



SERBIAN SOCIETY OF CORROSION AND MATERIALS PROTECTION
UDRUŽENJE INŽENJERA SRBIJE ZA KORZIJU I ZAŠTITU MATERIJALA



INTERNATIONAL CONFERENCE

MEĐUNARODNA KONFERENCIJA

**MEETING POINT OF THE SCIENCE AND PRACTICE IN THE FIELDS OF CORROSION,
MATERIALS AND ENVIRONMENTAL PROTECTION**

**STECIŠTE NAUKE I PRAKSE U OBLASTIMA KOROZIJE, ZAŠTITE MATERIJALA
I ŽIVOTNE SREDINE**

PROGRAM

September 17-20, 2019, Tara Mountain, Serbia

PROGRAM

TUESDAY | Utorak 17.09.2019.

10.00-20.00 Registration of the participants | *Registracija učesnika*

17.00-17.20 Opening ceremony | *Otvaranje Konferencije*

Plenary lectures | *Plenarna predavanja*

17.20-18.00 **Plenary lecture: Julija Volmajer Valh, Simona Vajnhandl, Aleksandra Lobnik, Bojana Vončina, Textile waste as important source of secondary raw materials**, University of Maribor, Faculty of Mechanical Engineering, Institute of Engineering Materials and Design, Maribor, Slovenia

18.00-18.40 **Plenary lecture: Igor Jordanov, Layer-by-layer nano-coating deposition of water based polyelectrolytes for imparting conductive, flame retardant and anti-corrosive properties of materials**, Department of Textile Engineering, Faculty of Technology and Metallurgy, Ss. Cyril and Methodius University, Republic of North Macedonia

Invited lecture | *Predavanje po pozivu*

18.40-19.00 **Marija Mihailović, Green corrosion inhibitors**, Institute of Chemistry, Technology and Metallurgy, Department of Electrochemistry, Belgrade, Serbia

19.00-19.20 **Ljiljana Avramović,¹ Mile Bugarin,¹ Jasmina S. Stevanović,² Nebojša D. Nikolić², Production of silver and copper powders by electrolytic and non-electrolytic methods: comparison of morphological and structural characteristics**, ¹Mining and Metallurgy Institute- Center for Technologies Development in Metallurgy, Bor, Serbia; ²ICTM-Department of Electrochemistry, University of Belgrade, Belgrade, Serbia

19.20 **Welcome Reception – COCKTAIL | KOKTEL**

Detaljnije informacije o Konferenciji mogu se naći na
<http://sitzam.org.rs/YUCORR/>

WEDNESDAY | Sreda 18.09.2019.

Plenary lectures | *Plenarna predavanja*

09.30-10.10 **Plenary lecture: Milka Avramov Ivić¹, S.D. Petrović², B. Reljin³, I. Reljin³, D. Mijin², S. Stevanović¹, J. Lović¹, D. Vuković⁴, Computer-aided decision-assistant system for diagnosis of different diseases,** ¹ICTM-Department of Electrochemistry, University of Belgrade, Belgrade, Serbia, ²Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia, ³Faculty of Electrical engineering, University of Belgrade, Belgrade Serbia, ⁴School of Medicine, University of Belgrade, Belgrade, Serbia

Invited lecture | *Predavanja po pozivu*

10.10-10.30 **Bojana M. Radojković^a, Bore V. Jegdić^a, Biljana M. Bobić^a, Slavica Ristić^b, Suzana Polić^b, Corrosion characteristics of laser-cleaned surfaces on iron artefact,** ^aInstitute of Chemistry, Technology and Metallurgy, Belgrade University, Serbia, ^bCentral Institute for Conservation in Belgrade, Belgrade, Serbia

10.30-10.50 **Marija Pavlović, Dragana Pavlović, Veljko Perović, Snežana Jarić, Milica Marković, Miroslava Mitrović, Pavle Pavlović, Comparison of trace element accumulation and particulate matter deposition in leaves of *Aesculus hippocastanum* L. and *Platanus acerifolia* Willd. in three urban parks in Serbia,** Department of Ecology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

