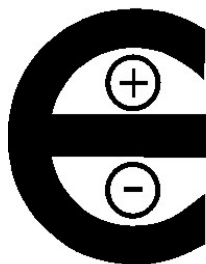


CROATIAN SOCIETY OF CHEMICAL ENGINEERS
Section for Electrochemistry

**4th CROATIAN SYMPOSIUM ON
ELECTROCHEMISTRY**



Programme
Book of Abstracts

PRIMOŠTEN
May, 28th – June, 1st, 2006.

MONDAY, May 29th, 2006
MORNING SESSION

9⁰⁰ – 9¹⁵

Ljerka Duić
Symposium Opening

Chair: **Višnja Horvat-Radošević**

9¹⁵ – 10⁰⁰

PLENARY LECTURE
Janez Jamnik
*Electrochemistry of crystalline mixed conductors:
concepts and examples by SrTiO₃*

10⁰⁰ – 10²⁰

L.I. Skatkov, V.P. Gomošov, S.G. Deribo
*Potential modification of electrochemical properties
in anode niobium pentoxide*

10²⁰ – 10⁴⁰

Xiangming He, Weihua Pu, Yan Cai, Changyin
Jiang, Chunrong Wan
*Electrochemical activities of Yttrium doped spinel
LiMn₂O₄*

10⁴⁰ – 11¹⁰

COFFEE BREAK

Chair: **A.M. Skundin**

11¹⁰ – 11³⁰

J. Radošević, **S. Gudić**, M. Kliškić, S. Slavica
*Effect of Fe on corrosion behaviour of the EN AW
8006 alloy*

11³⁰ – 11⁵⁰

B. Eremiáš, V. Číhal, E. Kalabisová, L. Turek
*Critical pitting temperature measurements as
procedure for evaluation of superaustenitic stainless
steel resistance to solution modelling waste water
treatment of flue gas desulfurization plants*

11⁵⁰ – 12¹⁰

V. Číhal, S. Lasek, M. Blahetová, E. Kalabisová, Z.
Krhutova
*Trends electrochemical polarization potentiodynamic
reactivation method – EPR test*

MONDAY, May 29th, 2006
AFTERNOON SESSION

Chair: **Ema Stupnišek-Lisac**

- 15⁰⁰ – 15²⁰ **K. Rahmouni, N. Hajjaji, F.Z. Harif, S. Joiret, H. Takenouti**
Protection of modern and ancient bronzes covered by triazole compounds in artificial acid rains
- 15²⁰ – 15⁴⁰ **J. Telegdi, H. Otmačić, K. Tadić, E. Kálman, E. Stupnišek-Lisac**
Inhibition of copper corrosion by self-assembled amphiphiles
- 15⁴⁰ – 16⁰⁰ **I. Ignat, S. Varvara, L. Muresan**
Study of the inhibiting behavior of some new non-toxic corrosion inhibitors on bronze in aqueous electrolytes
- 16⁰⁰ – 16²⁰ **S. Gudić, J. Radošević, I. Smoljko, M. Kliškić**
Inhibition of copper corrosion by p-hydroxybenzoic acid in NaCl solution
- 16²⁰ – 16⁴⁰ **K. Tadić, H. Otmačić, H. Takenouti, E. Stupnišek-Lisac**
Corrosion protection of artificial bronze patina

16⁴⁰ – 17⁰⁰

COFFEE BREAK

Chair: **Hisasi Takenouti**

- 17⁰⁰ – 17²⁰ **Š. Horvat-Kurbegović**
A new approach to the conservation of artifacts: sculpture and bronze works of art
- 17²⁰ – 17⁴⁰ **R. Fuchs-Godec**
Corrosion inhibition of ferritic stainless steel with cationic and nonionic surfactants in 2M H₂SO₄

- 17⁴⁰ – 18⁰⁰ S. Martinez, **L. Valek**, M. Serdar, I. Stipanović
Biomolecules as corrosion for steel in alkaline media containing chloride ions
- 18⁰⁰ – 18²⁰ **L. Vrsalović**, M. Kliškić, J. Radošević, S. Gudić
Examination of corrosion and corrosion protection of Al-2.5Mg alloy on rotating disc electrode
- 18²⁰ – 18⁴⁰ E. Kalabisová, T. Kubatík, V. Číhal
Electrochemical monitoring of gelatine addition on susceptibility of biomaterials to localized corrosion
- 18⁴⁰ – 19⁰⁰ **H. Otmačić**, E. Stupnišek-Lisac, H. Takenouti
The influence of the anion and pH value of the solution on the efficiency of an imidazole based corrosion inhibitor

TUESDAY, May 30th, 2006
MORNING SESSION

Chair: **Irena Ciglencčki**

9⁰⁰ – 9⁴⁵ PLENARY LECTURE

György Inzelt

Charge transport in conducting polymer film electrodes

9⁵⁰ – 10¹⁰ **V. Vlachy**, A. Bizjak, J. Reščič, Yu.V. Kalyuzhnyi
From simple electrolyte to polyelectrolyte

10¹⁰ – 10³⁰ **COFFEE BREAK**

Chair: **Vojko Vlachy**

10³⁰ – 10⁵⁰ **M. Kraljić Roković**, M. Kalić, Lj. Duić
Influence of different pH values on PANI layer properties and on its application in corrosion protection

10⁵⁰ – 11¹⁰ **A. Jurišić**, M. Žic, Lj. Duić
The influence of OPDA additions on PANI layers characteristics

