

# Pollutants in Cannabis

## Sample preparation à la LC Tech

LC Tech 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



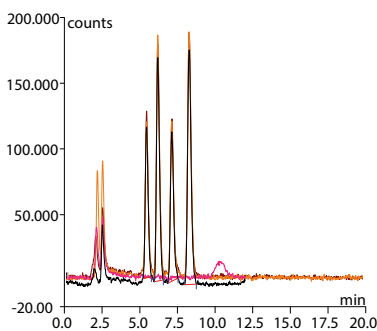
Afla- OtaCLEAN column

OtaCLEAN SMART column

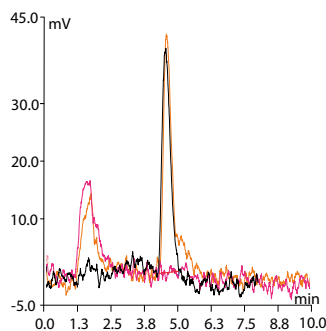


AflaCLEAN SMART column

**Chromatogram aflatoxin B/G**



**Chromatogram ochratoxin A**

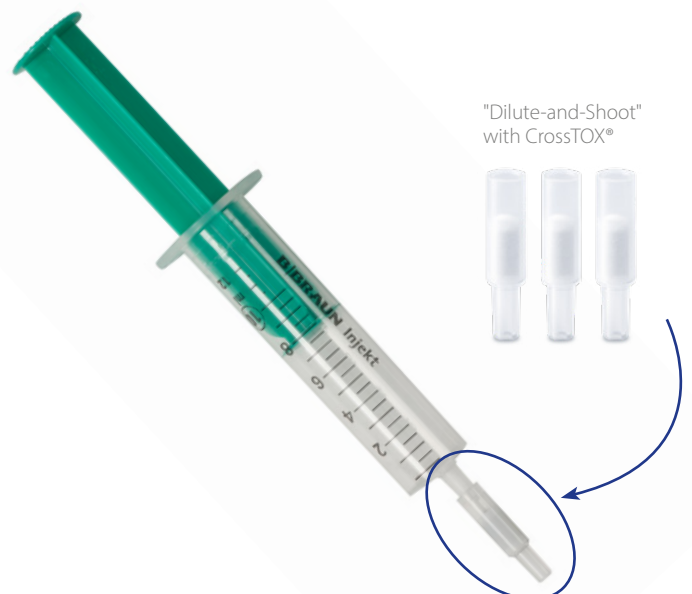


- Standard 4 ng / 2 mL represents 20 ppb
- Hemp 20 ppb with Afla- OtaCLEAN
- Hemp blind with Afla- OtaCLEAN
- Hemp 20 ppb with AflaCLEAN Select

**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 - Analysis



Non-dispersive QuEChERS application for pesticide analysis in cannabis

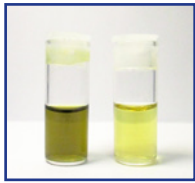
## Extraction



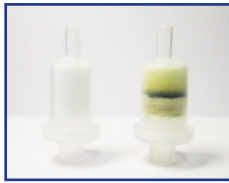
- No shaking
- No centrifugation
- Up to 5 min. faster than a dispersive clean-up
- Improved matrix retention
- Less matrix load into LC-MS/MS with more injections between clean-up cycle



## LC-MS/MS

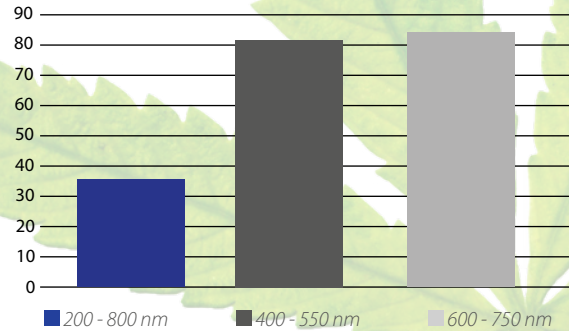


sample before and after clean-up



column before and after clean-up

## Matrix Retention (Cannabis) in %

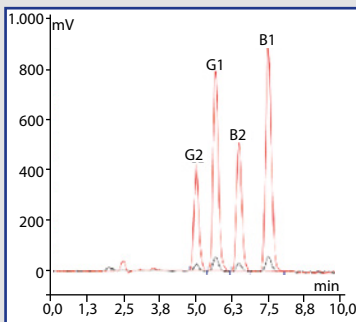


## Automate your cannabis clean-up with the FREESTYLE robotic system

### 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 ThermELUTE™



FREESTYLE robotic system

## Contact us for your individual offer



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