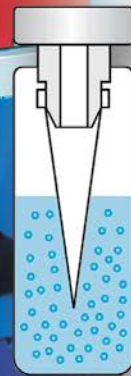


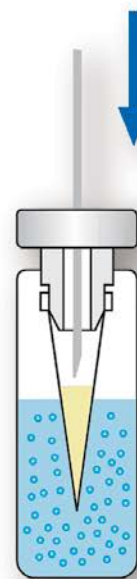


# MPS Automated Membrane Extraction

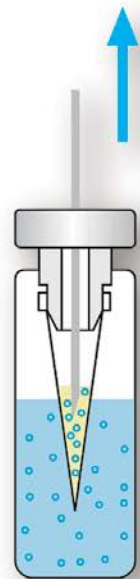
Automated liquid-liquid membrane extraction for challenging matrices



*Sample with membrane inserted*



*Addition of extraction solvent*



*Removal of solvent extract for injection*



**GERSTEL**

## MPS Membrane Extraction Option\*



The GERSTEL MultiPurpose Sampler (MPS) Membrane Extraction option enables automated extraction and chromatographic analysis of samples with very complex and challenging matrices. Extensive manual clean-up steps can be eliminated.



The Membrane Extraction technique is based on extraction of organic analytes across a polymer membrane from a liquid sample phase into a liquid solvent phase. Since the liquid phases are not in direct contact with each other, liquid-liquid extractions of dirty matrices such as samples containing solids, suspended particles, charged compounds or high molecular weight compounds are easily performed. The Membrane Extraction technique is also useful for sample-solvent combinations in which phase separation is difficult to achieve, such as samples which contain



fats, soaps, detergents, or other emulsifiers. Extraction of an aqueous sample with a polar or even water miscible solvent is also made possible using this technique.

### SIMPLE PROCEDURE

The liquid sample is placed into a vial. A special conical membrane is inserted, and the vial is capped. The rest of the procedure is completely automated by the MPS, including solvent addition, vial heating and agitation, solvent extract withdrawal and final injection for either GC or LC analysis.

\*The procedure was developed by UFZ Leipzig Halle GmbH in close cooperation with GERSTEL and is marketed under license from UFZ Leipzig Halle GmbH.



### GERSTEL Maestro Software with integrated PrepBuilder functions.

The complete Membrane Extraction and sample injection procedure is quickly set up, using the straight-forward PrepBuilder functions of the GERSTEL Maestro software.

## Important Advantages of the GERSTEL Membrane Extraction Technology

- ▶ **Membrane extraction of organic analytes**
- ▶ **Easy extraction of complex matrices. Excellent sample cleanup effect. Low solvent consumption.**
- ▶ **Fully automated liquid-liquid extraction with MPS 2/3**
- ▶ **High sample throughput. Easy upgrade option for existing MPS 2/3 systems.**



For detailed information on other GERSTEL products and systems as well as a complete list of available publications, please visit our web page at [www.gerstel.com](http://www.gerstel.com)



## Ask us how GERSTEL technology can benefit you!

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