

Robust & Reproducible Sample Preparation for LC/MS

Porvair Sciences has published an in-depth application report demonstrating how their Microlute® CP Reverse Phase Solid Phase Extraction (SPE) microplates provide a robust and **highly reproducible SPE LC-MS sample preparation methodology** for a range of neutral, acidic, and basic analytes..

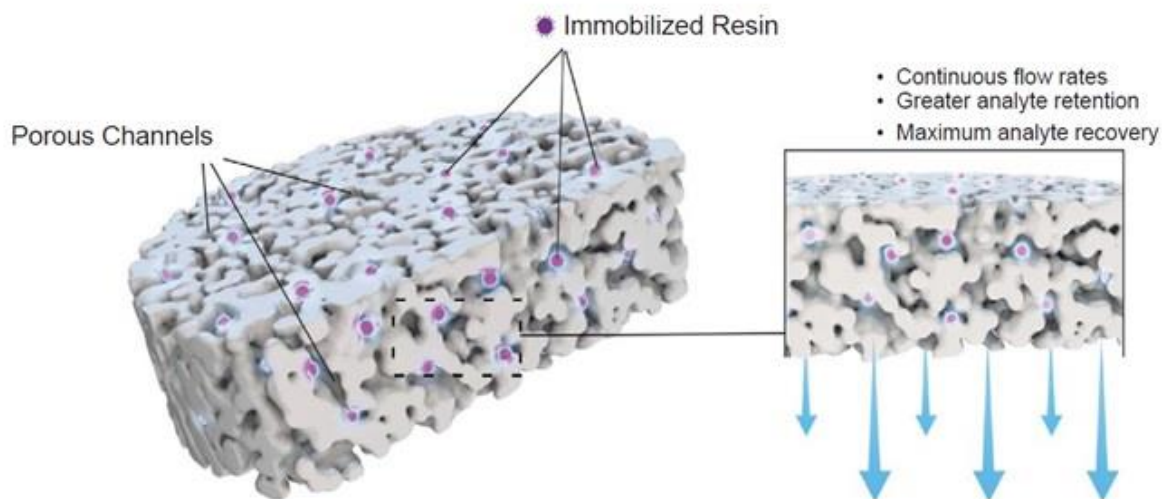


Image captions: A: Microlute CP hybrid Solid Phase Extraction technology

As a sample preparation method

- Solid Phase Extraction is widely acknowledged as a 'go to' tool for the clean-up of samples before analysis by hyphenated techniques such as LC/MS or GC/MS. Solid Phase Extraction offers several advantages to the analyst, including less system downtime and troubleshooting, cleaner chromatograms with a reduction of contaminating compounds, and greater reproducible analyte recoveries. Unfortunately, traditional SPE methods rely upon loose-filled resins which often create problems such as voids in the sorbent beds leading to channelling and inconsistent flow-through of solutions. These undesirable effects lead to reduced interactions between analytes and the active resin resulting in inconsistent results and poor analyte recovery

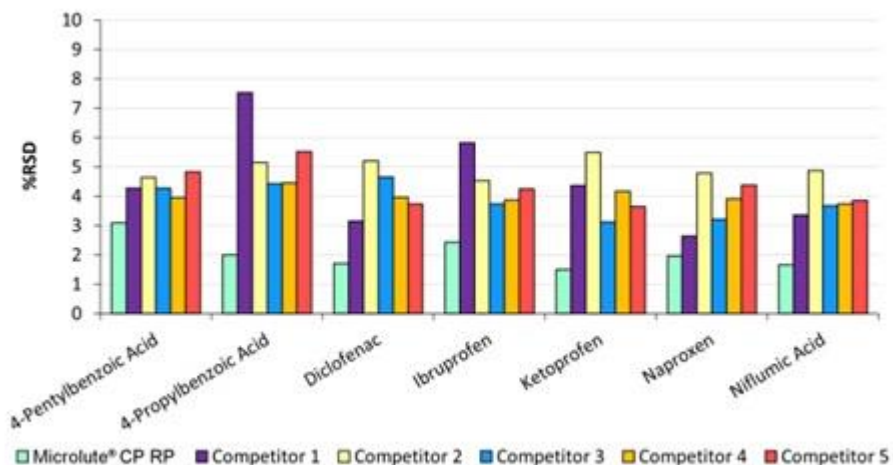


Image captions: B: Acidic analyte recovery - %RSD comparison of Microlute CP against competitor SPE products

Designed

to overcome these shortfalls - Microlute® CP SPE microplates from Porvair Sciences, incorporate a unique, polymer structure made up of an interconnected network of evenly distributed pores combined with retentive media. This hybrid technology ensures even liquid flow rates throughout the SPE process, which leads to sufficient time for Van der Waals forces of interaction to take place between the solid phase sorbent and the analytes resulting in a highly reproducible SPE method.



Image captions: : C Microlute CP products

Experimental data

is provided in the application report to show how Microlute® CP RP 96 well microplates selectively retain and elute a wide range of neutral, basic and acidic compounds. The data demonstrate how percentage relative standard deviation values from the Microlute® CP are on average significantly lower than using other commercial SPE plates, thereby producing more reproducible results. In addition, the application notedemonstrates that no analyte is lost in the load step of the SPE process leading to high recovery values for all types of compounds. The Microlute® CP RP 96 well-plate for solid phase extractions is also shown to offer significant benefits for the recovery of hydrophobic basic analytes.

To read the application report

in full please visit <https://www.microplates.com/resources/evaluation-of-the-microlute-cp-reversed-phase-rp-solid-phase-extraction-96-well-plate-by-hplc-ms/>. For further information on Microlute® CP Reverse Phase Solid Phase Extraction (SPE) microplates please visit <https://www.microplates.com/microlute-cp/> or contact Porvair Sciences at hello@porvairsciences.com or call +44 1978 666222 / +1 800 552 3696.

Porvair Sciences Ltd.,

together with JG Finneran and Porvair Kbiosystems are global manufacturers of consumables and instruments for life science and analytical workflows. From microplate technologies, glass vials, assay kits to automated laboratory equipment, the group is committed to equipping customers with high quality products for improved analysis and increased productivity to accelerate scientific discovery with integrity.

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