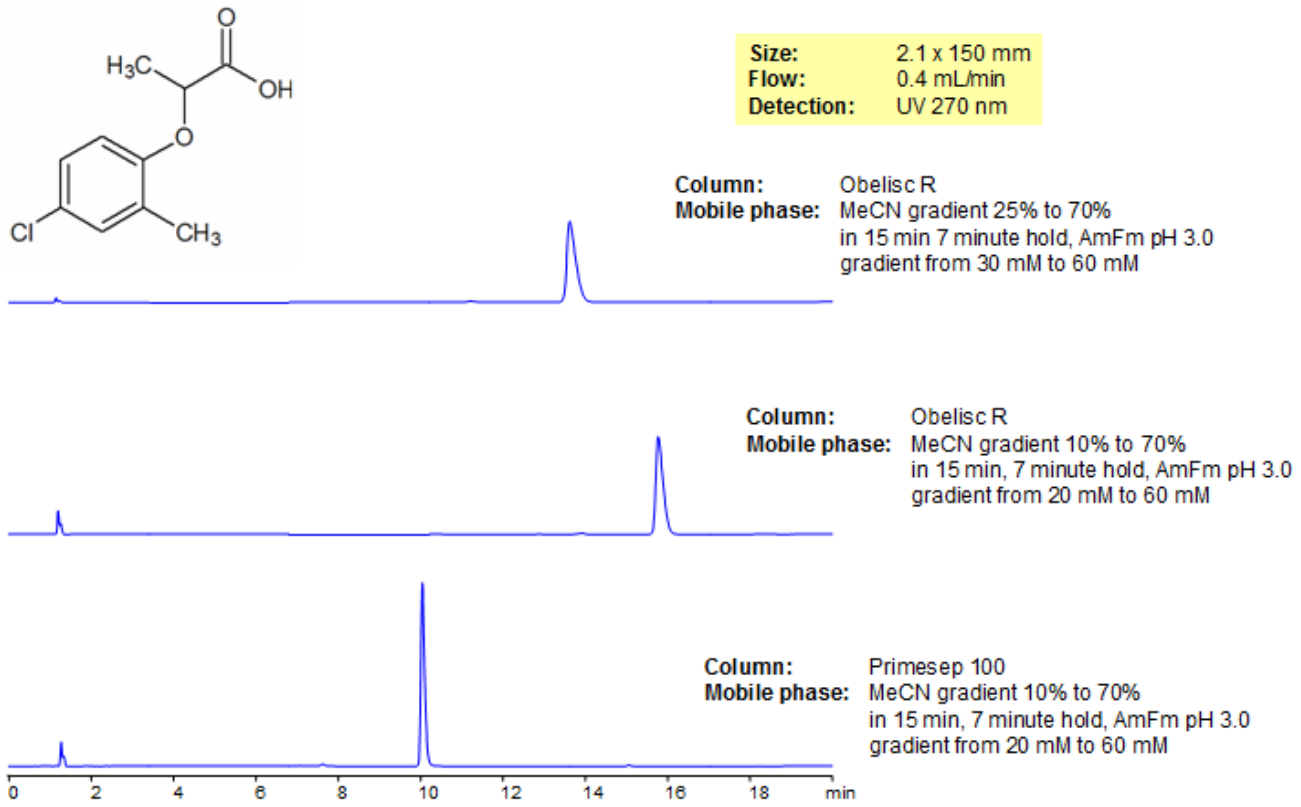
Mecoprop Analysis on Primesep and Obelisc Mixed-Mode HPLC Columns

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

Chromatogram



Description

Mecoprop or methylchlorophenoxypropionic acid (MCPP) is a common herbicide found in many weed-killing/fertilizer products. The EURL (European Union Reference Laboratory) placed mecoprop in an Analysis of Acidic Pesticides using QueChERS method. Obelisc R and Primesep 100 were used to retain mecoprop, each with unique selectivity due to multiple modes of separation. Obelisc R contains embedded ion-pairing groups and a long hydrophobic chain, while Primesep 100 contains acidic ion-pairing groups. Method is LC/MS compatible and capable of retaining many different 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	Insecticide, Herbicide, Fungicide, Hydrophobic, Ionizable
Analyzing Compounds	Mecoprop

HPLC Column Used

Primesep 100, 2.1×150 mm, 5 µm, 100A

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