



**MINING AND METALLURGY INSTITUTE BOR**  
**TECHNICAL FACULTY IN BOR, UNIVERSITY OF BELGRADE**



**50<sup>th</sup> INTERNATIONAL OCTOBER CONFERENCE  
on Mining and Metallurgy**



**FINAL PROGRAMME**

**30<sup>th</sup> September – 3<sup>rd</sup> October 2018**

**Hotel "Jezero" Bor Lake, Serbia**

**Financially supported by:**

**Ministry of Education, Science and Technological Development  
of the Republic Serbia**



---

Conference is financially supported by the  
Ministry of Education, Science and Technological  
Development of the Republic of Serbia

---



## Platinum Donors



RUDARSKO TOPIONIČARSKI BASEN BOR



RUDNIK I TERMoeLEKTRANA GACKO

## Gold Donor

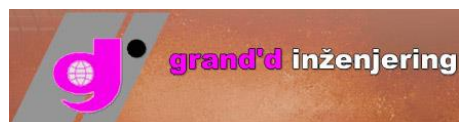


## Silver Donors



The **3DEXPERIENCE**® Company

BIOENERGYPOINT



## Friends of the Conference



City of Bor



---

## SCIENTIFIC COMMITTEE

### 50<sup>th</sup> International October Conference on Mining and Metallurgy

Dr Mile Bugarin (Serbia) – *president*

Dr Ana Kostov (Serbia) – *vice president*

Dr Milenko Ljubojev (Serbia) – *vice president*

---

Dr Walter Valery (Australia)	Dr Aleksandra Milosavljević (Serbia)
Prof. Dr Boyan Boyanov (Bulgaria)	Prof. Dr Andjelka Mihajlov (Serbia)
Prof. Dr Stoyan Groudev (Bulgaria)	Dr Biserka Trumić (Serbia)
Prof. Dr Vencislav Iwanov (Bulgaria)	Prof. Dr Branislav Nikolić (Serbia)
Dr Anto Gajić (B&H)	Prof. Dr Branka Jordović (Serbia)
Dr Boško Vuković (B&H)	Dr Daniel Kržanović (Serbia)
Dr Eldar Pirić (B&H)	Dr Daniela Urošević (Serbia)
Prof. Dr Jelena Penavin Škundrić (B&H)	Dr Dragan Milanović (Serbia)
Dr Kemal Gutić (B&H)	Prof. Dr Dragan Milovanović (Serbia)
Prof. Dr Lazar Stojanović (B&H)	Dr Dragana Božić (Serbia)
Prof. Dr Mevludin Avdić (B&H)	Dr Dragoslav Rakić (Serbia)
Prof. Dr Mirsada Oruč (B&H)	Prof. Dr Dejan Ivezić (Serbia)
Prof. Dr Sulejman Muhamedagić (B&H)	Prof. Dr Dejan Tanikić (Serbia)
Dr Dragan Komljenović (Canada)	Prof. Dr Desimir Marković (Serbia)
Prof. Dr Fathi Habashi (Canada)	Prof. Dr Dragan Manasijević (Serbia)
Prof. Dr Vladimir Krstić (Canada)	Prof. Dr Dragoslav Gusković (Serbia)
Prof. Dr Kaikun Wang (China)	Prof. Dr Duško Minić (Serbia)
Prof. Dr Yong Du (China)	Prof. Dr Endre Romhanji (Serbia)
Prof. Dr Mirko Gojić (Croatia)	Prof. Dr Grozdanka Bogdanović (Serbia)
Prof. Dr Tamara Holjevac Grgurić (Croatia)	Dr Ivana Jovanović (Serbia)
Prof. Dr Heikki Jalkanen (Finland)	Dr Jasmina Stevanović (Serbia)
Prof. Dr Aleksandar Dimitrov (FYR Macedonia)	Prof. Dr Karlo Raić (Serbia)
Prof. Dr Carl Heinz Spitzer (Germany)	Dr Lidija Gomidželović (Serbia)
Dr Srećko Stopić (Germany)	Prof. Dr Ljubiša Kuzović (Serbia)
Prof. Dr Costas Matis (Greece)	Prof. Dr Milan Antonijević (Serbia)
Prof. Dr Dimitris Pnias (Greece)	Prof. Dr Milan Trumić (Serbia)
Prof. Dr György Kaptay (Hungary)	Prof. Dr Mile Dimitrijević (Serbia)
Prof. Dr Iwao Katayama (Japan)	Prof. Dr Mirjana Rajčić Vujasinović (Serbia)
Prof. Dr Nobuyuki Masuda (Japan)	Dr Miroslav Sokić (Serbia)
Prof. Dr Essen Suleimenov (Kazakhstan)	Prof. Dr Nada Štrbac (Serbia)
Prof. Dr Kemal Deljić (Montenegro)	Dr Nadežda Talijan (Serbia)
Prof. Dr Žarko Radović (Montenegro)	Prof. Dr Nedeljko Magdalinović (Serbia)
Prof. Dr Krzysztof Fitzner (Poland)	Prof. Dr Nenad Radović (Serbia)
Prof. Dr Luis Filipe Malheiros (Portugal)	Prof. Dr Nenad Vušović (Serbia)
Prof. Dr Andrei Rotaru (Romania)	Prof. Dr Rade Jelenković (Serbia)
Prof. Dr Dimitriu Sorin (Romania)	Dr Radmila Marković (Serbia)
Prof. Dr Sanda Krausz (Romania)	Prof. Dr Radoje Pantović (Serbia)
Prof. Dr Alexander Udovsky (Russia)	Prof. Dr Rodoljub Stanojlović (Serbia)
Prof. Dr Petr M. Solozhenkin (Russia)	Dr Renata Kovačević (Serbia)
Prof. Dr Sergey Krasikov (Russia)	Dr Silvana Dimitrijević (Serbia)
Dr Slavomir Hredzak (Slovakia)	Prof. Dr Slobodan Trajković (Serbia)
Prof. Dr Tomaš Havlik (Slovakia)	Prof. Dr Snežana Šerbula (Serbia)
Prof. Dr Boštjan Markoli (Slovenia)	Prof. Dr Svetlana Ivanov (Serbia)
Prof. Dr Jakob Lamut (Slovenia)	Prof. Dr Tatjana Volkov-Husović (Serbia)
Prof. Dr Jožef Medved (Slovenia)	Prof. Dr Velizar Stanković (Serbia)
Prof. Dr Milivoj Vulić (Slovenia)	Dr Vesna Conić (Serbia)
Dr Mirjam Jan-Blažič (Slovenia)	Dr Vesna Krstić (Serbia)
Dr Magnus Ericsson (Sweden)	Prof. Dr Vitomir Milić (Serbia)
Prof. Dr Seshadri Seetharaman (Sweden)	Dr Viša Tasić (Serbia)
Prof. Dr Guven Onal (Turkey)	Dr Vladan Cosović (Serbia)
Prof. Dr Onuralp Yuçel (Turkey)	Prof. Dr Vlastimir Trujić (Serbia)
Prof. Dr Batrić Pešić (USA)	Dr Zdenka Stanojević Šimšić (Serbia)
Prof. Dr Velimir Radmilović (USA)	Dr Zoran Stevanović (Serbia)
Prof. Dr Vladislav Kecojević (USA)	Dr Zvonko Gulišija (Serbia)
Prof. Dr Aco Janićijević (Serbia)	Prof. Dr Željko Kamberović (Serbia)
Dr Aleksandra Ivanović (Serbia)	Prof. Dr Živan Živković (Serbia)

