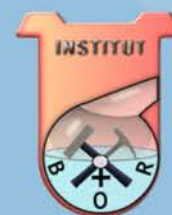


University of Belgrade
Technical Faculty in Bor
Mining and Metallurgy
Institute Bor



56th International October Conference on Mining and Metallurgy

FINAL PROGRAM



IOC 2025
International October
Conference



9th INTERNATIONAL
STUDENT CONFERENCE
on Technical Sciences

22-25 October 2025, Bor Lake, Serbia

With special thanks to our General Sponsor



The conference is financially supported by
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Welcoming Address

On behalf of the Organizing Committee, it is my great honor to welcome all participants to the **56th International October Conference on Mining and Metallurgy (IOC 2025)**.

This year's conference will take place from **October 22 to 25, 2025**, at **Hotel Jezero, Bor Lake, Serbia**.

Continuing a tradition that spans more than half a century, IOC 2025 brings together researchers, engineers, students, and industry professionals from around the world to share knowledge and new ideas in the fields of **mining, metallurgy, materials science, and environmental engineering**.

We hope that the sessions, discussions, and networking opportunities will inspire fruitful collaborations and future innovations. At the same time, we invite you to enjoy the natural beauty of **Bor Lake** and the warm hospitality of our region.

We wish you a successful and memorable stay in Bor.

On behalf of the 56th IOC Organizing Committee,
Prof. Dr Ljubiša Balanović

A handwritten signature in black ink, appearing to read 'Ljubiša Balanović', is written over the printed name.

General Information

Language:

The official language of the Conference will be English.

Conference program:

The Conference program includes **plenary and invited lectures, oral, and poster sessions, MDPI Young Researcher Award session, and sponsor presentations** as follows: Plenary lectures (30 min); Invited lectures (20 min); Oral and online sessions (10 min); Sponsor presentations (20, 15 and 10 min); Poster session (poster size 70 x 100 cm).

Sponsors' Exhibitions:

Sponsors' exhibitions will be organized in the **lobby of Hotel Jezero** throughout the **conference working days**. This exhibition area will provide an excellent opportunity for participants to learn more about the products, technologies, and services offered by leading companies in the fields of **mining, metallurgy, materials science, and environmental protection**. We warmly invite all participants to visit the exhibition stands, meet company representatives, and explore possibilities for **future cooperation, research collaboration, and industrial innovation**.

International Student Conference:

9th International Student Conference on Technical Sciences - ISC2025, will be held in the frame of IOC 2025 on **24 October 2025**.

The "**Professor Dragana Živković Best Student Paper Award**" will be presented to the most outstanding student contribution based on originality, research quality, and presentation.

Visit to Zijin Mining and Zijin Copper, Bor

As part of the 56th International October Conference on Mining and Metallurgy (IOC 2025), a facultative excursion will be organized on Saturday, October 25, 2025, to visit two major industrial facilities in Bor:

09:00 – 11:30 – Visit to **Zijin Mining Bor**

12:00 – 14:30 – Visit to **Zijin Copper Bor**

All interested conference participants are kindly asked to register for the excursion via the following link: <https://ioc.tfbor.bg.ac.rs/excursion/>

PUBLISHING

Selected papers presented at the Conference can be submitted in an extended form in:

Journal of Mining and Metallurgy, Section A: Mining

www.jmma.tfbor.bg.ac.rs

Journal of Mining and Metallurgy, Section B: Metallurgy

www.jmmab.com

Serbian Journal of Management

www.sjm06.com

Journal "Recycling and Sustainable Development"

www.rsd.tfbor.bg.ac.rs

MDPI Special Topic: Innovations and Sustainable Approaches in Mining, Metallurgy, Technology and Materials Engineering: Insights from IOC 2025

<https://www.mdpi.com/topics/7714NC4O3Y>

Topic Editors

- Prof. Dr. Markus A. Reuter (markus.reuter@curtin.edu.au)
- Prof. Dr. Peizhong Feng (pzfeng@cumt.edu.cn)
- Prof. Dr. Ljubiša Balanović (ljbalanovic@tfbor.bg.ac.rs)

Participating Journals

- Metals - <https://www.mdpi.com/journal/metals>
- Minerals - <https://www.mdpi.com/journal/minerals>
- Mining - <https://www.mdpi.com/journal/mining>

Information

President of the Organizing Committee
Prof. Dr Ljubiša Balanović
University of Belgrade, Technical Faculty in Bor
Email: ioc@tfbor.bg.ac.rs or ljbalanovic@tfbor.bg.ac.rs



FINAL PROGRAM

SCHEDULE OF EVENTS

Wednesday, October 22, 2025

- 17:00 – 19:00 – Conference desk opening / Registration of participants
19:00 – 23:00 – **Welcome party**

Thursday, October 23, 2025

- 08:00 – 18:00 – Conference desk working hours / Registration of participants
09:30 – 10:00 – Conference opening – Room A
10:00 – 11:00 – Plenary lectures – Room A
 10:00 – 10:30 – Markus Reuter
 10:30 – 11:00 – Miljana Radivojević
11:00 – 11:40 – Sponsor presentations – Room A
 11:00 – 11:20 – HBIS Serbia
 11:20 – 11:40 – Serbia Zijin Mining
11:40 – 12:10 – Welcome cocktail – Hotel lobby
12:10 – 13:10 – Plenary lectures – Room A
 12:10 – 12:40 – Feng Peizhong
 12:40 – 13:10 – Srećko Stopić
13:10 – 14:00 – Sponsor presentations – Room A
 13:10 – 13:25 – Serbia Zijin Copper
 13:25 – 13:40 – Copper Mill Sevojno
 13:40 – 13:50 – MC Labor
 13:50 – 14:00 – MDPI Publisher
14:00 – 15:00 – *Lunch break*
15:00 – 16:30 – Session 1 – Oral presentations 1 – Room A
15:00 – 16:30 – Session 2 – Oral presentations 2 – Room B
16:30 – 17:00 – Coffee break – Hotel lobby
17:00 – 18:00 – Session 3 – Oral presentations 3 – Room A
17:00 – 18:00 – Session 4 – Oral presentations 4 – Room B
18:00 – 19:00 – Poster Section 1 with wine degustation – Hotel lobby
19:00 – 00:00 – *Conference Dinner*

Friday, October 24, 2025

08:00 – 18:00 – Conference desk working hours
09:00 – 11:30 – “MDPI Young Researcher Award” competition – *Room A*
11:30 – 12:00 – Coffee break – *Hotel lobby*
12:00 – 13:35 – Session 5 – *Oral presentations 5 – Room A*
14:00 – 15:00 – Lunch break
15:00 – 16:00 – Session 6 – *Oral presentations 6 – Room A*
16:00 – 17:00 – Poster Section 2 with wine degustation – *Hotel lobby*
16:15 – 18:10 – ISC-2025 Session – *Oral presentations – Room A*
18:10 – 19:00 – ISC Poster Section – *Hotel lobby*
19:00 – 23:00 – Dinner

Saturday, October 25, 2025

08:00 – 14:00 – Conference desk working hours
09:00 – 11:30 – Facultative excursion to Zijin Mining Bor
12:00 – 14:30 – Facultative excursion to Zijin Copper Bor
15:00 – 15:30 – Closing of the Conference

The duration of presentations is supposed to be: Plenary lectures 30 min, Invited lectures 20 min, Oral presentations 10 min, and for questions and discussion after each presentation plus 2 min. We kindly ask participants to keep strictly to this time limit.

