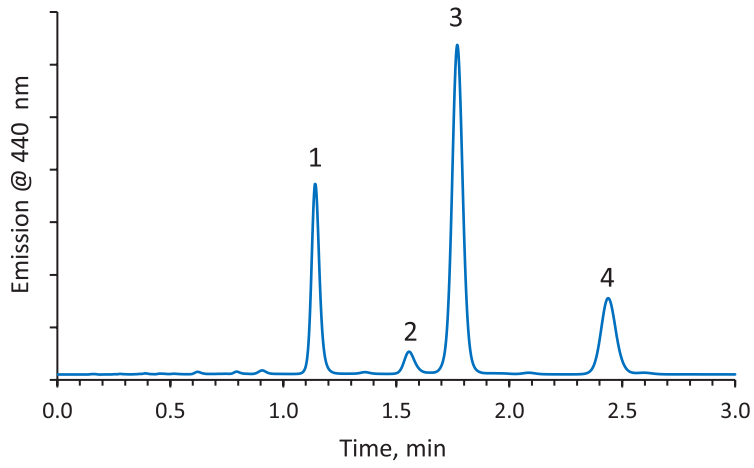
HALO®

ENVIRONMENTAL

Isocratic Separation of Aflatoxins on HALO® C18

Application Note 144-M



PEAK IDENTITIES:

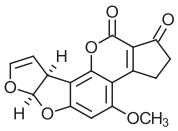
1. Aflatoxin B1
2. Aflatoxin B2
3. Aflatoxin G1
4. Aflatoxin G2

Aflatoxins are classified as mycotoxins, which are secondary metabolites produced by fungi. Under certain conditions, the fungi can grow on corn, peanuts, or tree nuts resulting in the production of aflatoxins, which are extremely toxic. A fast and sensitive method for separating four aflatoxins is demonstrated using a short HALO® C18 column.

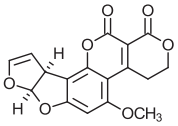
TEST CONDITIONS:

Column: HALO 90 Å C18, 2.7 µm, 2.1 x 50 mm
Part Number: 92812-402
Mobile Phase:
A: Water
B: 50/50 acetonitrile/methanol
Isocratic: 74/26 - A/B
Flow Rate: 0.8 mL/min
Pressure: 365 bar
Temperature: 30 °C
Detection: Fluorescence Excitation - 360 nm; Emission - 440 nm
Injection Volume: 5.0 µL
Sample Solvent: 70/30 water/methanol
Response Time: 0.05 sec
Data Rate: 5 Hz
Flow Cell: 3.0 µL
LC System: Shimadzu Nexera X2

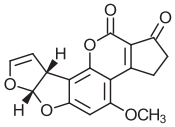
STRUCTURES:



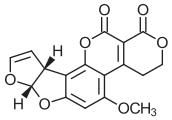
Aflatoxin B1



Aflatoxin G1



Aflatoxin B2



Aflatoxin G2