



# **IX YUCORR**

**COOPERATION OF RESEARCHES OF  
DIFFERENT BRANCHES IN THE FIELD OF  
MATERIALS PROTECTION**

## **PROGRAMME**

**Hotel Omorika, TARA, 21. 05. - 24. 05. 2007.**

**MONDAY, 21.05.2007.**

**10,00-20,00 REGISTRATION**

**16,00-16,30 OPENING CEREMONY**

**16,30-17,00 Plenary Lecture: Dragan Veselinović, Faculty of Physical Chemistry, Belgrade, Serbia, MATERIALS – ONE OF THE ENVIRONMENT POLUTION FACTORS**

**17,00-17,20 Special Lecture: V.D. Jović<sup>1</sup>, B.M. Jović<sup>1</sup>, N. Elezović<sup>1</sup>, M.G. Pavlović<sup>2</sup>, V. Panić<sup>2</sup>, N.V. Krstajić<sup>3</sup>, <sup>1</sup>Center for multidisciplinary studies, University of Belgrade, <sup>2</sup>ICTM-Center for electrochemistry, Belgrade, <sup>3</sup> Faculty of Technology and Metallurgy, Belgrade, Serbia, The cell for chlorine production by the electrolysis of HCl**

**17,20-17,35 Irena Mickova, Abdurauf Prusi and Ljubomir Arsov, Faculty of Technology and Metallurgy, University "St. Cyril and Methodius", Skopje, Republic of Macedonia, Electrochemical preparation of niobium surfaces**

**17,35-17,50 Dejan Ljubisavljević, Faculty of Civil Engineering University of Belgrade, Chromium removal from hot-dip galvanization plant wastewater**

**17,50-18,05 Jelica Novaković and Panayota Vassiliou, School of Chemical Engineering, National Technical University of Athens, 15780, Athens, Greece, Marine and Urban Environmental Effects on Silver Alloy Artifacts**

**18,05-18,20 Vladimir Vujičić<sup>1</sup>, Savo Ilibašić<sup>2</sup>, <sup>1</sup>Serbian society for material protection, <sup>2</sup>Military Serbia, The effect of air humidity on the atmospheric corrosion rate of iron**

**18,20-18,35 Valentina Rankić\*, Vojka Gardić \*\*, Ljubiša Stamenković\*, Borka Milenković\*, Metal Salts and Galvanic Preparations Plant, Bor , \*\*Institute for Copper, Bor, The main properties of passivation film on zinc obtained using trivalent chromium**

**18,35-18,50 Alberta Llabani, University of Tirana, Natural Science Faculty, Tirana, Albania, The evaluation of inhibitive effect of boraxs as inhibitor in corrosion of carbon steel in natural solutions of crude oil**

**18,50-19,05 Darko Vuksanović<sup>1</sup>, Petar Živković<sup>1</sup>, Dragan Radonjić<sup>1</sup>, Ljubica Pavlović<sup>2</sup>, Zorica Cvijović<sup>3</sup>, Dušan Boričić<sup>1</sup>, <sup>1</sup>Faculty of Metallurgy and Technology, Podgorica, Montenegro, <sup>2</sup> ICTM-Center for electrochemistry, Belgrade, Serbia, <sup>3</sup> Faculty of Technology and Metallurgy, Belgrade, Serbia,, The investigation of impact that content of Cu and Mg has on Al-alloy on corrosive behaviour**

**19,05-19,20 Mirjana Marković, Zorka COLOR, a.d., Acrylic resins in construction**

**19,20-19,35** Company HELIOS's presentation

**19,45** COCKTAIL

**TUESDAY, 22.05.2007.**

**09,00-09,30** *Plenary Lecture: Vera Šijački-Žeravčić<sup>1</sup>, Gordana Bakić<sup>1</sup>, Miloš Đukić<sup>1</sup>, Biljana Anđelić<sup>2</sup>, Bratislav Rajičić<sup>1</sup>, <sup>1</sup>Faculty of Mechanical Engineering, University of Belgrade, Belgrade, <sup>2</sup>Faculty of Technics, Čačak, University of Kragujevac, SOME OBSERVATIONS ABOUT METALS STRESS CORROSION CRACKING*