Sponsors’ exhibitions will be organized in the hotel lobby during the conference working days.

**9th International Student Conference on Technical Sciences - ISC2025,
will be held in the frame of IOC 2025 on 24 October 2025.**



LIST OF PRESENTATIONS

Conference opening

Thursday, October 23, 2025 at 09:30 – 10:00, Room A

Chairpersons: Dejan Tanikić, Ljubiša Balanović, Mile Bugarin, Radoje Pantović

Moderator: Sandra Vasković

Plenary lecture

Thursday, October 23, 2025 at 10:00 – 11:00, Room A

Chairpersons: Dejan Tanikić, Ljubiša Balanović, Mile Bugarin, Radoje Pantović

10:00 – 10:30 – **Markus Reuter** (Germany)

Fundamental limits of green metal and mineral processing supply chains within the circular economy

10:30 – 11:00 – **Miljana Radivojević** (United Kingdom)

Metals and the making of the ancient world: environmental and economic legacies of Eurasian bronze age metallurgy

Sponsor presentations

Thursday, October 23, 2025 at 11:00 – 11:40, Room A

Chairpersons: Dejan Tanikić, Ljubiša Balanović, Mile Bugarin, Radoje Pantović

11:00 – 11:20 – **HBIS Serbia**

11:20 – 11:40 – **Serbia Zijin Mining**

Plenary lectures

Thursday, October 23, 2025 at 12:10 – 13:10, Room A

Chairpersons: Vladan Ćosović, Tatjana Volkov-Husović, Ivana Marković

12:10 – 12:40 – **Peizhong Feng, Baojing Zhang, Zhi Liu, Shiheng Li, Xiaohong Wang** (China)

Recycling and utilization of spent molybdenum disilicide: preparation of coating and metal recovery via synergistic smelting

12:40 – 13:10 – **Srećko Stopić, Alexander Birich, Bernd Friedrich** (Germany)

Advances in understanding of reduction processes in extractive metallurgy

Sponsor presentations

Thursday, October 23, 2025 at 13:10 – 14:00, Room A

Chairpersons: *Vladan Čosović, Tatjana Volkov-Husović, Ivana Marković*

13:10 – 13:25 – *Serbia Zijin Copper*

13:25 – 13:40 – *Copper Mill Sevojno*

13:40 – 13:50 – *MC Labor*

13:50 – 14:00 – *MDPI Publisher*

Session 1 - Oral presentations

Thursday, October 23, 2025 at 15:00 – 16:30, Room A

Chairpersons: *Markus Reuter, Iveta Vasková, Srba Mladenović*

Invited lecture - 15:00 – 15:20

1. **Buxin Chen, Mao Chen, Meilong Hu, Kaihui Ma, Hongqing Liu, Chenguang Bai** (China)
Development of hydrogen metallurgy in China

Oral presentations - 15:20 – 16:30

1. **Jožef Medved, Tilen Balaško, Stanislav Kores, Maja Vončina** (Slovenia)
In-situ synthesis of Mg₂Si-reinforced amc
2. **Tatjana Volkov Husović, Ana Alil, Aleksandar Kojović, Sanja Martinović** (Serbia)
NDT methods for monitoring degradation of refractory lining for blast furnace and converter
3. **Ferenc Kristaly, László Farkas, Andrea Mihalkó, Bence Tamás, Balázs Szeleccki** (Hungary)
Recoverable Pd and Pt accumulation in a Ca(OH)₂ based CO₂ filter of a hydrogenation organic byproduct plant
4. **Xing Han, Hongqiang Liu, Lanjie Li, Pengyang Li, Xiaolong Guo** (China)
The role of hydrogen based shaft furnaces in steel industry decarbonization
5. **Shi Wenli, Tanja Marinković Stojanović, Aleksandar Djuga, Marko Radosavljević, Stefan Nešić** (Serbia)
Metallurgical and process challenges in flash butt welding of different dimensions of micro-alloyed steel on continuous pickle line
6. **Igor Zlatković, Živko Đorović** (Serbia)
Analysis of the new sinter line in HBIS Group Serbia and creating conditions for production improvement

Session 2 - Oral presentations

Thursday, October 23, 2025 at 15:00 – 16:30, Room B

Chairpersons: Zoran Štirbanović, Jovica Sokolović, Grozdanka

Bogdanović Invited lecture - 15:00 – 15:20

1. **Cemalettin Okay Aksoy, Güzin Gülsev Uyar Aksoy, Hasan Berker Sarisan**
(Turkey)
Computational fluid dynamics analysis of ventilation strategies for mitigating geothermal gas leakage in subsurface infrastructure projects

Oral presentations - 15:20 – 16:30

1. **Stefano Utili, Dainius Jenkus, Akanksha Mishra, Filippo Bianchi, Riccardo Castellanza** (United Kingdom)
Optimal pitwall design for open pit mines in the presence of faults
2. **Eugeniu Martac, Christine Laskov, Katarzyna Staniewska** (Germany)
Mining after mining: Real-time XRF-CPT for strategic resource estimation in tailings reprocessing
3. **Edita Lazarová, Mária Bali Hudáková, Vít'azoslav Krúpa, Alexander Kiovský, Pavol Vavrek, Lucia Ivaničová** (Slovakia)
Results from experimental research of rock breaking by small diameter diamond core drill bits
4. **Güzin Gülsev Uyar Aksoy, Cemalettin Okay Aksoy, Ozan Savaş** (Turkey)
Seismic intelligence in surface blasting: seisblast-promax as a next-generation design and optimization tool
5. **Rastko Jovanović, Ivan Lazović, Milić Erić, Zoran Marković, Marija Živković** (Serbia)
Predicting CO emissions using novel numerical model for particle ignition/combustion

Session 3 - Oral presentations

Thursday, October 23, 2025 at 17:00 – 18:00, Room A

Chairpersons: *Miljana Radivojević, Jožef Medved, Nicanor Cimpoesu*

Invited lecture - 17:00 – 17:20

1. **Alejandro Cruz-Ramírez, José Enrique Sánchez-Vite, Teresita del Refugio Jiménez-Romero, Margarita García-Hernández, Heriberto Mendoza Cárdenas** (*Mexico*)
Characterization of industrial jarosites from the Mexican zinc extraction process

Oral presentations - 17:20 – 18:00

1. **Yuchao Shi, Taibai Fu, Xinyi Zhang, Liang Zhang, Shiyi Wen, Yuling Liu, Yingbiao Peng, Jiangxing Wang, Ziqing Xie, Yong Du** (*China*)
Development of ICALPHAD software for phase diagram calculation and intelligent thermodynamic optimization
2. **Ionuț Adomniței, Daniela Lucia Chicet, Bogdan Istrate, Marcelin Benchea, Gheorghe Bădărău, Nicanor Cimpoesu** (*Romania*)
Obtaining and characterization of high yttria content in zirconia coatings
3. **Miloš Vuleta, Milodarka Žugić, Vladan Andrejić, Tamara Ristić** (*Serbia*)
Industrial optimization of BOF steelmaking: increasing scrap ratio through hot metal parameter control
4. **Anca Cazac, Diana-Petronela Burduhos-Nergis, Andrei Victor Sandu, Mihai Popa, Costica Bejinariu** (*Romania*)
Strontium phosphate conversion coatings: A short review

