Pinto	Shimadzu Corporation

2025 - 61st ANNUAL NORTH AMERICAN CHEMICAL RESIDUE WORKSHOP

MEETING PROGRAM

Sunday, July 27, 2025

1:00 - 6:00 pm	Registration	Registration Booth, Meeting Level
1:00 - 5:00 pm	Exhibitor set-up	Carolina Ballroom
2:00 - 3:30 pm	NACRW Veterinary Drugs Working Group At-Large Meeting Chairs: Eric Verdon and Sherri Turnipseed	Colonial Ballroom
VDWG-01	Robin Kämpf & Maiwenn Le Floch Advances with Round 2 of the Collaborative Study for VMPR in Fish and Honey Extracts	
VDWG-02	Steven Lehotay Identification and Confirmation of Veterinary Drug Residues in Cattle Claimed to be Raised without Antibiotics	
VDWG-03	Lalin Theverapperuma Automating Contaminant Screening and Veterinary Drug Analysis with MRM	
4:00 - 5:30 pm	Interactive Seminar with Michelangelo Anastassiades (EURL-SRM): Analysis of Pesticides Entailing Esters and/or Conjugates in their Residue Definition Moderator: Simon Hird	Colonial Ballroom
3:00 - 6:00 pm	Poster Board set-up	Carolina Pre-function B

Monday, July 28, 2025

7:00 - 9:30 am	Poster Board set-up	Carolina Pre-function B
7:15 - 8:15 am	Waters Corp. Vendor Seminar *(pre-registration required)*	Gold Ballroom, 2nd level
7:30 am - 5:00 pm	Registration	Registration Booth
7:45 - 8:15 am	Early Morning Coffee	Carolina Pre-function A
8:20 - 8:45 am	Opening Remarks	Colonial Ballroom, lobby level
8:20 - 8:35 am	Sherry Garris, Chair, FLAG Works, Inc. Board of Directors	
8:35 - 8:40 am	Matt Noestheden, 2025 NACRW President	
8:40 - 8:45 am	Lukas Vaclavik and Kai Zhang, 2025 NACRW Program Co-Chairs	
8:45 - 10:45 am	SESSION 1: Keynote Symposium: Modern Methods for Analysis of Chemical Residues Chair: Michelangelo Anastassiades	Colonial Ballroom, lobby level
8:45 – 9:30 am O-01 Keynote	**Steven Lehotay**, USDA Agricultural Research Service, Wyndmoor, PA, USA Doing More with Less: Mega-Methods Can Better Meet Monitoring Needs	

9:30 – 9:50 am **Sarah King**, Eurofins Central Analytical Laboratories, New Orleans, LA, USA
O-02 **Overcoming Challenges in Residual Pesticide Analysis in Complex Matrices**

9:50 – 10:10 am **Ally Fairman**, Now Foods, Carol Stream, IL, USA
O-03 **Efficient and Effective Automated LC/GC-MS Sample Preparation Workflow for Multi-Residue Pesticide Analysis in Difficult Matrices**

10:10 – 10:30 am **Jon Wong**, US FDA, Human Foods Program, College Park, MD, USA
O-04 **Non-Target Data Acquisition for Target Analysis (nDATA) Workflow for the Analysis of 1087 Pesticides in Fresh Produce using Liquid Chromatography-High Resolution Accurate Mass Spectrometry with a Compound Database**

10:30 – 10:45 am **Q and A for Session 1**

10:45 - noon **Exhibition and Poster Opening** **Carolina Ballroom**

11:00 am – 12 noon **Poster Session A (authors present for odd #s)** **Carolina Pre-function B**

12 noon **Lunch on your own**

12:15 - 1:15 pm **Agilent Vendor Seminar** *(pre-registration required)* **Gold Ballroom, 2nd level**

