DETERMINATION OF CHOLINE (VITAMIN B_4) IN FEEDSTUFFS, COMPOUND FEEDS, FODDER ADDITIVES, AND FEED RAW MATERIALS

Lumex Method M 04-82-2014

INTRODUCTION

The method[1] is used for the determination of the mass fraction of free choline (synthetic and natural) in feedstuffs by capillary electrophoresis. The method can be applied for **all types of feedstuffs, compound feeds, fodders, premixes, fodder additives, and feed raw materials.** The present method does not allow the determination of bound choline.

MEASUREMENT METHOD

The measurement method is based on extraction of free choline (vitamin B_4) from a sample by water and its determination by capillary electrophoresis with indirect UV detection at the wavelength of 267 nm.

MEASUREMENT RANGE

The measurement range for choline (expressed as choline chloride) is **0.01–100**%.

EQUIPMENT AND REAGENTS

The CAPEL capillary electrophoresis system is used in measurements. Data acquisition, collection, processing and output are performed using a personal computer running under WINDOWS® XP/7/8/10 operating system with installed dedicated software package ELFORUN.
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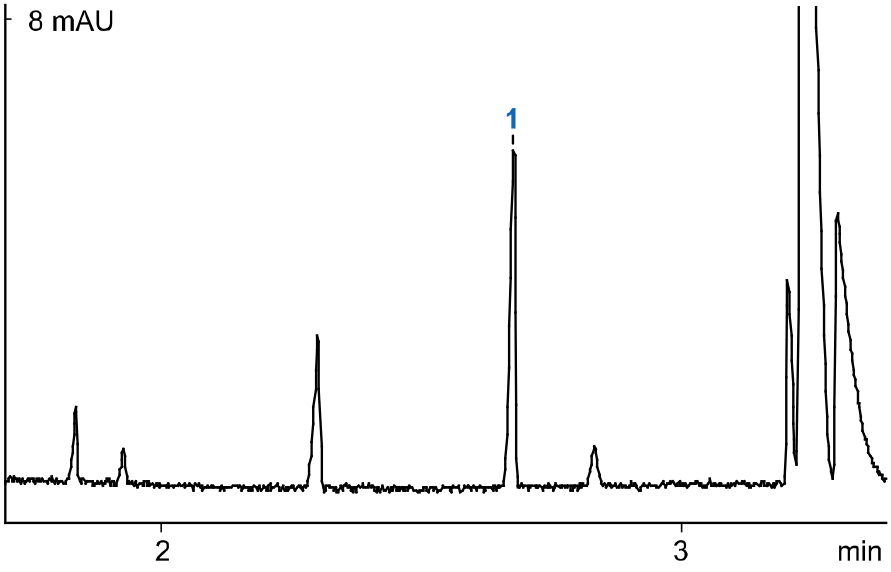
EXAMPLES OF REAL ANALYSES

BGE: benzimidazole, with tartaric acid
Capillary: L_{eff}/ L_{tot} 50/60 cm, ID 75 µm
Injection: 150 mbar x sec
Voltage: + 20 kV
Temperature: + 40 ^{O}C
Detection: 267 nm

Sample: premix

Measurement results:
1 – choline (3.7%)



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To get more specific information, please contact the representative by sales@lumexinstruments.com

[1] *National Standard GOST R 57124-2016.*