



# High Pressure Liquid Chromatography Using Carbon-Coated Silica

Technology No. 20090028

**IP Status:** Issued US Patent; **Application #:** 13/699,992

## High Pressure Liquid Chromatography Using Carbon-coated Silica

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.

### MN-IP Try and Buy

#### Try

- Trial fee is \$5,000 for a six month license

#### Buy

- \$30,000 conversion fee (TRY to BUY)
- No patent costs
- Royalty rate of 3% (2% for MN company)
- Royalty free for first \$1M in sales

### 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

## **Researchers**

Peter W. Carr, PhD

*Professor, Analytical Chemistry, Environmental Chemistry, Materials Chemistry*

[External Link](http://www.chem.umn.edu) (www.chem.umn.edu)

<https://license.umn.edu/product/high-pressure-liquid-chromatography-using-carbon-coated-silica>