

2026 Technical Poster Program

Monday, November 16: E-Poster Morning Session; 11:30am – 12:25pm

Abstract #	Location: <i>Bridge to the Hotel</i>
91	<i>Fabric Differentiation Using Reflectance Spectroscopy and Multivariate Statistical Analysis</i> , Fernanda Delgado Cornelio, Katelyn Blair, Levi Bielewicz, Jocelyn Alcantara Garcia, Karl Booksh, University of Delaware
142	<i>Multivariate Authentication of Lavender, Peppermint, and Helichrysum Essential Oils Using Chemometrically Enhanced Spider Plot Analysis</i> , Prabodh Satyal, APRC
232	<i>Data Dense Dissolution Testing Based on Low Temperatures</i> , Ishai Nir, Jeff Seely, Gary Dromgoole, Distek, Inc.
34	<i>ICP-OES Analysis of Copper Recovered from Li-Ion Batteries for Foil Manufacturing</i> , Ana Garcia Gonzalez, Agilent Technologies
222	<i>High-Resolution microXRF Spectral Imaging for Spatially Resolved Characterization of Heterogeneous Materials</i> , Bill Williams, Ben Ruchte, Bryan DeVerse, IXRF Systems
231	<i>Analyzing Contrasting Marine Samples Through Chlorophyll, Nutrient, and Fluorescence Analysis</i> , Emma Arango, Joanna Kinsey, Quinnipiac University
69	<i>USP 467 on PerkinElmer Clarus® Nova GC HS FID</i> , Thomas Mancuso, Miles Snow, PerkinElmerAES
214	<i>Effect of Column Dimensions and Pressure Distribution on Low-Pressure Gas Chromatography Performance</i> , Nazanin Keyhani, Nicholas Snow, Seton Hall University
85	<i>Enhanced Risk Assessment for a Traditional LC Separation Method Using ICH Q14 Regulatory Principles and a Simplified HPLC System</i> , Catharine E. Layton, Amy Woodsmall, Paul D. Rainville, Waters Corporation
223	<i>Mitigating the Effects of Organic Solvents in Sample Diluents for Ion Chromatography: A Comprehensive Study and Guidelines for Optimization</i> , Mingwan Leng, Tianyu Yuan, Frank Bernardoni, Heather Wang, Erik Regalado, MRL, Christopher Pohl, Cap Chromatography LLC
220	<i>Decoding ADC Spectra for DAR Measurements: Deconvolution of Drug-Linker UV/Vis Absorbance Spectra for ADC Characterization</i> , Kevin Lance, Tine De Ryck, Tine Duthoit, Tom Boonefaes, Unchained Labs
206	<i>Characterization and Optimization of the Electrochemiluminescent Response of a Bipolar Electrode-Based Sensor</i> , Kieran Cross, Kira Rahn, Middlebury College
198	<i>Photostability Assessment for Low Melting Point APIs: Decoupling Thermal and Photochemical Degradation Under ICH Q1B Conditions</i> , Matthew Gunsch, Eryn Nelson, Ying Wang, Weidong Tong, Merck & Co, Inc.
233	<i>Integrated Extraction and Cleanup for Rapid Multi-Class Analysis of Food Contaminants in Honey</i> , Alicia Stell, Brianna Warren, Maria Swasy, CEM Corporation
55	<i>Copper-Porphyrin Aluminum Metal-Organic Framework, Sorption of Diethyl Sulfide from Air, Kinetics, Mechanism, and Stoichiometric Adsorption Complex</i> , Alexander Samokhvalov, Mohammad Ahmad, Morgan State University
213	<i>Charge-Transfer and SERS Coupling on TiO2 Nanoparticles</i> , Syed Islam, ECSU

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2026 Technical Poster Program