**09,30-10,00** *Plenary Lecture: R. Kovačević, S. Milačić, D. Jovičić, KCS – Institute for Industrial Medicine and Health Physics, «Dr DRAGOMIR KARAJOVIC», Belgrade, OCCUPATIONAL DISEASES CAUSED BY THE ACTION OF METALS*

**10,00-10,15** **Darko Vuksanović, Refik Zejnilović, Dragan Radonjić, Faculty of Metallurgy and Technology, Podgorica, Montenegro, The environmental impact of plant for the manufacture of boats**

**10,15-10,30** **Kemal Delijić, Dragan Radonjić, Faculty of Metallurgy and Technology, Podgorica, Montenegro, Mechanical and corrosion properties of some Al-Fe-Si-Mn, Al-Mg-Si and Al-Mg-Mn automotive aluminum alloys**

**10,30-10,45** **Christelle Virion, John Kochilla, Paul Wynn, Atotech GMF Worldwide, Environmentally friendly pre-paint treatment for superior adhesion**

**10,45-11,00** **Christelle Virion, John Kochilla, Paul Wynn, Atotech GMF Worldwide, Hexavalent Chromium-free passivation and pretreatment for Aluminum**

**11,00-11,30** COFFEE BREAK

**11,30-12,00** *Plenary Lecture: Ivan Krastev, Inst. Phys. Chem. Bulg. Acad. Sci, Sofia, Bulgaria, SELF-ORGANIZED PERIODIC STRUCTURES IN SILVER ALLOY ELECTRODEPOSITIS*

**12,00-12,20** *Special Lecture: Dragica Jevtić, Faculty of Civil Engineering University of Belgrade, Measures of improvement the concrete durability in environmental conditions*

**12,20-12,35** <sup>1</sup>Blažo Lalević, <sup>1</sup>Vera Raičević, <sup>2</sup>Dragoljub Dabić, <sup>3</sup>Dragan Kiković, <sup>4</sup>Ljubinko Jovanović, <sup>1</sup>Miomir Nikšić, <sup>1</sup>Faculty of Agriculture, Zemun, <sup>2</sup>Pancevo Oil-Refinery, <sup>3</sup>Faculty of Agriculture, Lesak, <sup>4</sup>Center for multidisciplinary studies, University of Belgrade, **Microorganisms in soil and water bioremediation**

**12,35-12,50** <sup>1</sup>V. Stanković, <sup>2</sup>M. Gojo, <sup>1</sup>*Technical Faculty, Bor, University of Belgrade, Serbia,* <sup>2</sup>*Faculty of Graphic Sciences, University of Zagreb, Croatia,* **Electrodeposition of gold onto a substrate in a fluidised bed of inert particles**

**12,50-13,05** Slobodan Gligorijević, IBL "Zvezda-Helios" Gornji Milanovac, **Industrial universal tinting system-IBL "Zvezda-Helios", G. Milanovac**

**13,05-13,20** Peter Dineff, Dilyana Gospodinova, Lidia Kostova, *Technical University of Sofia, Sofia, Bulgaria,* **Ion-activated water solution containing flame retardant for plasma aided technology of fire protection and safety**

**13,20-13,35** Zorka Color's presentation

**13,35-13,45** MC Bauchemie's presentation

**14,00** LUNCH BREAK

**16,00-16,30** *Plenary Lecture:* Radoslav Aleksić<sup>1</sup>, Irena Živković<sup>2</sup>, <sup>1</sup>*Faculty of Technology and Metallurgy, University of Belgrade, Serbia,* <sup>2</sup>*Security Institute, Belgrade, Serbia,* **Damage detection in ballistic composite materials by using embedded optical fibers**

**16,30-16,50** *Special Lecture:* Dušica Tomanović, Emina Mihajlović, *Faculty of Occupational Safety, University of Nis, Nis,* **Fire fighting protection of reinforced concrete and steel construction**

**16,50-17,05** Ljiljana Rašković, *Faculty of Technology, Leskovac, "Pomoravlje", Nis,* **The convective materials systems for corrosion protection of equipments and plants in mechanical industry under the unfavorable conditions**

**17,05-17,20** AMAL, Slovenija, oral presentation

**17,20-17,35** Regina Fuchs-Godec, *Faculty of Chemistry and Chemical Engineering, Maribor, Slovenia,* **Corrosion inhibition of ferritic stainless steel by different types of surfactants**

