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Authors: A.S. Uzhel, A.V. Zatirakha, A.D. Smolenkov, O.A. Shpigun



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**Quantification of inorganic anions and organic acids in apple and orange juices using novel covalently-bonded hyperbranched anion exchanger with improved selectivity**

A.S. Uzhel, A.V. Zatirakha\*, A.D. Smolenkov, O.A. Shpigun

*Department of Chemistry, Lomonosov Moscow State University, Leninskie Gory, 1/3, GSP-1, Moscow 119991, Russia*

*\*Corresponding author. Tel.: +7(495)939-46-08*

*E-mail: zatirakha@analyt.chem.msu.ru*

**Highlights**

- Highly selective covalently-bonded PS-DVB-based anion exchanger for suppressed IC
- Baseline resolution of glycolate, acetate, lactate, and formate with novel anion exchanger
- Simultaneous determination of organic acids and inorganic anions in apple and orange juices
- Possibility of separating 22 anions on 25-cm long column in gradient mode.

**Abstract**

Chromatographic analysis of orange and apple juices is provided using novel covalently-bonded poly(styrene-divinylbenzene)-based (PS-DVB) hyperbranched anion exchanger for suppressed ion chromatography (IC) with improved selectivity toward inorganic anions and organic acids. The obtained stationary phase provides baseline resolution of weakly retained organic acids such as glycolate, acetate, lactate, and formate, which are not separated to baseline with modern commercially available anion exchangers. The proposed method is validated with respect to linearity, recovery, limits of detection, and intra-day and inter-day precision.

*Keywords:*

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