# 9th Conference of Young Chemists of Serbia Book of Abstracts

4th November 2023

**University of Novi Sad - Faculty of Sciences** 

9<sup>th</sup> Conference of Young Chemists of Serbia Novi Sad, 4th November 2023 Book of Abstracts

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The organizing committee is grateful for the donations of the selected sponsor participants:

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Република Србија МИНИСТАРСТВО НАУКЕ, ТЕХНОЛОШКОГ РАЗВОЈА И ИНОВАЦИЈА

## Acknowledgement

Acknowledgement to the University of Novi Sad - Faculty of Sciences for the use of the space of the faculty during the 9<sup>th</sup> Conference of Young Chemists' of Serbia.

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## Scientific Program

Time schedule	Program
8:30	Registration of the participants
	Mounting posters for the Poster Session 1 (ODD POSTER
	NUMBERS)
9:30	Conference opening
	Serbian Chemical Society
	Scientific Committee
	Serbian Young Chemists' Club presentation
	Plenary Lecture
	PP OP 01 – Gordana Krstić
9:45	University of Belgrade, Faculty of Chemistry, Belgrade, Serbia
	"Determining the structure of natural products using NMR
	spectroscopy - is it enough or not?"
10.20	Popular Scientific Lecture
10:20	Luka Mihajlović (Analysis doo)
	Invited Lecture
	PPP OP 01 – Jelena Lazić
10:50	University of Belgrade, Institute of Molecular Genetics and Genetic
10.50	Engineering, Belgrade, Serbia
	"From waste streams to biotherapeutics: making a connection using
	bacteria"
11:15	Coffee break
11:30	Invited Lecture
	PPP OP 02 – Alen Albreht
	National Institute of Chemistry, Ljubljna, Slovenia
	"Towards future food supplement ingredients: chemical
	modification of natural antioxidants"
11:55	European Young Chemists' Network (EYCN)
	Gaia De Angelis – Global Connection Team Leader
	Soft-skill presentation

#### DSC OP 01 – Nikola Radnović

University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia "Syntheses and structures of Ag(I) complexes with pyrazole-type ligand"

#### PFC OP 02 – Nikola Horvacki

Innovation Centre of Faculty of Chemistry Ltd., Belgrade, Serbia "Comparative assessment of preeminent sugars and organic acids

in fruits of several apple cultivars"

#### PCC OP 02 – Katarina Ćeranić

Innovation Centre of Faculty of Chemistry Ltd., Belgrade, Serbia "Benzene coordination strengthens cation- $\pi$  interactions: A DFT study"

#### SCCE OP 01 – Andrija Vukov

University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia "Hydration properties of the antidiabetic drug metformin in the presence of selected artificial sweeteners"

#### SCFM OP 01 – Daliborka Odoboša

University of Belgrade, Vinča Institute of Nuclear Sciences, National Institute of the Republic of Serbia, Belgrade, Serbia "A novel gamma rays dosimeter based on organic dye and PVA: microwave synthesis and spectroscopic studies"

#### PFC OP 03 – Nikolina Sibinčić

Innovation Centre of Faculty of Chemistry Ltd., Belgrade, Serbia "Arthrospira platensis and Porphyra sp. – prospective serumsubstitute in HEK293T cell culture"

13:25	*GROUP PHOTO*
13:30	Poster session 1 (ODD POSTER NUMBERS)
	Lunch
14:20	Removing posters from Poster Session 1
	Mounting posters for Poster Session 2 (EVEN POSTER
	NUMBERS)

15:10	Workshop
	University of Novi Sad, Faculty of Sciences – Parliament
	University of Belgrade, Faculty of Chemistry – Parliament
	Young Division of Croatian Chemical Society
	Invited Lecture
	PPP OP 02 – Tatjana Majkić
15:55	University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia
	"Polyphenols as modulators of prostaglandin $E_2$ and thromboxane
	$A_2$ production"
16:20	Oral presentations, Session 2
	PCC OP 01 – Milica Bogdanović
	University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia
	"The crystal structure of 3-(1-pyrazolyl)-L-alanine and its Ag(I
	polymeric complex"
	PFC OP 01 – Mihajlo Jakanovski
	Innovation Centre of Faculty of Chemistry Ltd., Belgrade, Serbia
	"Validation and optimization of ion chromatography based method
	for citric acid determination in Robinia pseudoacacia honey"
	CS OP 01 – Branislav Kokić
	Innovation Centre of Faculty of Chemistry Ltd., Belgrade, Serbia
	"Teaching chirality on dynamic systems"
	CB OP 01 – Ana Matošević
	Institute for Medical Research and Occupational Health, Zagreb,
	Croatia)
	"Design, synthesis and biological evaluation of carbamates a
	cholinesterases inhibitors in the treatment of Alzheimer`s disease"
	EA OP 01 – Marija Kuč
	University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia
	"Photodegradation of organic UV filters in water using UV/chlorin
	and UV/H <sub>2</sub> O <sub>2</sub> "
	EA OP 01 – Sara Pepić
	University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia
	"Physico-chemical and structural characterization of the

pharmacologically active ionic liquid tetracainium-ibuprofenate"

17:10	Poster session 2 (EVEN POSTER NUMBERS) and Coffee break
	Closing ceremony
18:00	Best Oral Presentation Award
	Best Poster Presentation Award
18:15	End of the Conference

**POSTER NUMBER** is the last part of the contrubition code, e.g. XY PP <u>15</u>.

#### VENUE:

- Lectures and oral presentations will be taken place at the "Mihajlo Pupin" amphitheater on the ground floor at the Department of Matematics and Informatics and the Department of Physics, Faculty of Science, University of Novi Sad (address: Trg Dositeja Obradovića 4, Novi Sad).
- The Poster sessions will take place in the hallway in front of the "Mihajlo Pupin" amphitheater.

## Synthesis and determination of *in vitro* biological activity of novel fulleropyrrolidines containing phenol subunit

Željko V. Trifković<sup>1</sup>, Katarina N. Kotlaja<sup>1</sup>, Tatjana J. Kop<sup>2</sup>, Dragana R. Milić<sup>1</sup> <sup>1</sup>University of Belgrade - Faculty of Chemistry, Belgrade, Serbia <sup>2</sup>University of Belgrade - Institute of Chemistry, Technology and Metallurgy, National Institute of the Republic of Serbia, Belgrade, Serbia

Willing to obtain novel fulleropyrrolidines with improved biological activity, we explored the synthesis of hybrid structures containing fullerene and phenol. The Prato reaction of the glycine derivative, aromatic aldehydes with phenol subunit and the fullerene C<sub>60</sub> provided desired products in satisfactory yields (Figure 1). DPPH radical scavenging activity and  $\beta$ -carotene-linoleic acid bleaching assay were used to determinate antioxidant activity, while for evaluation of anti-inflammatory activity, ovalbumin (OVA) and bovine serum albumin (BSA) thermal denaturation inhibition assays were used. Obtained results indicated that performed synthesis gave rise to compounds with dual activity.

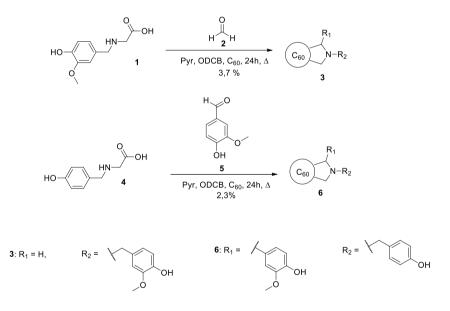


Figure 1. Scheme of synthetic strategy for preparing desired fulleropyrrolidines

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