**17,35-17,50** Orobor Osamede, Eweka Osahon Osemwenota, *Halom Construction Company,* **Environmental Security: Ecology or International Relations?**

**17,50-18,05** V.M. Maksimović<sup>1</sup>, Lj.J. Pavlović<sup>2</sup>, B.M. Jović<sup>3</sup>, V.D. Jović<sup>3</sup>, M.G. Pavlović<sup>2</sup>, <sup>1</sup>*Institute of nuclear sciences «Vinča», Belgrade, Serbia,* <sup>2</sup>*ICTM-Center for electrochemistry, Belgrade* <sup>3</sup>*Center for multidisciplinary studies University of Belgrade,* **Characterization of electrodeposited Fe powders from sulfate and chloride electrolytes**

**18,05-18,20** Zvezda-Helios, oral presentation

**18,20-18,35** Martin Arsov, Elena Anovska, Irena Mickova, *Faculty of Technology and Metallurgy, University "St. Cyril and Methodius", Skopje, Republic of Macedonia*, **Surface protection of titanium by polymer coatings**

**18,35-18,50** Zoran Dimitrijević, *Zorka COLOR, a.d., New HB and HS products*

**18,50-19,05** Boško Stanisavljević, *Jugohem, Stara Pazova, Coatings for fire fighting protection*

**20,30** FESTIVE DINNER

**WEDNESDAY, 23.05.2007.**

**09,30** EXCURSION, TARA-ETHNO VILLAGE SIROGOJNO  
**around 14,30** PICNIC

**19,00-21,00** POSTER SESSION

- 1. Constanta Ittu**, Patricia Balog, N. Constantin, P. Aioanei, M. Munteanu, *Metallurgical Research Institute, Bucharest, ROMANIA*, **Continuous casting mould powders based on wollastonite ore**
- 2. Dragica Čamovska**, Toma Grčev, *Faculty of Technology and Metallurgy Skopje, R. Macedonia*, **Kinetics of scales removing from mild steel in sulfuric acid**
- 3. M. Obradović<sup>1</sup>**, V. Panić<sup>1</sup>, S. Lj. Gojković<sup>2</sup>, A. Dekanski<sup>1</sup>, *<sup>1</sup>ICTM-Center for electrochemistry, Belgrade, <sup>2</sup>Faculty of Technology and Metallurgy, Belgrade, Serbia*, **Electrochemical characteristics of tungsten carbide powder for potential use as electrocatalyst support**
- 4. Dragan Radonjić**, Petar Živković, *Faculty of Metallurgy and Technology, Podgorica, Montenegro*, **Corrosion researches on RuO<sub>2</sub> in chloride solutions and drinking water**
- 5. Orobor Osamede**, Eweka Osahon Osemwenota, *Halom Construction Company*, **Environmental Change, Conflict, and Adaptation: Evidence from Case**
- 6. Z. Karastojković<sup>a</sup>**, R. Perić<sup>b</sup>, Z. Janjušević<sup>v</sup>, Z. Kovačević<sup>v</sup>, S. Jakovljević<sup>g</sup>, *<sup>a</sup>Advanced technical school, Belgrade, <sup>b</sup>Peric&Peric, Pozarevac, <sup>v</sup>ITNMR, Belgrade, <sup>g</sup>Institute for Copper, Bor*, **Corrosion residuals after gas and laser welding of golden jewels**
- 7. Milena Matić-Vlaškalin**, Boris Zec, Vesna Jovanović, *Jat-Technique*, **Chromium plating of inner diameters**