Session 4 - Oral presentations

Thursday, October 23, 2025 at 17:00 – 18:00, Room B

chairpersons: Cemalettin Okay Aksoy, Jelena Ivaz, Igor Svrkota

Oral presentations - 17:00 – 18:00

1. **Artur Hubert, Felix Heinicke** (*Germany*)
Transferring common HPGR application from copper to lithium ore
2. **Petar Radichev** (*Bulgaria*)
Strategic planning, design and mine management under the conditions of the asarel open pit mine
3. **Wei Su, Yi Xing, Yang Zheng, Rongrong Lei** (*China*)
Construction and technological progress of a comprehensive carbon reduction system for CCUS in the steel industry
4. **Daniel Kržanović, Milenko Jovanović, Radmilo Rajković, Miljan Gomilanović, Miloš Stojanović** (*Serbia*)
NPV based optimization of final pit contours in the cementacija mining complex
5. **Venkateswara Rao, Jayapal Reddy** (*India*)
Mathematical modeling and statistical analysis of sub grade iron ore beneficiation using wet high intensity magnetic separator (WHIMS)

“MDPI Young Researcher Award” competition - Oral presentations

Friday, October 24, 2025 at 09:00 – 11:30, Room A

Chairpersons: Maja Vončina, Peizhong Feng, Srećko Stopić

Oral presentations - 09:00 – 11:30

1. **Marija Jeremić**, Andreas Krammer, Markus Lehner (Austria)
Biomass to BioSNG - Methanation of syngas from biomass gasification
2. **Teresita del Refugio Jiménez-Romero**, José Enrique Sánchez-Vite, Alejandro Cruz-Ramírez, Margarita García-Hernández, Ángel de Jesús Morales-Ramírez (Mexico)
Recovery of copper from a chalcopyrite ore using natural deep eutectic solvents (NADES) of choline chloride-urea as a leaching agent
3. **Martina Sýkorová**, Dana Bolibruchová, Marek Matejka (Slovakia)
Development of the Al-Si alloy with niobium addition for gigacastings
4. **Petra Růžičková**, Klaudia Kunderáková, Kristína Talianová, Jakub Klimko, Dušan Oráč (Slovakia)
Selective recovery of copper from hydrometallurgical processing of e-waste
5. **Ondrej Kozej**, Iveta Vasková, Ladislav Jankovčín (Slovakia)
Investigation of gas and shrinkage porosity in AlSi10Mg alloy gearbox castings manufactured by HPDC
6. **Kristina Božinović**, Dragan Manasijević, Ljubiša Balanović, Milan Gorgievski, Uroš Stamenković, Miljan Marković (Serbia)
Microstructural analysis and thermal properties of Ag-Sn alloys
7. **Veljko Minić**, Jelena Miladinović, Miljana Popović, Milena Zečević, Aleksandar Đorđević (Serbia)
Experimental characterization of the Bi-Ge-Pb ternary alloys
8. **Marek Matejka**, Dana Bolibruchová, Martina Sýkorová (Slovakia)
Analysis of selected properties of Al-Si-Cu based alloy with tungsten addition

Session 5 - Oral presentations

Friday, October 24, 2025 at 12:00 – 13:35, Room A

Chairpersons: *Natalija Dolić, Milan Gorgievski, Milan Radovanović*

Invited lecture - 12:00 – 12:20

1. **Nicanor Cimpoesu, Ionuț Adomniței, Corneliu Munteanu, Mihai Axinte, Marian Luțcanu, Mihai Alin Pop, Marius Telișcă, Ana-Maria Roman** (Romania)
Characterization of ceramic coatings with thermal barrier role obtained by atmospheric plasma jet spraying

Oral presentations - 12:20 – 13:35

1. **Maja Vončina, Jožef Medved, Tinkara Smolar, Matej Steinacher** (Slovenia)
Influence of heat treatments on mechanical properties of aluminium alloy EN AW-2011
2. **Krzysztof Pancikiewicz, Mariusz Maslak, Paulina Zajdel, Marcin Klimek** (Poland)
Phase transformations in a welded joint of unalloyed steel after long-term subcritical annealing
3. **Branislava Matić, Snežana Živković Perišić, Srđan Mančević** (Serbia)
Use of AIRQ+ software in assessing the impact on health from exposure to particles in Bor, Serbia
4. **Roxana Hobjâlă, Răzvan Mititelu Nicolae, Ștefana Agop, Laurențiu Slătineanu, Diana Diaconu** (Romania)
The contribution and application of polymeric materials in the metallurgical industry
5. **Ștefana Agop, Bogdan-Ionut Dochita, Roxana Hobjâlă, Nicanor Cimpoesu, Tiberiu Sutic** (Romania)
The behavior description of CuZnAl shape memory alloys through the dynamics of multifractal complex systems

Session 6 - Oral presentations

Friday, October 24, 2025 at 15:00 – 16:15, Room A

Chairpersons: Zdenka Zovko Bordarac, Milena Zečević, Marija Petrović Mihajlović

Oral presentations - 15:00 – 16:15

1. **Stefan Dordievski, Ana Radojević, Tanja Kalinović, Maja Nujkić, Jelena Kalinović, Jelena Jordanović, Renata Kovačević, Yasumasa Ogawa (Serbia)**
Assessment of the copper availability by extraction of riverbed sediments from Eastern Serbia with 0.5 M HCl
2. **Zoran Avramović, Dragana Božić, Vanja Trifunović, Jelena Stanković (Serbia)**
Cathodic protection of metals
3. **Predrag Stolić, Zoran Jovanović, Željko Mravik, Marko Jelić, Sonja Jovanović, Aleksandra Milosavljević (Serbia)**
The path to better education of engineers using open data - A practical example in the Republic of Serbia
4. **Nandita Gupta, Kamlesh Kumar Singh, Manoj Kumar, Himanshu Khandelwal (India)**
A study of single piece ceramic shell core for geometrically complex investment casting
5. **Shehret Tilvaldvey, América Yamile Amaya Diaz, Adrian Alberto Castro De La Cruz (Canada)**
Analysis of the variations of the wing lift coefficient of unmanned aerial vehicles with increasing Reynolds number of airflow
6. **Valery Pierre Vassiliev, Cristopher Stanley (Russia)**
Optimization of heat capacities of sphalerite and wurtzite phases as a single system

Poster presentations

Poster Section 1

Thursday, October 23, 2025 at 18:00 – 19:00, Hotel lobby

Chairpersons: Tanja Kalinović, Uroš Stamenković, Aleksandra Mitovski, Vladimir Nikolić

