

High-Speed Separation of Analgesics

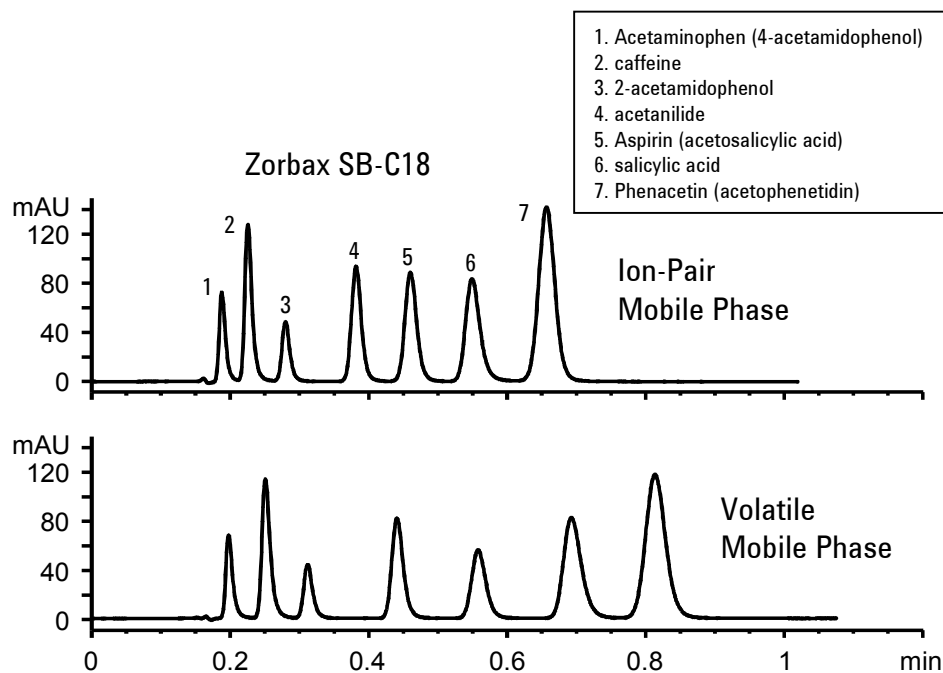
Application
Pharmaceutical
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Columns with particle sizes under 5 μm , and columns with dimensions up to ten-times smaller than standard analytical sized columns are ideal for high-speed analyses. Here is a method that utilizes high temperature as well as smaller particles and column dimensions to resolve seven analgesics in less than one minute. For LC/MS, the volatile buffer can be used in place of the ion-pair mobile phase.

Extra-column volume is a crucial factor in chromatographic performance. Here, modification to the instrument is not necessary for good resolution.

Highlights

- Reducing column length and particle size, simultaneously, can:
 - Reduce analysis time
 - Maintain resolution
 - Reduce solvent use
- Use of high temperature helps to reduce run times.
- ZORBAX SB-C18 can operate at higher temperatures and lower pH than other commercial reversed phase columns.



Conditions: HPLC System: Agilent 1100 with quaternary pump
Detector: UV 275 nm with standard flow cell (13 μL)
Column: ZORBAX StableBond-C18 Rapid-Resolution (3.5 μm) Cartridge-Column, 4.6 x 30 mm, Agilent P/N: 833975-902
Mobile Phase: 1mM octane sulfonic acid, Na salt, pH 2.5, or 1% formic acid: ACN (80:20)
Flow: 2 mL/ min.; Inj. Volume: 1 μL ; Temperature: 70°C



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