

High-Speed Separation of Pesticide Mixture

Application
Environmental
Robert Ricker

Columns with particle sizes under 5 μm and columns with dimensions up to ten-times smaller than standard analytical sized columns are ideal for high-speed analyses. In this application, smaller particles and column dimensions are used to resolve six pesticides in less than two minutes.

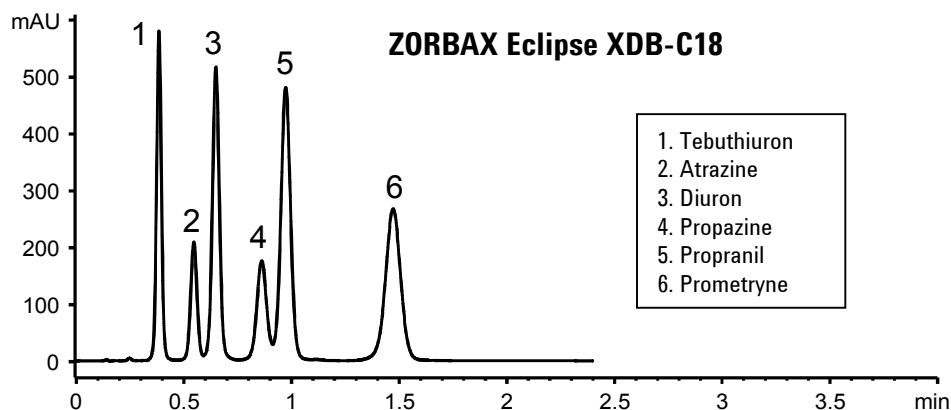
Extra-column volume is a crucial factor in chromatographic performance when using low volume columns. In this example, no modification to a modern instrument (plumbing or flow cell) is necessary.

Highlights

- Reducing column length and particle size simultaneously can:
 - Reduce analysis time
 - Maintain resolution
 - Reduce solvent use
- Higher flow rates are possible due to decreased pressure when using ZORBAX Rapid Resolution cartridge columns.

Operating Conditions:

HPLC System: Agilent 1100 with quaternary pump
Column: ZORBAX Eclipse XDB-C18 Rapid-Resolution (3.5 μm) Cartridge-Column, 4.6 x 30 mm
Agilent Part No. 931975-932
Mobile Phase: MeOH: water (60:40)
Detection: UV 254 nm with standard flow cell (13 μL)
Flow: 2 mL/ min.
Temperature: ambient



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