Analysis of Melamine and Cyanuric Acid in Milk by LC-MS/MS

Instrument: AB Sciex API 4000 LC/MS/MS System

CHROMATOGRAPHIC CONDITIONS

Column:	TSKgel Amide-80 3 µm 2.0 mm ID x 15 cm L
Eluent:	A: 0.05% formic acid in water
	B: 0.05% formic acid in actetonitrile
	75% B
Flow rate:	0.2 ml/min
Injection vol.:	5 µl
Temperature:	40°C
Detection:	LC-ESI-MS/MS, QTrap (MDS SCIEX),
	127/85+ (Melamine); 128/42- (Cyanuric acid)

PRETREATMENT OF MILK SAMPLE

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Milk + (water / acetonitrile = 20/80) =
10 + 90 (v + v)

↓

Mixture, Ultracentrifugation
(5,000 rpm, 5 min)

↓

Filtration (0.5 µm pore size)

SEPARATION OF MELAMINE AND CYANURIC ACID (10 PPB EACH)

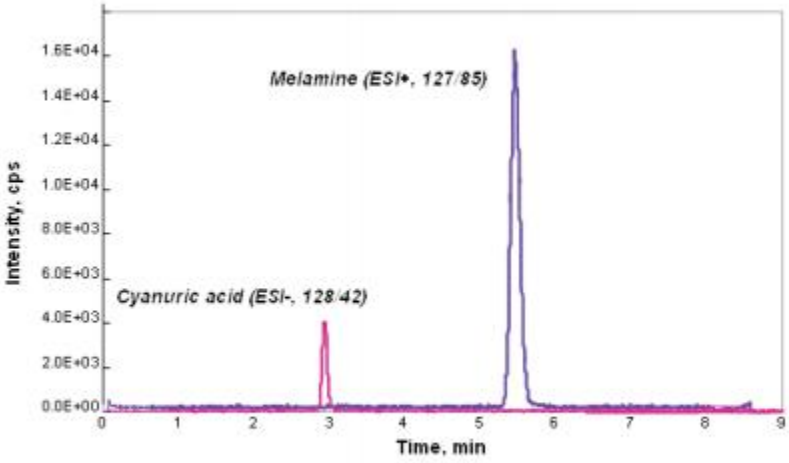
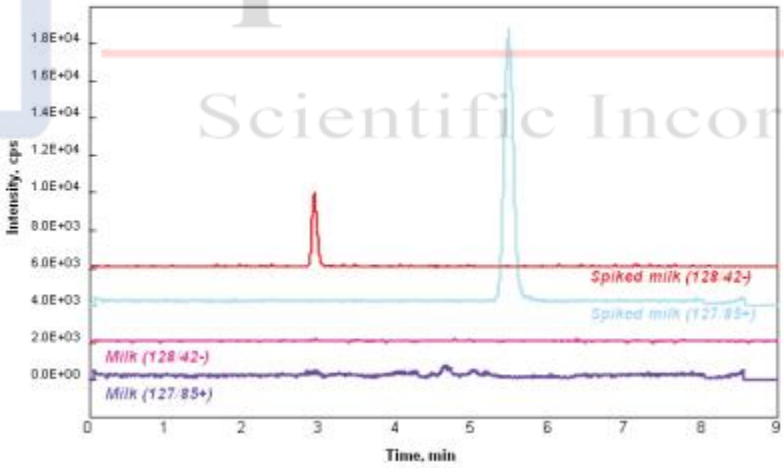


Figure 2

MRM CHROMATOGRAMS OF MILK AND SPIKED MILK SAMPLES (10 PPB EACH)



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Reference: http://www.separations.eu.tosohbioscience.com/NR/rdonlyres/DA0FC817-D658-4C2F-A407-BCA01BE77F31/0/A09L08A_AnalysisofMelamineandCyanuricAcidinMilkbyLCMS.pdf