

Migrating Traditional Methods to Sub-two μm Particles

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High performance liquid chromatographic (HPLC) methods are commonly used for qualitative and quantitative analysis in a wide variety of applications. Over the years, HPLC column evolution has led to significant improvements in efficiency, peak capacity, sample throughput, and decreases in cycle times. Much of the improvement is the result of the use of reduced particle sizes from $10\mu\text{m}$, in use in the 1970's, to sub-two μm particles (VHPLC) in use today, and a concurrent reduction in column dimensions. However, in order to take full advantage of this evolution, methods must be converted properly to maintain or increase the amount of information obtained from a separation in terms of sensitivity, resolution and speed.

This presentation will discuss how to properly scale a chromatographic separation to convert or migrate to conventional HPLC methods on 3-5 μm columns to the smaller dimensions and particles necessary to fully capitalize on sub-two μm particle (VHPLC) technology.