1:30 - 3:10 pm **SESSION 2:** **Colonial Ballroom, lobby level**
Advanced Approaches and Tools for Residue and Contaminant Analysis
Co-Chairs: Jon Wong, Jian Wang, and Willis Chow

1:30 – 1:50 pm **Amy Cuthbertson**, National Institute of Standards and Technology, Charleston, SC, USA
O-05 **Non-Target Analysis of Standard Reference Materials**

1:50 – 2:10 pm **Laura Basirico**, Louisiana State University, Baton Rouge, LA, USA
O-06 **Screening the Photodegradation Potential for Chemicals in Seawater vs. Freshwater: The Case of Diketones and Triketones**

2:10 – 2:30 pm **Paulo Barci**, Bayer Crop Science LATAM, São Paulo, Brazil
O-07 **Challenges and Solutions in Pesticide Residue Regulatory Studies**

2:30 – 2:50 pm **Evan Walters**, Biotage, Salem, NH, USA
O-08 **Optimization Parameters for Streamlining Sample Processing in Food and Agriculture Testing**

2:50 – 3:10 pm **Ed George,** Thermo Fisher Scientific, San Jose, CA, USA
O-09 **A Novel High Resolution Mass Spectrometry (HRMS) Quantitative Workflow for Pesticides in Food Designed for the Chromatographer and Easy to Use**

3:10 - 3:40 pm **BREAK- Exhibition & Posters (authors present for even #s)** **Carolina Pre-function B**

3:40 - 4:55 pm — **SESSION 3:** *sponsored by* SCIEX — **Colonial Ballroom, lobby level**
Advances in Natural Toxin Analysis
Co-Chairs: Weili Xiong and Jon Wong

3:40-3:45 pm — **Session Sponsorship – SCIEX**

3:45 – 4:05 pm — **Zhao Jin**, North Dakota State University, Fargo, ND, USA
O-10 — **High-Throughput Analysis of Fusarium-Produced Mycotoxins in Barley and Wheat and Fusarium Damaged Kernels**

4:05 – 4:25 pm — **Katherine Fiedler**, US FDA, Human Foods Program, College Park, MD, USA
O-11 — **Validation of a LC-MS/MS Method for the Quantification of Morphine, Codeine, and Thebaine on Poppy Seeds**

4:25 – 4:45 pm — **Holly Lee**, SCIEX, Concord, Ontario, Canada
O-12 — **Quantitation of Mycotoxins and Tropane Alkaloids in Food Using the Next-Generation SCIEX 7500+ System**

4:45 – 5:05 pm — **Q and A for Session 3**

6:30 - 8:00 pm — **Welcome Reception, Exhibit Hall** — **Carolina Ballroom**

Tuesday, July 29, 2025

7:15 - 8:15 am — **Thermo Fisher Scientific Vendor Seminar** *(pre-registration required)* — **Gold Ballroom**

8:00 am - 4:00 pm — **Registration** — **Registration Booth**

8:00 am - 8:30 am — **Early Morning Coffee** — **Carolina Pre-function A**

8:45 - 10:45 am — **SESSION 4:** *sponsored by* RESTEK — **Colonial Ballroom, lobby level**
Chemical Residue Surveillance with Mass Spectrometry Multi-Methods: Targeted versus Suspect Screening/ Non-Targeted Modes as a New Paradigm
Co-Chairs: Eric Verdon and Sherri Turnipseed

8:45 – 8:50 am — **Session Sponsorship – Restek Corporation**

8:50 – 9:15 am — **Ian Kelleher**, Department of Agriculture Ireland, Kildare, Ireland
O-13 — **Quantitative Screening of Antimicrobials in Muscle, Milk and Eggs by LC-HRMS**

9:15 – 9:40 am — **Maïwenn Le Floch**, ANSES, the French Agency for Food, Environmental and Occupational Health & Safety, Brittany, France
O-14 — **Outcomes of the International Collaborative Study Running the Comparative Use of LR-MS/MS and HR-MS(/MS) Multi-Class VDR Methods in Meat and Milk Extracts**

