



## DETERMINATION OF **FRUCTOSE, GLUCOSE, AND SACCHAROSE** IN BEVERAGES, FRUIT AND VEGETABLE PRODUCTS, HONEY, DIETARY SUPPLEMENTS

### INTRODUCTION

The method is used for the determination of mass concentration of fructose, glucose, and saccharose (hereinafter – sugars) in **all types of non-alcoholic** and **alcoholic beverages** including **juices** and **wines**, **fruit** and **vegetable products**, **honey**, and **dietary supplements** by capillary electrophoresis.

### MEASUREMENT METHOD

The measurement method is based on extraction of sugars from a solid sample by water (dilution of a liquid sample) and their determination by capillary electrophoresis with indirect UV detection at the wavelength of 254 nm.

### MEASUREMENT RANGE

The measurement range of the concentration of the components is **2–800 g/L (0.2–80 %)**.

### 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.

Lumex Instruments kit, order **No. 0300001587**.

### EXAMPLES OF REAL ANALYSES

**BGE:** electrolyte based on potassium sorbate with CTAB (pH 12.1)

**Capillary:**  $L_{eff}/L_{tot} = 65/75$  cm, ID= 50  $\mu$ m

**Injection:** 150 mbar x sec

**Voltage:** – 25 kV

**Temperature:** 20 °C

**Detection:** 254 nm

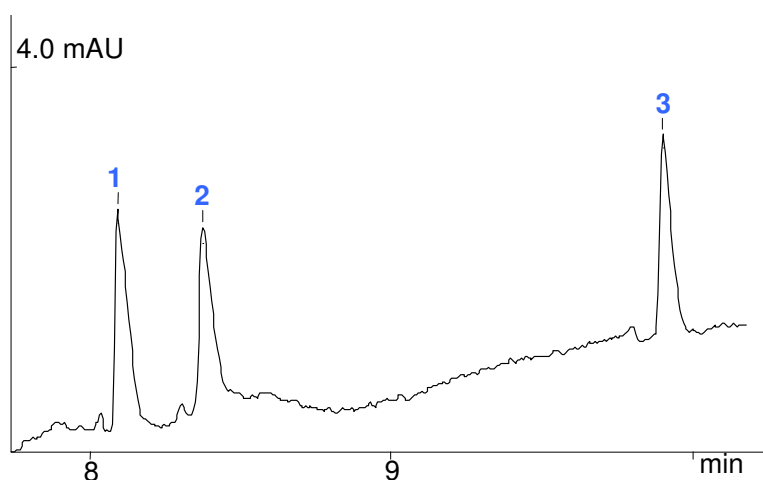
**Sample:** orange juice  
(dilution 1:100)

#### Measurement results:

**1** – fructose (28.5 g/L)

**2** – glucose (28 g/L)

**3** – saccharose (49 g/L)



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To get more specific information, please contact the representative by [sales@lumexinstruments.com](mailto:sales@lumexinstruments.com)