- 1. Zoran Marković, Milić Erić, Aleksandar Milićević, Rastko Jovanović, Nikola Živković, Ivan Lazović, Milica Jovčevski (Serbia)**
Optimization of the electrostatic precipitators in unit A1 of the Kostolac a thermal power plant
- 2. Dušica Mirović, Yuankun Yang, Shengli Yu (Serbia)**
Safety challenges in transport of copper concentrate: TML as a boundary parameter of maritime cargo stability
- 3. Edita Lazarová, Vít'azoslav Krúpa, Pavol Vavrek, Mária Bali Hudáková, Lucia Ivaničová, Alexander Kiovský (Slovakia)**
Failure criterion of limestone and granodiorite determined by laboratory tests and theoretical processing of drilling process results
- 4. Mária Bali Hudáková, Edita Lazarová, Vít'azoslav Krúpa, Pavol Vavrek, Lucia Ivaničová, Alexander Kiovský (Slovakia)**
Optimisation of the rock drilling process conducted with small diameter drilling tools
- 5. Danka Kostadinović, Dušan Randelović, Zoran Marković (Serbia)**
Implementation of ground-mounted and floating solar panels in mines
- 6. Milan Grozdanović, Živana Jovanović Pešić, Jelena Đoković, Dejan Tanikić (Serbia)**
Analysis of the energy potential of briquettes made from ground plum, date, and avocado pits
- 7. Nenad Vušović, Milica Vlahović (Serbia)**
Challenges in mining subsidence engineering
- 8. Albin Dobersek, Aleksandra Mitovski, Olga Mishina, Andrej Avrachov, Pavel Saltykov, Viktoriia Zhmurova, Alexandra Friesen, Theresa Schulz (Germany)**
Gold recovery from flotation tailings in copper metallurgy: A sustainable approach to resource valorization
- 9. Igor Zh. Bunin, Alexey N. Kochanov (Russia)**
On the mechanism of selective disintegration of rocks under explosive and pulse-discharge impacts
- 10. José Enrique Sánchez-Vite, Alberto Hernandez Casimiro, Teresita del Refugio Jiménez-Romero, Alejandro Cruz-Ramírez, Margarita García-Hernández (Mexico)**
Mineralogical evolution in industrial jarosite through flux-assisted roasting

11. **Milić Erić, Zoran Marković, Aleksandar Milićević, Rastko Jovanović, Danka Kostadinović, Ivan Lazović, Milica Jovčevski (Serbia)**
Experimental research of the lignite drying process in packed bed
12. **Vladimir Nikolić, Milan Trumić (Serbia)**
Refinement of the bond work index calculation method for finer samples
13. **Klaudia Kundráková, Jana Pirošková, Jakub Klimko, Jarmila Trpčevská, Petra Růžičková, Dušan Oráč (Slovakia)**
Electrospinning of ZnO nanofibers from zinc galvanizing flue dust
14. **Dragana Marilović, Grozdanka Bogdanović (Serbia)**
Leaching of covellite in ionic liquid solution
15. **Nadezhda Kazakova, Vladislava Stefanova, Petar Iliev, Biserka Lucheva (Bulgaria)**
Analytical study of zinc recovery from spent solutions resulting after galvanization process
16. **Katarina Balanović, Maja Trumić, Tamara Gavrilović (Serbia)**
Influence of hidden neuron number on the performance of ANN models applied to deinking flotation data
17. **Vesna Grekulović, Milica Zdravković, Milan Gorgievski, Nada Štrbac, Miljan Marković, Marina Marković, Kristina Božinović (Serbia)**
Electrochemical behavior of copper in chloride medium in the presence of pine cone macerate
18. **Ana Kostov, Aleksandra Milosavljević, Ivan Jovanović (Serbia)**
DTA thermodynamic behaviour of the ternary system Ga-Ge-Sb
19. **Dimitrije Anđić, Aleksandar Jovanović, Nikola Vuković, Ivana Jelić, Mladen Bugarčić, Vaso Manojlović, Miroslav Sokić (Serbia)**
Innovative oxidative system for leaching of Fe²⁺ from sphalerite concentrate
20. **Vanja Trifunović, Snežana Milić, Ljiljana Avramović, Dragana Božić, Zoran Avramović (Serbia)**
Behavior of zinc, calcium and iron in the two-stage leaching process of the EAF dust
21. **Petar Petrov (Bulgaria)**
Creation of sintering cup for laboratory sintering installation
22. **Angel Iliev, Daniela Grigorova (Bulgaria)**
Thermodynamic investigation of carbothermic reduction of electric arc furnace dust
23. **Sara Lukovac, Nebojša Tadić, Dijana Đurović, Irena Nikolić (Montenegro)**
S/S treatment for aluminium slag waste using fly ash-based geopolymers
24. **Nebojša Tadić, Irena Nikolić, Nina Jovović, Dejana Dizdar, Vanja Asanović, Milena Tadić (Montenegro)**
Valorization of fly ash and plastic waste using geopolymerization technology

- 25. Duško Minić, Milena Zečević, Aleksandar Đorđević, Veljko Minić (Serbia)**
Electrical resistivity of the Al-Bi-Ge ternary alloys
- 26. Velizar Stanković, Miljan Marković, Milan Gorgievski, Stefan Đorđević (Serbia)**
On the leachability of copper from copper-iron minerals mixture
- 27. Alexandra Tamara Sutic, Gheorghe Bădărău, Romeu Chelariu, Ramona Cimpoesu, Ana-Maria Roman, Mihai-Adrian Bernevig, Nicanor Cimpoesu (Romania)**
An assessment of corrosive and mechanical performance of biodegradable ZnMgTi alloys
- 28. Jovana Ružić, Jelena Stašić, Marko Simić, Andrijana Žekić, Branislava Vučetić, Dušan Božić (Serbia)**
Influence of the heat treatment on the structural parameters of the CuCrZr-TiB₂ alloy
- 29. Nebojša Tadić, Žarko Radović (Montenegro)**
Investigation of the influence of residual stresses on the mechanical properties of aluminum alloy strips
- 30. Aida Imamović, Mirsada Oruč, Milenko Rimac, Gorazd Kosec, Safet Hamedović (Bosnia and Herzegovina)**
Influence of dimensional size of rolled product made of S690QL steel on impact toughness and grain size
- 31. Franjo Kozina, Zdenka Zovko Brodarac, Ivica Buljeta, Natalija Dolić (Croatia)**
Analysis of crack formation in AlSi11 alloy automotive rim
- 32. Almaida Gigović-Gekić, Elvis Agović, Hasan Avdušinović, Branka Muminović (Bosnia and Herzegovina)**
Testing the impact of toughness of the welded joint of steel S21800
- 33. Bolibruchová Dana, Sýkorová Martina (Slovakia)**
Influence of Be addition on mechanical and physical properties of alloys with low Si content
- 34. Milan Nedeljković, Srba Mladenović, Vladan Čosović, Ivana Marković, Jasmina Petrović, Uroš Stamenković, Milijana Mitrović, Avram Kovačević (Serbia)**
Microstructures and wettability behavior of Sn-0.7Cu solder doped with graphene nanosheets
- 35. Srba Mladenović, Nikola Marinković, Dragica Milojković, Jasmina Petrović, Milan Nedeljković (Serbia)**
Structural characterization of welded joints of AlSiMg alloys
- 36. Uroš Stamenković, Ivana Marković, Dragan Manasijević, Milan Nedeljković (Serbia)**
Thermomechanical treatment of S275JR steel: impact on microstructure, hardness, and impact toughness
- 37. Mile B. Đurđević, Srećko Manasijević, Aleksandra Patarić, Marija Mihailović, Karlo T. Raić (Serbia)**
Role of magnesium in solidification feeding of hypoeutectic Al-Si₅-Mg alloys

