

## **Introducing UltraPerformance Convergence Chromatography**

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Compressed carbon dioxide (CO<sub>2</sub>), the primary mobile phase for UPC<sup>2</sup>, offers numerous major advantages over liquid mobile phases or carrier gases that are used with LC and GC. For one, CO<sub>2</sub> alone, or in combination with a co-solvent, is a low viscosity mobile phase that achieves higher diffusion rates and enhanced mass transfer than liquids used in HPLC. For another, when compared to GC, CO<sub>2</sub> alone is a mobile phase that allows separations to occur at a much lower temperature.

Along with sub-2 μm particle column chemistries, Waters ACQUITY UPC<sup>2</sup> System gives scientists the ability to precisely vary mobile phase strength, pressure, and temperature. With this ability to fine-tune the resolving power and selectivity of the system, scientists can exercise better control over the retention of analytes for separating, detecting and quantifying. Whether analyzing natural products, traditional medicines, drugs, food additives or contaminants, pesticides, surfactants, polymer additives, or biofuels- all compounds that are often difficult to separate by any other means. The ACQUITY UPC<sup>2</sup> System now takes its place alongside LC and GC as a powerful complementary technique for taking on the laboratory's toughest separations challenges.