---

---

**ORGANIZING COMMITTEE**

*50<sup>th</sup> International October Conference on Mining and Metallurgy*

Dr Ana Kostov, *president*

Dr Milenko Ljubojev, *vice-president*  
Prof. Dr Dejan Tanikić, *vice-president*

Suzana Cvetković, *secretary*

*Members:*

Dr Aleksandra Milosavljević  
Dr Silvana Dimitrijević  
Dr Zdenka Stanojević Šimšić  
Dr Dragana Božić  
Borivoje Stojadinović  
Lidija Đurđevac Ignjatović  
Dragan Ignjatović  
Nevenka Vukašinović  
Vesna Simić  
Danilo Spalović  
Saša Stojanov

---

## **WELCOMING ADDRESS**

The 50<sup>th</sup> International October Conference on Mining and Metallurgy, organized annually, aims at providing a forum for presentation and discussion of the scientific research, technological development and practice on the subjects of geology, mining, metallurgy, materials science, technology, environmental protection, energy efficiency and related engineering topics.

The Conference is organized jointly by the Mining and Metallurgy Institute Bor and the Technical Faculty in Bor, the University of Belgrade. Firstly, it was a national conference, then a conference with the international participation and, since 2002, it has been organized as an international conference.

The topics of the 50thIOC will cover the following fields: geology, underground mining, surface mining, mineral processing, extractive metallurgy, metal processing, materials science, inorganic technology, environmental engineering, industrial engineering, recycling technologies, energetics, manufacturing technologies, quality management, software engineering applications, mechatronics, machining, design and construction, and other related fields.

The Conference work will be organized in sessions, including plenary lectures, session lectures, oral and poster presentations.

The Conference will provide a good opportunity for meeting the old friends, making the new contacts and exchanging the useful information as well.

## **TIME AND VENUE**

The 50<sup>th</sup> IOC will be held from 30<sup>th</sup> September to 3<sup>rd</sup> October 2018 at Hotel "Jezero", Bor Lake, Serbia, about 250 km south-east of Belgrade.

The Conference office will be opened on: 30<sup>th</sup> September – 3<sup>rd</sup> October: arrival and registration of the participants, opening, plenary lectures, work per sections and closing conference

## **LANGUAGE**

The Conference language will be English.

## **PRESENTATIONS**

Plenary Lecture – 20 min

Oral presentation – 10 min

Poster presentation on space max of 70 cm x 100 cm

Electronic form of presentation will be possible only in MS Power Point due to its widespread use. For oral presentation, personal computer and LCD Projector will be at author's disposal.

## **PUBLISHING**

The Conference Proceedings will be published only the papers accepted by the Scientific Committee.

The authors can prepare their papers in extended form and submit them as full-length research papers in:

- Journal of Mining and Metallurgy, Section A: Mining and Section B: Metallurgy ([www.jmmab.com](http://www.jmmab.com)),
- Journal Mining and Metallurgy Engineering Bor (<https://irmbor.co.rs/en/publishing/>)
- Bakar/ Copper (<https://irmbor.co.rs/en/publishing/>)
- Recycling and Sustainable Development (<http://www.ror.tf.bor.ac.rs/>)

after reviewing and appropriate revisions.

## CONFERENCE FEE

The Conference fee is € 120. It includes admission to the Conference sessions, Conference Proceedings and the accompanying materials, conference dinner, and refreshments during the Conference.

The conference fee for the accompanying person is € 60. It includes all items specified for the participants except the Conference Proceedings and accompanying materials.

The conference fee for publishing the accepted papers is € 48.

The accounts and instructions for all payments are the following:

a) Domestic participants in RSD:

Institut za rudarstvo i metalurgiju Bor

Br. računa: 160-42434-38

Naznaka: 50IOC

b) Foreign participants:

Instruction for customer transfer in EUR:

56: Intermediary:

BCITITMM

INTESA SANPAOLO SPA MILANO, ITALY

57: Account with institution:

DBDBRSBG

BANCA INTESA AD, BEOGRAD

MILENTIJA POPOVIĆA 7B

BEOGRAD, REPUBLIKA SRBIJA

59: Beneficiary:

/RS35160005080000503252

INSTITUT ZA RUDARSTVO I METALURGIJU

ZELENI BULEVAR 35, BOR, Republic of Serbia

With remarks: 50IOC

The participants, who do not pay the Conference fee in advance, may pay it during the registration at the Conference desk.

## EXHIBITION

An exhibition will be held during the Conference, which will be a good opportunity for the companies operating in the fields related to the Conference topics to introduce their products and services to a wider public. It will be open throughout the Conference.

Exhibition fee of € 120 per delegate includes the exhibition booth, Conference Proceedings and refreshments during the Conference. Additional fee for other delegates is € 60 per person.