- 38. Jelena Gligorijević Sokolović, Jasmina Petrović, Emina Požega (Serbia)**
Casting of bronze castings with thin walls using wax-paraffin models and CO₂ hardened sand molds
- 39. Emina Mededović, Vanja Asanović, Milena Tadić, Jasmina Grbović Novaković, Irena Nikolić, Anđela Mitrović Rajić (Montenegro)**
Structural changes in pyrophyllite induced by mechanochemical modification and zinc oxide doping
- 40. Saša Marjanović, Milijana Mitrović, Emina Požega, Dragana Božić (Serbia)**
Influence of cold rolling and annealing on the hardness of Cu-Al bimetallic strip
- 41. Ivana Marković, Uroš Stamenković, Dragan Manasijević, Ljubiša Balanović (Serbia)**
Changes in hardness and microstructure during isothermal aging of nickel-aluminum bronze
- 42. Ferenc Kristaly, László Farkas, Andrea Mihalkó, Bence Tamás, Balázs Szeleccki (Hungary)**
Microscale features of Pd-Pt aggregates resulted from aniline hydrogenation tar incinerating process
- 43. Milijana Mitrović, Saša Marjanović, Biserka Trumić, Milan Nedeljković, Jasmina Petrović, Uroš Stamenković (Serbia)**
Influence of temperature and annealing time on changes of the mechanical properties of the CuFe1 alloy
- 44. Zoran Karastojković, Radiša Perić, Srba Mladenović (Serbia)**
Limitations for wider usage of gold-aluminium alloys based on intermetallic compound Au-Al₂
- 45. Dragan Jeremić, Željko Šutović, Milić Ječmenica, Dragomir Glišić, Stefan Dikić, Nenad Radović (Serbia)**
Development of 12.0mm thick hot rolled strip of S640MC grade steel in HBIS Serbia
- 46. Margarita García-Hernández, Alejandro Cruz-Ramírez, Ángel de Jesús Morales-Ramírez, José Enrique Sánchez-Vite, Teresita del Refugio Jiménez-Romero (Mexico)**
Decay time determination from luminescence emissions of Eu³⁺ doped Y₂O₃ powder
- 47. Duško Kostić, Mitar Perušić, Srećko Stopić, Dragan Kostic, Jelena Vuković, Nebojša Vasiljević, Radislav Filipović, Vladimir Damjanović (Bosnia and Herzegovina)**
High-pressure oxygen leaching of tionite residue for titanium recovery
- 48. Milica Zdravković, Slađana Savić, Vesna Grekulović, Dalibor Stanković, Iva Dimitrievska (Serbia)**
ATR-FTIR characterization of the white willow bark extract used as a copper corrosion inhibitor

- 49. Anđelka Stojanović, Isidora Milošević, Dragan Manasijević (Serbia)**
Intra- and extra-EU trade in recyclable metals: opportunities for industrial symbiosis
- 50. Tilen Balaško, Aleš Nagode, Jiehua Li, Jožef Medved, Maja Vončina (Slovenia)**
The role of lanthanum addition in the microstructural evolution of an EN AW-7175 alloy during solution annealing
- 51. Milica Zdravković, Edina Huseinović, Jasmina Dedić, Emir Horozić, Vesna Grekulović (Serbia)**
Extraction of bioactive compounds from nettle seeds as a potential inhibitor of metal corrosion
- 52. Milos Đukić, Stefan Đorđievski, Sanela Vasiljević, Dragana Adamović-Marković, Emina Požega, Jelena Nikolić, Vesna Stankov-Jovanović (Serbia)**
Internal quality control of ICP-MS method for water analysis
- 53. Aleksandar Grigorov, Silviya Lavrova, Daniela Grigorova (Bulgaria)**
Application of nanomaterials in water treatment from manganese
- 54. Žarko Radović, Nebojša Tadić (Montenegro)**
Effect of air oxygen enrichment on gaseous fuels combustion and GHG emission
- 55. Yufei Wang, Xiaoyu Zheng, Xiangyang Ying, Qi Huang, Xiong Shuai, Changfa Du, Ya Li, Yingbiao Peng, Yuling Liu, Yong Du (China)**
Integrated computational material engineering practice paths by Changsha Ruirui Technology: From CALPHAD to phase field and crystal plastic finite element
- 56. Aleksandra Fedajev, Sanela Arsić (Serbia)**
Is mining and quarrying most efficient and profitable export sector in Serbia? Insights from a multi-criteria performance analysis
- 57. Maria Krasteva, Petar Raykov (Bulgaria)**
Quality control in the production of vacuum pumps for the automotive industry
- 58. Ana Marinković, Jovana Buha Marković, Jasmina Savić, Milica Mladenović, Milić Erić, Zoran Marković, Biljana Vučićević (Serbia)**
Assessment of mercury content in different fuel types
- 59. Vesna Krstić, Danijela Simonović, Renata Kovačević, Daniel Kržanović, Mirjana Šteharnik, Daniela Urošević, Sunčica Stanković (Serbia)**
Multivariate statistical evaluation of agricultural soil contamination near the city of Bor
- 60. Ana Petrović, Stefan Đorđievski, Miloš Đukić, Emina Požega, Jelena Gligorijević Sokolović, Dragana Adamović-Marković (Serbia)**
Application of metal foams for the water purification process
- 61. Viša Tasić, Tatjana Apostolovski-Trujić, Renata Kovačević, Bojan Radović, Nevena Ristić (Serbia)**
State of air quality in the city of Bor in 2024

- 62. Aleksandra Papludis, Slađana Alagić, Snežana Milić, Dragana Medić, Jelena Nikolić, Snežana Jevtović, Ivana Zlatanović Đaić (Serbia)**
Distribution of PAHs in soils from Bor region, taken from the rooting zone of poison ivy
- 63. Danka Kostadinović, Milić Erić, Ivan Iazović (Serbia)**
Application of waste materials in green roofs

Poster Section 2

Friday, October 24, 2025 at 16:00 – 17:00, Hotel lobby

Chairpersons: Stefan Đorđević, Vesna Grekulović, Anđelka Stojanović, Ana Radojević

- 1. Karlo T. Raić, Mile B. Đurđević, Srećko Manasijević, Aleksandra Patarić, Marija Mihailović (Serbia)**
Statistical evolution of non-metallic inclusions in continuous cast Al-killed steel
- 2. Katarina M. Mihajlović, Jovica Stojanović, Slavica Mihajlović, Ivana Jelić, Ana Radosavljević-Mihajlović, Suzana Erić (Serbia)**
Comparative mineralogical analysis of two zeolitic tuff Slanci and Zlatokop
- 3. Vladan Kašić, Ana Radosavljević-Mihajlović, Jovica Stojanović, Slavica Mihajlović, Nataša Đorđević, Ivana Jelić (Serbia)**
Geological and technological characteristics of the Igroš-Vidojevići zeolite tuff deposits
- 4. Marija Jonović, Dejan Bugarin, Tanja Stanković (Serbia)**
Sensitivity analysis of a copper ore exploitation investment project using COMFAR III software
- 5. Branimir Farkaš, Ana Hrastov, Iva Štefičar (Croatia)**
Factors influencing the occurrence of flyrock phenomena on surface mines - case study
- 6. Gergana Meracheva, Efrosima Zaneva-Dobranova, Nikolay Hristov (Bulgaria)**
Geological conditions of natural H₂ exploration on the Balkan peninsula for prosperity mapping
- 7. Milenko Jovanović, Daniel Kržanović, Miroslava Maksimović, Vladan Marinković, Stefan Trujić, Miomir Mikić (Serbia)**
The importance of geogrids for landfill security and environmental protection
- 8. Ivica Vojinović, Dragan Šabaz, Miloš Stojanović (Serbia)**
Implementation of the sublevel caving mining method in the T4 ore body at the Jama Bor underground mine
- 9. Miloš Stojanović, Ivica Vojinović, Dragan Šabaz (Serbia)**
Application of neural networks for optimizing rock bolt system in underground mining