10.50-11.05 **Prezentacija kompanije GFP d.o.o., Beograd**

11.05-11.25 **BREAK | PAUZA**

Invited lecture | *Predavanja po pozivu*

11.25-11.45 **Aleksandra Patarić¹, Marija Mihailović², Branka Jordović³, Saving resources during aluminum alloys continuous casting process using electromagnetic field,** ¹Institute for Technology of Nuclear and other Mineral Raw Materials, Belgrade, Serbia; ²Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Department of Electrochemistry, Belgrade, Serbia; ³Faculty of Technical Sciences, University of Kragujevac, Čačak, Serbia

Oral presentations | *Usmena saopštenja*

11.45-12.00 **Alsu V. Fakhreeva^{1,2}, Aleksander I. Voloshin³, Elena Yu. Chernyaeva², Viliya V. Sayapova², Yurii V. Tomilov⁴, Vladimir A. Dokichev^{1,2}, Polysaccharides as promising compounds for the**

- creation of corrosion and scaling inhibitors**, ¹Ufa Institute of Chemistry, Russian Academy of Sciences, Ufa, Bashkortostan, Russia, ²Ufa State Aviation Technical University, Ufa, Bashkortostan, Russia, ³OOO RN-UfaNIPIneft', Ufa, Bashkortostan, Russia, ⁴Zelinskii Institute of Organic Chemistry, Russian Academy of Sciences, Russia
- 12.00-12.15** *Sanja I Stevanović¹, Dušan Tripković¹, A. Gavrilović², J. Rogan³, U. Lačnjevac⁴, T. Kravić⁵, V.M. Jovanović¹*, **Catalytic performance of PtSn and PtSnO₂ bimetallic catalysts for formic acid oxidation**, ¹ICTM-Department of Electrochemistry, University of Belgrade, Belgrade, Serbia, ²CEST Centre of Electrochemical Surface Technology, Wiener Neustadt, Austria, ³Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia, ⁴Department of Material Science, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia, ⁵Institute of Histology and Embryology, School of Medicine, University of Belgrade, Belgrade, Serbia.
- 12.15-12.30** *¹Srećko Stopić, ¹Christian Dertmann, ¹Buhle Xakalashé, ¹Gözde Alkan, ²Bengi Yagmurlu, ¹Hugo Lucas, ¹Bernd Friedrich*, **A near zero waste valorisation vision for bauxite residue through experimental results**, ¹IME Process Metallurgy and Metal Recycling, RWTH Aachen University, Germany
²MEAB Chemie Technik, Aachen, Germany
- 12.30-12.45** **Prezentacija kompanije HELIOS SRBIJA a.d., Gornji Milanovac**
- 14.00** **PICNIC | RUČAK U PRIRODI**
- 18.00-20.00** **POSTER SESSION | POSTER SEKCIJA**
- Zoran Karastojković¹, Z. Kovačević², Z. Janjušević³**, **Corrosion remains after brazing and corrosion damage of heat exchanger tubes**, ¹IHS Technoexperts, Zemun – Serbia, ²Institute for testing of materials, Belgrade – Serbia, ³Institute for technology on nuclear and other mineral raw materials, Beograd –Serbia
 - Emina Kričković**, **Significance of measure implementation in health protection as a precondition for controlling diseases related to environment**, University of Belgrade- Faculty of Geography, Belgrade
 - Emina Kričković**, **Limiting factors and ecological risks in Lucani municipality**, University of Belgrade- Faculty of Geography, Belgrade
 - Nebojša Denić¹, Dragiša Obradović², Dragan Obradović³**, **Economical importance of metal's corrosion**, ¹Prirodno matematički fakultet –

