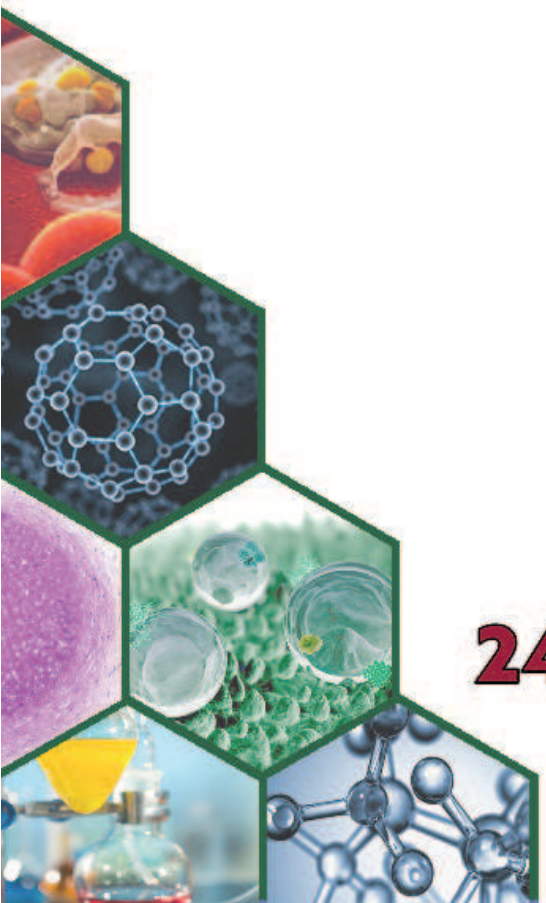
Serbian Chemical Society

Serbian Young Chemists' Club

# 12th Conference of the Young Chemists of Serbia

# *Book of Abstracts*





**Novi Sad**

**24th OCTOBER 2026**

12th Conference of Young Chemists of Serbia

# Book of Abstracts

24th October 2026

University of Novi Sad – Faculty of Science

CIP – Категоризација у публикацији
Народна библиотека Србије, Београд

***12th Conference of Young Chemists of Serbia***
Novi Sad, 24th October 2026
***Book of Abstracts***

*Published and organized by*
**Serbian Chemical Society and Serbian Young Chemists' Club**
Karnegijeva 4/III, 11000 Belgrade, Serbia
Tel./fax: +381 11 3370 467; www.shd.org.rs; office@shd.org.rs

*Publisher*
Serbian Chemical Society

*Editors*
Života **SELAKOVIĆ**
Dušan **DIMIĆ**
Snežana **PAPOVIĆ**
Aleksandra **POPOVIĆ**
Ivana **KUZMINAC**
Sanja **ĐOKIĆ**
Slađana **ĐORĐEVIĆ**
Mila **LAZOVIĆ**
Mihajlo **JAKANOVSKI**
Aleksandra **ĐUNOVIĆ**
Nemanja **ŽIVANOVIĆ**
Ljiljana **MILOVANOVIĆ**
Milica **STEVANOVIĆ**
Sergej **CVIJIĆ**

*Page Layout and Design*
Mila **LAZOVIĆ**
Mihajlo **JAKANOVSKI**
Aleksandra **ĐUNOVIĆ**
Miloš **ILIĆ**
Natalija **MILOJKOVIĆ**

*Circulation*

*ISBN*

*Printing*
**Development and Research Centre of Graphic Engineering**
Faculty of Technology and Metallurgy, Karnegijeva 4, Belgrade, Serbia

## Scientific Committee

Dr. Života Selaković – University of Belgrade, Faculty of Chemistry

Dr. Dušan Dimić – University of Belgrade, Faculty of Physical Chemistry

Dr. Snežana Papović − University of Novi Sad, Faculty of Sciences

Dr. Aleksandra Popović – University of Belgrade, Faculty of Technology and Metallurgy

Dr. Ivana Kuzminac – University of Novi Sad, Faculty of Sciences

Dr. Sanja Đokić – University of Novi Sad, Faculty of Sciences

Dr. Slađana Đorđević – University of Kragujevac, Faculty of Science

## Organizing Committee

Dr. Mila Lazović – Innovative Centre of the Faculty of Chemistry Ltd., Belgrade, Serbia

Mihajlo Jakanovski – University of Belgrade, Faculty of Pharmacy, Belgrade, Serbia

Dr. Aleksandra Đunović – Innovative Centre of the Faculty of Chemistry Ltd., Belgrade, Serbia

Nemanja Živanović – University of Novi Sad, Faculty of Sciences

Ljiljana Milovanović– University of Novi Sad, Faculty of Sciences

Milica Stevanović – University of Novi Sad, Faculty of Sciences

Sergej Cvijić – University of Novi Sad, Faculty of Sciences

## European Young Chemists' Network

Dr. Jelena Tadić

**PFC PP 11**

# Chemical characterization and food-grade extraction of *Coprinus comatus* powder as a potential functional food ingredient

Jovana Simeunović[1], Milica Bojić[1], Bojana Kokić[1], Jelena Miljanić[1], Jelena Jovančević[2], Jovana Kojić[2]

[1] *University of Novi Sad, Institute of Food Technology in Novi Sad, Novi Sad, Serbia*
[2] *BioSense Institute, University of Novi Sad, Novi Sad, Serbia*

Edible mushrooms are increasingly recognized as valuable food resources due to their combination of nutritional components and diverse bioactive compounds [1]. *Coprinus comatus* is of particular interest as a source of polysaccharides, phenolic compounds and other constituents with potential functional properties [2]. This study aimed to characterize the chemical composition of commercial *C. comatus* powder and to evaluate food-grade extraction approaches for the recovery of bioactive compounds. Proximate composition, dietary fiber and cellulose contents were determined by standard analytical procedures, while the mineral profile was analysed by atomic absorption spectroscopy. Aqueous and ethanol-based extractions were performed, followed by spectrophotometric determination of total phenolic and flavonoid contents and total soluble carbohydrates. The chemical characterization showed that *C. comatus* powder is a protein- and carbohydrate-rich material (24.86 and 60.73%, respectively), with a substantial fiber fraction (31.05%), predominantly represented by insoluble fiber (27.12%). The cellulose content was 6.40%, accounting for approximately 23.6% of the insoluble fiber fraction. The mineral profile further revealed considerable amounts of potassium, magnesium and calcium, while iron was present at 1062.16 ± 4.92 mg/kg. Aqueous extraction resulted in a higher extraction yield than 70% ethanol (69.30 vs. 42.34%) and provided higher levels of total phenolic compounds and soluble carbohydrates. These results demonstrate that *C. comatus* combines a nutritionally valuable composition with the potential for food-grade recovery of bioactive compounds, providing a basis for further optimization of the extraction conditions and evaluation of the resulting extracts for functional food applications.

**References**

[1] ] M.E. Valverde, T. Hernández-Pérez, & O. Paredes-López, *Int. J. Microbiol*. **2015**, *2015*(1), 376387.

[2] P. Nowakowski, S.K. Naliwajko, R. Markiewicz-Żukowska, M.H. Borawska, & K. Socha, *Phytother. Res*. **2020**, *34*(11), 2932.

**Acknowledgments**

Research was funded by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia (451-03-33/2026-03/200222).