

Nota de aplicación

# Multi-Residue Analysis of Pesticides in Oranges Using AOAC QuEChERS Method by GC-MS

Waters Corporation

This is an Application Brief and does not contain a detailed Experimental section.

### Abstract

This application brief highlights about Multi-Residue analysis of pesticides in oranges using AOAC QuEChERS method by GC-MS

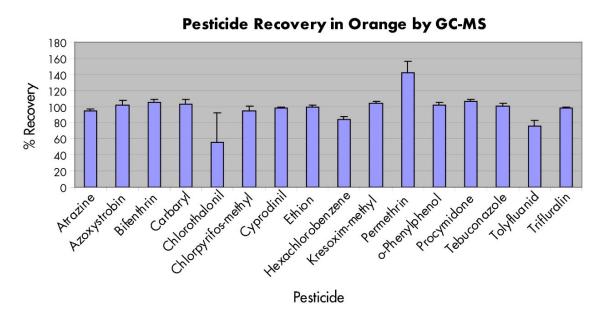
# Experimental

### **Extraction Procedure**

- 1. Add 15 mL 1% acetic acid in acetonitrile into the 50 mL DisQuE extraction tube 1.
- 2. Add 15 g of homogenized sample into the 50 mL tube.
- 3. Add any internal standards and standard mixture.
- 4. Shake vigorously for 1 minute and centrifuge > 1500 rcf for 5 minute.
- 5. Transfer 1 mL of the acetonitrile extract into the clean-up tube 2.
- 6. Shake for 30 seconds and centrifuge >1500 rcf for 1 minute.

7. Transfer 0.5 mL extract into a tube.		
8. Add any post-extraction internal standards.		
9. Add 0.25 mL toluene.		
10. Evaporate at 50 °C with N2 to < 0.1 mL.		
11. Bring volume up to 0.2 mL with toluene.		
12. Transfer to vial with insert for analysis.		
GC Conditions		
Instrument:		Agilent 6890N GC
Column:		RTX-5MS, 30 x 0.25 mm, (0.25 µm film)
Carrier Gas:		Helium
Flow Rate:		1.0 mL/min
Temp. Program:		Initial 100 °C, hold 1 min, then 10 °C/min to 320 °C, hold for 7 minutes
Injection Volume:		2 μL splitless
MS Conditions		
Instrument:	Waters Quattro micro GC-MS	
Ionization:	Electron Impact (70 eV)	
Acquisition:	Single Ion Recording (SIR)  Mode	

# Results and Discussion



Pesticides in Oranges by GC-MS

## Featured Products

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