



High Pressure Liquid Chromatography Using Carbon-Coated Silica

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High pressure liquid chromatography (HPLC) stationary phases based on carbon-coated silica have better mechanical strength and retentivity than pure carbon phases which makes them ideal for two-dimensional liquid chromatography. Carbon stationary phase results in unique selectivity for polar and non-polar compounds as well as structural and stereoisomers. Carbon coated silica also results in higher loadability for HPLC. This method produces materials with a greater amount of surface area than prior processes that used carbon-coated silica. Carbon-coated silica has applications in HPLC and two-dimensional liquid chromatography.

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Technology ID

20090028

Category

Engineering & Physical Sciences/Chemicals
Engineering & Physical Sciences/Instrumentation, Sensors & Controls
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FEATURES AND BENEFITS OF CARBON-COATED SILICA HPLC STATIONARY PHASE

- Due to its increased mechanical strength, the technology can be used at higher pressures than competing carbon adsorbents
- Improved retentivity and higher loadability due to the high surface area
- Better separation of stereoisomers when compared to other carbon materials
- Excellent stability in acid and basic media
- Applications in two-dimensional liquid chromatography

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