

**FOR IMMEDIATE RELEASE**

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### ZirChrom Separations Inc. Unveils New Sub-2 $\mu$ m Particles

*The superior physical and chemical stability of ZirChrom® phases allow for the full realization of the potential of sub-2 micron particles. This increased stability allows the average HPLC user to take advantage of the increased efficiency provided by the smaller particles without the use of specialized UHPLC instrumentation.*

(Anoka, MN) – (August 3, 2009) The ability of chromatographers to make practical use of the promised speed and efficiency benefits of sub-2 micron particles has long been hindered by the need for specialized ultra high-pressure liquid chromatographic (UHPLC) instrumentation. The superior selectivity and stability of ZirChrom®-PBD enables a much wider temperature (up to 150 °C) and pH (pH 1 – 14) range for method development. Elevated temperature speeds up separations through the following three main effects: First, higher temperature increases the diffusion rate of analytes minimizing any losses in efficiency at higher flow rates. Second, at elevated temperature, the kinetics of the faster interactions between the analytes and stationary phase will lower the overall analysis time; often reducing or eliminating peak tailing. Finally, the viscosity of the mobile phase is decreased, enabling higher flow rates with existing equipment without increasing backpressure. The decrease in mobile phase viscosity provided by using ZirChrom® phases at high temperature is especially important for method development with sub-2 micron particles as it helps to overcome the higher back pressures inherent in small particle HPLC and allows the average user to take advantage of the increased efficiency provided by the smaller particles without the use of specialized UHPLC instrumentation.

ZirChrom currently offers sub-2 micron particles in three of its most popular phases: ZirChrom®-PBD, ZirChrom®-PHASE and ZirChrom®-CARB. Sub-2 micron particles are available as bulk particles or packed guard, analytical, or micro-bore HPLC columns.

#### About ZirChrom Separations Inc.

ZirChrom Separations, Inc. ([www.zirchrom.com](http://www.zirchrom.com)) was founded in 1995 and is located in Anoka, Minnesota. The company offers a complete line of zirconia and titania-based high performance liquid chromatography (HPLC) columns to pharmaceutical, biotechnology, industrial, and university laboratories. ZirChrom's products have outstanding stability and unique selectivity, expanding the operating range available to scientist for the most challenging HPLC applications.