## HOTEL ACCOMMODATION

Accommodation will be provided for the participants at Hotel "Jezero", Bor Lake. For all hotel information and reservations, please use:

- Website: <http://www.hoteljezero.rs/?lang=en>

- E-mail: [office@hoteljezero.rs](mailto:office@hoteljezero.rs)

- Phone: +381 (0) 30 482 940, +381 (0) 30 482 340

- Fax: +381 (0) 30 482 440

Payment of the hotel bill can be made upon arrival at the reception desk or in advance.



## TRANSPORTATION

Participants who will come:

- by plane:

The airport "Nikola Tesla", Belgrade  
<http://www.beg.aero>

- by bus:

The Belgrade bus station:  
<http://www.bas.rs>

should take a bus to Bor.

Bus from Bor to Bor Lake - starts from station called "IV km", which is near the bus station "Bortravel".

**Bus Time Table**

Departure from Belgrade	Arrival to Bor	Departure from Bor	Arrival to Belgrade	Bor - Bor Lake	Bor Lake - Bor
10:30 (highway)	14:45	03:35 (not at weekends)	07:35	05:25	06:00
12:30 (highway)	16:15	04:30 (highway)	08:15	07:30	08:30
14:00 (not at weekends)	17:46	05:00 (highway)	09:15	10:00	11:00
15:15 (highway)	19:30	07:30 (via Bor Lake)	12:05	13:00	14:00
16:30 (highway)	20:15	08:45 (highway)	12:32	15:15	16:00
17:30 (via Bor Lake)	22:06	14:30 (highway)	18:20		
19:30 (highway)	23:30	15:30 (highway)	19:45		

## WEATHER CONDITIONS

Weather conditions are very changeable in October and temperature could vary from 10° to 25°C, so you should take some clothes for warm and cold weather. Details of weather conditions and forecasts could be found on the following web site

<https://www.weather2umbrella.com/vremenska-prognoza-bor-serbia-sr/7-dana>

## PERSONAL INSURANCE

The Organizer cannot be held responsible for accidents involving the Conference participants or the accompanying persons, for damage, or loss of their personal property or for cancellation expenses, regardless of cause. Participant should therefore make their own insurance arrangements. Please consult your local insurance agents regarding coverage.

## CORRESPONDENCE

Correspondence related to the Conference should be addressed to the President of the Organizing Committee,

**Dr Ana Kostov:**

E-mail: [ioc@irmbor.co.rs](mailto:ioc@irmbor.co.rs)

Phone: +381 (0) 30 454 108

Web site: <https://ioc.irmbor.co.rs/>

## TIME TABLE OF THE CONFERENCE

	<b>Hall/Session</b>	<b>Sunday 30<sup>th</sup> September</b>	<b>Monday 1<sup>st</sup> October</b>	<b>Tuesday 2<sup>nd</sup> October</b>	<b>Wednesday 3<sup>rd</sup> October</b>
<b>Conference Office</b>	Hotel Lobby	16:00 - 18:00	07:00 - 19:00	08:00 - 18:00	08:00 - 15:00
<b>Opening Ceremony</b>	Conference room		10:30 - 11:15		
<b>Plenary Lectures 1</b>	Conference room		11:15 - 12:00		
<i>Welcome Cocktail</i>	<i>Hotel Lobby</i>		12:00 - 12:30		
<b>Presentations of Donors</b>	Conference room		12:30 - 13:00		
<i>Lunch</i>			13:00 - 15:00		
<b>Plenary Lectures 2</b>	Conference room		15:00 - 15:45		
<b>Oral Session 1</b>	Conference room		16:00 - 17:00		
<i>Coffee Break</i>	<i>Hotel Lobby</i>		17:00 - 17:30		
<b>Oral Session 2</b>	Conference room		17:30 - 19:00		
<b>Satreps Conference</b>	Conference room		15:00 – 19:00		
<b>Visit to MMI Bor</b>	MMI Bor			09:00 - 12:00	
<b>Poster Session 1</b>	Hotel Lobby			09:00 - 12:00	
<i>Coffee Break</i>	<i>Hotel Lobby</i>			10:00 - 10:30	
<i>Lunch</i>				12:00 - 14:00	
<b>Oral Session 3</b>	Conference room			14:00 - 16:00	
<b>Poster Session 2</b>	Conference room			16:00 - 18:00	
<i>Coffee Break</i>	<i>Hotel Lobby</i>			16:00 - 16:30	
<b>Conference Diner</b>	Restaurant		20:00		
<b>Excursions</b>					09:00 - 13:00
<b>Closing of the Conference</b>					15:00

Plenary Lectures limited to 15 min, Oral presentations - limited to 10 min and 5 min for discussions.

## SCIENTIFIC PROGRAMME

---

### PLENARY LECTURES 1

Monday, 1<sup>st</sup> October 2018, 11.15 - 12:00

Chairpersons: Ana Kostov, Dejan Tanikić

---

*Daizo Ishiyama, Nobuyuki Masuda, Atsushi Shibayama, Zoran Stevanović, Ljubiša Obradović, Vladan Marinković, Radmila Marković, Ljiljana Avramović, Vojka Gardić*

AN APPROACH TO FIND THE ADVANCED METHODS FOR SOLUTION OF PROBLEMS RELATED TO THE MINING ACTIVITIES IN THE BOR MINING AREA, SERBIA

*Aca Jovanović, Mile Bugarin*

APPLICATION OF THE SENSOR SORTING TECHNIQUE IN PROCESSING THE PRIMARY AND SECONDARY RAW MATERIALS

### PRESENTATION OF DONORS AND MONOGRAPH

Monday, 1<sup>st</sup> October 2018, 12:30-13:00

Chairpersons: Zdenka Stanojević-Šimšić, Lidija Đurđevac Ignjatović

---

*Huesker - Silver Donor*

*Dassault Systems – Silver Donor*

*Monograph - Zoran Karastojković, Radiša Perić, Materijali i postupci obrade u juvelirstvu*