9:40 – 10:05 am — **Jared Ragland**, National Institute of Standards and Technology, Charleston, SC, USA
O-15 — **Database Infrastructure for Mass Spectrometry (DIMSpec): Expanding Mass Spectral Libraries into Non-Targeted Spaces**

10:05 – 10:30 am **O-16**	**Sarah Dowd**, Waters Corporation, Milford, MA, USA **Non-Targeted Analysis of Environmental Pollutants Using High Resolution Mass Spectrometry, Ion Mobility, and Pattern Analysis**	
10:30 – 10:45 am	**Q and A for Session 4**	
10:45 - noon	**Exhibition and Posters**	**Carolina Ballroom**
11:00 - noon	**Poster Session B *(authors present for even #s)***	**Carolina Pre-function B**
12 noon	**Lunch on your own**	
12:15 - 1:15 pm	**Restek Vendor Seminar** *(pre-registration required)*	**Gold Ballroom, 2nd level**
1:30 - 3:10 pm	**SESSION 5:** ***sponsored by*** **Agilent** **PFAS Analysis in Food, Consumer Products, and the Environment** **Co-Chairs: Susan Genualdi and Jessica Reiner**	**Carolina Ballroom**
1:30 – 1:35 pm	**Session Sponsorship – Agilent Technologies**	
1:35 – 1:55 pm **O-17**	**Pingping Meng**, East Carolina University, Greenville, NC, USA **Residential Garden Produce Harvested Near a Fluorochemical Manufacturer in North Carolina Can Be an Important Fluoroether Exposure Pathway**	
1:55 – 2:15 pm **O-18 and S-105**	**Maria Guerra de Navarro**, Florida International University, Fort Lauderdale, FL, USA **Evaluation of Per- and Polyfluoroalkyl Substances (PFAS) in Ambient Air at Biscayne Bay Campus Miami, FL**	
2:15 – 2:35 pm **O-19**	**Katherine Carlos**, US FDA, Human Foods Program, College Park, MD, USA **A Hydrolysis-DART-ID-HRMS Screening Method for 6:2 Fluorotelomer Alcohol Grease-proofer Coatings: Development and Market Occurrence Data**	
2:35 – 2:55 pm **O-20**	**Alexis Shelow**, Restek, Bellefonte, PA, USA **From Sample to Solution: Advancing PFAS Matrix Cleanup with Sample Preparation**	
2:55 – 3:10 pm	**Q and A for Session 5**	
3:10 - 3:55 pm	**BREAK- Exhibition & Posters (authors present for odd #s)**	**Carolina Ballroom**

4:00 - 5:00 pm — **SESSION 6:** — **Colonial Ballroom, lobby level**
Young Scientists in Action: Advancing Contaminant and Residue Analysis
Co-Chairs: Katie Carlos and Karl Oetjen

4:00-4:10 pm
S-101
Tian Sun, North Dakota State University, Fargo, ND, USA
Quantifying Fusarium Damaged Kernels of Barley Using Hyperspectral Imaging and Machine Learning

4:10-4:20 pm
S-102
Chaofan Sun, North Dakota State University, Fargo, ND, USA
Deoxynivalenol Production, its transformation of Deoxynivalenol-3-Glucoside, and the Gene Expression

4:20-4:30 pm
S-103
Han Le, University of Texas at Arlington, Arlington, TX, USA
The Analysis of Odorous Compounds in Waste Handling Operations Using Gas Chromatography and Air Samp

4:30-4:40 pm
S-104
Maggie Knight, College of Charleston, Charleston, SC, USA
A New Method to Detect Phthalate Metabolites in the Blubber of Common Bottlenose Dolphins

4:40-4:50 pm
S-106
Trent Wilkerson, Ramstein High School, Ramstein, Germany
Regulatory Uncertainty and Pesticide Residues in U.S. Foods: QuEChERS Analysis