Monday, November 16: E-Poster Afternoon Session; 12:30pm – 1:25pm

Abstract #	Location: <i>Bridge to the Hotel</i>
58	<i>Evaluation of Plasma and Serum Controls for Peptidomic Serum Analysis for Breast Cancer Biomarker Discovery</i> , Sarah Abbott, Clarkson University
257	<i>Profiling Quorum Sensing Mutants of Pseudomonas Aeruginosa Using GC×GC-TOFMS</i> , Nicolas Zimmermann, Isabelle Taylor, Katelynn A. Perrault Uptmor, William & Mary
265	<i>Design-of-Experiment-Enabled Exploration of Cu₂O/Cu Structures for Glucose Electrochemical Detection</i> , Thomas Dick, Minh Dang, Rachel Davidson, University of Delaware
251	<i>Influences of Iron and pH on Phenolic Antioxidant Reactivity with Free Chlorine in Plastic Pipes</i> , Julianne Chan, Carsten Prasse, Howard Fairbrother, Johns Hopkins University
268	<i>Multistage Air Sampling and Complementary LC–MS/MS and GC–MS/MS for Phase-Resolved Atmospheric PFAS Analysis</i> , David Bell, ASKprime LLC, Kenichi Suzuki, Hiroshi Hayashida, GI Sciences
261	<i>Extending Amino Acid Analysis from Essential Amino Acids to Complex Commercial Samples</i> , John Ferraro, Weston Umstead, Daicel Chiral Technologies
235	<i>Performance of Commercial Portable Raman Spectrometers for Body Fluid Identification</i> , Emily Tattre, Marisia Fikiet, Claire Glynn, Virginia Maxwell, Brooke Kammrath, University of New Haven, Mohamed Amin, Igor Lednev, University at Albany, Pauline Leary, NOBLE, Richard Crocombe, Crocombe Spectroscopic Consulting
259	<i>Coupling SEC-MALS-RI with Pyro-GCMS to Analyze Polymer Blends</i> , Morgan Hesser, Amanda Brewer, Catherine Smith, Arkema
256	<i>Developing a Headspace GC/MS Method for Quantifying Volatile Trace Residue in Complex Matrices</i> , Jie Li, Jasmine Yuan, Ying Jiang, Yijun Lu, Johnson & Johnson
253	<i>Determination of Fatty Acid Composition in Polysorbate 80 Using High-Performance Liquid Chromatography (HPLC) with Charged Aerosol Detection</i> , Margaret Maziarz, Stephanie Harden, Paul Rainville, Waters Corporation
258	<i>Advanced Ion-Exchange Approaches for AOC Characterization Using SAX and Tandem SCX–SAX</i> , Yinan Zhang, Linting Li, Xuyang Zhang, Ke Yang, Sepax Technologies, Inc.
244	<i>Development and Validation of an HPLC–MS/MS Method for Quantitative Analysis and Differentiation of Acylcarnitine Isomers and Isobaric Species in Human Plasma and Serum</i> , Dahai Shao, Case Western Reserve University
275	<i>MALDI-MS Peptidomics of Human Breast Milk Identifies Tumor-Associated and Contralateral Molecular Signatures in Breast Cancer</i> , Dhvani Sardana, Aneeta Arshad, Batuhan Uzunoglu, Alina Petre, Costel Darie, Clarkson University, Kathleen Arcaro, Brian Pentecost, University of Massachusetts-Amherst
247	<i>Biophysical Analysis of the Mechanisms Underlying the Extended Half-Life of the GLP-1 Peptide Semaglutide</i> , Rickey Su, Lev Oykhman, Ying Wang, University of North Carolina-Wilmington
246	<i>ProjDIA: Improving Peptide Identification and Quantification in Direct-Infusion DIAProteomics</i> , Herbi Yulianto, Peng Li, Lehigh University
280	<i>MALDI MS-based Peptidome Analysis from Human Breast Milk Reveals Distinct Molecular Profiles Associated with Cancer</i> , Aneeta Arshad, Natalie Waterman, Brian Pentecost, Costel Darie, Clarkson University, Kathleen Arcaro, University of Massachusetts-Amherst

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2026 Technical Poster Program