### PLENARY LECTURES 2

Monday, 1<sup>st</sup> October 2018, 15:00-15:45

Chairpersons: Aleksandra Milosavljević, Ana Kostov

---

*Victor Verbičchi, Octavian-Victor Oancă, Aurel-Valentin Birdeanu*

THE NEW MANUFACTURING TECHNOLOGIES BY WELDING

*Mihaela Ciopec, Adina Negrea, Cornelia Muntean, Petru Negrea, Narcis Duțeanu, Oana Grad*

CELLULOSE FUNCTIONALIZED WITH CROWN ETHER AND Fe (III) USED FOR ARSENIC REMOVAL FROM WATER

*Miodrag Žikić, Milan Živković, Saša Stojadinović, Goran Ćosić*

TECHNO- ECONOMICAL ANALYSIS OF THE CUTOFF Cu CONTENT IN THE CORRECTED SOUTH-EAST PUSHBACK AT THE OPEN PIT VELIKI KRIVELJ

## ORAL SESSION 1

Monday, 1<sup>st</sup> October 2018, 16:00-17:00

Chairpersons: *Silvana Dimitrijević, Ana Kostov*

---

*Markus Wilke, Thomas Silber-Hasslacher, Vladan Čanović*

EFFICIENT AND SUSTAINABLE TAILING DEWATERING AND STORAGE BY THE GEOSYNTHETIC DEWATERING TUBES: WORKING PRINCIPLES AND TALVIVAARA CASE STUDY

*Kemal Gutić, Muhidin Brčanić, Emir Sejranović*

MONITORING OF WELL CONSTRUCTION BY MINING FOR THE PILLAR SITE "S2" FOR THE VIADUCT AT ZENICA – CORRIDOR VC

*Ewa Rudnik, Karolina Chat, Leszek Szatan*

HOT-DIP GALVANIZING WASTE AS A VALUABLE SOURCE OF THE SECONDARY ZINC

*Christof Lanzerstorfer*

DUST FROM THE SECONDARY COPPER SMELTER: APPLICATION OF THE AIR CLASSIFICATION FOR IMPROVED DUST RECYCLING

*Christof Lanzerstorfer*

ZINC CYCLES CAUSED DUE TO THE IN-PLANT DUST RECYCLING IN THE INTEGRATED STEEL MILLS: OPTIMIZATION USING THE AIR CLASSIFICATION

*Vasily Lutsyk, Vera Vorob'eva, Anna Zelenaya*

INFLUENCE OF COBALT TO THE COPPER-SULFIDE INTERACTION: 3D COMPUTER MODEL OF THE Co-Cu-CoS-Cu<sub>2</sub>S T-x-y DIAGRAM

## ORAL SESSION 2

Monday, 1<sup>st</sup> October 2018, 17:30-18:30

Chairpersons: *Dragana Božić, Ana Kostov*

---

*Matej Drobne, Urška Klančnik, Milan Terčelj, Peter Fajfar*

MICROSTRUCTURAL CONSTITUENTS – IMPACT ON THERMAL FATIGUE CRACK GROWTH IN THE CAST IRON

*Zoran Karastojković, Zoran Janjušević*

TEMPERATURE MEASURING DURING HEATING IN THE SALT BATHS BEFORE HIGH SPEED STEEL QUENCHING

*Vladimir V. Panić, Velizar Stanković, Čedomir Dumitrašković, Silvana Dimitrijević, Aleksandar B. Dekanski, Vesna Ž. Panić, Jasmina S. Stevanović*

DECAY OF DIMENSIONALLY STABLE ANODES IN THE COPPER POWDER PRODUCTION – EXPERIENCE FROM THE "POMETON" TIR, BOR, SERBIA

*Ivana Jelić, Milena Rikalović, Biljana Martinović*

AMBIENTAL AIRPOLLUTION DURING THE INFECTIOUS MEDICAL WASTE TREATMENT BY STERILIZATION

*Rabab Almabrouk Alhadi Salih, Dunja Antonijević, Teodora Nedić, Igor Čeliković, Boris Lončar*

RADON CONCENTRATION IN THE SHALLOW LAYERS OF SOIL

*Cosmin Vancea, Giannin Moșoarcă, Marius Gheju, Petru Negrea*

THE NEW ALTERNATIVES FOR INERTIZATION THE EXHAUSTED REACTIVE MIXTURES RESULTED FROM REMOVAL OF Cr(VI) WITH Fe<sub>0</sub> IN A CONTINUOUS-FLOW SYSTEM

### ORAL SESSION 3

Tuesday, 2<sup>nd</sup> October 2018, 14:00-16:00

Chairpersons: Aleksandra Ivanović, Viša Tasić

---

*Vitaly Solodovnikov*

DEVELOPING THE SUPPLY CHAIN PLANNING METHODOLOGY FOR METALS

*Ghassan S. El-Masry, Benur Maatug, Mustafa El-Musbahi*

ELECTRICAL DISCHARGE MACHINING (CUTTING METAL TO PRECISE SHAPES USING THE ELECTRICITY)

*Gabrijela Popović, Bojan Djordjević, Dragan Milanović*

THE MCDM APPROACH IN A CRITERIA PRIORITIZATION IMPORTANT FOR THE COPPER ORE MINING METHOD SELECTION

*Guillermo Reyes, Alejandro Cruz, Nicolás Cayetano, Ricardo Sánchez, Víctor Gutiérrez*

THE EFFECT OF DIFFERENT INOCULANTS AND COOLING CONDITIONS ON THE GRAPHITE FLAKE FORMATION

*Eduardo Colin-García, Alejandro Cruz-Ramírez, Ricardo Sanchez-Alvarado, Macaria Hernández-Chávez*

MODULUS CASTING EFFECT ON THE MICROSTRUCTURE OF DUCTILE ALLOYED IRON WITH NICKEL

### POSTER SESSION 1

Tuesday, 2<sup>nd</sup> October 2018, 09:00-12:00

Chairpersons: Aleksandra Milosavljević, Zdenka Stanojević Šimšić

---

*Dejan Bugarin, Nikola Stanić*

EXAMPLES AND EXPERIENCES OF THE MINING TOURISM AND POSSIBILITY OF THEIR APPLICATION IN SERBIA

*Daniel Kržanović, Miroslav Grujić, Dejan Stevanović, Nenad Vušović, Milenko Ljubojev*

