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# ANALYSIS OF ORGANIC ACIDS IN MACEDONIAN WINES BY CAPILARY ELECTROPHORESIS

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Capillary electrophoresis, as a separation technique, can be applied for analysis of organic acids in white and red wines, providing high resolution separation of the analytes. Organic acids, such as of tartaric, malic, lactic, citric and succinic, are one of the major components that contribute to the composition, sensorial properties, as well as stability of wines, especially white wines. Young white wines with high acidity possess higher potential for aging, while red wines are stable with lower acidity because of the presence of polyphenolic compounds. Determination of organic acids in wines by capillary electrophoresis can be achieved in less than 7 min with only a simple dilution and filtration treatment of the wine sample. In this study, capillary electrophoresis was used for separation of organic acids in Macedonian wines applying fused silica capillary 56/64.5, 50 µm ID. The choice of the background electrolytes and the applied voltage were optimized. Separation was performed at -20 kV of applied potential. Temperature was maintained at 25°C. The background electrolyte used was 7 mM phthalic acid, 2 mM TTAB (tetradecyltrimethyl ammonium bromide), 5% MeOH at pH 6. Validation parameters of the method confirmed its suitability for routine analysis of organic acids in wine.

**Key words**: organic acids, capillary electrophoresis, wine

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