

Webinar on

Determining a Rational HPLC/UHPLC Selectivity Starting Point

Learning Objectives

- The types of interactions and structures that are influenced by them
- Bonded phase structures
- Choosing between various reversed or normal phases for selectivity
- Other column effects
- Mobile phase effects
- Elution order and predicting it
- Gradient elution and gradient shapes



Selectivity in a liquid chromatography (LC) separation is the ability to separate a molecule from other similarly structured compounds, such as conformational, positional, and optical isomers.

PRESENTED BY:

John C. Fetzer has had over 30-year experience in laboratory compliance, including developing methods, writing SOPs, training, and auditing. He has served on the editorial advisory boards of the Journal of Chromatography, Analytical Chemistry, and Analytical and Bioanalytical Chemistry. He has published over 50 peerreviewed articles on liquid chromatography, with many dealing on the mechanisms of separation.

On-Demand Webinar Duration : 90 Minutes Price: \$200

Webinar Description

Selectivity in a liquid chromatography (LC) separation is the ability to separate a molecule from other similarly structured compounds, such as conformational, positional, and optical isomers. Columns do this in a variety of ways that depend on the structural differences between the key target molecules. This is most commonly done by tailoring the column's stationary phase so that the different target molecules interact either in different ways or in different strengths. The mobile-phase composition also can influence selectivity and retention mechanisms. For example, methanol and acetonitrile often have similar elution strengths in reversed-phase LC. But methanol can hydrogen bond but is a weak dipole, while acetonitrile cannot and id a strong dipole. Analogous differences for other possible solvent pairs are key to certain separations.



Who Should Attend ?

Those who develop, maintain and operate LC methodologies



Why Should Attend ?

LC separations are critical and difficult. Understand how separation works, ways to monitor performance, and symptoms of potential problems all help to maintain top-level performance. A separation is a competition between the analytes' specific properties and those of the stationary and mobile phases. Changing either or both phases can increase or decrease separation and selectivity. There are numerous variables for each. A systematic examination of the difference between analyte structures can create possible good choices of stationary and mobile phases that result in acceptable chromatograms.



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