

**November 4, 2026 (14:45-15:30)**



**VENDOR SEMINAR:**

**Protecting the food chain: Novel LC/MS/MS applications for the detection of PFAS and Cereulide biotoxin**

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**One PFAS workflow, multiple food matrices: Efficient sample preparation and quantitation**

*Peter Kornas, Application Specialist LC-MS, Agilent Technologies, Deutschland GmbH*

We present the development and verification of a simplified, rapid, and reliable method for the analysis of 30 per- and polyfluoroalkyl substances (PFAS) residues in food of plant and animal origin. The method employs QuEChERS extraction followed by enhanced matrix removal (EMR) mixed-mode passthrough cleanup using the Agilent Captiva EMR PFAS Food II cartridges, and subsequent liquid chromatography/triple quadrupole mass spectrometry (LC/TQ) detection. This new method combining QuEChERS extraction followed by Captiva EMR PFAS Food II passthrough cleanup and is characterized by its simplicity, robustness, and cost effectiveness. The workflow is further streamlined by exploiting direct injection using Agilent 1260 Infinity II hybrid multisampler with sensitive detection using the Agilent 6495D LC/TQ. The method suitability was tested for, sensitivity, accuracy, and precision and met the required limits for all 30 PFAS targets in all food matrices.

**Sensitive LC/MS/MS measurement of Cereulide in infant formula following ISO 18465:2017**

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Cereulide is a heat-stable emetic toxin produced by *Bacillus cereus*, commonly associated with foodborne illness in carbohydrate-rich foods and increasingly detected in infant formula. Recent food safety recalls of infant formula products highlight the need for sensitive and reliable analytical methods for low-level detection of cereulide, particularly for vulnerable populations such as infants. We present a validated, sensitive, accurate and reproducible LC-MS/MS workflow for the quantitative determination of cereulide in infant formula meeting ISO 18465:2017 criteria and surpassing regulatory thresholds.