8. **Bisenija Petrović<sup>1</sup>**, Miodrag Stojanović<sup>2</sup>, <sup>1</sup> *IMS Institute, Belgrade*, <sup>2</sup> *Military-Technical Institute, Belgrade*, **Comparative show characteristics of electrodeposited and hot dip galvanized zinc coatings**
9. **Predrag Milanović<sup>1</sup>**, Titoslav Živanović<sup>2</sup>, Dragan Tucaković<sup>2</sup>, <sup>1</sup> *ICTM, Belgrade, Serbia*, <sup>2</sup> *Faculty of Mechanical Engineering, University of Belgrade*, **Corrosion and energy efficiency of boilers**
10. **Nebojša Knežević<sup>1</sup>**, Vinko Lazić<sup>2</sup>, Svjetlana Radusin<sup>3</sup>, Aleksandra Tatić<sup>4</sup>, <sup>1</sup> *Civil Engineering Institute, Banja Luka*, <sup>2</sup> *City Government, Banja Luka*, <sup>3</sup> *Department for Inspection Services, Banja Luka*, <sup>4</sup> *Administrative Service, District of Gradiska*, **Influence of seepage water from waste „Ramići“ near Banjaluka on the quality of river Dragočaj**
11. **N.D. Nikolić<sup>1</sup>**, K.I. Popov, Lj.J. Pavlović, M.G. Pavlović, *ICTM-Centre for electrochemistry, Belgrade, Serbia*, **Effect of temperature on the formation of disperse copper deposits**
12. **V. Gardić<sup>1</sup>**, A. Milosavljević<sup>1</sup>, Lj. Milenković<sup>2</sup>, <sup>1</sup> *Institute for Copper, Bor*, <sup>2</sup> *PC Waterworks, Bor*, **Applications of Electrochemical Technologies in Wastewater Treatment**
13. **Zoran Avramović<sup>1</sup>**, Milan Antonijević<sup>2</sup>, <sup>1</sup> *Smeltery and Refinement of Copper, Bor*, <sup>2</sup> *Technical Faculty, Bor*, **Corrosion investigations of cold deformed brass in acid sulphate solution**
14. **Dragan Sekulović<sup>1</sup>**, Zorka Stanišić<sup>1</sup>, Zorana Sekulović<sup>2</sup>, <sup>1</sup> *Advanced Technical School, Novi Sad*, <sup>2</sup> *Cepting Belgrade*, **Ventilation system for smoke exhaustion and control**
15. **Lidija Gomidželović<sup>a</sup>**, Dragana Živković<sup>b</sup>, Zvonimir Stanković<sup>b</sup>, <sup>a</sup> *Institute for Copper, Bor*, <sup>b</sup> *Technical Faculty, Bor*, **Structural and electrochemical characterization of Au50In50 alloy**
16. **Slavica Glišić**, Aleksandra Petrović, *Krusik-Batteries, Valjevo*, **Categorization of waste waters from the processes of production of alkaline Ni-Cd accumulators**
17. <sup>1</sup> **Radoje Obradović**, <sup>2</sup> Časlav Lačnjevac, <sup>1</sup> *Belgrade Waterworks and Sewerage*, <sup>2</sup> *Faculty of Agriculture, Belgrade*, **Buried metal objects in the coverage of protective currents at the application the cathodic protection**
18. **Jozefita Marku**, Shqiponja Caja, Franc Marku, *University of Tirana, Faculty of Natural Sciences, Tirana, Albania*, **Chemical corrosion caused by the alkali-silica reaction (ASR) in concretes**

19. <sup>1</sup>Suzana Cakić, <sup>2</sup>Ljiljana Rašković, <sup>3</sup>Časlav Lačnjevac, <sup>1</sup>Faculty of Technology Leskovac, <sup>2</sup>Pomoravlje Nish, <sup>3</sup>Faculty of Agriculture Zemun, **Decreasing of process degradation of nitro coatings dry films by UV stabilizers**
20. V. Panić, M. G. Pavlović, N. Krstajić<sup>1</sup>, N. Elezović<sup>2</sup>, B. Jović<sup>2</sup>, V.D. Jović<sup>2</sup>, ICTM-Center for electrochemistry, Belgrade,<sup>1</sup> Faculty of Technology and Metallurgy, Belgrade, Serbia, <sup>2</sup>Center for multidisciplinary studies University of Belgrade, **Electrochemical properties of RuO<sub>2</sub>-TiO<sub>2</sub> coating supported by Ti<sub>3</sub>SiC<sub>2</sub> in the processes of Cl<sub>2</sub> and O<sub>2</sub> evolution**
21. Milena Tadić, Faculty of Metallurgy and Technology, Podgorica, Montenegro, **Removal product of neutralization by sedimentation and/or filtration**
22. Manuela Fulger, Dumitra Lucan, Maria Radulescu, Lucian Velciu, Institute for Nuclear Research, Mioveni, Romania, **Characterization of the Oxide Films Developed on Some Alloys Used in Heat Transport Circuits of CANDU NP**
23. S.M. Milić, M.M. Antonijević, S.M. Šerbula, G.D. Bogdanović, Technical faculty, Bor, University of Belgrade, Serbia, **Corrosion behaviour of CuAlNiSi alloy in presence of benzotriazole alkaline medium**
24. Vaso Bojanić, Dijana Novković, Faculty of Agriculture, Banja Luka, Republic of Srpska, **The water legislative of the Republic of Srpska and their coordination with European Union's legal laws**