Tuesday, November 17: E-Poster Student Awardee Session; 11:30am – 12:25pm

Abstract #	Location: Bridge to the Hotel
293	<i>Modified Nanomaterials Engaging in Halogen Bonding Toward Explosive Detection Interfaces for Sensor Development</i> , Benjamin Edelman, Lucas Chuidian, Carol Parish, Michael Leopold, University of Richmond
137	<i>Differentiating Pepper Spray Products using GC×GC and Tile-Based Fisher Ratio Metrics</i> , Sarah C. Foster, Mika L. Smoyer, Kira M. Fisher, Katelynn A. Perrault Uptmor, William & Mary
291	<i>Investigation of Altered Glycosylation in Endometriosis: Toward Improved Biomarker Discovery</i> , Iris Liebman, Alexandra Steigmeyer, Stacy Malaker, Yale University, Eli Handy, Mariko Morimoto, University of Notre Dame
270	<i>Scaling Up Real-Time Precision Opto-Control</i> , Ishaan Singh, Chi Zhang, Purdue University
290	<i>Analysis of Membrane Protein Mixtures Using Capillary Electrophoresis-Mass Spectrometry</i> , Noah Gould, Alexander Ivanov, Northeastern University
218	<i>Understanding Neuronal Excitability Using Mass Spectrometry Imaging of SCN2A-deficient Organoids</i> , Alyssa Moore, Xiaoling Chen, Yang Yang, Julia Laskin, Purdue University
249	<i>Towards a Bioinorganic Programming Language: X-Ray Crystallography of Metalated DNA</i> , Karol Woloszyn, Simon Vecchioni, Yoel Ohayon, James Canary, Ruojie Sha, New York University, Lynn Rothschild, NASA
219	<i>Rapid Determination of Drug-to-Antibody Ratios in Antibody–Drug Conjugates Using Ultrafast Microdroplet Digestion Technology</i> , Yongqing Yang, Juana Perez, Timothy Yaroshuk, Md Tanim-Al Hassan, Praneeth Ivan Joel FNU, Hao Chen, New Jersey Institute of Technology, Harsha Gunawardena, Johnson & Johnson, Munkhtsetseg Baatar, National University of Mongolia

Tuesday, November 17: E-Poster Morning Session; 11:30am – 12:25pm

Submission #	Location: Bridge to the Hotel
242	<i>Scaling Electrochemiluminescence with Electroactive Surface Area in a Multiplexed Electrochemical Biosensing Platform</i> , Sophie Mathewson, Kieran Cross, Jasper Pearcy-Kahn, Kira Rahn, Middlebury College
278	<i>Facilitating Science-Based Extraction Solvent Selection Through Solvent Compatibility Assessment in Medical Device E&L Studies</i> , Justin Krasnomowitz, Christina Peruzzi, Zheng Li, Johnson & Johnson MedTech, Robert Potter, Actalent, Xianggeng Liu, Insight Global
227	<i>Peptide Adsorption Profiling: Evaluation of Commercially Available Peptides for Enhance Filtration Efficiency</i> , Jose Elias Rodriguez Caceres, Peggy Arthur, Chey Jones, Natalia Subelzu, Merck & Co., Inc.
262	<i>Analysis of Fentanyl in Illicit Drug Mixtures Using the Scatr, a Portable Raman Hyperspectral Imaging Instrument</i> , Nathaniel Daley, Jason Fontes, Brooke Kammrath, University of New Haven, Desmond Brown, Pauline Leary, NOBLE, Ari Foreman, Scatr, Richard Crocombe, Crocombe Spectroscopy Consulting
274	<i>Method Development for the Determination of Fentanyl, its Cutting Agents and Selected Metabolites in Whole Blood Using LC-MS/MS</i> , Haley Kennedy, West Chester University of PA
51	<i>Extracting Molecular Information from Single-Molecule Fluorescence Blinking</i> , Chloe Autry, Jonathan Stashenko, Reagan McGrath, Dylan Jones, Kristin Wustholz, Elizabeth Harbron, William & Mary
263	<i>An Integrated Chromatographic Platform for Comprehensive Analytical Characterization of Bispecific Antibodies</i> , Xuyang Zhang, Yinan Zhang, Linting Li, Xingrong Zhu, Ke Yang, Sepax Technologies, Inc.
272	<i>Quantification of Inorganic Counterions using Hydrophilic Liquid Chromatography Coupled with Charged Aerosol Detection</i> , Margaret Maziarz, Stephanie Harden, Paul Rainville, Waters Corporation
279	<i>Expanding Biotherapeutic Characterization Across Modalities: Rapid LC-UV-MS Analysis of Peptide Biologics and LNP Lipids Using Next-Generation Wide-Pore RP 230Å Columns</i> , Natalia Kozlova, Venkata Siva Suryanarayana Gurram, Emery Domain, Hua Yang, Caitlin Hanna, Steve Shiner, Balasubrahmanyam Addepalli, Waters Corporation
276	<i>Automated Benzoyl Chloride Derivatization of Amines Using an OT-2 Liquid Handling Robot Integrated with a Custom-Built Sonicator</i> , Siddhi Patel, Dulcemaria Shinault, Sadeepa Mallikarachchi, Taylor Barrow, Christopher Piccolo, James P. Grinias, Rowan University

