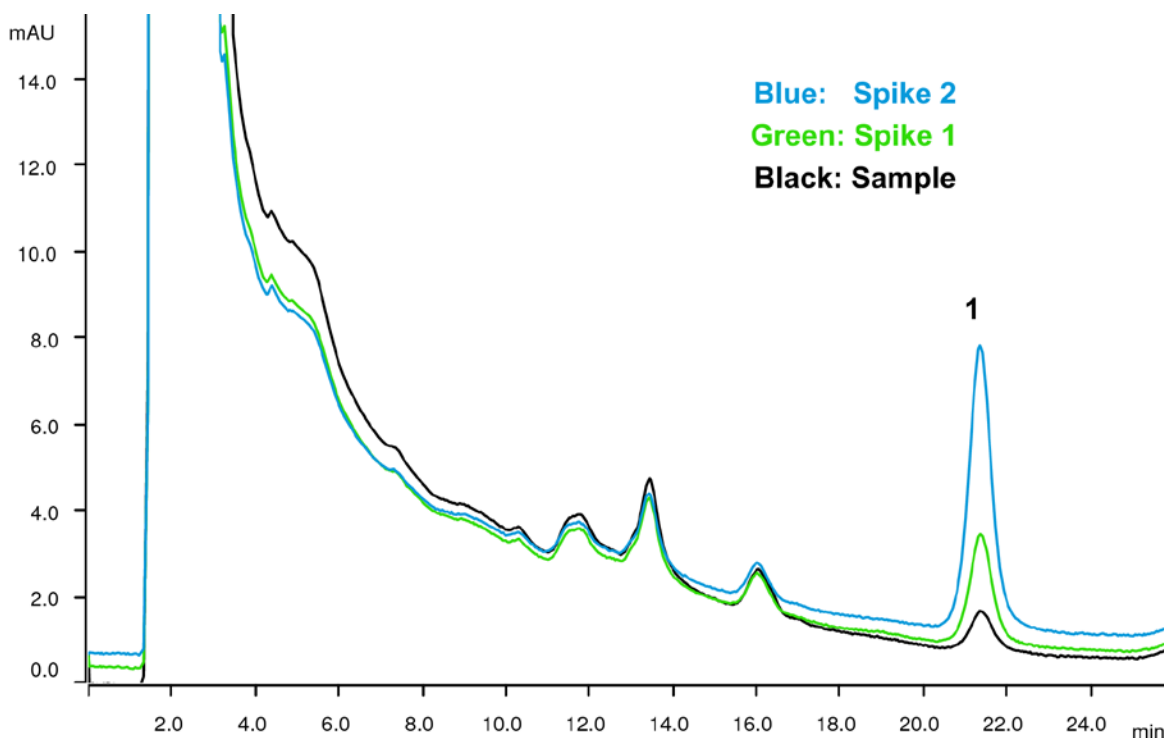


Melamine in sawdust for animal feed by UV/VIS detection after cation chromatography



Chipped wood and sawdust may be used in production of feed e.g. for ruminants. Melamine, a raw material for resins in wood adhesives, is limited to be used in feed. Therefore the melamine concentration in sawdust has to be analyzed. Melamine determined after ion chromatographic separation with UV/VIS detection.

Results

Cation	Conc. [mg/kg]	RSD [%]			
Melamine (sawdust)	3.10	2.2			
	Conc. [mg/L]	Spike 1* [mg/L]	Recovery [%]	Spike 2* [mg/L]	Recovery [%]
Melamine (injected solution)	0.17	0.31	96.3	0.64	95.3

* Spike 1: 0.15 mg/L; spike 2: 0.5 mg/L

Sample

Sawdust

Sample preparation

Extraction: 5 g of sample in 40 mL of the extraction solution for 20 min at 50...57 °C. Injection applying Metrohm Inline Ultrafiltration.

Columns

Metrosep C 3 - 250/4.0	6.1010.430
Metrosep C 3 Guard/4.0	6.1010.450

Solutions

Eluent	5 mmol/L hydrochloric acid
Extraction solution	8.75 mmol/L hydrochloric acid

Analysis

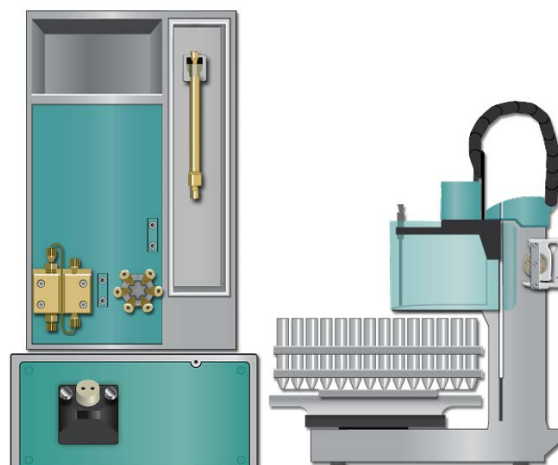
UV/VIS detection

Instrumentation

930 Compact IC Flex Oven/Deg	2.930.2160
944 Professional UV/VIS Detector Vario	2.944.0010
858 Professional Sample Processor	2.858.0020
IC equipment: Inline Ultrafiltration	6.5330.110

Parameters

Flow rate	0.9 mL/min
Injection volume	100 µL
P _{max}	25 MPa
Recording time	26 min
Column temperature	35 °C
Wavelength	236 nm
Bandwidth	11 nm
Duration	300ms



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