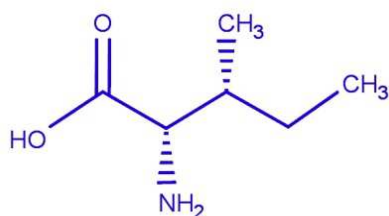


Cool Applications

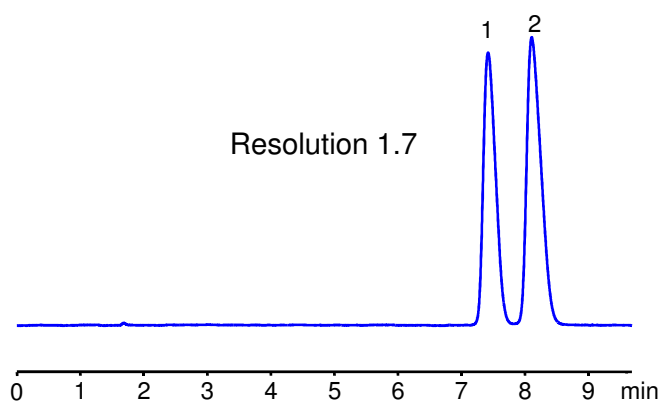
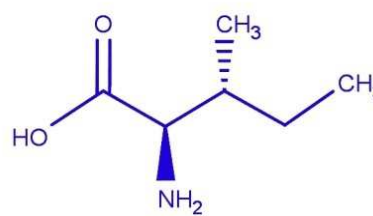
"Making Tough LC Applications Look Cool"

HPLC Separation of Allo-isoleucine and Isoleucine

1. Allo-isoleucine

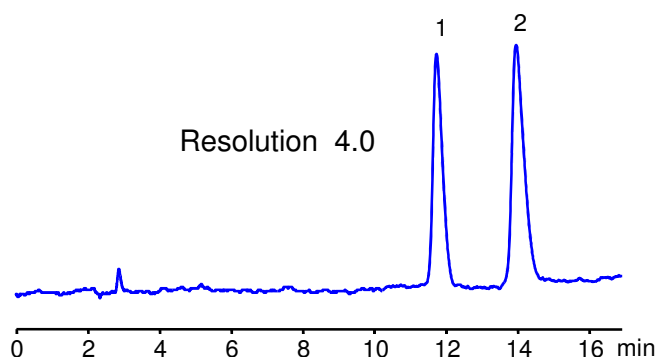


2. Isoleucine



Column: Primesep 200
Part number: 200-46.150.0510
Column size: 4.6x150 mm, 5 μ m
Mobile phase: 20% ACN with 0.2% formic acid
Flow rate: 1 ml/min
Detection: CAD

Column: Primesep 200
Part number: 200-46.150.0510
Column size: 4.6x150 mm, 5 μ m
Mobile phase: 20% ACN
Flow rate: 1 ml/min
Detection: 200 nm



Application Comments

Diastereoisomers are difficult to resolve using traditional single mode separation chromatography due to their similar interaction with stationary phase as a result of their similar structure. However in mixed-mode chromatography it is often an easy task. When more than one mode of interaction is involved (e.g. hydrophobic and ion-exchange) then small differences in molecule structure can play significant roles in retention and resolution as a result. In this example isoleucine and an allo-isoleucine were separated on mixed-mode Primesep 200 column with simple mobile phase. The conditions are suitable for low-UV or MS (ELSD, CAD) detection.