2026 Technical Poster Program

Tuesday, November 17: E-Poster Afternoon Session; 12:30pm – 1:25pm

Submission #	Location: <i>Bridge to the Hotel</i>
236	<i>Bioanalytical Challenges, Practical Solutions, and Establishment of Reliable PK Profiles for a Volatile 6F-NDEA Impurity in a Mouse Pharmacokinetic Study</i> , Yu-Sheng Sung, DeAnne Stolarik, Natalia Belikova, James Kath, Paige Ebert, Donna Strasburg, Yueli Liu, Yemin Liu, Gary Jenkins, Kennan Marsh, Qin Ji, Yi Yang, AbbVie
286	<i>Development of an LC-MS/MS Method to Detect and Quantify Free Oligonucleotides in Antibody-Oligo Conjugate (AOC) Serum Samples</i> , Joel Praneeth, Richa Vartak, Nabin Panth, Rabiul Islam, Bhaskar Kusuma, Suresh Anaganti, Julien Dugal-Tessier, Naresh Jain, NJ Bio, Inc.
225	<i>Optimization and Validation of a Robust rCE-SDS Method for Drug Substance Purity Assessment of Protein Nanoparticles in Potassium-Based Formulations</i> , Haofu Huang, Victoria Ng, Maritess Arancillo, Darnell Pierre, Sean Bristow, Igoris Cajevskis, Ray McClain, Sarah Aubert, Merck & Co., Inc.
36	<i>Efficient and Simplified REE Analysis with Combined ICP-OES and ICP-QQQ-MS</i> , Ana Garcia Gonzalez, Bert Woods, Agilent Technologies
234	<i>Ensuring High-Quality Trace Element Data for Environmental Samples Using Microwave-Assisted Acid Digestion</i> , Alicia Stell, Samuel Heckle, Elaine Hasty, CEM Corporation
189	<i>Extractables and Leachables Screening Standard for GC by Perkin Elmer Clarus NOVA</i> , Thomas Mancuso, Perkin Elmer AES
288	<i>Fan-Free Micro Slurry Direct Air Capture with Ion-Exchange Sorbents and Seawater-Enabled Regeneration</i> , Haibo Liu, Arup SenGupta, Lehigh University
200	<i>Navigating Analytical Challenges in the Characterization of a Reactive Raw Material used in the Manufacture of an ADC Drug Linker</i> , Casey Dougherty-Gunsch, Scott Schultz, Heather Wang, David Schenk, Frank Bernardoni, Merck & Co., Inc.
297	<i>Effect of Pore Size on Plate Height for 23-mer Oligonucleotides Separated Using Fully Porous Particles and Ion-Pairing Reversed-Phase Liquid Chromatography</i> , Nolan Eckmann, Daniel Meston, Ronard Pabi, Dwight Stoll, Gustavus Adolphus College, Bob Pirok, University of Amsterdam, Matt Sorensen, Todd Maloney, Eli Lilly and Company
243	<i>Evaluation of Portable Mass Spectrometry Platforms for Field-Based Detection of Fentanyl Analogues and Novel Psychoactive Substances</i> , Lauryn Cammarata, Brooke Kammrath, University of New Haven, Pauline Leary, NOBLE, Eric Wallis, Seth Fisher, 1st Detect Corp.
287	<i>Nanoparticle-Assisted MALDI-TOF Mass Spectrometry for Peptide Analysis</i> , Nichole Donofrio, Vala Muhaxhiri-Zeka, Salonee Swain, Reihaneh Safavi-Sohi, Seton Hall University
239	<i>Using Analytical Modeling to Rapidly Develop Robust Chromatography Methods with Fewer Experiments: A Model-First Approach</i> , Catherine Mihalec, Jessica Conforti, Li Zhu, Adrian Doggett, Jimmy DaSilva, Bristol Myers Squibb
238	<i>cVSSI Enhances Microflow UPLC-MS Metabolomics in Negative-ion Mode</i> , Olanrewaju Awoyemi, West Virginia University, Yixiang Wang, Hong Kong Polytechnic University, Herbi Yuliantoro, Peng Li, Lehigh University, Stephen Valentine, University of Louisville
273	<i>Proteomics Approach to Investigate Age-Related Macular Degeneration</i> , Victor Njoku, Costel C. Darie, Clarkson University

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Wednesday, November 18: E-Poster Session: 11:30pm – 12:25pm