10. **Ivica Vojinović, Miloš Stojanović, Dragan Šabaz (Serbia)**
Technological innovations transforming the mining industry: a short review
11. **Milan Protić, Ana Bijelić, Miomir Raos, Marjan Popović (Serbia)**
Kinetic modeling of oak wood thermal degradation using the distributed activation energy model (DAEM)
12. **Dragan Šabaz, Ivica Vojinović, Miloš Stojanović (Serbia)**
Monitoring techniques for subsidence induced by mining operations: a review
13. **Vladan Marinković, Miroslava Maksimović, Milenko Jovanović, Željana Novaković, Anđela Maričić (Serbia)**
Geological structure and genesis of Zn, Pb deposit Ribnik-Šuplja Stijena
14. **Radmilo Rajković, Vladan Marinković, Daniel Kržanović, Miomir Mikić, Milenko Jovanović (Serbia)**
The possibility of long-term exploitation of copper ore in ore bodies of the Majdanpek copper mine
15. **Miomir Mikić, Ivana Mikić, Milica Mededović, Radmilo Rajković (Serbia)**
The global impact of climate change on the mining sector
16. **Miomir Mikić, Daniel Kržanović, Milenko Jovanović, Sandra Milutinović, Ivana Mikić (Serbia)**
The impact of climate change on mining in Serbia, an overview
17. **Milivoje Zlatić, Dejan Petrović, Jelena Ivaz, Mladen Radovanović, Milan Stajić (Serbia)**
Selection of primary support system for the river Mali Pek tunnel
18. **Snežana Ignjatović, Branislav Petrović (Serbia)**
Applying electrical survey to detect the thickness of the Epikartst
19. **Nikola Jovanović, Jelena Stefanović, Miloš Živanović, Zlatko Pavlović, Nikola Miljković, Jelena Đorđević, Nikola Lekić (Serbia)**
Building information modeling (BIM) as a tool for enhancing technical solutions in mining design: A case study of the main process building in Brskovo, Montenegro
20. **Samil Hoskan, Bayram Kahraman (Turkey)**
Comparing the accuracy of Kriging and IDW interpolation for estimating a Cu-Zn deposit in Turkey
21. **Renguo Li, Lanjie Li, Heng Ji, Minglei Gao, Shiwei Wang (China)**
Experimental study on pelletization of blended sea sand ores
22. **Slavko Todić, Predrag Lazić (Serbia)**
Investigation of the flotation potential of sulfide oxide ore from the Veliki Majdan deposit
23. **Ivana Jovanović, Dragan Milanović, Vesna Conić, Miloš Janošević, Daniela Urošević, Mile Bugarin (Serbia)**
Chemical-mineralogical characterization of carbonate-clay type lithium ore

24. **Jelena Đorđević, Jelena Stefanović, Sandra Guševac, Nevena Marković, Zoran Avramović, Nikola Jovanović, Nikola Lekić (Serbia)**
Effect of recycled asphalt (RAP) and copper slag (CS) as partial substitution of natural aggregate in asphalt mixtures
25. **Alexey M. Amdur, Sergei A. Fedorov (Russia)**
Droplet flotation in metallurgical melts
26. **Xiaohua Liu, Renhao Tian, Yang You, Zhixiong You, Xuewei Lv (China)**
Numerical simulation of temperature field in a rotary hearth furnace under infrared-assisted heating conditions
27. **Gvozden Jovanović, Dimitrije Anđić, Danijela Smiljanić, Dragana Randelović, Branislav Marković (Serbia)**
Behavior of plant micronutrients (Fe, Cu) during combustion of contaminated Sorghum spp.
28. **Aleksandra Milosavljević, Ana Kostov, Marijana Pavlov-Kagadejev (Serbia)**
Artificial intelligence challenges in modern alloy design
29. **Vesna Conić, Miloš Janosević, Dragan Milanović, Ivana Jovanović, Daniela Urošević, Mile Bugarin (Serbia)**
Overview of methods for bor separation
30. **Sandra Guševac, Nevena Marković, Jelena Đorđević, Jelena Stefanović (Serbia)**
The possibility of using copper slag aggregate in concrete
31. **Emine Sayilgan, Patrick Zhang (Turkey)**
Leaching behaviour of phosphogypsum with different acids
32. **Oliver Dimitrijević, Ivana Jovanović, Vesna Conić, Dragan Milanović, Tanja Stanković (Serbia)**
Example of dense media cyclone selection
33. **Srdan Matijašević, Mirko Grubišić, Nataša Đorđević, Ana Radosavljević-Mihajlović, Slavica Mihajlović (Serbia)**
The effect of the free energy change on crystallization in lithium-germanate glass
34. **Florin Sorin Todirică, Daniela Lucia Chicet, Dragoș-Cristian Achiței, Vasile Manole, Mihai-Adrian Bernevig, Ioan Stirbu, Nicanor Cimpoesu (Romania)**
Using energy dispersive spectroscopy for a stainless steel-brass welding interface characterization
35. **Žaklina Tasić, Marija Petrović Mihajlović, Ana Simonović, Milan Radovanović, Milan Antonijević (Serbia)**
Carbon-based electrochemical sensor modified with metal oxide nanoparticles
36. **Lovro Liverić, Tamara Holjevac Grgurić, Marko Kršulja, Matej Fonović (Croatia)**
TEM Investigation of Cu-10Al-7Ag Shape Memory Alloy in As-Cast State

- 37. Marko Kršulja, Damir Karabaić, Lovro Liverić, Samir Grudić (Croatia)**
Comparison of non-destructive and destructive welding assessment tests on MAG-welded AISI316L and DH36 steels using K-309LT filler
- 38. Veljko Savić, Vladimir Topalović, Jelena Nikolić, Marija Došić, Milena Obradović, Danijela Smiljanić, Snežana Grujić (Serbia)**
Insights into the glass network structure of coal fly ash-based glass
- 39. Milan Protić, Momir Prašević, Nikola Mišić, Miomir Raos (Serbia)**
Flammability assessment of acoustic insulation materials using mass loss calorimetry
- 40. Žarko Mišković, Radivoje Mitrović, Danilo Pejčić, Jovana Antić (Serbia)**
Overview of installations and methodologies for conveyor idlers testing - developed at the Faculty of Mechanical Engineering at the University of Belgrade
- 41. Biljana Zlatičanin, Branislav Radonjić (Montenegro)**
Effect of copper content on phase formation and mechanical response of Al-Cu alloys
- 42. Biljana Zlatičanin, Branislav Radonjić (Montenegro)**
Combined effect of cooling conditions and Mg content on the microstructure and properties of Al-15Cu alloys
- 43. Vladimir Glushchenkov (Russia)**
Improvement in the technology of pouring copper plates for their further use in electrolysis production
- 44. Marko Pavlović, Marina Dojčinović, Mirjana Stojanović (Serbia)**
Cavitation resistance of talc-reinforced pyrophyllite ceramics
- 45. Salko Ćosić, Almir Osmanović, Jasmin Halilović (Bosnia and Herzegovina)**
Probabilistic analysis of press fit joint load carrying capacity
- 46. Emina Požega, Slavko Bernik, Dragana Božić, Srđana Magdalinović, Miloš Đukić, Jelena Gligorijević Sokolović, Radmilo Rajković (Serbia)**
Properties of Se doped Bi₂Te₃ based material: Part I
- 47. Jasmina Petrović, Srba Mladenović, Uroš Stamenković, Milan Nedeljković, Milijana Mitrović (Serbia)**
Effect of oxy-cutting on the microstructure and hardness of high-carbon steel
- 48. Sandra Milutinović, Ljubiša Obradović, Sanja Petrović, Srđana Magdalinović, Ivana Mikić (Serbia)**
Reinforcements in composite materials
- 49. Milica Zdravković, Slađana Savić, Vesna Grekulović, Dalibor Stanković (Serbia)**
HPLC-DAD identification of compounds in corrosion inhibitor Salix Alba bark extract and the hydrolate
- 50. Marija Koprivica, Marija Simić, Jelena Petrović, Jelena Dimitrijević, Marija Ercegović, Marija Marković (Serbia)**
Tree leaf biochar as a potential adsorbent for lead ion removal from aqueous solution

