



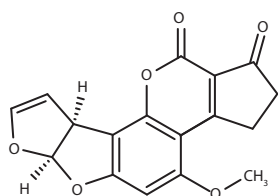
AFLATOXINS BY LC/MS

INTRODUCTION

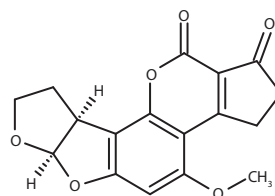
Aflatoxins are Group 1 carcinogens and are a natural product of mould. Mycotoxins are monitored worldwide and allowed concentration limits depend not only on the territory, but also on the food/feed matrix and are given by local administrations.

Substance: Aflatoxin B1, CAS number 1162-65-8
Aflatoxin B2, CAS number 7220-81-7
Aflatoxin G1, CAS number 1165-39-5
Aflatoxin G2, CAS number 7241-98-7

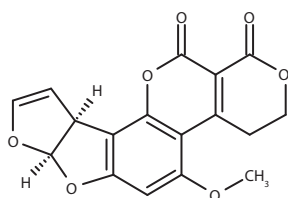
Formula: 4-Methoxy-2,3,6a,9a-tetrahydrocyclopenta[c]furo[3',2':4,5]furo[2,3-h]chromene-1,11-dione
(6aR,9aS)-4-Methoxy-2,3,6a,8,9,9a-hexahydrocyclopenta[c]furo[3',2':4,5]furo[2,3-h]chromene-1,11-dione
(7aR,10aS)-5-Methoxy-3,4,7a,10a-tetrahydro-1H,12H-furo[3',2':4,5]furo[2,3-h]pyrano[3,4-c]chromene-1,12-dione
5-Methoxy-3,4,7a,9,10,10a-hexahydro-1H,12H-furo[3',2':4,5]furo[2,3-h]pyrano[3,4-c]chromene-1,12-dione



