



**7th ISE Satellite Student Regional
Symposium on Electrochemistry
(7th ISE - SSRSE)**

CONFERENCE REPORT

Zagreb, Croatia, Friday 7th July 2017

Meeting of the graduate/postgraduate students and post-doctoral researchers "7th ISE Satellite Regional Symposium on Electrochemistry" (ISE - SRSSE) was held on Friday 7th July 2017 at Ruđer Bošković Institute, Zagreb, Croatia starting at 9:00 am. Young scientists, PhD students and graduate students were encouraged to present their research in the form of oral presentations. The meeting consisted of three sections with in total 14 oral presentations with participants from Croatia and Slovenia. The aim of the meeting was to create a platform of young scientists in Croatia and region by gathering, expanding their knowledge and creating network of young researchers in the field of electrochemistry.

The conference started at 9:00 with registration and short coffee time together with welcome by the chairs, Matea Vrdoljak, PhD student from Ruđer Bošković Institute and Denis Sačer, PhD student from University of Zagreb, Faculty of Chemical Engineering and Technology. After opening ceremony, first section of five oral presentations was dedicated to the field of corrosion science.



MSc Dajana Mikić opened the session presenting results on the topic of corrosion protection of bronze by SAM of 16-phosphonohexadecanoic acid. Following presentation was held by PhD Antonio Ivanković about corrosion protection of stainless steel coated with nanostructured TiO₂ coatings.



Speakers of the first session, Dajana Mikić and Antonio Ivanković (University of Zagreb, Faculty of Chemical Engineering and Technology)

Group of PhD students from National Institute of Chemistry, Slovenia, participated next in session with presentations about corrosion protection of different alumina alloys. MSc Urša Tiringar presented her work regarding inhibition and self healing effects of $\text{Ce}(\text{NO}_3)_3$ in hybrid sol-gel coatings applied on Al Alloy 7075-T6. MSc Gavriilo Šekularac gave presentation about aluminum alloy ENAC- AlSi7Mg0.3 by protective inorganic sulfides coating in artificial sea water. MSc Matic Poberžnik gave insight into mechanisms of silanol molecules bonding to oxidized aluminum surfaces using DFT method. After first session there was short coffee break.



Speakers of the first session Urša Tiringar, Gavriilo Šekularac and Matic Poberžnik (National Institute of Chemistry, Slovenia)

Second session concerned synthesis and characterization of different materials for electrochemical energy storage in supercapacitors or semiconductors.



MSc Gabrijela Ljubek (University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering) presented her work about electrochemical synthesis of polypyrrole/graphene oxide composite for supercapacitors application followed by graduate student Magdalena Kralj with presentation about hydrothermal microwave-assisted synthesis and electrochemical characterisation of graphene/SnO₂ composites.



MSc Matea Vrdoljak (University of Zagreb, Faculty of Chemical Engineering and Technology), spoke about reduction of graphene oxide by using phenolic compounds from olive leaf extract. PhD Suzana Sopčić (University of Zagreb, Faculty of Chemical Engineering and Technology), presented the ideas and strategies for reduction of internal resistance in the symmetric supercapacitors based on activated carbon.



Another interesting presentation was held by PhD Jozefina Katić (University of Zagreb, Faculty of Chemical Engineering and Technology), about semiconducting properties and synthesis of the UV/Vis-photocatalyst SnS₂ films. After second session the participants had organized launch break in one of the nearby restaurants.



Third session started after launch break with presentation of graduate student Ivana Šoić (University of Zagreb, Faculty of Chemical Engineering and Technology), concerning the development of method based on electrochemical impedance spectroscopy for assessment of the efficiency of inhibitors in concrete reinforcements. MSc Kristijan Vidović (National Institute of Chemistry, Slovenia) followed, presenting the electrochemical investigation of complex formation between copper and phenolic-like compounds which are often found in atmospheric aerosol.



PhD Martina Medvidović-Kosanović from University of Osijek discussed the electrochemical and spectrophotometric determination of polyphenol content in ancient Croatian apple varieties. Last presentation about electrochemistry of immobilized droplets in characterization of astaxanthin in marine organisms was held by Lara Čižmek (Ruđer Bošković Institute, Zagreb).



Participants of 7th ISE – SSRSE held on Ruđer Bošković Institute

At the end, we would like once again, to gratefully acknowledge the ISE sponsorship for the financial support given. The opportunity was provided for students and young researchers to gather, exchange their working experience in various fields of electrochemistry and make connections within Croatia and neighboring countries like Slovenia that may result in future collaboration making it pleasant and rewarding experience.

Denis Sačer
University of Zagreb

Matea Vrdoljak
Ruđer Bošković Institute

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Additional information on 7th ISE SSRSE can be found at website: <http://pierre.fkit.hr/ise-ssrse2017>

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