**THURSDAY, 24.05.2007.**

**09,00-09,30 Plenary Lecture: Milan M. Antonijević, University of Belgrade, Technical faculty, Bor, Serbia, SOME ASPECTS OF COPPER CORROSION**

**09,30-09,45 M.Rădulescu, I.Pârvan, L.Velciu, Institute for Nuclear Research POBox78, Mioveni, Romania, Pitting corrosion susceptibillity of some carbon steels components of nps secondary circuit**

**09,45-10,00 Božidarka Arsenović<sup>1</sup>, Ljubica J. Pavlović<sup>2</sup>, Milorad V. Tomić<sup>3</sup>, Miodrag Stojanović<sup>4</sup>, Bratislav Milošević<sup>4</sup>, Miomir G. Pavlović<sup>3</sup>, <sup>1</sup>„Orao“ a.d., Bijeljina, R. Srpska, <sup>2</sup>ICTM-Center of electrochemistry, Belgrade, Serbia, <sup>3</sup>Faculty of Technology, Zvornik, Republic of Srpska, <sup>4</sup>MTI, Belgrade, Serbia, The effect of preparing the surface of steel and copper on the surface reflection**

**10,00-10,15 R.Vasić, Z. Radojević i M.Vasić, IMS Institute, Belgrade, Corrosion of sewerage ceramic pipes in acid surroundings**

**10,15-10,30 Ljiljana Dunderski, PC Serbiagas, Zrenjanin, The anticorrosion protection of buried steel pipeline applied by polyethylene tapes coating**

**10,30-10,45 D. Stanojević<sup>1</sup>, D. Tošković<sup>1</sup>, M. Rajković<sup>2</sup>, <sup>1</sup>Faculty of technology, Zvornik, Republic of Srpska <sup>2</sup>Faculty of agriculture Zemun, Serbia, **Inactivation and safely sustained laying down of jarosite-cake out of electrolytic zinc production****

**10,45-11,00 Z. Karastojković<sup>a</sup>, Z. Janjušević<sup>b</sup>, Z. Kovačević<sup>v</sup>, V. Sarić<sup>g</sup>, S. Čubrilović<sup>g</sup>, <sup>a</sup>Advanced Technical School, Belgrade, <sup>b</sup>ITNMR, Belgrade, <sup>v</sup>IMS Institute, Belgrade, <sup>g</sup>PU Company of Belgrade, Belgrade, **Oligoelements in steel and damage of tubes for radiators heating****

**11,00-11,15 Branko Đukić, Zlatko Prešić, HEMING B&G d.o.o. Belgrade, Serbia, Regeneration of fire fighting foam**

**11,15-11,30 Branko Živančević, Bisenija Petrović, IMS Institute, Belgrade, The characterization of sludges from industrial waste water treatment**

**11,30-11,45 Stanko Cvjetičanin, Mirjana Segedinac, Chemistry Department, Faculty of Science, Novi Sad, Eco-chemical problems of the education in certain branches of chemical industry**

**11,45-12,00 Dragoljub Dabić<sup>1</sup>, Mirko Lazičić<sup>1</sup>, Branislav Mrdja<sup>2</sup>, <sup>1</sup>NIS-Petrol, Pancevo Oil-Refinery, <sup>2</sup>Medical Institution «South Banat», **Benzene of city Pančevo****

**12,00-12,15 <sup>1</sup>Momir Đurović, <sup>2</sup>Goran Radović, <sup>1</sup>PROTEKTA, Belgrade, <sup>2</sup>RV METAL, Belgrade, Decorative and technical coatings of nickel-effects of additives and working conditions;**

**12,20 CLOSING CEREMONY**