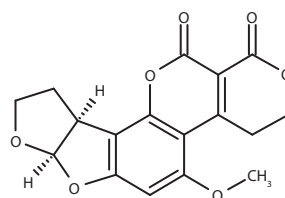
Aflatoxin B1



Aflatoxin B2



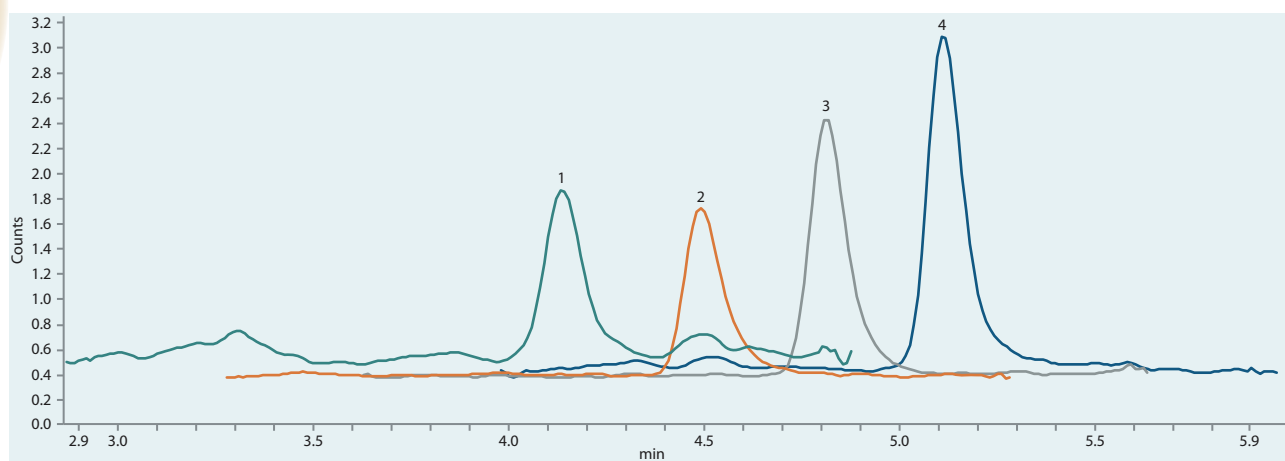
Aflatoxin G1



Aflatoxin G2



AFLATOXINS BY LC/MS



Stress test – test mixture on ARION® column

Column	ARION® Plus C18, 2.2 µm	
Dimensions	100 mm x 2.1 mm	
Part number	ARI-5720-EI21	
Mobile phase	A: 5mM ammonium formate / 0.2% formic acid B: Methanol / 0.2% formic acid	
Gradient elution	Time	A (%)
	0.0	70
	0.5	70
	8.0	0
	10.5	0
	10.6	70
Flow rate	0.35 ml/min	
Temperature	40 °C	
Analytes	1. Aflatoxin B1 2. Aflatoxin B2 3. Aflatoxin G1 4. Aflatoxin G2	

MS method:

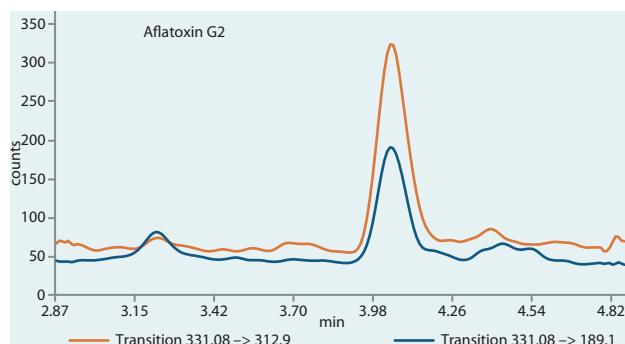
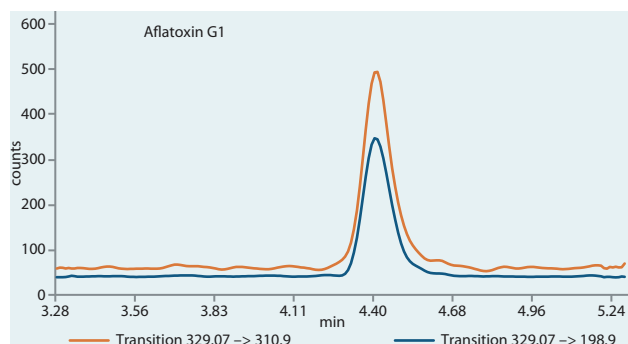
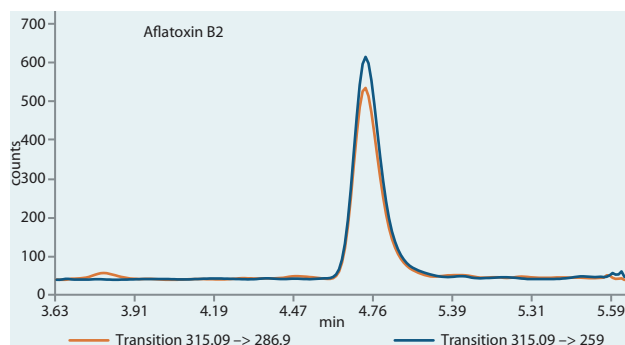
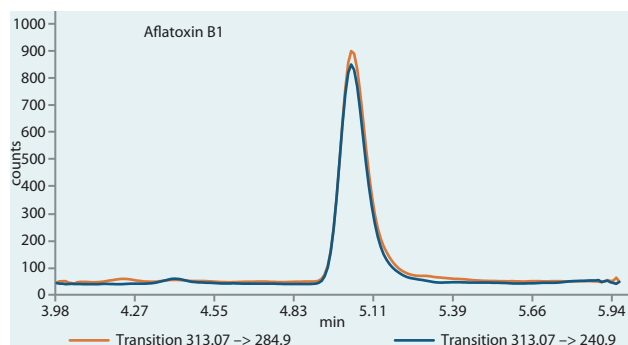
Compound name	Precursor Ion	Product Ion	Collision energy
Aflatoxin B1	313.07	284.9	25
Aflatoxin B1	313.07	240.9	45
Aflatoxin B2	315.09	286.9	33
Aflatoxin B2	315.09	259	33
Aflatoxin G1	329.07	310.9	25
Aflatoxin G1	329.07	198.9	57
Aflatoxin G2	331.08	312.9	25
Aflatoxin G2	331.08	189.1	49