51. **Maja Nujkić, Žaklina Tasić, Sonja Stanković, Dragana Medić (Serbia)**
Optimizing cadmium ion adsorption: predictive modeling based on literature data
52. **Miljan Marković, Milan Gorgievski, Marina Marković, Vesna Grekulović, Nada Štrbac, Kristina Božinović, Milica Zdravković (Serbia)**
Statistical modeling of copper ions biosorption onto sunflower hulls
53. **Miloš Stojanović, Nicoleta Sorina Nemes, Adina Negrea, Mihaela Ciopec, Ivan Svrkota, Daniel Kržanović, Igor Svrkota (Serbia)**
Environmental sampling strategy for the Romania–Serbia border mining region
54. **Jelena Kalinović, Tanja Kalinović, Ana Radojević, Snežana Šerbula, Jelena Jordanović (Serbia)**
Assessment of element accumulation efficiency in plant parts using biological factor analysis
55. **Milan Gorgievski, Marina Marković, Miljan Marković, Vesna Grekulović, Nada Štrbac, Kristina Božinović, Milica Zdravković (Serbia)**
Equilibrium and thermodynamic analysis of the adsorption of copper ions on sunflower hulls
56. **Marina Marković, Milan Gorgievski, Miljan Marković, Vesna Grekulović, Nada Štrbac, Kristina Božinović, Milica Zdravković (Serbia)**
Kinetic analysis of copper ions adsorption on sunflower hulls
57. **Danijela Simonović, Daniel Kržanović, Renata Kovačević, Daniela Urošević, Mirjana Šteharnek, Sunčica Stanković, Vesna Krstić (Serbia)**
Assessment of heavy metal contamination of soil and the ecological risk based on national limit values and quantitative indices
58. **Aleksandra Petrović, Stefan Đordjević, Bojan Radović, Renata Kovačević (Serbia)**
Assesment of PAH and PCB concentrations in Bor River bed sediments affected by mining and metallurgy
59. **Miloš Đukić, Stefan Đordjević, Sanela Vasiljević, Dragana Adamović-Marković, Ana Petrović, Jelena Nikolić, Vesna Stankov-Jovanović (Serbia)**
Cerovo river - Annual monitoring of impact of the Cerovo open-pit mine
60. **Emine Sayilgan, Patrick Zhang (Turkey)**
A review on recovery of REEs and radioactive materials from phosphogypsum
61. **Marijana Pavlov-Kagadejev, Aleksandra Milosavljević (Serbia)**
Application of metaheuristic algorithms in metallurgical industry: A review of methods and applications
62. **Stefan Trujić, Miroslav Popović, Milenko Jovanović, Katarina Milivojević, Boško Vuković (Serbia)**
Geological investigations of the 'Povlatna zona' and 'Istočno polje' of the Gacko Coal Basin (BiH) for coal quality assessment and design of a beneficiation plant (2023–2025)



FINAL PROGRAM

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**University of Zenica, Faculty of Engineering and Natural Sciences,
Zenica, Bosnia and Herzegovina**

**University of Priština, Faculty of Technical Sciences,
Kosovska Mitrovica, Serbia**

**University of Montenegro, Faculty of Metallurgy and Technology,
Podgorica, Montenegro**

**Ss. Cyril and Methodius University in Skopje, Faculty of Technology and Metallurgy,
Skopje, North Macedonia**

**University of Ljubljana, Faculty of Natural Sciences and Engineering,
Ljubljana, Slovenia**

**Gheorghe Asachi Technical University of Iași, Faculty of Materials Science and Engineering,
Iași, Romania**

**University of Chemical Technology and Metallurgy, Faculty of Metallurgy and Materials
Science,
Sofia, Bulgaria**

**University of Zagreb, Faculty of Metallurgy,
Sisak, Croatia**

ISC - 2025 Session - Oral presentations

Friday, October 24, 2025 at 16:15 – 18:10, Room A

Chairpersons: *Ivana Marković, Maja Nujkić, Jovica Sokolović, Perica Paunović*

Invited lecture - 16:15 – 16:35

1. **Yuchao Shi, Taibai Fu, Xinyi Zhang, Liang Zhang, Shiyi Wen, Yuling Liu, Yingbiao Peng, Jiangxing Wang, Ziqing Xie; Mentor: Yong Du (China)**
ICALPHAD: An Intelligent Software Platform for Calculating Phase

Oral presentations - 16:35 – 18:10

1. **Students: Tim Drevenšek, Nežka Valenčič, David Vuga, Matija Makarovič, Blaž Perko, Nejc Balantič; Mentors: Maja Vončina, Tilen Balaško (Slovenia)**
Optimisation of heat treatment to achieve high mechanical properties of an AlSi10MgMn alloy product for E-Mobility
2. **Student: Dragana Dimitrijević Jovanović; Mentor: Predrag Živković (Serbia)**
Green roofs' environmental impact across different geographical regions
3. **Student: Enej Kavčič; Mentors: Maja Vončina, Tilen Balaško (Slovenia)**
Influence of heat treatment on the microstructure development and hardness of the alloy EN AW-7175 with Lanthanum
4. **Students: Andrei Neagu, Elena-Marta Albu, Floria Luca; Mentors: Nicanor Cimpoesu, Inés Fernández Pariente (Romania)**
Shot peening surface treatment of Zn-based alloys
5. **Student: Ionut Vlăduț Tincu; Mentor: Nicanor Cimpoesu (Romania)**
Use of light-cured bio resins for the protection of biodegradable alloys
6. **Student: Luka Marinović; Mentor: Dejan Mitrović (Serbia)**
Mechanisms of nitrogen oxides formation
7. **Student: Marcin Klimek; Mentor: Mariusz Maślak (Poland)**
Post-fire changes in the microstructure of a welded joint resulting from different thermal impact scenarios

