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*Robotic System for Automated Sample Preparation: FREESTYLE*

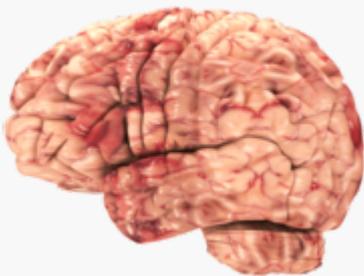
*FREESTYLE SPE*

*Bidirectional SPE*

# Bidirectional SPE (BD-SPE)

## FREESTYLE

### Bidirectional SPE - for Difficult Matrices in the Field of Forensic and Toxicology



With the sample loading of the bidirectional SPE (solid phase extraction) even very difficult matrices, like brain, can be processed automatically without supervision over 24 hours and 7 days per week. Due to the special kind of the procedure cross-contamination can be excluded.

#### The Procedure of Bidirectional SPE

The FREESTYLE robotic system aspirates the homogenised and buffered sample, e. g. brain tissue, through the LUER tip into the SPE column. The loading step, where the matrix enters the automation system, is performed in a reverse way. This means the sample, is not loaded from the top of the cartridge, but aspirated via the Luer tip into the sorbent. As the sample is discarded into the waste in the “normal” direction afterwards, it never enters the automation system, moreover it passes through the sorbent twice.

With this kind of sample loading and releasing the sample never enters the

robotic system and a contamination of one sample to the next one can be excluded.

Unwanted matrix effects are minimised. The elution of the analytes is possible with only a minimal amount of solvents. The original applied sample is collected in a vial next to the sample vial and is available for further processing if needed.

## Working Principle of BD-SPE:

Please contact us

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## Brochures

General FREESTYLE brochure ( pdf | 3 MB )  
FREESTYLE SPE forensics & toxicology brochure ( pdf | 924 KB )

## Video

FREESTYLE SPE - Automated solid phase extraction (SPE)

## Application notes

Automated determination of drugs in human blood via bidirectional solid-phase extraction ( pdf | 593 KB )

Determination of drugs in human brain via bidirectional solid-phase extraction ( pdf | 517 KB )

## Online presentation

E-seminar about the bidirectional SPE

## Press release

New sample loading for the automated sample preparation: Bidirectional SPE ( pdf | 226 KB )

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