STRATEGIC MINE PLANNING PHASES OF THE COPPER ORE OPEN PITS - A CASE STUDY: THE OPEN PIT VELIKI KRIVELJ, SERBIA

*Daniel Kržanović, Ivana Jovanović, Sanja Petrović, Sladjana Krstić, Radmilo Rajković*

ASSESSMENT THE FLEET PRODUCTIVITIES IN A LONG-TERM PLANNING OF THE OPEN PITS

*Igor Svrkota, Miloš Stojanović, Ivan Svrkota, Zoran Stojanović, Duško Djukanović*

ANALYSIS OF THE GROUND STABILITY IN THE ORE BODY T3 OF THE JAMA BOR UNDERGROUND MINE

*Vladimir Nikolić, Milan Trumić, Ljubiša Andrić, Maja Trumić*

MICRONIZATION OF ZEOLITE IN A VIBRATING MILL WITH RINGS

*Maja Trumić, Nevena Munćan, Milan Trumić, Dragan Radulović*

SEPARATION OF THE PS/ABS PLASTICS USING THE FROTH FLOTATION

*Nikola Stanić, Saša Stepanović, Aleksandar Doderović, Željana Sekulić, Miljan Gomilanović*

CALCULATION ANALYSIS OF THE CONSTRUCTIVE PARAMETERS OF THE INTERNAL LANDFILL KUTLOVAČA AND INCLUDED IN THE DESIGN STATE

*Miljan Gomilanić, Saša Stepanović, Dejan Stevanović, Aleksandar Doderović, Nikola Stanić*

ANALYSIS OF THE OPTIMIZATION CONTOURS OF THE OPEN PIT IN THE ZONE OF ROOF COAL SERIES GACKO-CENTRAL FIELD WITH THE WHITTLE SOFTWARE PACKAGE IN THE FUNCTION SIZE OF A BLOCK

*Aleksandar Doderović, Saša Stepanović, Nikola Stanić, Miljan Gomilanić*

ANALYSIS OF THE TANDEM WORK OF SPREADER AND DRAGLINE ON THE LANDFILL OF THE OPEN PIT

*Srdana Magdalinović, Dragiša Stanujkić, Dragan Milanović, Vesna Marjanović, Miomir Mikić, Branislav Rajković*

POSSIBILITY OF COMMON PROCESSING THE MINERALIZATION FROM THE SITE KRIVELJSKI KAMEN AND ORE DEPOSIT VELIKI KRIVELJ

*Jelena Ivaz, Dejan Petrović, Saša Kalinović, Dejan Tanikić, Pavle Stojković*

ANALYSIS OF THE WORKERS AGE INFLUENCE ON THE INJURY RATES IN THE UNDERGROUND COAL MINING IN SERBIA

*Ivana Jovanović, Sanja Petrović, Daniel Kržanović, Sladana Krstić, Dejan Petrović*

NRMSE OF PREDICTION THE COPPER FLOTATION INDICATORS OBTAINED BY THE SOFT COMPUTING BASED MODELS

*Saša Stepanović, Nikola Stanić, Aleksandar Doderović, Miljan Gomilanić, Željana Sekulić*

ANALYSIS OF LOSSES IN A FUNCTION OF SELECTION THE LEVEL OF ROOF COAL SERIES - COAL DEPOSIT GACKO

*Lidija Đurđevac Ignjatović, Dragan Ignjatović, Milenko Ljubojev, Dušan Tašić, Daniela Urošević*

APPLICATION OF CEMENTED PASTE BACKFILL IN THE SUBLEVEL STOPPING METHOD

*Dragan Ignjatović, Lidija Đurđevac Ignjatović, Milenko Ljubojev, Daniela Urošević, Dušan Tašić*

SUBLEVEL STOPPING METHOD MODELING USING THE CEMENT PASTE BACKFILL FOR AFTERWARD EXCAVATION OF THE MAIN PILLARS

*Jovica Sokolović, Zoran Štirbanović, Ivana Strainović, Novka Živadinović, Dragan Perić*

VALORIZATION OF MAGNETITE FROM THE COPPER SLAG IN RTB BOR AND ITS APPLICATION AS A SUSPENSOID

*Sladana Krstić, Ivana Jovanović, Milenko Ljubojev, Sanja Petrović,*

*Milan Jovanović, Dušan Tašić, Srdana Magdalinović*

THE CARBONATE DEPOSIT "KRIVELJ"

*Zoran Štirbanović, Jovica Sokolović, Dragiša Stanujkić, Dragan Milanović, Miloš Kirov*

THE EFFECT OF LIBERATION OF THE COPPER MINERALS ON TECHNOLOGICAL INDICATORS OF THE FLOTATION PROCESS

*Tatjana Petrović Čačić, Aleksandra Vuković, Vladimir Bačanac, Veselin Bakić*

STATISTICAL ANALYSIS OF THE QUALITY DATA OF THE DEPOSIT "RADLJEVO NORTH", KOLUBARA COAL MINE, SERBIA

*Jovan Blagojević, Radmila Generalović, Dragan Radojković, Marijana Petrović*

EXPLORATION WORKS ON REGULATION THE RIVERBED OF PESTAN

*Dušan Tašić, Lidija Đurđevac Ignjatović, Dragan Ignjatović*

DETERMINING THE POINT LOAD STRENGTH INDEX OF THE OVERLYING ZONE AT THE OP GACKO

*Sanja Petrović, Grozdanka Bogdanović*

DISSOLUTION OF CHALCOPYRITE IN ACIDIC HYDROGEN PEROXIDE SOLUTION

*Pavle Stojković, Dejan Petrović, Miodrag Žikić, Saša Stojadinović*  
DEVELOPMENT OF THE PROGRAM FOR DIMENSIONING AND SELECTION  
THE DEWATERING OBJECTS AND EQUIPMENT FOR THE OPEN PIT DEWATERING

*Pavle Stojković, Jelena Ivaz, Nenad Vušović*  
GIS SOLUTION FOR THE “STRMOSTEN” PIT IN THE COAL MINE “VODNA”

