



# The World's First Circular Dichroism Detector For UHPLC

By Kristen Burkhardt / January 7, 2008

## The World's First Circular Dichroism Detector for Ultra High Pressure Liquid Chromatography

Chiral separation has become one of the most important application areas in HPLC, including the use of ultra-high pressure HPLC (X-LC®). The increasing demand for chiral chromatography in various fields, such as drug analysis, drug discovery, biochemical analysis, natural product analysis, organic synthesis, etc. have resulted in a parallel demand for optimized chiral separations and more sensitive detection methods. Recent advances in chiral column technology are boosting the use of chiral chromatography in a greater number of laboratories; however, advances in chiral detection technology have only recently met the required demands in terms of sensitivity and selectivity.

Circular Dichroism (CD) is based upon the differential absorption of right and left circularly polarized light as a result of a chiral chromophore and is a much more specific technique than Optical Rotation (OR) or Polarimetry techniques. CD detectors can provide a negative or positive signal based on the chirality of the eluting molecule, thus providing positive identification of the molecular chirality, unlike conventional UV, RI or Fluorescence detectors which cannot differentiate between the chiral molecules.

JASCO developed the new 3195CD Circular Dichroism Chiral Detector as an innovative CD detector for HPLC systems including the JASCO X-LC systems, using the same technology applied in conventional CD spectropolarimeters. The 3195CD enables highly sensitive and selective detections of chiral compounds, simultaneously determining both the CD and UV absorption of the sample in the same cell, and determines optical isomer separation and purity. To meet X-LC requirements, the 3195CD features a high speed sampling rate of 50 data points/sec, for both the CD and UV signals, and the specially designed flow cell minimizes peak broadening.

For more information, contact JASCO at 800-333-5272 or visit our website at [www.jascoinc.com](http://www.jascoinc.com)

### About the Author

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