November 6, 2024 (14:45–15:30)

VENDOR SEMINAR:

The latest advancements in trace elemental analysis and isotope fingerprints in food authenticity

ICP-MS workflow for enhanced efficiency and productivity

Matthew Cassap, Thermo Fisher Scientific, Hemel Hempstead, UK

The new Thermo Scientific™ iCAP™ MX Series ICP-MS systems consistently produces accurate data with maximized instrument uptime. The systems powerful detection capabilities enable right time results without compromising matrix robustness to simplify your food analysis, even with the most challenging samples. To assess the suitability of the iCAP MX Series ICP-MS systems for the elemental profiling of food, a wide range of samples were analyzed over extended periods of time. We will present the data from these studies and demonstrate how the iCAP MX Series ICP-MS can transform your elemental analysis workflows to consistently deliver accurate and precise results.

The next generation LC-IRMS for honey authenticity investigation

Mario Tuthorn, Thermo Fisher Scientific, Bremen, Germany

The new Thermo Scientific™ LC IsoLink™ II IRMS System delivers a reliable, robust and efficient solution for high precision honey fraud detection using carbon isotope fingerprint. The next generation LC IsoLink II Conversion Interface is now fully integrated in the innovative Thermo Scientific™ Vanquish™ LC platform with modular pull-out design that is saving space and allows easy accessibility of all system parts. The new cartridge-based oxidation reactor minimizes flow path blockage and significantly enhances system uptime and productivity. We have tested the LC IsoLink II IRMS System in analytical food testing laboratories for over 2 years, allowing thorough assessment of long-term stability, system robustness and data reproducibility. Here we report data demonstrating excellent precision and reproducibility of $\delta^{13}C$ values for measurements of a laboratory honey standard and commercial honey samples.