*Vitomir Milić, Mladen Radovanović, Stefan Tasić*  
ANALYSIS OF THE POSSIBILITY FOR APPLICATION THE SHORTWALL  
METHOD IN THE RAVNA REKA COAL DEPOSIT OF THE REMBAS MINE

*Marko Pavlović, Marina Dojčinović, Ljubiša Andrić, Jovica Stojanović,  
Dragan Radulović, Milan Petrov, Marina Blagojev*  
INFLUENCE OF THE BASALT STRUCTURE AND PROPERTIES ON  
DEVELOPMENT THE CAVITATION DAMAGE

*Daniela Urošević, Dragan Milanović, Daniel Kržanović, Branislav Rajković,  
Miomir Mikić, Ivana Jovanović, Slađana Krstić*  
POSSIBILITY OF ACHIEVING A CAPACITY OF  $11 \times 10^6$  TONS OF  
ORE IN THE CRUSHING AND SCREENING PLANT OF RBM

*Dejan Petrović, Vitomir Milić, Jelena Ivaz, Ivana Jovanović, Pavle Stojković*  
ANALYSIS OF APPLICATION A SUBLEVEL STOPPING METHOD  
WITH THE PASTA BACKFILL IN THE BOR MINE

*Sanja Petrović, Ivana Jovanović, Srđana Magdalinović, Daniel Kržanović, Slađana Krstić*  
DETERMINATION THE THICKENING PARAMETERS OF THE FINAL  
FLOTATION TAILINGS FROM THE ORE DEPOSIT BORSKA REKA

*Nebojša Tadić, Nikola Šibalić, Milan Vukčević, Mitar Mišović*  
CHARACTERISTICS OF THE FSW WELDED COPPER SHEET JOINTS

*Aleksandra Ivanović, Vesna Cvetković - Stamenković, Biserka Trumić,  
Saša Marjanović, Vesna Marjanović, Silvana Dimitrijević*  
PdNi5 ALLOY: THE EFFECT OF THERMOMECHANICAL PROCESSING  
REGIME ON MECHANICAL PROPERTIES AND ELECTRICAL CONDUCTIVITY

*Silvana Dimitrijević, Mirjana Rajčić-Vujasinović, Stevan Dimitrijević,  
Zoran Stević, Aleksandra Ivanović*  
STABILITY OF THE GOLD MERCAPTOTRIAZOLE COMPLEX AT pH=4

*Ana Kostov, Aleksandra Milosavljević, Zdenka Stanojević Šimšić*  
PHASE TRANSFORMATIONS IN THE SHAPE MEMORY Ti – Al - V ALLOY

*Žarko Radović, Nebojša Tadić, Nada Štrbac, Dragan Manasijević*  
THERMAL CONDUCTIVITY OF STEEL AS A FUNCTION OF  
THE ALLOYING ELEMENTS CONTENT

*Zdenka Stanojević Šimšić, Ana Kostov, Aleksandra Milosavljević*  
HARDNESS AND MICROHARDNESS OF THE SELECTED ALLOYS  
IN A VERTICAL Cu<sub>0.5</sub>Ag<sub>0.5</sub>-Al SECTION IN THE TERNARY Cu-Al-Ag SYSTEM

*Veljko Savić, Srđan Matijašević, Vladimir Topalović, Snežana Zildžović,  
Sonja Smiljanić, Snežana Grujić*  
NON-ISOTHERMAL ANALYSIS OF NUCLEATION THE Li<sub>2</sub>O-GeO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-P<sub>2</sub>O<sub>5</sub> GLASS

*Vladimir Topalović, Srđan Matijašević, Jelena Nikolić, Veljko Savić,  
Sonja Smiljanić, Snežana Grujić*

LANTHANUM-DOPED PHOSPHATE GLASS FOR BIOMEDICAL APPLICATION

*Lidija Gomidželović, Ana Kostov, Dragan Manasijević, Ljubiša Balanović*

TERMODYNAMICS OF DIFFERENT MULTICOMPONENT SHAPE MEMORY ALLOYS

*Lidija Gomidželović, Ana Kostov, Ljubiša Balanović, Dragan Manasijević, Vesna Krstić*

CALCULATION THE THERMODYNAMIC PROPERTIES OF  
THE Cu-In-Sb ALLOYS FROM A COPPER CORNER BY THE RKM MODEL

*Lidija Gomidželović, Ana Kostov, Dragan Manasijević, Ljubiša Balanović, Hesam Pouraliakbar*

GENERAL SOLUTION MODEL: THERMODYNAMIC PROPERTIES OF  
THE ALLOYS FROM A GALLIUM CORNER OF THE Au-Ga-In-Sb SYSTEM

*Lidija Gomidželović, Ana Kostov, Emina Požega, Ljubiša Balanović*

INVESTIGATION THE HARDNESS AND ELECTRICAL CONDUCTIVITY  
OF THE SELECTED Cu-Al-Zn SHAPE MEMORY ALLOYS

*Karolina Chat, Ewa Rudnik*

WETTABILITY OF THE ELECTROPLATED METALLIC COATINGS

*Aleksandra Milosavljević, Ana Kostov, Zdenka Stanojević-Šimšić*

ELEMENTAL MAPPING IN THE SEM-EDS AS AN ADDITIONAL  
METHOD FOR MICROSTRUCTURE CHARACTERIZATION

*Borislava Vurdelja, Filip Veljković, Boris Rajčić, Silvana Dimitrijević,*

*Stevan Dimitrijević, Željko J. Kamberović, Suzana Veličković*

CHARACTERIZATION OF THE ANODIC FILMS FORMED ON  
THE Ag<sub>60</sub>Cu<sub>26</sub>Zn<sub>14</sub> ALLOY BY THE LDI MASS SPECTROMETRY

*Biserka Trumić, Lidija Gomidželović, Vesna Krstić, Ljubiša Balanović, Saša Marjanović*

MICROSTRUCTURE INVESTIGATION OF THE MULTICOMPONENT Au-Ag-Cu-Pd ALLOYS

*Iwona Dobosz, Dawid Kutyla, Małgorzata Kąc, Grzegorz Włoch, Piotr Żabiński*

SYNTHESIS AND MAGNETIC PROPERTIES OF THE Co-Ru ALLOY NANOWIRES

*Stevan Dimitrijević, Željko Kamberović, Milisav Ranitović, Silvana Dimitrijević, Marija Korac*

