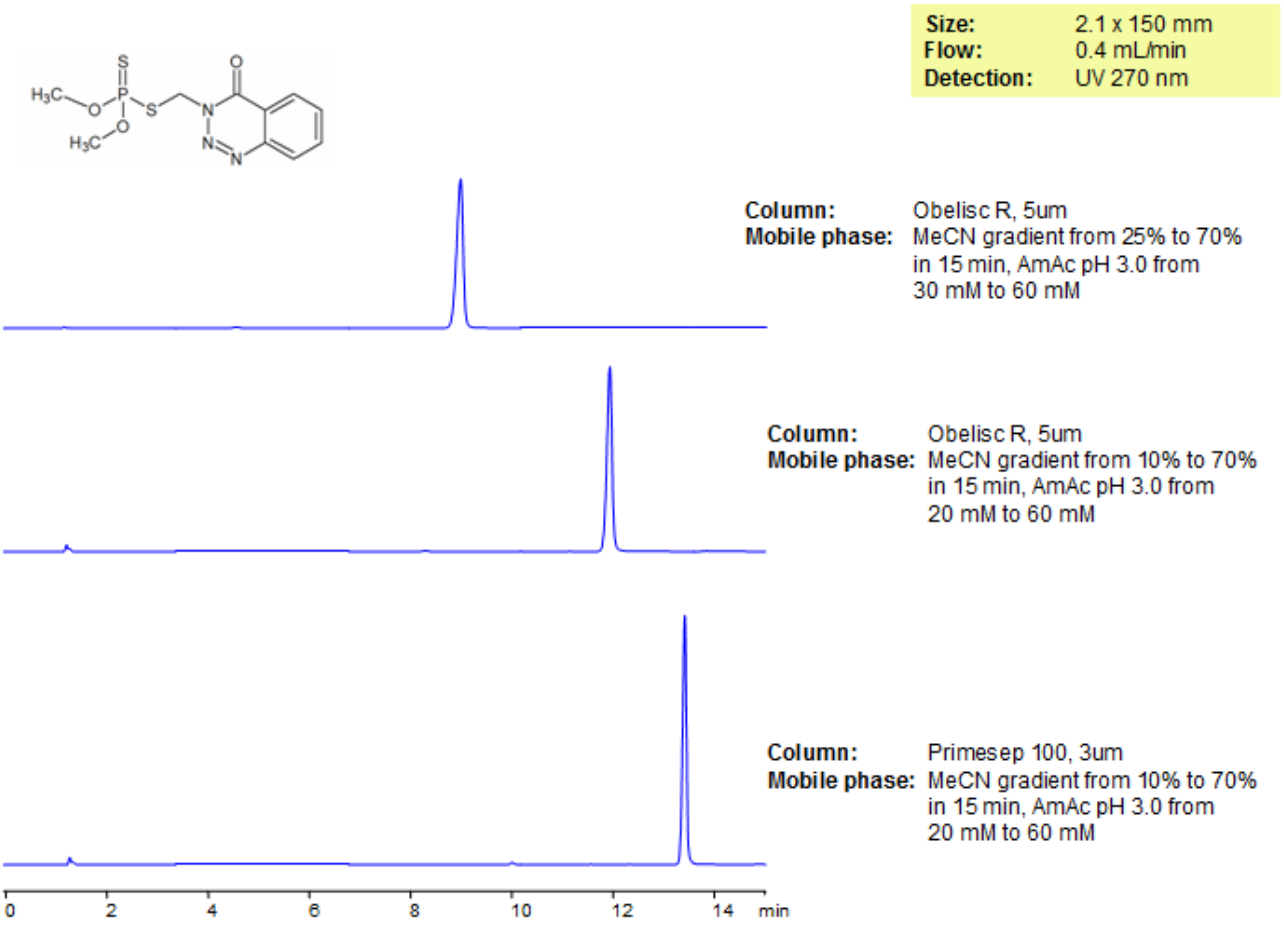
Controlling Retention of Azinphos-ethyl on Primesep and Obelisc HPLC Columns

https://sielc.com/Application-Controlling-Retention-of-Azinphos-ethyl-on-Primesep-and-Obelisc-HPLC-Columns

Chromatogram



Description

Azinphos-ethyl is a toxic pesticide in the organophosphate class. It is currently on the WHO (World Health Organization) hazard classification as class IB, highly hazardous. Azinphos-methyl, a compound with two less carbons is also a pesticide and considered a target pesticide by the EURL (European Union Reference Laboratory) for the EUPT-FF9 2015 a proficiency test for the analysis of a over a hundred pesticides. This compound was separated on two different mixed-mode columns, Primesep 100 and Obelisc R. Primesep 100 is a reverse phase column that contains embedded acidic ion-pairing groups, while Obelisc R retains with long hydrophobic chains and multiple ionic pairing groups on the surface. Method is LC/MS compatible and can be replicated to analyze dozens of other pesticides.

Method Parameters

Mobile Phase	Gradient MeCN – 10-70%, 15 min
Buffer	Gradient AmAc pH 3.0- 20-60 mM, 15 min
Flow Rate	0.4 ml/min
Detection	UV, 270 nm

Class of Compounds	Insecticide, Herbicide, Fungicide, Hydrophobic, Ionizable
Analyzing Compounds	Azinphos-ethyl

HPLC Column Used

Primesep 100, 2.1×150 mm, 5 µm, 100A

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