GERSTEL

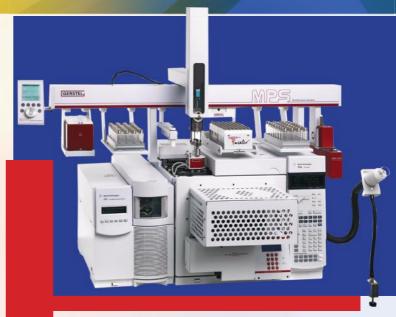# CUSTOMER FOCUSED SOLUTIONS FOR SAMPLE PREPARATION GC/MS AND LC/MS

MultiPurpose Sampler MPS
Versatile autosampler and sample preparation robot

Modern laboratory processes frequently offer significant potential for improvement in the fields of sample preparation and sample introduction. Improving productivity and performance while cutting per sample cost is realistic provided you have chosen an autosampler that rises to the task and can be adapted to meet new challenges as demands change. The GERSTEL MultiPurpose Sampler MPS enables highly efficient automation of sample preparation and sample introduction for GC/MS and LC/MS.

Unique solutions for automated sample preparation.

Analytical laboratories in all branches of science and industry throughout the world use our products for a wide range of interesting applications.

These include : Flavor and fragrance, Automotive, Semiconductor and Electronics, Forensic science and criminology, Food, Pharmaceutical, Chemicals and polymers, Environmental

DPX
Automated Disposable Pipette Extraction

Disposable Pipette Extraction (DPX) is a fast and efficient SPE technique used for a wide range of applications such as drugs of abuse, therapeutic drug monitoring, comprehensive screening, pharmacology studies, as well as pesticides in fruit and vegetables. DPX is based on unique and patented SPE devices: Pipette tips that incorporate loosely contained sorbent material, which is mixed with the sample solution. Turbulent air bubble mixing creates a suspension of sorbent in the sample ensuring optimal contact and highly efficient extraction. DPX is performed much faster than traditional SPE techniques because timeconsuming conditioning steps are not required. Elution requires only a small amount of solvent, which means that DPX effectively provides a concentration step. For many applications, such as pesticides in fruit and vegetables, solvent evaporation is not required. DPX methods are readily automated using the GERSTEL MPS, which can introduce the extract into a GC/MS or LC/MS system. Additional sample preparation steps can be performed, including derivatization or adding an internal standard. The analyst only needs to place the samples in the MPS autosampler and activate the sequence table from the MAESTRO software. Everything else is handled automatically including GC/MS and LC/MS analysis.

Test procedure

The PDMS coated GERSTEL Twister is stirred in the sample for several minutes. Analytes of interest come into contact with the PDMS phase and are extracted. Without further sample preparation, up to 196 Twisters are placed in a GERSTEL. MPS 2 Autosampler fitted with Twister Option and a Twister Desorption Unit (TDU).- The TDU is described in a separate brochure. Alternatively the GERSTEL TDS 2/TDS A Thermal Desorption System can automatically desorb up to 20 Twisters. Analytes are thermally desorbed, focussed in the inlet, and transferred to the GC capillary column.

GERSTEL-Twister
A pioneering development: GC analysis without sample preparation

Simple and ingenious

Allows determination of organic compounds inaqueous matrices by gas chromatography without sample preparation. It provides 1000 times lower detection limits than solid phase microextraction (SPME): The GERSTEL Twister - a polydimethylsiloxane (PDMS) coated stir bar for use with common stir plates.