- Kosovska Mitrovica, ²Fakultet za menadžment Beograd, SDIT-HTM Požarevac, ³OŠ „Jovan Cvijić”, Kostolac
5. **Živče Šarkoćević¹, Dragan Lazarević¹, Ivica Čamagić¹, Mladen Radojković¹, Bojan Stojčetić², The pipeline defect assessment manual – short review**, ¹Faculty of technical sciences, Kosovska Mitrovica, Serbia, ²High technical school of profesional education Zvečan, Zvečan, Serbia
 6. **Marija M. Vuksanović¹, Nataša Z. Tomić², Almabrok A. Ashor³, Aleksandar Marinković³, Maja Gajić-Kvaščev¹, Velibor Andrić¹, Tatjana Volkov Husović³, Vesna Radojević³, Radmila Jančić Heinemann³, Application modified alumina particles on mechanical properties of acrylic composites**, ¹The University of Belgrade, Institute of Nuclear Science “Vinca”, Belgrade, Serbia, ²Innovation centre of Faculty of Technology and Metallurgy, Belgrade, Serbia, ³The University of Belgrade, Faculty of Technology and Metallurgy, Belgrade, Serbia
 7. **Goran Kvaščev¹, Vesna Panic², Maja Gajić-Kvaščev³, Brankica Terzić⁴, Automatization of distillation process for spirit fruit beverages production**, ¹University of Belgrade, School of electrical engineering, Belgrade, Serbia, ²School of transport, traffic and technics Zemun, Belgrade, Serbia, ³University of Belgrade, Vinca Institute of Nuclear Sciences, Belgrade, Serbia, ⁴Faculty of Medicine, Military Medical Academy, Belgrade, Serbia
 8. **Zoran Janković¹, Anto Gajić², Marijana R. Pantović Pavlović^{3,4}, Miomir G. Pavlović³, Saša Mićin⁵, Vesna Pavelkić^{3,6}, Miroslav M. Pavlović³, Electric conductivity of poly lactide based copper powder filled composites**, ¹V&Z Zaštita, d.o.o., Banja Luka, Republic of Srpska, Bosnia and Herzegovina, ²Rudnik i termoelektrana Ugljevik, Republic of Srpska, Bosnia and Herzegovina, ³University of Belgrade, ICTM-Department of Electrochemistry, Belgrade, Serbia, ⁴University of Belgrade, Centre of Excellence in Environmental Chemistry and Engineering - ICTM, Belgrade, Serbia, ⁵University of Banja Luka, Faculty of Security Studies, Banja Luka, Republic of Srpska, Bosnia and Herzegovina, ⁶Colledge of Professional Railway Studies, Department of Environmental Protection, Belgrade, Serbia
 9. **Jelena V. Petrović¹, Slađana Č. Alagić², Snežana M. Milić², Mile M. Bugarin¹, The content of heavy metals in the samples of spatial sediment of common reed from the Lake Robule (Bor, Serbia)**, ¹The Mining and Metallurgy Institute in Bor, Bor, Serbia, ²Technical faculty in Bor, University of Belgrade, Bor, Serbia

10. **Milica Gvozdrenović¹, Branimir Jugović², Bojan Jokić^{1, 3}, Ljiljana Gajić-Krstajić², Enis S. Džunuzović¹, Braninimir Grgur¹, Electrochemical synthesis and characterization of poly(o-toluidine) pseudocapacitive electrode,** ¹Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia, ²Institute of Technical Science, Serbian Academy of Science and Arts, Belgrade, Serbia, ³Faculty of Applied Arts, University of Arts in Belgrade, Belgrade, Serbia
11. **Đendi Vaštag¹, Sanja Belić¹, Abdul Shaban², 1-butyl-1-methyl pyrrolidinium dicyanamide as a new copper corrosion inhibitor,** ¹University of Novi Sad, Faculty of Sciences, Novi Sad, Serbia, ²Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary
12. **Regina Fuchs–Godec, The synergistic corrosion inhibition study of two fat-soluble vitamins as green inhibitors for copper in acidic medium,** Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia
13. **Regina Fuchs–Godec¹, Milorad. V. Tomić², Miomir G. Pavlović², An electrochemical and long-term immersion study of hydrophobic coatings on copper within acid media,** ¹Faculty of Chemistry and Chemical Engineering, University of Maribor, Slovenia, ²Faculty of Technology Zvornik, University of Eastern Sarajevo, Republic of Srpska
14. **Filip Kokalj, Boštjan Rajh, Tomas Zadravec, Niko Samec, CFD modelled complete combustion conditions in a waste-wood fired boiler with air/flue gas input optimization,** Faculty of Mechanical Engineering, University of Maribor, Maribor, Slovenia, Mašinski fakultet, Univerzitet u Mariboru, Maribor, Slovenija
15. **Marija Riđošić¹, Bajro Salkunić¹, Regina Fuchs-Godec², Milorad Tomić¹, Miomir Pavlović¹, Inhibitive effect of *Taraxacum officinale* extract on the corrosion of steel in 4% HCl,** ¹University of East Sarajevo, Faculty of Technology, Zvornik, ²University of Maribor, Faculty of Chemistry and Chemical Engineering
16. **Mihael Bučko¹, Milorad Tomić², Marija Riđošić¹, Jelena B. Bajat³, The comparative study of corrosion stability of Zn and Zn-Mn alloy coatings electrodeposited from ethaline deep eutectic solvent,** ¹University of Defence, Military Academy, Belgrade, ²University of East Sarajevo, Faculty of Technology Zvornik, Republic of Srpska, B&H, ³Faculty of Technology and Metallurgy, University of Belgrade, Belgrade
17. **Denis Hasković¹, Ena Deljkić², Safija Herenda³, Edhem Hasković⁴, Electrochemical determination of the redox potential of beta-blockers (Metoprolol),** ¹ Clinical Center of the University of Sarajevo,