ISC-2025 - Poster presentations

Friday, October 24, 2025 at 18:10 – 19:00, Hotel lobby

Chairpersons: *Jasmina Petrović, Uroš Stamenković, Jelena Ivaz, Žaklina Tasić*

1. Students: **Vladan Jovanović**; Mentor: **Marko Ignjatović** (Serbia)
Optimization and renewable energy integration in a primary school in Niš under future climate scenarios
2. Student: **Hirja Diana-Georgiana**; Mentor: **Blanariu Raluca Maria, Cimpoeșu Nicanor** (Romania)
Materials used for the production of biodegradable composites
3. Student: **Nebojša Radović, Željka Nikolić**; Mentor: **Olga Tešović** (Serbia)
Mining waste management in Serbia: Systemic challenges and reporting deficiencies
4. Student: **Milivoje Zlatić**; Mentor: **Jelena Ivaz** (Serbia)
The impact of climate change on the success of reclamation
5. Student: **Aleksandra Dimitrijević**; Mentors: **Milan Trumić, Vladimir Nikolić** (Serbia)
Alternative approach to bond work index determination for raw materials of non-standard particle size
6. Students: **Aleksa Vizi, Rastko Glišić, Nebojša Radović**; Mentor: **Ksenija Stojanović** (Serbia)
Major and trace elements of triassic and permian limestones of Slovac and Čelije, Valjevo
7. Students: **Nebojša Radović, Željka Nikolić, Aleksa Vizi, Filip Rajković**; Mentors: **Nikola Vuković, Ksenija Stojanović** (Serbia)
Introducing mineral chemistry to high school students: SEM-EDS analysis of Gadolinite-(Ce)
8. Student: **Miljan Pankalujčić**; Mentor: **Ivana Marković** (Serbia)
Mechanical properties of some steel coins in circulation from different countries
9. Student: **Milan Nedeljković**; Mentor: **Jasmina Petrović** (Serbia)
Influence of casting method on microstructure and mechanical behavior of CuZn26Al4Fe3Mn3 brass alloy
10. Student: **Milijana Mitrović**; Mentor: **Saša Marjanović, Biserka Trumić** (Serbia)
Influence of obtaining procedure on grain size of CuFeP alloy
11. Student: **Nataša Mladenović Nikolić**; Mentor: **Ljiljana Kljajević** (Serbia)
Alkali-activated fly ash and metakaolin materials with wood ash addition

12. Student: **Milan Nedeljković**; Mentors: **Srba Mladenović, Jasmina Petrović** (Serbia)
Enhancement of wettability and grain refinement in Sn-0.7Cu-xIn solder alloys by indium addition
13. Student: **Marina Karabašević**; Mentors: **Vesna Grekulović, Milan Gorgievski, Milica Zdravković** (Serbia)
Characterization of nickel composite coatings with TiO₂ addition
14. Student: **Avram Kovačević**; Mentor: **Uroš Stamenković** (Serbia)
Influence of layer thickness and nozzle diameter on surface quality of FDM-printed foundry patterns
15. Students: **Marko Krpić, Aleksandar Đorđević**; Mentors: **Dalibor Stanković, Jadranka Milikić** (Serbia)
N, S enrichment of coconut shell activated carbon and characterization by SEM/EDX analysis
16. Student: **Iva Dimitrievska**; Mentor: **Perica Paunovic** (North Macedonia)
Polymer-modified graphene screen-printed electrodes for sensitive aqueous analyte monitoring
17. Students: **Tuna Chakir, Iva Dimitrievska**; Mentor: **Anita Grozdanov** (North Macedonia)
Characterization of graphene-modified PVC composite films for EMI shielding in smart buildings
18. Students: **Kristina Vasileva, Iva Dimitrievska**; Mentors: **Perica Paunovic, Anita Grozdanov** (North Macedonia)
Tracking the absorption ability of exhaust gases model mixture using an aqueous solutions of NaOH and KOH
19. Student: **Nikola Bojanić**; Mentor: **Aleksandar Đorđević** (Serbia)
XRD test of Bi-Ni-Zn alloys annealed at 700 °C
20. Student: **Nikola Bojanić**; Mentor: **Milena Zečević** (Serbia)
XRD test of Bi-Ni-Zn alloys annealed at 400 °C
21. Student: **Veljko Minić**; Mentor: **Miljana Popović** (Serbia)
DTA test of the Al-Bi-Ge ternary alloys
22. Student: **Harun Pajić**; Mentor: **Almaida Gigović-Gekić** (Bosnia and Herzegovina)
Influence of repeated quenching on the microstructure and mechanical properties of C60 steel
23. Student: **Nerma Puščul-Zec**; Mentor: **Adnan Mujkanović** (Bosnia and Herzegovina)
Mechanical and physical properties of gypsum composites with recycled EPS
24. Student: **Adrian-Emanuel Onici**; Mentor: **Victor Geantă** (Romania)
Effect of yttrium addition on the microstructure of precipitation-hardened martensitic stainless steel

25. Student: **Matea Kuprešak**; Mentors: **Zdenka Zovko Brodarac, Franjo Kozina, Mitja Petrič, Natalija Dolić (Croatia)**
Radiation resistance simulation of Al-Mg-Li alloy in the space environment
26. Student: **Stefana Agop**; Mentor: **Costica Bejinariu (Romania)**
Severe plastic deformation methods with applications in the medical field
27. Student: **Aleksandra Radić**; Mentor: **Sanela Arsić (Serbia)**
Exploring ERP system adoption: evidence from an ANOVA analysis
28. Student: **Marina Durlić**; Mentors: **Maja Nujkić, Aleksandra Papludis (Serbia)**
Rare earth elements unintentionally released from global industrial activities
29. Student: **Sonja Stanković**; Mentor: **Slađana Alagić, Milan Radovanović (Serbia)**
Electrochemical oxidation of naphthalene
30. Student: **Lamija Šabić**; Mentor: **Nadira Bušatlić (Bosnia and Herzegovina)**
Testing of chloride content in fuels
31. Student: **Snežana Nikolić**; Mentor: **Maja Nujkić, Žaklina Tasić (Serbia)**
Overview of methods for removing heavy metal ions from wastewater
32. Student: **Aleksandra Jović**; Mentor: **Maja Nujkić, Sonja Stanković (Serbia)**
Suspended particles in the air as a result of mining activities
33. Student: **Nataša Apostolov**; Mentor: **Maja Nujkić, Dragana Medić (Serbia)**
Processing of zeolites from industrial waste
34. Students: **Jelena Radivojević, Željka Nikolić, Aleksandar Đorđević**; Mentors: **Vladimir Nikolic, Milica Marčeta Kaninski (Serbia)**
Comparison of breakthrough time of zeolites and acs in a standard gas mixture of CO₂, C₂H₄, C₂H₆, CH₄ and CO
35. Student: **Saška Dumitrašković**; Mentors: **Milan Gorgievski, Vesna Grekulović, Marina Marković (Serbia)**
Removal of copper ions from aqueous solutions using grape stalks as an adsorbent
36. Student: **Hristina Todorović**; Mentor: **Dragan Pantić (Serbia)**
Life cycle assessment on the example of LED drivers and modules
37. Student: **Nikola Stojković**; Mentor: **Ana Momčilović Ristanović (Serbia)**
Assessment of heavy metals in canned fish
38. Student: **Marina Marković**; Mentor: **Milan Gorgievski (Serbia)**
pH and conductivity changes during rinsing and copper ion biosorption onto sunflower hulls
39. Student: **Kludia Kundráková**; Mentor: **Jarmila Trpčevská (Slovakia)**
Sustainable electrospinning of ZnO nanofibers from zinc galvanizing flue dust

40. Student: **Anica Pićurić**; Mentor: **Jelena Šćepanović** (Montenegro)
Procedures for the management of non-hazardous construction waste in the territory of the municipalities of Podgorica, Zeta and Tuzi
41. Student: **Petra Ružičková**; Mentor: **Dušan Orač** (Slovakia)
LiFePO₄ batteries: properties and recycling approaches
42. Students: **Željka Nikolić**, **Nebojša Radović**; Mentor: **Olga Tešović** (Serbia)
How can you participate in the household hazardous waste management in Serbia?
43. Student: **Selmedina Smajić**; Mentor: **Almaida Gigović-Gekić** (Bosnia and Herzegovina)
Risk assessment of senior laboratory technician activities in the metallography and heat treatment laboratory with respect to physical hazards



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