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## ISOTACHOPHORESIS

### APPLICATION NOTE Nr. 35

## Simple and fast analysis of phosphates in meat products

#### FEATURES:

Maximum permitted level of phosphates in meat product is 5g/kg and is regulated by EN norm, so it is necessary to check this level. Phosphates are added to meat products due to holding water. Isotachophoresis provides very fast and simple method for analysis of different form of phosphates in any meat products. The main benefit of ITP is minimal sample pretreatment that includes only homogenisation, extraction in hot water and filtration of the sample. The time of analysis is ca 8 min. Another components from the matrix do not interfere.

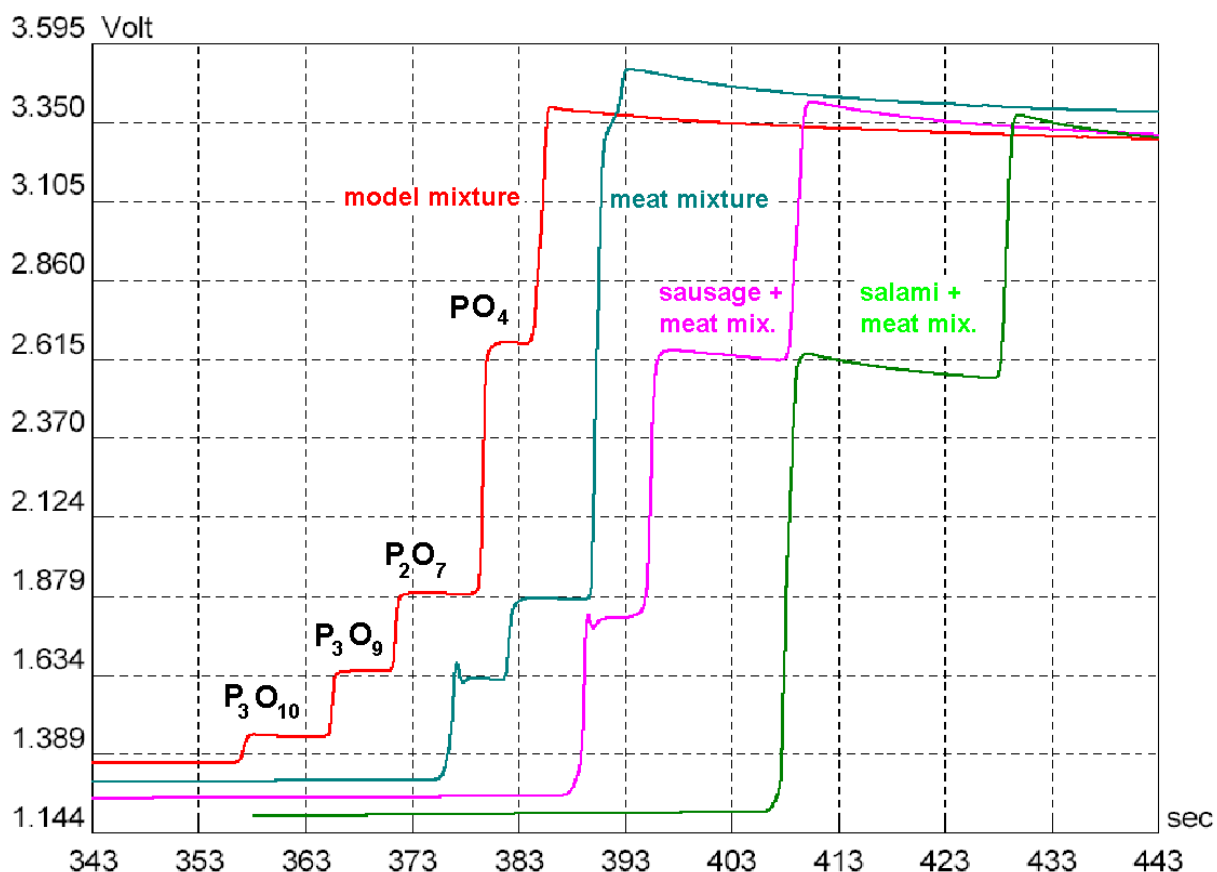


Fig. 1: Record from analysis of model mixture of different form of phosphates (left), meat mixture and 2 types of meat products with added phosphates.

Conditions: :Leading electrolyte (LE): 10 mM HCl + 15mM beta alanine + 0,1M%HEC

Terminating electrolyte (TE) : 5 mM citric acid +5 mM histidine

V =30 uL, I = 300 uA / 50 uA.

#### **LITERATURE:**

1. Dusek M., Kvasnicka F., Lukasova L., Kratka J, Isotachophoretic determination of added phosphate in meat products, Meat Science 65 (2003) 765 – 769.

#### **Instrumentation for CZE and ITP produces:**

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