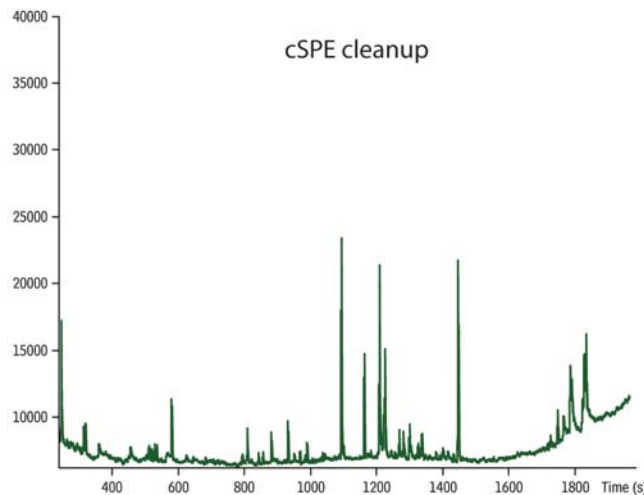
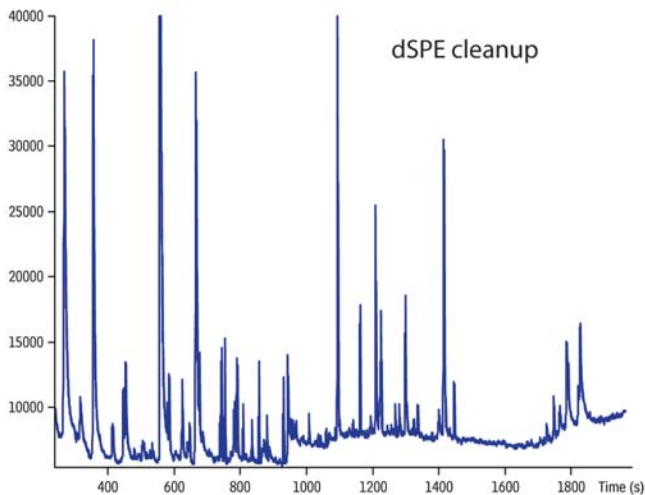




dSPE vs. cSPE Sample Cleanup of Dandelion Root Powder (Dietary Supplement)
Rxi®-5Sil MS



GC_FF1171

Column Rxi®-5Sil MS, 30 m, 0.25 mm ID, 0.25 μ m (cat.# 13623)
Sample Dandelion Root powder spiked with 46 pesticides
QuEChERS Internal Standard Mix for GC/MS Analysis (cat.# 33267)
anthracene for quality control (cat.# 33264)
80 pg/ μ L

Conc.:
Injection
Inj. Vol.: 1 μ L splitless (hold 1.5 min.)
Liner: 5mm Splitless with wool (cat.# 22975-200.1)
Inj. Temp.: 250 °C

Oven
Oven Temp: 90 °C (hold 1.5 min.) to 340 °C at 8 °C/min.

Carrier Gas
Carrier Gas: He, constant flow
Flow Rate: 1.5 mL/min.

Detector
Mode: MS

Analyzer Type: TOF

Source Temp.: 225 °C

Electron Energy: 70 eV

Ionization Mode: EI

Acquisition Range: 45-550 amu

Acquisition Rate: 5 spectra/sec.

Instrument LECO Pegasus 4D GCxGC-TOFMS

Notes Sample Preparation:

Wetting: 1 g of Dandelion Root powder combined with 9 mL of water, shaken well, fortified with pesticides and QuEChERS Internal Standard Mix for GC/MS Analysis (cat.# 33267), soak for 2 hours.

Extraction: 10 mL acetonitrile added then addition of Q-sep™ Q110 (cat.# 26235), centrifuge with Q-sep™ 3000 Centrifuge (cat.# 26230).

dSPE: cleanup procedure according to EN 15662 method, add control standard anthracene (cat.# 33264) to 1 mL extract, add this to Q-sep™ Q110 dSPE tube (cat.# 26235), shake, centrifuge.

cSPE: add control standard anthracene (cat.# 33264) to 1 mL extract, add magnesium sulfate to cartridge, use 6mL Combo SPE Cartridge containing 500mg CarboPrep® 90/500mg PSA (cat.# 26194), concentrate via evaporation.



free literature

Developing New Methods for Pesticides in Dietary Supplements
Advantages of the QuEChERS Approach

QuEChERS is a simple, effective approach to sample prep that can be applied to the analysis of pesticides in dietary supplements. Here we demonstrate a QuEChERS, cSPE, GC-TOFMS procedure that results in good recoveries for a wide range of pesticides in dandelion root.

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Applications Note
lit. cat.# PHAN1242