Organizational unit Clinical chemistry and biochemistry, Sarajevo, Bosnia and Herzegovina, ²Faculty of Pharmacy, University of Sarajevo, Sarajevo, Bosnia and Herzegovina, ³ Department of Chemistry, Faculty of Science, University of Sarajevo, Sarajevo, Bosnia and Herzegovina, ⁴ Department of Biology, Faculty of Science, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

18. **Borislav N. Malinović¹, Dusko Zoric², Tijana Djuricic¹, Efficiency of corrosion inhibitors on pilot plant of open recirculating cooling system made of stainless steel and copper,** ¹University of Banja Luka, Faculty of Technology, Banja Luka, Bosnia and Herzegovina, ² EFT Mine and Thermal Power Plant Stanari Ltd., Stanari, Bosnia and Herzegovina
19. **Dragana Pavlović, Marija Pavlović, Dragan Čakmak, Olga Kostić, Zorana Mataruga, Miroslava Mitrović, Pavle Pavlović, Speciation and contamination assessment of potentially toxic elements in soils from three urban parks in Serbia,** Department of Ecology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia
20. **Dragan Radonjić, Darko Vuksanović, Jelena Šćepanović, Refik Zejnilović, Traffic noise during construction of roads and during their functioning,** University of Montenegro, Faculty of Metallurgy and Technology, Podgorica, Montenegro
21. **Jelena Šćepanović, Refik Zejnilović, Darko Vuksanović, Dragan Radonjić, Impact of emission and immission of pollutants on air quality during the construction and operation of the road,** University of Montenegro, Faculty of Metallurgy and Technology, Podgorica, Montenegro
22. **Darko Vuksanović¹, Milan Šekularac², Dragan Radonjić¹, Jelena Šćepanović¹, Utilization of sea water for the heating and cooling system of the complex „Portonovi“ in Kumbor from the aspect of environmental impact,** ¹University of Montenegro, Faculty of Metallurgy and Technology, Podgorica, Montenegro, ²University of Montenegro, Faculty of Mechanical Engineering, Podgorica, Montenegro
23. **Božidarka Arsenović, Constitutional development of environmental policy in Bosnia and Herzegovina,** „Orao“ a.d., Bijeljina; Republika Srpska; Bosna i Hercegovina
24. **Božidarka Arsenović, Sanja Rener, Zorana Živić, Miodrag Divčić, Conquest of heat corrosion - resistant coating type sermetel and sermaseal, Technological part - PART I,** „Orao“ a.d., Bijeljina, Republika Srpska; Bosna i Hercegovina

25. **Nemanja Banić¹, Anđela Brnović¹, Maria Uzelac¹, Marijana Tošić¹, Lokesh Kesavan², Carita Kvarnström², Biljana Abramović¹, Efficiency of ceftriaxone removal and hydrogen production using noble metals modified ZnO under UV and solar radiation**, ¹University of Novi Sad Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Novi Sad, Serbia, ²University of Turku, Turku University Centre for Materials and Surfaces (MatSurf), Laboratory of Materials Chemistry and Chemical Analysis, Turku, Finland
26. **Bidushi Sarkar, Karuna Kar Nanda, Nickel in nitrogen-doped graphene nanotube as efficient electrocatalyst for water splitting**, Materials Research Centre, Indian Institute of Science, Bangalore, India
27. **Veljko Đukić¹, Dragan Blagojević², Application of ISO standards in the exploitation and production of lime as a measure of prevention of negative environmental impact**, ¹Centar za humane tehnologije Gradiška, Republika Srpska, BiH, ²KP „Gradska Čistoća“ Gradiška, Republika Srpska, BiH

THURSDAY | Četvrtak 19.09.2019.

