Brilliant Automation

Automated Sample Clean-up for Pesticide Analysis

QuEChERS Method à la LCTech

The robust and cost attractive high throughput solution

A new, automated, non-dispersive approach for a **Qu**ick, **E**asy, **Ch**eap, **E**ffective, **R**ugged, and **S**afe (**QuEChERS**) method for pesticide analysis for LC-MS/MS-detection and GC-MS preparation impresses with:

- fast run times
- high throughputs
- reliable results
- high robustness in laboratory routine; 24/7
- high matrix clean-up due to non-dispersive method

The LCTech approach meets what QuEChERS implicits

The automated QuEChERS Method à la LCTech is a combination of the reliable FREESTYLE system and high-performance clean-up columns

Processing on Established Robotic System

Easy handling, robust setup, low-maintenance, and low cost of ownership

For the new QuEChERS method, the robotic platform FREESTYLE BASIC is only equipped with:

- FREESTYLE SPE module with QuEChERS upgrade

For additional on-line connection to the LC-MS/MS system (optional) with:

- FREESTYLE HPLC Direct Injection module

Already existing FREESTYLE SPE systems can be retrofitted easily and the system can be used for other SPE applications.

Robotic system FREESTYLE for new automated QuEChERS method

In Time with the LC-MS System for Perfect Sample Throughput
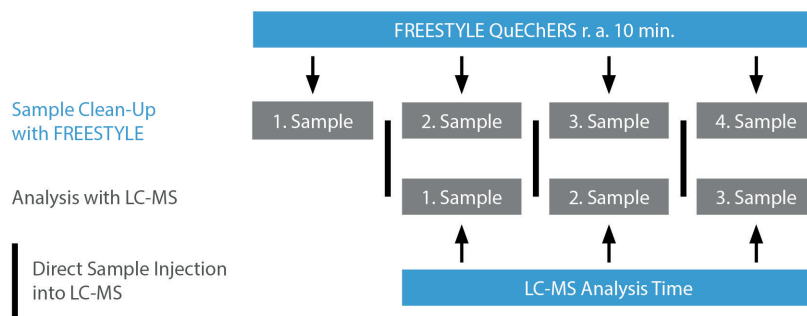
Faster, cheaper, less manual work

The QuEChERS method à la LCTech is even more straightforward than the conventional QueChERS method.

Fully automated clean-up step in r.a. 10 min. run time:

Without any manual working step

Conditioning	Loading	Elution	Aliquotation	Injection

In addition, using the optional FREESTYLE Direct Injection module, simultaneous processing of QuEChERS steps and analysis in LC-MS system is possible and achieves a perfect sample throughput.

FREESTYLE QuEChERS r. a. 10 min.

Sample Clean-Up with FREESTYLE

1. Sample	2. Sample	3. Sample	4. Sample

Analysis with LC-MS

1. Sample	2. Sample	3. Sample

Direct Sample Injection into LC-MS

LC-MS Analysis Time

HPLC Direct Injection module
for direct connection to LC-MS

Specific Small and Efficient SPE Columns

For each matrix the best column

Using miniaturized SPE columns containing a proprietary sorbent with high matrix-retension capacities result in

- Minimised ion suppression with high recoveries
- Cleaner extracts and thus better results as well as less downtime of LC-MS/MS system

Specifically adapted SPE columns by LCTech

LCTech Columns for Automated QuEChERS Method		
Pesticide I *for fruits and vegetables*	Classic QuEChERS Column	P/N 16301
Pesticide II *for tea, spices, and hops*	Special QuEChERS Column	P/N 16683
Pesticide III *for matrices with high content of fat (> 10 %)*	Extra QuEChERS Column	P/N 16685

The information contained in this brochure is based on our current knowledge and has been carefully checked.
However, since we continually work on the further development of our products, please accept texts, pictures and numbers on these pages as non-binding and exemplary only.