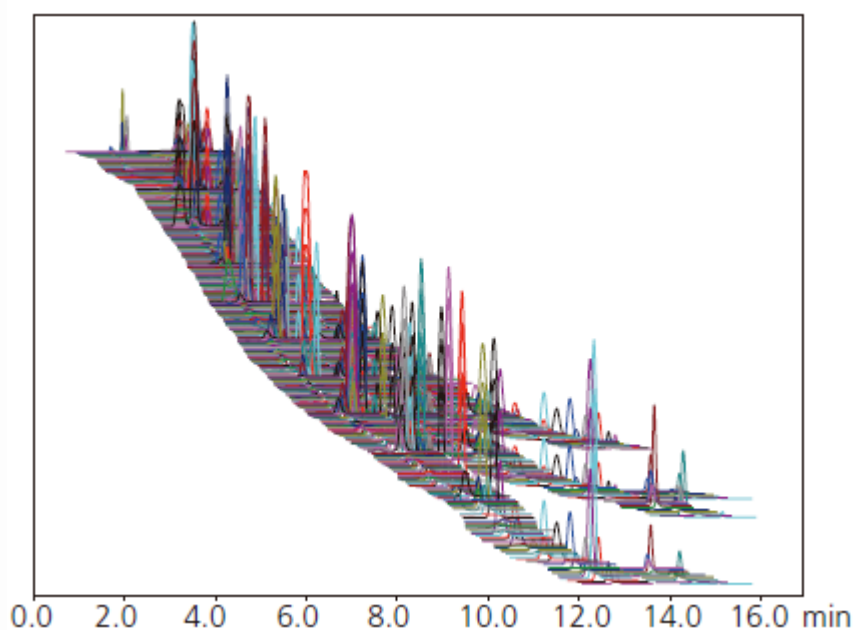


CoreFocus
Report
No.106

SFC Shim-pack Series

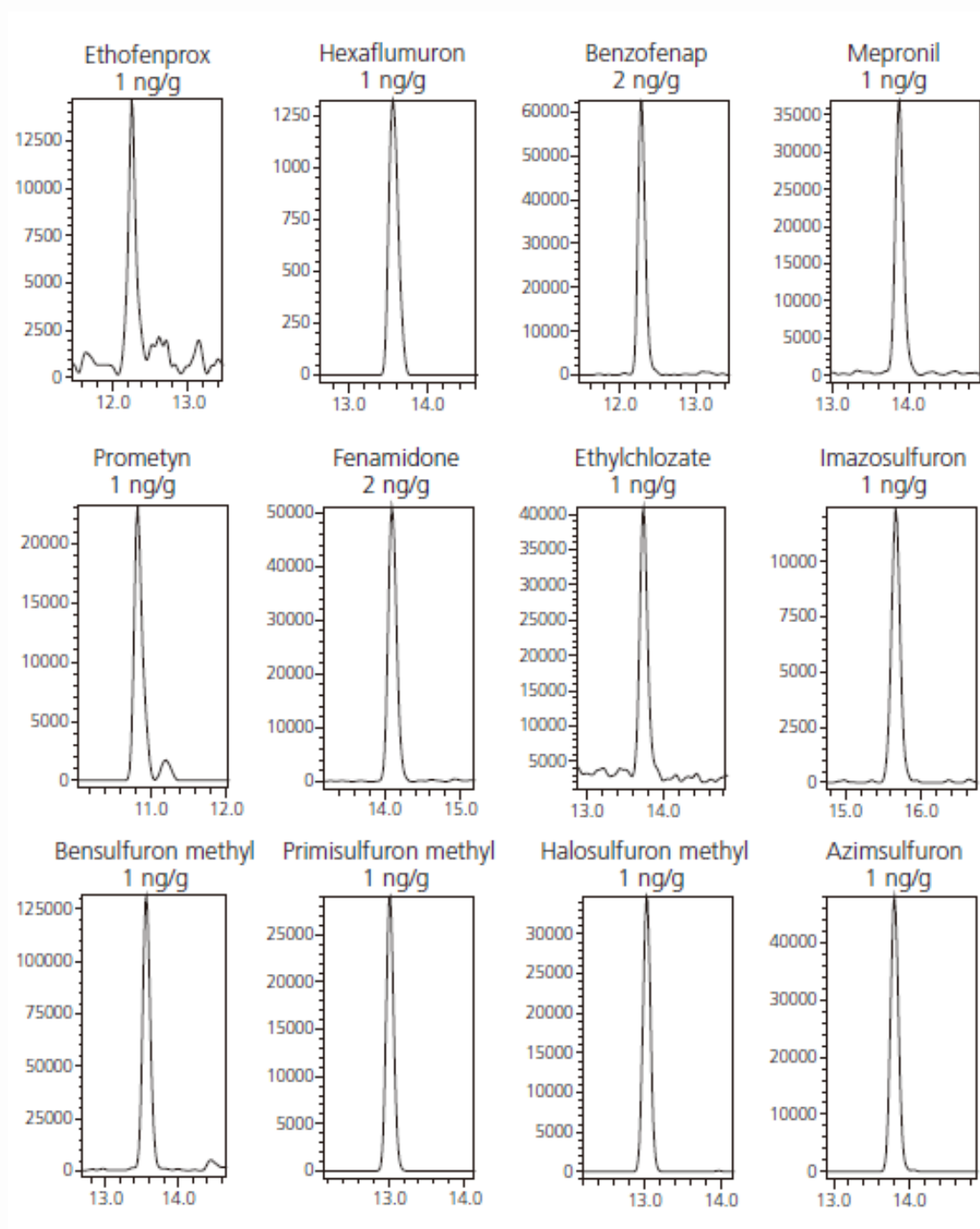
Shim-pack™ UC-RP
Analysis of Residual Pesticides
Using Online SFE-SEC-MS System

Keywords: insecticides, fungicides, herbicides, pyrethroids



Mass Chromatogram of Standard Pesticide Mixture Solution (510 pesticides)

| | |
|--------------|---|
| System | : Nexera™ UC |
| [SFE] | |
| Solvent | : A) Super critical fluid of CO ₂ B) 0.1 % Ammonium formate in methanol |
| Flow rate | : 5 mL/min |
| Extraction | : 0-3 min Static mode (B Conc. 5 %) 3-6 min Dynamic mode (B Conc. 5 %) |
| Extraction | |
| Vessel temp. | : 40 °C |
| BPR pressure | : A) 14.8 MPa, B) 15 MPa (split rate: 3 %) |
| Make-up | : 0.1 % Ammonium formate in methanol (0.4 mL/min) |
| [SFC] | |
| Column | : Shim-pack UC-RP (250 mm L. x 4.6 mm I.D., 5 μm), P/N : 227-30403-02 (Japan), P/N : 227-30403-04 (except Japan) |
| Mobile phase | : A) Super critical fluid of CO ₂ B) 0.1 % Ammonium formate in methanol |
| Time program | : B Conc. 0 % (0 min) → 10 % (11 min) → 30% (14 min) → 40 % (14.01-17 min) |
| Flow rate | : 3 mL/min |
| Make-up | : 0.1 % Ammonium formate in methanol (0.1 mL/min) |
| Column temp. | : 40 °C |
| BPR pressure | : A) 15 MPa, B) 40 MPa |
| Detector | : LCMS-8050 MRM mode |



MRM Chromatograms of Representative Pesticides

Source : Application News L497 ([JP_ENG](#))

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