11¹⁰ – 11³⁰ **M. Žic**, M. Kraljić Roković, Lj. Duić
Impedance study of thin PANI layers of different thickness

11³⁰ – 11⁵⁰ **V. Horvat-Radošević**, K. Kvastek
Experimental artefacts in high-frequency parts of impedance spectra measured using Pt-probe pseudo-reference electrode

11⁵⁰ – 12¹⁰ T.L. Kulova, **A.M. Skundin**, Yu.V. Pleskov, E.I. Terukov, O.I. Kon'kov, I.N. Trapeznikova
The impedance studies of lithium insertion in amorphous silicon thin-film electrodes

TUESDAY, May 30th, 2006
ATERNOON

EXCURSION

CONFERENCE DINNER

WEDNESDAY, May 31st 2006

MORNING SESSION

Chair: **Mirjana Metikoš-Huković**

9⁰⁰ – 9⁴⁵

PLENARY LECTURE

Sasha Omanović

Electrochemistry of NAD⁺ cofactor: Interactive behaviour at charged electrode surfaces and development of electrochemical methods/electrodes for the NADH regeneration

9⁵⁰ – 10¹⁰

A. Nelson

Electrochemical analysis of a phospholipid phase transition

10¹⁰ – 10³⁰

COFFEE BREAK

Chair: **Zlatica Kozarac**

10³⁰ – 10⁵⁰

B. Gašparović, D. Risović, B. Čosović, A. Nelson
The influence of frequency on fractal structuring of adsorbed layers at the mercury/electrolyte solution interface

10⁵⁰ – 11¹⁰

D. Posavec, Ž. Petrović, S. Omanović, M. Metikoš-Huković
Copper surface modification with a self-assembled monolayer

11¹⁰ – 11³⁰

D. Krznarić, G. R. Helz, I. Ciglencčki
Voltammetry of copper sulfide at the mercury electrode

11³⁰ – 11⁵⁰

E. Bura-Nakić, D. Krznarić, I. Ciglencčki
Voltammetric characterization of metal sulfide particles and nano-particles in electrolyte solutions and natural samples

11⁵⁰ – 12¹⁰

M. Plavšić, C.M.G. van den Berg
Electrochemical determination and role of the folic acid in natural waters

WEDNESDAY, May 31st 2006
AFTERNOON SESSION

Chair: **Božena Ćosović**

15⁰⁰ – 15⁴⁵ PLENARY LECTURE

Ivanka Pižeta

Working electrodes in voltammetry: from mercury macro-electrodes to solid micro-electrodes

15⁵⁰ – 16¹⁰ R. Matešić-Puač, M. Sak-Bosnar, D. Madunić-Čačić, Z. Grabarić

A new, high sensitive potentiometric sensor for anionic surfactants

16¹⁰ – 16⁴⁰ **COFFEE BREAK**

Chair: **Senka Gudić**

16⁴⁰ – 17⁰⁰ D. Madunić-Čačić, M. Sak-Bosnar, R. Matešić-Puač, Z. Grabarić

A new potentiometric sensor for polyethoxylated nonionic surfactants

17⁰⁰ – 17²⁰ **N. Đonlagić, H. Keran**

Monitoring of intake of traces of heavy metals into vegetables with electrochemical DPASV method

17²⁰ – 17⁴⁰ **S. Frka, Z. Kozarac, B. Ćosović**

Electrochemical study of the surfactant activity in natural microlayers of the saline Rogoznica lake (Middle Adriatic)

17⁴⁰ – 18⁰⁰ **B. Gašparović, S. Frka, Z. Kozarac, A. Nelson**

Development of electrochemical sensor for sea-surface microlayer characterization by use of DOPC

18⁰⁰ – 18²⁰ **P. Orlović Leko, Z. Kozarac, B. Ćosović**

Adsorption behavior of some atmospheric organic compounds on the mercury electrode

THURSDAY, June 1st 2006
MORNING SESSION

Chair: **Jagoda Radošević**

9⁰⁰ – 9⁴⁵ PLENARY LECTURE

Velizar Stanković

Metal recovery from effluents – new approaches

9⁵⁰ – 10¹⁰

T.L. Kulova, A.M. Skundin, Yu.V. Pleskov, O.I. Kon'kov, E.I. Terukov, I.N. Trapeznikova

Li insertion/extraction characteristics of amorphous silicon films

10¹⁰ – 10⁴⁰

COFFEE BREAK

Chair: **Saša Omanović**

10⁴⁰ – 11⁰⁰

V. Brusić, R. Zhou, C. Thompson, A. Powell, P. Feeney

Use of electrochemical techniques in the selection of slurries for chemical-mechanical planarization (CMP) of gold

11⁰⁰ – 11²⁰

E. Slavcheva, I. Radev, G. Topalov, E. Budevski
Characterisation of MEAs for electrochemical energy conversion using and EASYTEST technique

11²⁰ – 11⁴⁰

M. Kliškić, J.Radošević, I. Smoljko, A. Višekruna, S. Gudić

Hydrogen evolution during cathodic polarisation of Al-Ga alloys

11⁴⁰ – 12⁰⁰

Z. Grubač, M. Metikoš-Huković, N. Radić
Nickel and nickel-tungsten alloys as catalysts for hydrogen evolution

12⁰⁰ – 12²⁰

J. Halambek, **M. Gojo**, N. Ciković
Cathodic polarization of thallium in the citrate solution

12²⁰

CLOSING CEREMONY