SILVER MICRO-SIZED POWDER OBTAINED BY THE CHEMICAL REDUCTION

*Biljana Zlatičanin, Sandra Kovačević*

STRENGTHENING RESPONSE OF THE HEAT-TREATABLE Al-Cu<sub>5</sub>-Mg<sub>3</sub> 279  
ALLOYS TO THE AGEING PROCESS

*Emina Požega, Pantelija Nikolić, Slavko Bernik, Saša Marjanović,*

*Lidija Gomidželović, Stevan Vujatović, Milan Radovanović*

INVESTIGATION OF THE BiSbTeSe SINGLE CRYSTAL DOPED WITH Zr

*Biljana Zlatičanin, Sandra Kovačević*

STRUCTURE DETERMINATION OF THE EUTECTIC Al<sub>2</sub>Cu AND  
Al<sub>2</sub>CuMg BY THE ELECTRON MICROSCOPY

*Aleksandar Savić, Ivana Jelić, Dimitrije Zakić, Dragi Antonijević,*

*Ivana Šekler, Aleksandar Kostić*

THE NEW THERMAL INSULATION MATERIAL BASED ON  
THE MISCANTHUS X GIGANTEUS AND FLY ASH



*Nikola Bajić, Darko Veljić, Mihailo Mrdak, Jasmina Pekez,  
Zoran Radosavljević, Zoran Karastojković*

STRUCTURE CHANGES IN THE WELD METAL AS A FUNCTION OF FILLER  
METAL COMPOSITION AND WELDING REGIME OF THE MICROALLOYED STEEL

*Miroslav Sokić, Srđan Stanković, Branislav Marković, Jovica Stojanović, Nela Petronijević*

ACID LEACHING OF COPPER FROM FLOTATION TAILINGS OF  
THE COPPER MINE MAJDANPEK, SERBIA

*Biserka Trumić, Ljubica Radović, Vesna Krstić, Lidija Gomidželović,  
Aleksandra Ivanović, Saša Marjanović*

HIGH TEMPERATURE RESISTANCE OF PLATINUM AND ITS  
ALLOYS IN A FUNCTION OF IMPURITIES

## POSTER SESSION 2

Tuesday, 2<sup>nd</sup> October 2018, 16:00-18:00

Chairpersons: Vesna Krstić, Slavica Miletić

---

*Branka Pešovski, Vesna Krstić, Danijela Simonović, Suzana Dragulović, Vesna Marjanović*  
PHYTOREMEDIATION AS A METHOD FOR WASTEWATER TREATMENT

*Vesna Krstić, Branka Pešovski, Tamara Urošević, Danijela Simonović,  
Lidija Gomidželović, Biserka Trumić*  
FTIR AND XPS TECHNIQUES FOR THE Cu<sup>2+</sup>-ADSORPTION AND CATALYSIS

*Dana Stanković, Milenko Ljubojev, Zlatko Ječmenica*  
REDUCTION OF SULFUR IN THE WASTE FLUE GASES OF THE POWER  
PLANTS USING THE LIMESTONE COMPOSITE AS THE SULFUR ABSORBENT

*Marija Petrović, Tatjana Šoštarić, Jelena Petrović, Jelena Milojković,  
Marija Koprivica, Mirjana Stojanović*  
CORN SILK AS A BIOSORBENT FOR THE METAL IONS REMOVAL  
FROM THE MINING, SMELTING AND ELECTROPLATING WASTEWATER

*Jelena Petrović, Marija Mihajlović, Marija Petrović, Mirjana Stojanović,  
Marija Kojić, Zorica Lopičić*  
GRAPE POMACE HYDROCHAR AS AN EFFICIENT ADSORBENT  
FOR CADMIUM REMOVAL

*Dragana Božić, Milan Gorgievski, Velizar Stanković, Nada Štrbac*  
PHYSICO-CHEMICAL CHARACTERIZATION OF THE BEECH  
SAWDUST AND WHEAT STRAW

*Vanja Trifunović, Marija Petrović Mihajlović*  
5-CHLORO-BENZOTRIAZOLE AS A COPPER CORROSION  
INHIBITOR IN 3% NaCl SOLUTION

*Vesna Krstić, Marko Radotić, Jane Paunković, Violeta Jovanović*  
ANALYSIS OF THE PROBLEM OF ILLEGAL DUMPS, A CASE OF  
THE KRAGUJEVAC MUNICIPALITY, THE REPUBLIC OF SERBIA

*Jelena V. Petrović, Slađana Alagić, Mile Dimitrijević, Mile Bugarin,  
Mirjana Šteharinik, Marija Milivojević*  
THE CONTENT OF HEAVY METALS IN THE SHOOTS OF COMMON  
REED DIFFERENTLY SUBMERGED IN LAKE ROBULE

*Tatjana Apostolovski - Trujić, Viša Tasić, Aleksandra Ivanović,  
Renata Kovačević, Mirjana Šteharnik*

CORRELATIONS BETWEEN THE HEAVY METALS AND ARSENIC  
DETERMINED IN PM10 NEAR THE COPPER SMELTER IN

*Stefan Djordjievski, Daizo Ishiyama, Yasumasa Ogawa, Zoran Stevanović,  
Ljubiša Obradović, Milan Jovanović*

MOBILITY AND WEATHERING OF THE FLOTATION TAILINGS IN  
THE RIVER BED AND FLOODPLAIN SEDIMENTS OF THE TIMOK RIVER

*Vesna Marjanović, Radmila Marković*

CHEMICAL METHODS FOR TESTING THE EFFICIENCY OF  
STABILIZATION/SOLIDIFICATION PROCESS OF MATERIAL CONTAINING  
THE HAZARDOUS SUBSTANCES

*Viša Tasić, Tatjana Apostolovski - Trujić, Marijana Pavlov-Kagadejev,  
Danilo Spalović, Vladan Miljković*

