

Poster #4

Poster Title: **Novel Sample Preparation Suitable for Trace Level Agricultural Residue Analysis Using LC-MS-MS and LC-TOF-MS**

Brief Abstract:

This poster will present some interesting new SPE applications useful for trace level residue analysis using LC-MS. Among these applications are the determination of antibiotic residues in honey and shrimp, and the determination of paraquat/diquat in untreated surface waters. In each case, we will demonstrate advanced SPE techniques with both high recovery and extensive sample clean-up. For example, an advanced SPE protocol has been developed for the analysis of nitrofurantoin antibiotic metabolites in honey at levels below 0.3 ng/kg using triple quadrupole LC-MS or LC with time of flight (TOF) mass spectrometry. An advanced (dual cartridge) SPE protocol allows for the determination of chloramphenicol in shrimp with 0.1 ng/kg LOQ. Regarding paraquat/diquat, we will discuss Oasis WCX (mixed-mode weak cation exchange) and HILIC chromatography for the LC-MS determination of quats with no ion-pairing reagents.

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