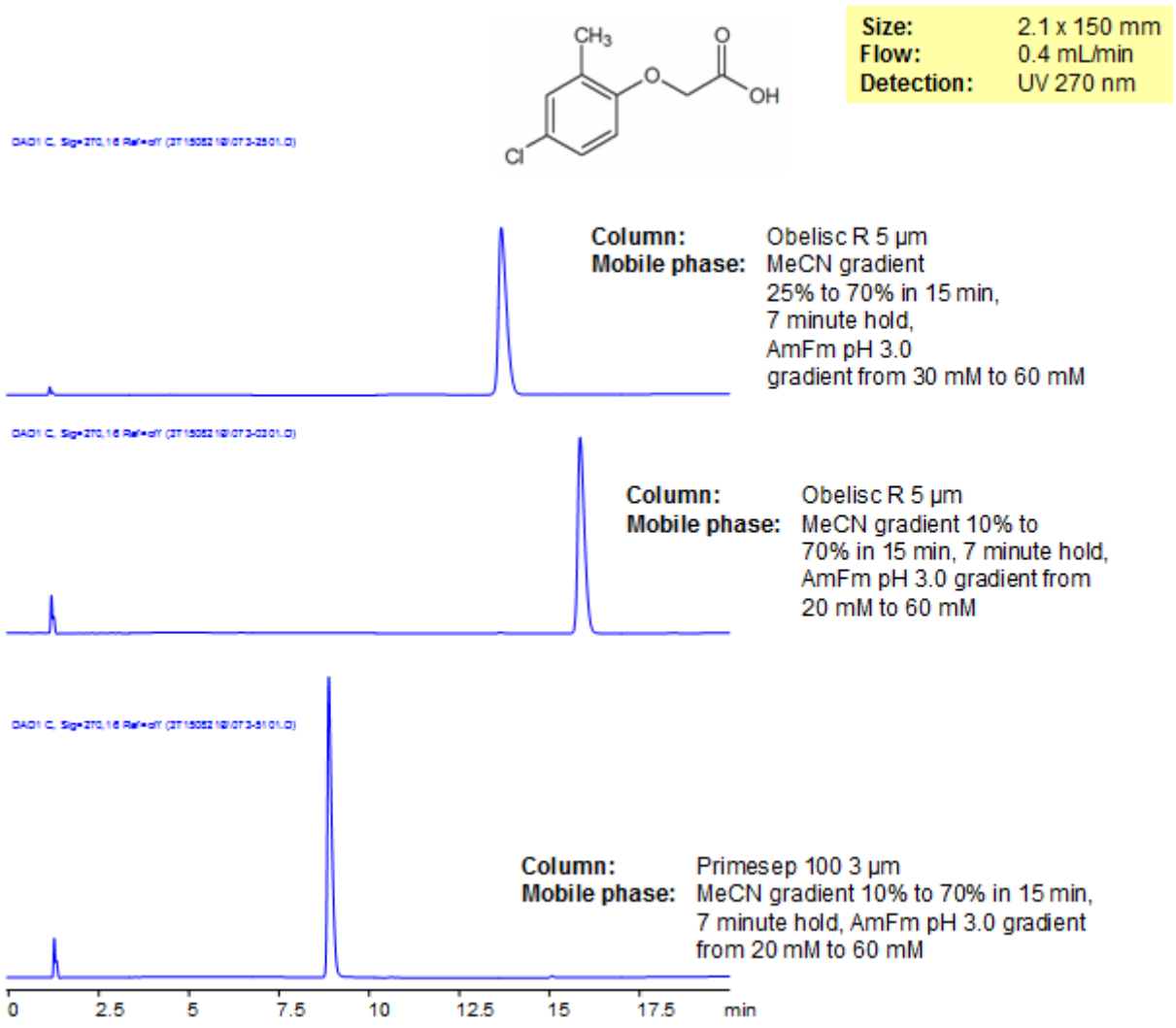
HPLC Analysis of MCPA on Primesep and Obelisc Mixed-Mode Columns

https://sielc.com/Application-HPLC-Analysis-of-MCPA-on-Primesep-and-Obelisc-Mixed-Mode-Columns

Chromatogram



Description

MCPA (4-Chloro-2-methylphenoxy)acetic acid) was synthesized to control broad-leaf weeds such as thistle and dock. MCPA forms complexes with metal ions and increase their bioavailability. A single residue method was developed and used by the EURL (European Union Reference Laboratory) for acidic pesticides. MCPA was separated by both Obelisc R and Primesep 100. Primesep 100 is a reverse-phase column with embedded acidic ion-pairing groups while Obelisc R is a mixed-mode column with separates using ionic groups and a long hydrophobic chain. Methods are LC/MS compatible and able to be used with many pesticides.

Method Parameters

Mobile Phase	Gradient MeCN – 10-70%, 15 min, 7 min hold
Buffer	Gradient AmAc pH 3.0- 20-60 mM, 15 min, 7 min hold
Flow Rate	0.4 ml/min

Detection	UV, 270 nm
Class of Compounds	Synthetic plant hormone, Acid, Hydrophobic, Ionizable
Analyzing Compounds	MCPA

HPLC Column Used

Primesep 100, 2.1×150 mm, 3 µm, 100A

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