- 10.00-18.00 EXCURSION | **IZLET** – Registration on Conference desk is mandatory on the first day | *Obavezna prijava na pultu za registraciju prvog dana*
- 20.30 GALA DINNER | **SVEČANA VEČERA**

FRIDAY | Petak 20.09.2019.

Plenary lecture | *Plenarno predavanje*

- 10.00-10.40 **Plenary lecture: Ladislav Vrsalović¹, I. Ivanić², S. Gudić¹, M. Gojić², Electrochemical and corrosion behaviour of copper shape memory alloy in NaCl solution**, ¹University of Split, Faculty of Chemistry and Technology, Split, Croatia, ²University of Zagreb, Faculty of Metallurgy, Sisak, Croatia
- 10.40-11.20 **Plenary lecture: Zahida Ademović, Materials in Medicine – A Multidisciplinary Effort**, Faculty of Technology, University of Tuzla, Tuzla, Bosnia and Herzegovina

Invited lectures | *Predavanja po pozivu*

- 11.20-11.40 **Jelena D. Lović, Electrodeposited Pd-based alloy coatings as efficient catalysts for low temperature fuel cells application**, Department of Electrochemistry, Institute for Chemistry Technology and Metallurgy, University of Belgrade, Belgrade, Serbia

11.40-11.55 **Prezentacija kompanije PRIMALAB d.o.o., Beograd**

11.55-12.10 **Prezentacija kompanije HEMIPRODUKT, Novi Sad**

12.10-12.30 **BREAK | PAUZA**

Invited lectures | Predavanja po pozivu

12.30-12.50 **Ivana Gavrilović-Grmuša, Milanka Điporović-Momčilović, Mlađan Popović, Green alternatives for formaldehyde based adhesives in wood industry**, University of Belgrade – Faculty of Forestry

12.50-13.10 **Željko Krivačević, Dejan Grgić, Saša Stojanović, Aleksandar Pešić, Steel tank's roof examination by combined RMS and MFL method, rehabilitation of the tank and rehabilitation of tank base**, Transnafta AD, Pančevo, Srbija

13.10-13.30 **Zoran Karastojković¹, Pavle Karastojković², Suzana Polić⁴, Protective and decorative role of golden foils on sacral objects**, ¹IHS Istraživačko razvojni centar Technoexperts, Zemun, Serbia, ²„Sava Jovanović“ – Sirogojno, Zemun, Serbia, ³Central Institute for Conservation, Belgrade, Serbia

Oral presentations | Usmena saopštenja

13.30-13.45 **Radomir Janjić¹, Nenko Brkljač², Milan Bukvić³, Aleksandar Pajić⁴, Snežana Mališić⁵, Conception, analysis, simulations and development of planetary transmission gears**, ¹Technical Test Center of Belgrade, Ph.D student at Faculty of Engineering University of Kragujevac, ²Technical Test Center of Belgrade, ³Ph.D student at Faculty of Engineering University of Kragujevac, ⁴Technical Test Center of Belgrade, ⁵Faculty of Mechanical Engineering University of Belgrade

13.45-14.00 **Stevo K. Jaćimovski^{1*}, Jelena Lamovec², Jovan P. Šetrajčić^{3,4}, Linear distribution of air pollution from periodical pointed source**, ¹University of Criminalistics and Police Studies, Belgrade, Serbia, ²Institute of Chemistry, Technology and Metallurgy, Belgrade, Serbia, ³University „Union – Nikola Tesla“, Faculty of Sport, Belgrade, Serbia, ⁴Academy of Sciences and Arts of the Republic of Srpska, Banja Luka, Republic of Srpska – BiH

14.00 **CLOSING CEREMONY | ZATVARANJE KONFERENCIJE**

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Serbian Society of Corrosion and Materials Protection
UDRUŽENJE INŽENJERA SRBIJE ZA KOROZIJU I ZAŠTITU MATERIJALA



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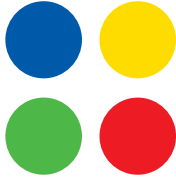
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