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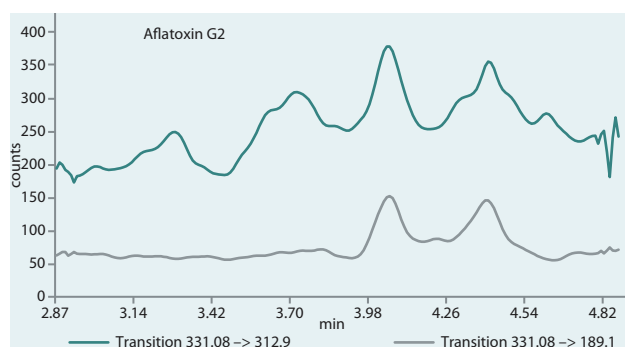
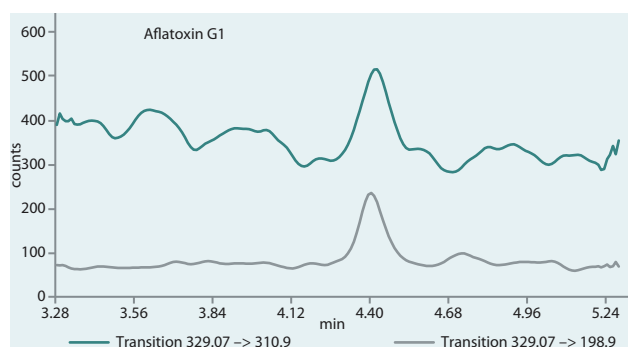
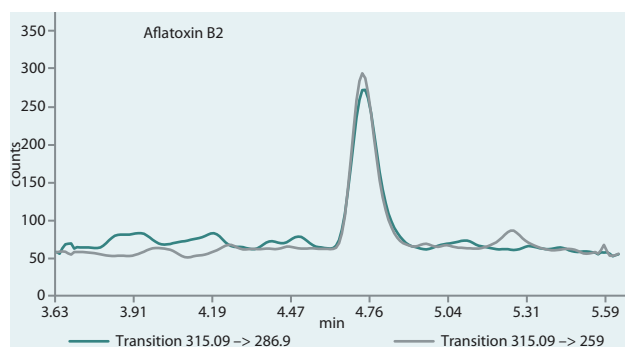
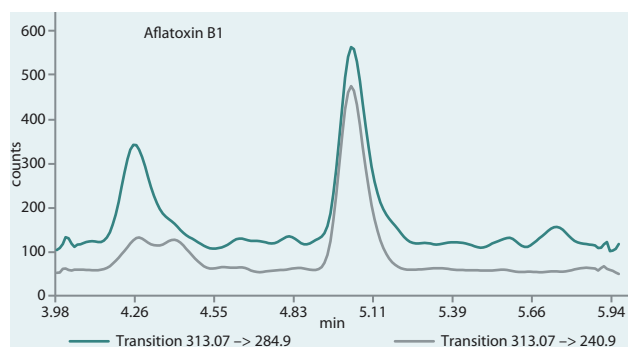


AFLATOXINS BY LC/MS

This page shows analyses of peppers and Brazil nuts.



LC/MS analyses of aflatoxins in Brazil nuts



LC/MS analyses of aflatoxins in peppers