Pollutants in Cannabis
Sample preparation à la LCTech

LCTech helps analytical laboratories expand their testing capabilities for cannabis and cannabis-containing products for **mycotoxins** and **pesticides** with exceptional clean-up columns that can be easily automated:

Mycotoxin - Analysis

Immunoaffinity columns such as the Afla-OtaCLEAN columns for both regulated mycotoxins at once

☑ **Afla-OtaCLEAN** for simultaneous clean-up for aflatoxins B/G and ochratoxins

☑ Save time & money

☑ Best results in international round robin tests

☑ Miniaturized variant available

☑ Recovery rates show exceptional results for the toxins

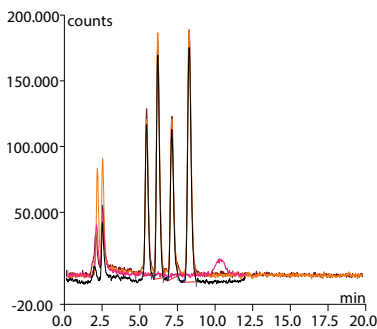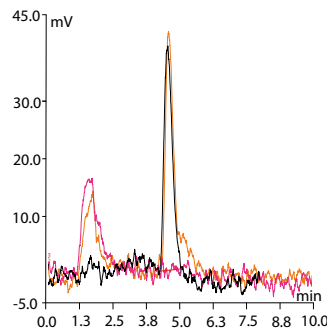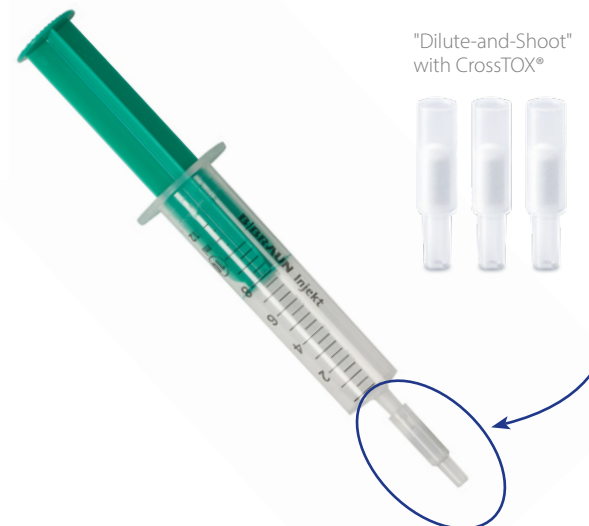OtaCLEAN SMART column

Afla- OtaCLEAN column

AflaCLEAN SMART column

Chromatogram aflatoxin B/G

200.000 counts
150.000
100.000
50.000
-20.00
min
0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0

Chromatogram ochratoxin A

45.0 mV
30.0
20.0
10.0
-5.0
min
0.0 1.3 2.5 3.8 5.0 6.3 7.5 8.8 10.0

■ *Standard 4 ng / 2 mL represents 20 ppb*   ■ *Hemp 20 ppb with Afla- OtaCLEAN*
■ *Hemp blind with Afla- OtaCLEAN*   ■ *Hemp 20 ppb with AflaCLEAN Select*

CrossTOX® columns - 17 mycotoxins in one go for LC-MS/MS-based analysis

☑ Reduced background noise during analysis

☑ Very good peak identification of Aflatoxins and others

☑ A higher sensitivity is achievable due to minimised matrix effects after concentration

☑ Significant reduction of LC-MS/MS down-times

☑ No internal standard necessary for the majority of toxins

"Dilute-and-Shoot" with CrossTOX®
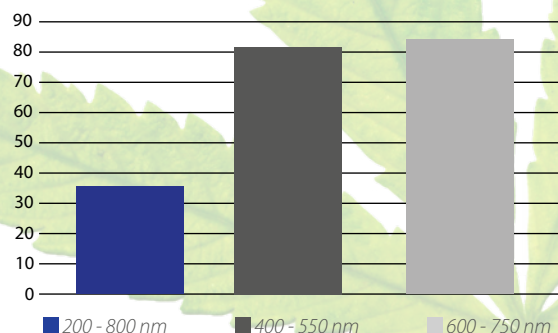
PESTICIDE CLEA

Pesticide - Analysis

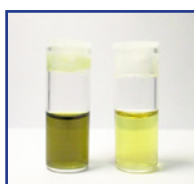## Non-dispersive QuEChERS application for pesticide analysis in cannabis

Extraction

☑ No shaking

☑ No centrifugation

☑ Up to 5 min. faster than a dispersive clean-up

☑ Improved matrix retention

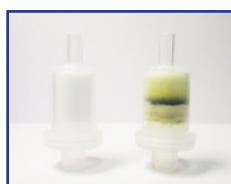☑ Less matrix load into LC-MS/MS with more injections between clean-up cycle

LC-MS/MS

sample before and after clean-up

column before and after clean-up
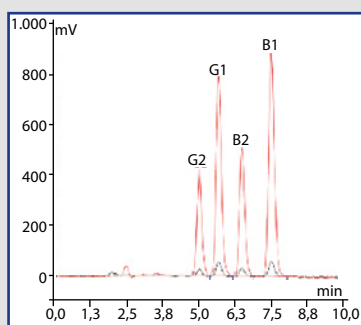
QuEChERS PESTICIDE column

Matrix Retention (Cannabis) in %

- 200 - 800 nm
- 400 - 550 nm
- 600 - 750 nm

Automate your cannabis clean-up with the
FREESTYLE robotic system

Highest Sensitivity Through Automation

Full automation using the SMART columns in the FREESTYLE ThermELUTE™ enables not only a higher sample throughput but also the highest analytical sensitivity, since the eluate is quantitatively transferred into the HPLC system.

☑ Increase your sample throughput

☑ Achieve reliable, reproducible results

☑ Increase your analytical sensitivity by a factor of 14

Chromatogram: Sensitivity gain by a factor of 14 on a 3 mL column
■ *Manual Clean-up* ■ *Automated with FREESTYLE ThemELUTE™*

FREESTYLE robotic system

Contact us for your individual offer