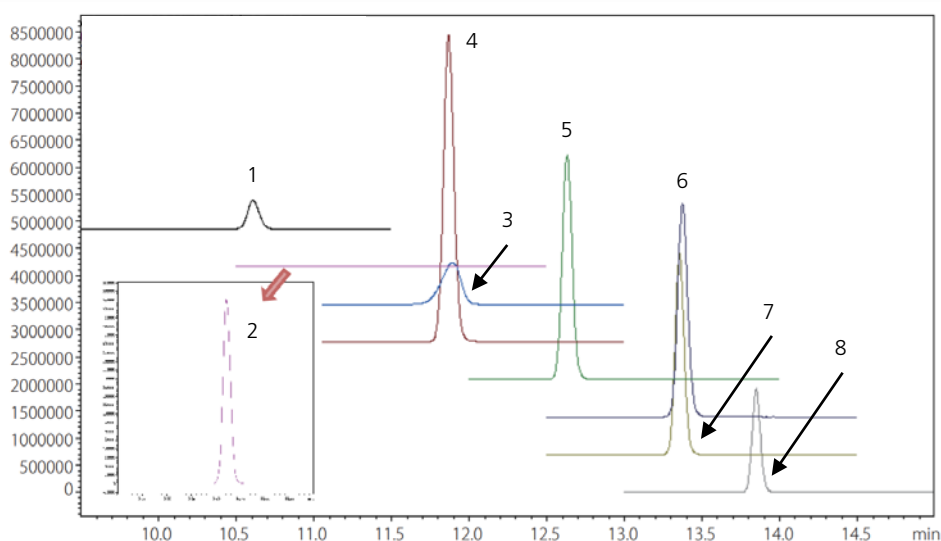


CoreFocus
Report
No.110

SFC Shim-pack Series

Shim-pack™ UC-RP and Shim-pack VP-ODS
Analysis of Pesticide Residue in Soils
by Off-line SFE-LC/MS

Keywords: insecticides, fungicides, herbicides, pyrethroids



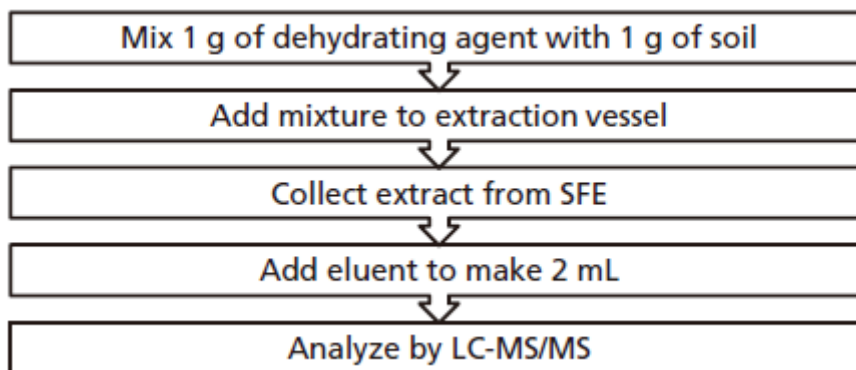
1. Alachlor
2. Atrazine
3. Diflufenican
4. Fipronil
5. Flumioxazin
6. Fluxapyroxad
7. Pyraclostrobin
8. Trifloxystrobin

[SFE]

System : Nexera™ UC SFE
Solvent : A) Supercritical fluid of CO₂
 B) Methanol
Flowrate : 5 mL/min
Extraction : 4 min (Static mode → Dynamic mode)
Vessel temp. : 40 °C
BPR pressure : 15 MPa
Trap column : Shim-pack VP-ODS (50 mm L. x 4.6 mm I.D., 5 µm), P/N : 228-36849-91
Oven temp. : 40 °C
Elution solvent : Acetone/Hexane = 50/50 (2 mL/min, 2 min)

[LC/MS]

System : Nexera X2
Column : Shim-pack UC-RP (150 mm L. x 2.1 mm I.D., 3 µm), P/N : 227-30400-01
Mobile phase : A) 10 mM Ammonium formate
 B) 10 mM Ammonium formate in methanol
Time program : B Conc. 0 % (0 min) -> 100 % (14-17 min) -> 0 % (17.1-20 min)
Flow rate : 0.4 mL/min
Column temp. : 40 °C
Injection volume : 3 µL
System : LCMS™-8060 (MRM mode)
Ionization : ESI (positive or negative)
DL temp. : 200 °C
Block heater temp. : 400 °C
Interface temp. : 300 °C
Nebulizing gas flow : 2 L/min
Drying gas flow : 10 L/min
Heating gas flow : 10 L/min



Process Flow from Pretreatment to Analysis

Source : Application News L503 ([JP](#), [ENG](#))

CoreFocus, Shim-pack, Nexera and LCMS are trademarks of Shimadzu Corporation or its affiliated companies in Japan and/or other countries.

Shimadzu Corporation

www.shimadzu.com/an/

For Research Use Only. Not for use in diagnostic procedures.

This publication may contain references to products that are not available in your country. Please contact us to check the availability of these products in your country.

The content of this publication shall not be reproduced, altered or sold for any commercial purpose without the written approval of Shimadzu.

Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol "TM" or "@".

Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol "TM" or "@".

Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own.

The information contained herein is provided to you "as is" without warranty of any kind including without limitation warranties as to its accuracy or completeness. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication. This publication is based upon the information available to Shimadzu on or before the date of publication, and subject to change without notice.