

LAB NOTES

Method Development Using Solid-Core Particle Columns



Solid-core particles are becoming increasingly popular for HPLC and UHPLC separations and can offer distinct advantages compared to traditional, fully porous particles. Solid-core particles offer performance similar to smaller, fully porous particles without the associated and potentially prohibitive increase in column backpressure. It is therefore often possible to substantially reduce analytical run times using solid-core particle technology, thereby improving the efficiency and cost-effectiveness of method development activities.

When developing new reversed-phase separations using solid-core particles, the same principles and approaches can be used as with fully porous particles. Existing method development protocols, such as column and mobile phase screening, are fully transferable to solid-core particles. The links below explain how the optimized solid-core particle morphology allows separations to be performed with increased resolution, speed, and sensitivity than with comparably sized fully porous particles. Practical aspects of working with solid-core particles are assessed, along with approaches that can be utilized to streamline and accelerate reversed-phase method development. In addition, the benefits of exploring high-pH-mobile phases as a powerful method development tool, using high-pH-stable columns, is discussed.

AKN0018

Step-by-Step Protocol for Streamlined Reversed-Phase Method Development
using Avantor® ACE® MDKs

AKN0019

Solid-Core Technology

WEBCAST

Theory and Practice of Developing LC Methods with Solid-Core Particle Columns