

September 8, 2022 (14:45-15:30)

Waters

THE SCIENCE OF WHAT'S POSSIBLE.™

VENDOR SEMINAR:

Make It Your Analysis with Waters' Solutions for Food Safety! Application Solutions for Natural Toxins, Anionic Polar Pesticide, and PFAS

From field to fork - Solutions for mycotoxins and alkaloids detection

Nicola Dreolin, Waters Corporation

Waters and VICAM together offer complete field to lab solutions to address the needs for early detection and finished products verification. Our rapid, antibody-based strip tests provide a fully streamlined approach to preventive monitoring that allows quantitative results for up to 6 mycotoxins in less than 10 minutes. Immunoaffinity columns offer multiple functions: they can be tested with a field-based fluorometer or coupled with HPLC and UPLC for confirmatory methods of single or multiple mycotoxins. The high selectivity of Immunoaffinity columns makes them also an ideal clean-up in use with LC-MS. In a broader approach the well-known sample prep tools of the Oasis family provide superior performance in sample clean-up that can be applicable to multi-toxin and multi-residue methods. And if you have the need for high through-put a dilute and shoot method using a high-end mass spec is the answer.

In our workshop we will take you from field to lab and showcase how to achieve results fast using our strip tests or get highest sensitivity by HPLC and LC-MS/MS confirmatory methods for mycotoxins and alkaloids.

Anionic polar pesticides - A direct injection approach you can rely on

Jenny Davies, Waters Corporation

Routine analysis of anionic polar pesticides has become a requirement for many laboratories. These challenging analytes and their metabolites are not "amenable" to common multi-residue approaches, such as QuEChERS and mini-Luke, nor to reversed-phase chromatography. The area of anionic polar pesticide analysis has been evolving over the past ten years where the adoption of generic extraction methods, such as the QuPPE method, have enabled laboratories to take a multi-residue approach for the analysis of these challenging analytes.

Waters constantly improved its work in the area of anionic polar pesticide analysis. The combination of the dedicated Waters' Anionic Polar Pesticide Column, ACQUITY™ UPLC and Xevo™ TQ Absolute mass spectrometer solves several of the critical challenges with this approach as well as expected extraction method performance. The workshop will focus on the demand for lower limits of quantification for the anionic polar pesticides. Those can be addressed with the enhanced negative ion sensitivity of the Xevo™ TQ Absolute system, which now allows limits of detection in the low and even sub µg/kg region.

PFAS Analysis - Overcoming challenges to meet regulatory limits with a total solution

Hannah Willmer, Waters Corporation

Detection requirements for per- and polyfluorinated alkyl substances (PFAS) have been getting more challenging as regulations to protect consumers and environment continue to be created and updated.

In this workshop we discuss a minimal and rapid sample method by direct injection for PFAS analysis on a highly sensitive mass spectrometer to reach necessary performance criteria regulated by the EU. The enhanced negative ion sensitivity of the Xevo™ TQ Absolute Tandem Quadrupole Mass Spectrometer allows for utilization of the direct injection method for PFAS analysis with a reduced sample injection not compromising the method performance. Next generation Premier™ technology with MaxPeak High Performance Surfaces™ and novel ionisation techniques such as UniSpray™ can be further utilised to improve efficiency and robustness by reducing conditioning times and lowering detection limits or injection volumes. Waters is passionate in its continuing and evolving effort to offer total solutions for these notoriously tricky compounds to meet your laboratories specific needs and requirements.