COMPARATIVE MEASUREMENTS OF THE SUSPENDED PARTICLES (PM2.5) IN  
THE INDOOR AIR USING THE LOW-COST SENSORS

*Dragan Vasalić, Ivan Lazović, Sanja Petronić, Zoran Masoničić, Viša Tasić*

ECOLOGICAL AND ECONOMIC ASPECTS OF DIESEL FUEL USE IN  
THE ROAD TRANSPORT BY THE HEAVY-DUTY VEHICLES IN SERBIA

*Vesna Marjanović, Radmila Marković*

PHYSICAL METHODS FOR TESTING THE EFFICIENCY OF  
STABILIZATION/SOLIDIFICATION PROCESS OF MATERIAL CONTAINING  
THE HAZARDOUS SUBSTANCES

*Maja Nujkić, Mile Dimitrijević, Snežana Milić, Ana Radojević, Boban Spalović,  
Sladana Alagić, Jelena Kalinović*

COPPER AND ARSENIC ACCUMULATION AND PHYTOREMEDIATION BY  
SOAPWORT AND YARROW GROWING IN THE VICINITY OF  
THE COPPER SMELTER IN BOR

*Vesna Cvetanovski, Milana Popović, Marina Birovljev*

DATA BASE ON THE CHEMICAL ACCIDENTS - FACTS AND eMARS

*Snežana Šrbula, Jelena Milosavljević, Ana Radojević, Tanja Kalinović,  
Jelena Kalinović, Maja Nujkić*

AIRBORNE METALS/METALLOIDS CONCENTRATIONS IN BOR

*Dragana Adamović, Tamara Urošević, Bojan Radović,  
Marija Milivojević, Ivona Bezeg-Romić*

PHYTOREMEDIATION METHODS OF  
SOIL CONTAMINATED WITH HEAVY METALS

*Radmila Marković, Marina Janjušević, Aca Jovanović, Suzana Stanković,  
Ivan Svrkota, Ivona Bezeg Romić, Jelena Erceg*

CHARACTERISTICS OF THE FILTER WASHING WASTE WATER IN  
THE DRINKING WATER TREATMENT PLANT "BELE VODE"

*Teodora Nedić, Luka Rubinjoni, Rabab Alamabrouk Alhadi Salih,  
Igor Čeliković, Boris Lončar*

MEASURING THE RADON EXHALATION FROM THE CENTRAL AND  
SOUTH-WESTERN SERBIA SOIL SAMPLES

*Branislav Rajković, Dejan Tanikić, Zoran Ilić*  
DETERMINATION THE OPERATING REGIMES OF A BOILER SHUNT PUMP

*Marijana Pavlov-Kagadejev, Visa Tasić, Vladan Miljković, Danilo Spalović*  
THERMAL IMAGING CAMERAS FOR INDUSTRIAL APPLICATIONS

*Milan Radivojević, Miša Stević, Zoran Stević*  
REALIZATION OF THE COMPUTER CONTROLLED SYSTEM FOR  
THE THERMAL ANALYSIS OF MATERIAL

*Milan Radivojević, Miša Stević, Marko Tanasković*  
APPLICATION OF THE LabVIEW PROGRAM PACKAGE  
FOR CONTROL AND MONITORING THE PROCESS OF REBALLING BGA CHIPS

*Slavica Miletić, Dejan Bogdanović, Miodrag Manić, Dragan Mihajlović*  
IDENTIFICATION THE EFFECT OF FACTORS ON PREJUDICES IN  
THE ENTREPRENEURIAL DECISION MAKING IN MINING

*Slavica Miletić, Dejan Bogdanović, Valentina Velinov, Bojan Stojčetović, Miladin Đurić*  
ANALYSIS OF THE EXTERNAL ENVIRONMENT OF THE ORGANIZATION

*Jelena Đorđević, Sandra Filipović, Jelena Stanković*  
ALLOWABLE STRESS AND PLASTIC ANALYSIS  
CARRIED OUT ON A STEEL TRUSS

*Sandra Filipović, Jelena Đorđević, Jelena Stanković*  
ANALYTICAL SOLUTION FOR THE ANGLE-PLY PLATES USING  
THE FIRST ORDER SHEAR DEFORMATION PLATE THEORY

*Predrag Stolić, Danijela Milošević, Aleksandra Milosavljević*  
E-LEARNING AND LOG ANALYSIS IN INTRODUCTION  
THE NEW TECHNOLOGIES AND TECHNOLOGICAL SOLUTIONS

## **SATREPS CONFERENCE**

**Monday, 1<sup>st</sup> October 2018, 15:00-19:00**

**Chairpersons: Zoran Stevanović, Daizo Ishiyama**

---

***Zoran Stevanović***

MINING INTEGRATED SUSTAINABILITY

***Daizo Ishiyama***

SIGNIFICANCE OF INTEGRATED RESEARCHES BASED ON THE ENVIRONMENTAL EVALUATION AND METAL RECOVERY FROM MINING WASTE MATERIALS WITH SPECIAL REFERENCE TO THE ROLE OF ENVIRONMENTAL EVALUATION

***Stefan Đordiević***

FLUVIAL TRANSPORT OF FLOTATION TAILINGS AND CHEMICALLY PRECIPITATED METALS FROM BOR COPPER MINES TOWARD THE DANUBE RIVER

***Sachi WAKASA***

REMOTE SENSING WORK IN BOR MINE AREA SUPPORTED BY SATREPS PROJECT

***Vladan Marinković***

METHODS OF CREATION OF ORTOPHOTO IMAGES AND PRECISE 3D TERRAIN MODELS USING UNMANNED AERIAL VEHICLES

***Ljiljana Avramović***

BEAKER LEACHING AND HIGH PRESSURE LEACHING OF FLOTATION TAILINGS

***Yasushi Takasaki***

COPPER RECOVERY FROM TAILINGS BY HIGH PRESSURE LEACHING-SOLVENT EXTRACTION-ELECTROWINNING PROCESS

***Radmila Marković***

METALS RECOVERY FROM ACID MINE DRAINAGE BY COMBINING NEUTRALIZATION AND ADSORPTION METHODS

***Dejan Tanikić***

SATREPS PROJECT ACTIVITIES AT TECHNICAL FACULTY IN BOR IN PERIOD 2014-2018

