

**8<sup>th</sup> Conference of Young Chemists of Serbia**

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## Sponsorship

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

European Young Chemists' Network



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## Acknowledgement

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# Contents

Plenary Lecture	1
Invited Lectures	5
Oral communications	9
Poster presentations	21
Analytical chemistry	23
Biochemistry and biotechnology	51
Chemical education and history of chemistry	61
Chemistry of macromolecules and nanotechnology	63
Green chemistry	67
Inorganic chemistry	71
Material sciences	83
Medicinal chemistry	97
Organic chemistry	107
Physical chemistry	121
Theoretical chemistry	133
Author index	141

## Scientific Program

Time	Program
9:00	Registration of the participants Mounting posters for the Poster Session 1 ( <b>ODD POSTER NUMBERS</b> )
10:00	Conference opening Serbian Chemical Society – Dušan Sladić Scientific Committee – Vuk Filipović Serbian Young Chemists' Club presentation – Mihajlo Jakanovski
10:15	Plenary Lecture ( <b>PP OP 01</b> ) Ilija Cvijetić University of Belgrade, Faculty of Chemistry
11:00	Oral presentations, Session 1 Zorica Novaković ( <b>CMN OP 01</b> ) University of Novi Sad, Faculty of Sciences Marija Kaluderović ( <b>OC OP 01</b> ) University of Montenegro, Faculty of Metallurgy and Technology Marija Milošević ( <b>MS OC 01</b> ) University Of Belgrade, Faculty of Technology and Metallurgy
11:35	Coffee break
11:50	European Young Chemists' Network (EYCN) ZOOM presentation Maximillian Menche – Chair of the EYCN “The European Young Chemists' Network and the Power of Networking”
12:05	Invited Lecture ( <b>PPP OP 01</b> ) Ivana Kuzminac University of Novi Sad, Faculty of Sciences
12:40	Oral presentations, Session 2 Dušica Jovanović ( <b>TC OP 01</b> ) University of Belgrade, Institute of Nuclear Science Vinča University of Niš, Faculty of Science and Mathematics Milica Đukić ( <b>IAC OP 01</b> ) University Of Belgrade, Faculty of Technology and Metallurgy Jovana Jovanović ( <b>OC OP 02</b> ) University of Montenegro, Faculty of Medicine Slađana Đorđević ( <b>TC OP 02</b> ) University of Kragujevac, Faculty of Science
13:25	<b>*GROUP PHOTO*</b>
13:30	Poster session 1 ( <b>ODD POSTER NUMBERS</b> ) Lunch
14:15	Removing posters from Poster Session 1 Mounting posters for Poster Session 2 ( <b>EVEN POSTER NUMBERS</b> )

15:00	<i>Invited Lecture (PPP OP 02)</i> Branko Kordić <i>University of Novi Sad, Faculty of Sciences</i>
15:35	<i>Oral presentations, Session 3</i>
	Dušan Ružić (MC OP 01) <i>University of Belgrade, Faculty of Pharmacy</i>
	Ana-Andrea Holik (CE OP 01) <i>University of Belgrade, Faculty of Chemistry</i>
	Aleksa Savić (BB OP 01) <i>University of Belgrade, Faculty of Chemistry</i>
16:10	<i>Poster session 2 (EVEN POSTER NUMBERS)</i>
17:00	<i>Break</i>
	<i>Closing ceremony</i>
	<ul style="list-style-type: none"> <li>• <i>Best Oral Presentation Award</i></li> </ul>
17:15	Board: Vuk Filipović, Ivana Kuzminac, Ilija Cvijetić
	<ul style="list-style-type: none"> <li>• <i>Best Poster Presentation Award</i></li> </ul>
	Board: Jelena Milovanović, Branko Kordić
17:45	<i>End of the Conference</i>

**POSTER NUMBER** is the last part of contribution code, e.g. XY PP **15**.

**VENUE:**

- Lectures and oral presentations will be taken place at the **large chemistry amphitheater (VHA)** on the ground floor.
- The Poster sessions will take place in the **hallway in front of the library** on the 1<sup>st</sup> floor.

## **A comparative study of two different methods of sample preparation for polyolefins commonly used in medical devices**

Andelka B. Jolić<sup>1</sup>, Dejan S. Miličević<sup>1</sup>, Zorana Z. Rogić Miladinović<sup>1</sup>, Edin H. Suljovrujić<sup>1</sup>  
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Polyolefins (POs) are currently the most widely used engineering plastics due to their relatively low cost, durability, and ease of processing. A feature such as inertness makes polyolefins suitable for applications such as food packaging and medical devices. For the purpose of this study, polyethylene (PE) with good rigidity, hardness, impact strength, environmental stress cracking resistance, and excellent processability, and polypropylene (PP), with high fluidity and very good transparency, were selected polyolefins [1,2]. Knowing that most of the polymer applications are strongly dependent on the initial state of the products, i.e., their morphology, thermal properties, and crystallinity, it is possible to obtain a great variety of morphologies and supermolecular formations by varying different conditions in the preparation process, e.g. cooling conditions during the crystallization process from the melt.

One of the aims of this work was to compare the results obtained for two different methods of sample preparation, quenching, and slow cooling. Initial preparation was performed for selected POs by rapid quenching in ice water and slow air cooling after compression molding. Further, the prepared samples were characterized by SEM, WAXD, FTIR, and mechanical measurements.

The obtained results indicated that PP is much more sensitive to the method of sample preparation than PE, as well as that the initial preparation of samples plays a decisive role in the final properties of materials for polymeric medical devices.

### **References**

1. G. Stamboliev, D. Milicevic, M. Micic, E. Suljovrujic, *Polym. Bull.* **2014**, 72, 371.
2. E. Suljovrujic, Z. Stojanovic, D. Dudic, D. Milicevic, *Polym. Degrad. Stab.* **2021**, 188, 109564.

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