Supporting Information

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Rapid and Quantitative Analysis of Pesticides in Fruits by QuEChERS Pretreatment and Low-Temperature Plasma Desorption/Ionization Orbitrap Mass Spectrometry

Supporting information is presented on LTP-Orbitrap-MS and ESI-Orbitrap-MS experimental conditions for the analysis of Acetamiprid, Cyprodinil, Fenhexamid, and Fludioxonil. Further, mass spectra and calibration curves for Acetamiprid and Fenhexamid are included.

Table S-1. LTP-Orbitrap-MS parameters.

Scan Parameters	
Scan Range	50-500
HCD Gas	On
Resolution	High
Polarity	Positive/Negative
Microscans	1
Lock Masses	Off
AGC Target	Balanced
Maximum Injection Time	50 ms
LTP Source	
Sheath Gas Flow Rate	0
Aux Gas Flow Rate	0
Sweep Gas Flow Rate	0
Spray Voltage (kV)	0
Capillary Temperature (°C)	200
Capillary Voltage (V)	±70.0
Tube Lens Voltage (V)	±105.0
Skimmer Voltage (V)	±18.0

Table S-2. ESI-Orbitrap-MS parameters used for the analysis with LC/ESI-MS.

Scan Parameters	
Scan Range	50-500
HCD Gas	On
Resolution	High
Polarity	Positive/Negative
Microscans	1
Lock Masses	Off
AGC Target	Balanced
Maximum Injection Time	50 ms
ESI Source	
Sheath Gas Flow Rate	40
Aux Gas Flow Rate	15
Sweep Gas Flow Rate	0
Spray Voltage (kV)	±3.50
Capillary Temperature (°C)	350
Capillary Voltage (V)	±70.0
Tube Lens Voltage (V)	±105.0
Skimmer Voltage (V)	±18.0

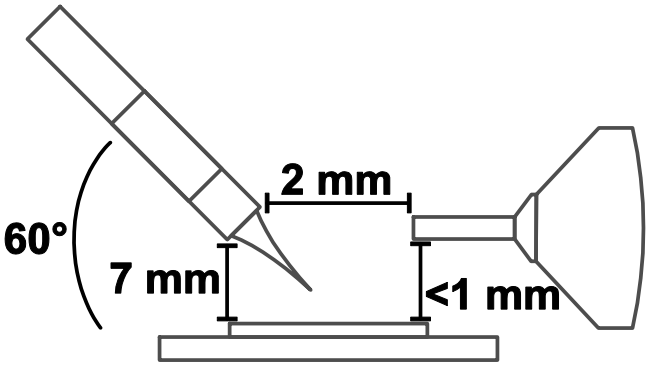

Figure S-1: Schematic diagram of the experimental setup with LTP probe and sample plate in front of the mass spectrometer inlet capillary.

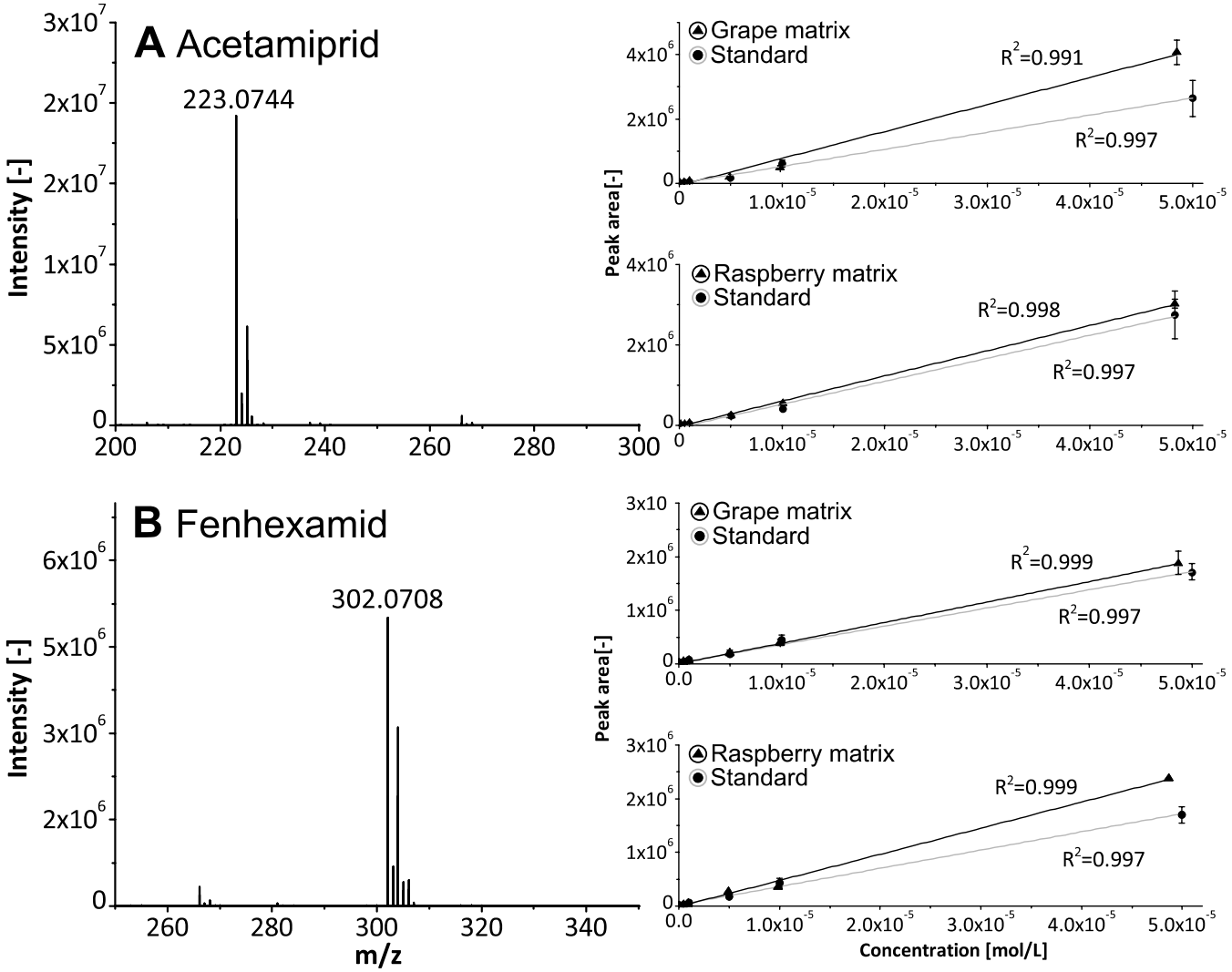

Figure S-2: LTP-HR-MS mass spectra of A) Acetamiprid and B) Fenhexamid. Additional diagrams show the corresponding calibration curves for standards (black) and matrix-matched standards in grape and raspberry matrix after cleanup (gray). Most abundant signals correspond to the protonated/deprotonated species (*cf.* Table 1).