5:00 - 6:00 pm — **NACRW Organizing Committee Meeting** — **Colonial Ballroom, lobby level**
open to all attendees

Wednesday, July 30, 2025

7:15 - 8:15 am — **LGC Standards Vendor Seminar** *(pre-registration required)* — **Gold Ballroom, 2nd level**

7:45 am - noon — **Registration** — **Registration Booth**

7:45 - 8:15 am — **Early Morning Coffee** — **Carolina Pre-function A**

8:30 - 10:45 am — **SESSION 7:** — **Colonial Ballroom, lobby level**
O-21
Interactive Seminar with Michelangelo Anastassiades (EURL-SRM): Developments in Single Residue Methods
Moderator: Simon Hird

10:45 - noon — **BREAK (Exhibition & Posters)** — **Carolina Ballroom**

12:00 - 1:00 pm — **SCIEX Vendor Seminar** *(pre-registration required)* — **Gold Ballroom, 2nd level**

1:05 - 2:45 pm — **SESSION 8:** — **Colonial Ballroom, lobby level**
The Design and Development of Reference Materials
Co-Chairs: Dan Biggerstaff and HuiChen Stavros

1:05 – 1:25 pm
O-22
Jacolin Murray, National Institute of Standards and Technology, Gaithersburg, MD, USA
Reference Materials: Why, When, and How

1:25 – 1:45 pm **Lei Zhang**, Alta Scientific, Woburn, MA, USA
O-23 **Preparation of Biotoxin RMs and Multi-Organic-Component Mixed-Standard-Solutions**

1:45 – 2:05 pm **Carolyn Burdette**, National Institute of Standards and Technology, Charleston, SC, USA
O-24 **NIST Reference Material Life Cycle**

2:05 – 2:25 pm **HuiChen Stavros**, O2si Smart Solutions an LGC Standards Company, North Charleston, SC, USA
O-25 **Long Term Stability Testing and Shelf-Life Determination in Reference Material Design**

2:25 – 2:45 pm **Q and A for Session**

2:45 - 3:15 pm **BREAK** **Carolina Pre-function A**

3:15 - 4:55 pm **SESSION 9:** ***sponsored by*** ThermoFisher SCIENTIFIC **Colonial Ballroom, lobby level**
Advanced Mass Spectrometry Applications for Trace Residues
Chair: Scott Krepich

3:15 – 3:20 pm **Session Sponsorship – Thermo Fisher Scientific**

3:20 – 3:40 pm **Weili Xiong**, US FDA, Human Foods Program, College Park, MD, USA|
O-26 **Development and Validation of an LC-HRMS Method for the Quantification of Cardiac Glycosides in Botanical Products**

3:40 – 4:00 pm **Lorna De Leoz**, Agilent Technologies, Wilmington, DE, USA
O-27 **Evaluating System Robustness of a High-Sensitivity Triple Quadrupole LC/MS for PFAS Analysis in Food Matrix Over an Extended Period**

4:00 – 4:20 pm **Julie Brunkhorst**, Trilogy Analytical Laboratory, Washington, MO, USA
O-28 **Multi-Mycotoxin Analysis in Cereals and Toddler Food Using a High-End Triple Quadrupole Mass Spectrometer**

4:20 – 4:40 pm **Yoshiro Hiramatsu**, Shimadzu Scientific Instrument, Columbia, MD, USA
O-29 **Demonstration of Automated Sample Introduction for Neutral PFAS Using GC-MS and GC-MS/MS to Reduce Sample Preparation**

4:40 – 5:00 pm **Q and A for Session 9**

5:00 - 5:15 pm **Poster Awards and Closing** **Colonial Ballroom, lobby level**

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Where does HRMS fit in food testing?

Wednesday, July 30 | 12:00 Noon | Gold Ballroom, 2nd Level



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