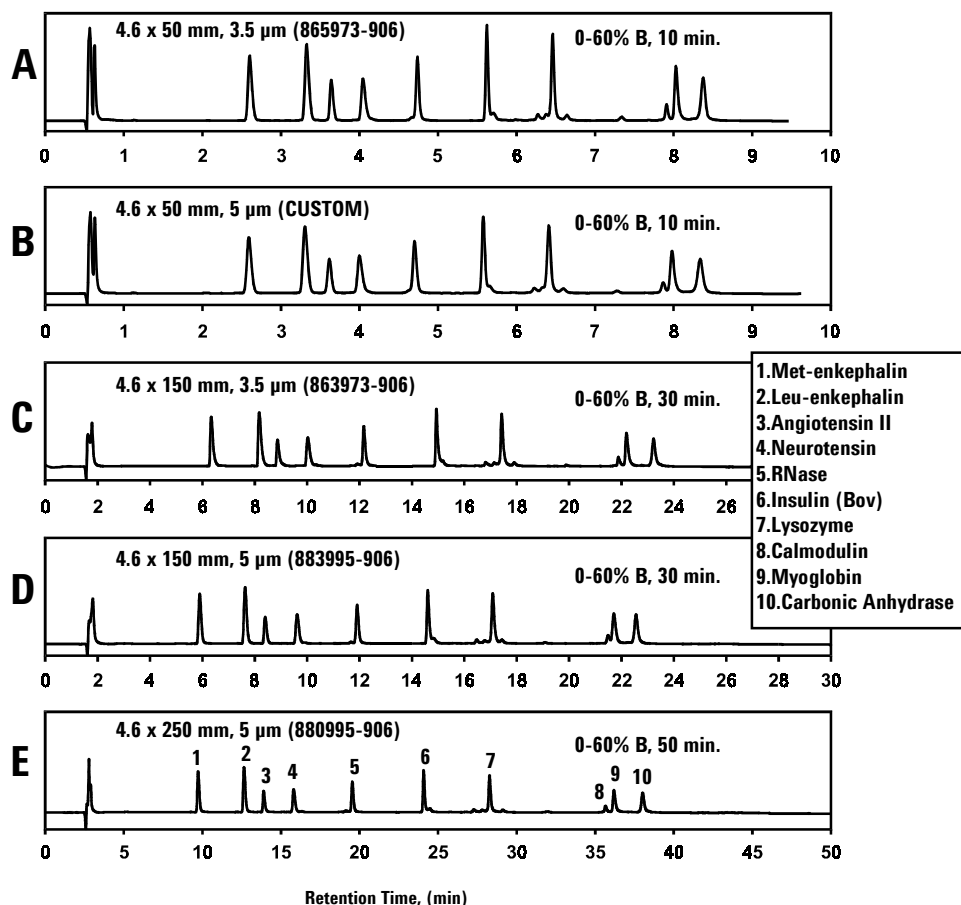




Use of Column Configuration to Increase Resolution and Decrease Run Time

Application
Technical
Robert Ricker

When developing chromatographic separations, it is becoming increasingly critical to obtain maximal resolution in the shortest amount of time. New technologies for making reliable 3.5 μm column packings allows the chromatographer to obtain higher resolution with the same run time or to reduce run times without loss in resolution.



Conditions:
ZORBAX 300SB-C8 Columns
Mobile Phase: A: 95% ACN : 5% H₂O, 0.1% TFA; B: 5% ACN : 95% H₂O, 0.085% TFA
Injection 10 μL , 1 mL/min, 35°C, Detect. UV (245 nm)

Highlights

- Transfer of separations to smaller particle-size columns results in increased resolution and peak height. Compare panels A-B, C-D (peaks 8 and 9).
- Transfer of methods to smaller particle-size columns (5-3.5 μm) allows shorter columns and reduced retention times with little or no loss of resolution. Compare panels D-A and E-C, respectively.



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