

September 7, 2022 (7:45-8:30)

Waters

THE SCIENCE OF WHAT'S POSSIBLE.™

VENDOR SEMINAR:

Make It Your Analysis with Waters' Solutions for Food Quality Control!

Increase Workflow Efficiency by Automation, Latest UPLC Innovations and a Compact Highly Selective Detector

The connected laboratory for LC and LC-MS workflow automation

Janitha De-Alwis, Waters Corporation

As contract testing labs face increasing demands, modern laboratories have been quick to embrace automation as a critical component to streamlining analytical workflows. The automation of routine and complex sample preparation helps minimize variability, improve traceability, and simplify method transfer.

Andrew+ is an intelligent robot that allows scientists to develop reproducible, traceable, and easily implemented sample preparation protocols through highly repeatable pipetting. When using OneLab, a cloud-native software environment, experiments can be intuitively designed, reproducibly executed, and tracked through a rapidly evolving ecosystem of connected devices and accessories.

In this workshop we will present findings from the extensive evaluation of Andrew+ in a routine food analysis lab at Eurofins Nutrition Analysis Center (Des Moines, IA US). The performance of the robot was found to be consistent with rigorous requirements in accuracy and precision in sample preparation. The OneLab software will be shown in a live demonstration the intuitive and the performance of Andrew+ will be demonstrated in a video.

Organic Acids Analysis - Ensuring the quality and authenticity of beverage products

Cecile Pinto, Waters Corporation

Organic acids can occur naturally or are added to beverages as acidulants, flavourings and preservatives. Waters' chromatography solutions enable beverage testing laboratories to efficiently analyze organic acids, ensuring products are authentic and maintain a consistent quality and flavour profile.

The chromatography of organic acids can be impacted by interactions between target analytes and the metal surfaces of the chromatographic flow path. With Waters MaxPeak High Performance Surfaces technology, the ACQUITY Premier Solution is designed to eliminate the unpredictability of analyte losses due to metal interactions. It removes the need for lengthy passivation and conditioning and reduces the complexity of mobile phase as well as method set-up to increase laboratory productivity.

In this workshop we will present a method for the analysis of 14 organic acids. Achieving baseline separation of analytes while avoiding co-elution of matrix interference can be challenging. The use of ACQUITY QDa Mass Detector instead of an optical detector provides increased selectivity in a compact design. The use of selected ion recording (SIR) acquisition can reduce the impact of co-eluting matrix components, allowing for less complex chromatograms, lower detection limits and greater method flexibility to test a range of different beverage products.