Use of Short, Small-Particle Columns for Fast and Efficient Separations

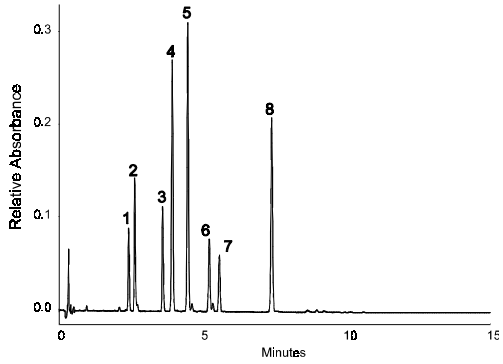
Application

Agrichemical

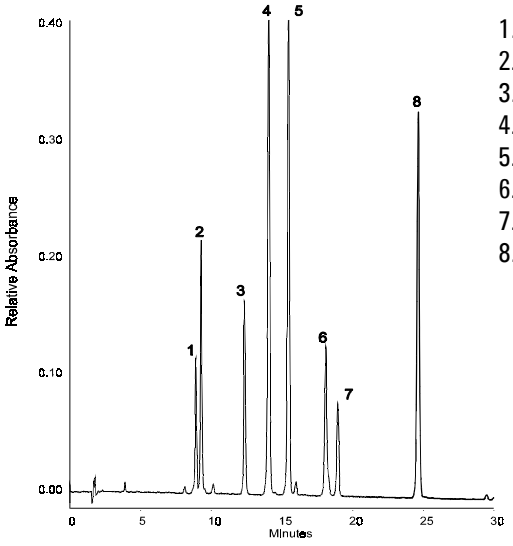
Robert Ricker

Herbicide Mixture

ZORBAX SB-C8
(4.6 x 75 mm) 3.5µm
(P/N: 866953-906)
Flow Cell 5mm, 2.5µl
20-60% B in 10 min
2 mL/min.



ZORBAX SB-C8
(4.6 x 150 mm) 5µm
(P/N: 883975-906)
Flow Cell 10mm, 8µl
20-60% B in 30 min.
1 mL/min.



1. Tebuthiuron
2. Prometon
3. Prometryne
4. Atrazine
5. Bentazon
6. Propanil
7. Propazine
8. Metolachlor

Conditions:
Column: ZORBAX SB-C8
Mobile Phase:
A H2O to pH 2.0 with TFA
B ACN

Highlights

- *High-speed, high-resolution separation of a herbicide mixture in less than 8 minutes.*
- *Smaller particle size (3.5µm) leads to separations of similar efficiency when compared to 5µm particles in columns of twice the length.*
- *Increased flow rate on the 3.5µm, 75 mm column further decreases the run-time. Efficiencies are nearly equivalent to those of the 5µm 150 mm column run at a slower flow rate.*

Agilent Technologies

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