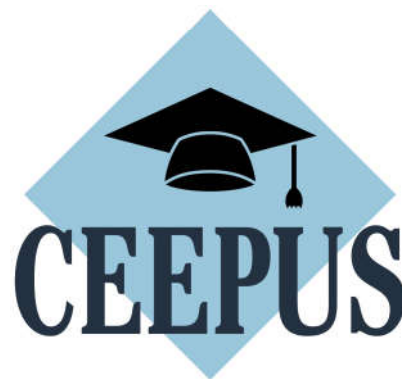




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Opening remarks

Dear participants, dear students, dear colleagues,

It is our great pleasure to welcome you to the 24th International Symposium and Summer School on Bioanalysis at the Faculty of Chemistry, University of Vienna.

Bioanalysis is a rapidly evolving and highly interdisciplinary field. Progress depends not only on innovative methods and technologies, but also on the exchange of ideas across disciplines and generations of scientists. This Summer School aims to provide exactly this environment: a place for the exchange of ideas, discussing recent developments, and learning from one another through oral presentations, poster sessions, seminars and workshops, as well as informal discussions.

The Book of Abstracts presents contributions covering a broad spectrum of topics, providing valuable insights into current research and reflecting the scientific diversity of this meeting.

Beyond the scientific program, we hope that the Summer School will offer an enjoyable atmosphere for sharing experiences, building new connections, and strengthening existing collaborations.

We wish you an inspiring and successful Summer School and hope that your time with us will be both scientifically rewarding and personally enriching.

A handwritten signature in black ink, reading "Peter Cichra-Bühl". The signature is written in a cursive, flowing style.

Chair of the Organizing Committee

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Chemical characterization of white and red wines from Ovche Pole region

Aleksandar Petrov, Violeta Ivanova-Petropolis

Faculty of Agriculture, Goce Delcev University, Stip, 2000 Stip, Republic of N. Macedonia

E-mail: aleksandar_petrov@yahoo.com

This study was focused on the evaluation of white wines (Zilavka and Smederevka) and red wine (Vranec), all produced wines from grapes grown in the Ovche Pole wine region, Republic of N. Macedonia. All wines were from vintage 2024 and produced using traditional methods. Chemical analyses were performed using fourier transform infrared (FT-IR) spectroscopy in order to determine the following basic parameters: alcohol, density, reducing sugars, pH, total acidity, volatile acidity, free and total SO₂. The results indicated that the wines were of high quality, containing a relatively high content of alcohol, ranging from 11.5 to 15.16 % (v/v). The pH ranged from 3.3 to 3.7, while total acidity was between 6.1 to 7.1 g/L and volatile acidity ranged from 0.34 to 0.48 g/L, indicating that all wines were chemically and microbiologically stable. In addition, the wines were well-protected from oxidation, with sufficient dose of free SO₂ (on average: 8.28 mg/L) and total SO₂ (on average: 21.07 mg/L). The concentration of individual organic acids were also determined in all wines, in which tartaric acid was the dominant compound (average value: 2.92 g/L), followed by malic acid (average value: 0.69 g/L), lactic acid (average value: 0.52 g/L) and citric acid (average value: 0.31 g/L). Furthermore, the Folin-Ciocalteu (FC) and color parameters have been determined for the Vranec wine. Red color dominated (range: 51.44 to 55.17%), followed by yellow (range: 32.96 to 34.06 %) and blue (range: 11.8 to 14.51%). Overall, all wines presented very good physical, chemical and microbiological stability, characteristic for high quality white and red wines.

Keywords: wine, FT-IR, Zilvanka, Smederevka, Vranec