Abstract #	Location: <i>Bridge to the Hotel</i>
300	<i>Chemometric Evaluation of Plasma N-Glycomes for Time-Sensitive Drug Administration in High-Fat Diet Mice</i> , Max Kapetanakis, Reihaneh Safavisohi, Seton Hall University
267	<i>Enhanced Electrocatalytic Performance of Metal-Doped Boron Nitride for Nitrate Reduction</i> , Meisu Wang, Princeton High School, Rehan Qureshi, Xianqin Wang, New Jersey Institute of Technology
269	<i>FeBN Electrocatalyst for High-Performance Nitrate Reduction and Sustainable Ammonia Synthesis</i> , Rehan Qureshi, Xianqin Wang, New Jersey Institute of Technology
301	<i>Revealing What Thermalgravimetric Analysis Misses: TG-IR-GC/MS</i> , Samantha Nania, PerkinElmer US LLC
271	<i>Development of a HILIC-MS Method for Quantification of Residual EPPS in Pharmaceutical Process Organic Layer</i> , Van Truong, Merck & Co., Inc.
285	<i>Analysis of Biopharmaceutical Critical Quality Attributes Using Capillary Scale Liquid Chromatography</i> , Samuel Foster, Milton Lee, John Stimus, Axcend
266	<i>Robust Size-Exclusion Analysis of Lipid Nanoparticles Using Polymer-Based 3000 Å SEC</i> , Linting Li, Yinan Zhang, Xuyang Zhang, Ke Yang, Sepax Technologies, Inc.
264	<i>Evaluation of System Performance Parameters for Quality Control in GC×GC-TOFMS Systems</i> , Jackson Webb, Katelynn Perrault Uptmor, William & Mary
281	<i>Analysis of Extracellular Vesicles Using Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry</i> , Kenneth Tomkovich, Matthew Leinfuss, Reihaneh Safavi-Sohi, Seton Hall University
38	<i>Stoichiometric Binary Complexes of Pharmacological Terpenes with Metal-Organic Framework: Synthesis, Bonding, Delayed Release, and Nanocolloids</i> , Alexander Samokhvalov, Kamala Panthi, Morgan State University
224	<i>Guiding the Molnupiravir Tablet Formulation Using Physiologically Based Biopharmaceutics Modeling and Successfully Establishing Dissolution Safe Space</i> , Thomas Morrow, Nicole Jarvi, Madeline Halota, Cheng Sun, Prapti Kafle, Rachel King, Grace Okoh, Sanjaykumar Patel, Tycho Heimbach, Merck Sharp & Dohme LLC
277	<i>Investigating the Effects of Overexpression and Downregulation of Human Jumping Translocation Breakpoint Protein (hJTB) Using In-Gel and In-Solution Digestion-Based Proteomics in HEK293 Cells</i> , Benjamin Priest, Taniya Jayaweera, Madhuri Jayathirtha, Costel Darie, Clarkson University, Anca-Narcisa Neagu, University of Iași
283	<i>Breast Milk Proteome Alterations Associated with Breast Cancer Revealed by a Longitudinal Mass Spectrometry-Based Time-Course Proteomics Study</i> , Paidamoyo Goredema, Lilly Reape, Aneeta Arshad, Costel Darie, Clarkson University, Kathleen Arcaro, Brian Pentecost, University of Massachusetts-Amherst
260	<i>Mass Spectrometry-Based Proteomic Analysis of Combined Left- and Right-Breast Milk (9v9) for Breast Cancer Biomarker Discovery</i> , Ashanti Jones, Aneeta Arshad, Kathleen Arcaro, Costel Darie, Clarkson University
248	<i>Predicting Coffee Grind Quality Using FT-NIR</i> , Justin Linehan, PerkinElmer
302	<i>Using Density Functional Theory Methods to Probe the Energetics of the Quinone Intermediates of the Photosynthetic Reaction Center, Photosystem I⁺</i> , Summer Henson, Patrick Landry, K. V. Lakshmi, Rensselaer Polytechnic Institute, Vasily Kurashov, John H. Golbeck, Pennsylvania State University, Christopher Gisriel, University of Wisconsin-Madison, Mrinal Shekhar, Broad Institute of MIT and Harvard
295	<i>Application of Raman Spectroscopy for the Development of High Crystallinity and Oriented Polyethylene Films</i> , Ryan Li, Sophie Jedrysek, Daniel Beekman, Anjeli Santillan, Brandon Cevallos, Ronald Demartino, Michael Jaffe, Lingfen Rao, New Jersey Institute of Technology