



Institute of
Chemistry, Faculty
of Natural Sciences
and Mathematics,
Ss. Cyril and
Methodius
University

SENSORS

Intensive
lecture
course

BOOK OF
ABSTRACTS

08th – 12th October, Skopje, Republic of Macedonia

Sponsored by:



Workshop "Sensors" Skopje, Macedonia, 08-12 October, 2012

S E N S O R S

-WORKSHOP-

8-12 October, 2012, Skopje, Macedonia

*International Master and Postgraduate Programme in Material Science and
Catalysis
(MatCatNet)*

LECTURES

Monday, 8th of October, 2012

8:30-10:00 Evamarie Hey-Hawkins (Leipzig), COORDINATION COMPLEXES AS SELECTIVE SENSORS FOR IONS AND MOLECULES

10:00-10:30 Coffee Break

10:30-12:00 Catalin Popescu (Cluj-Napoca), SENSORS I: BASIC ASPECTS; ELECTROCHEMICAL SENSORS

12:00-13:00 Lunch

13:00-14:30 Valentin Mirčeski (Skopje), ELECTROCATALYSIS

14:30-15:00 Coffee Break

15:00-16:30 Rubin Gulaboski (Stip), THE ROLE OF NANOPARTICLES IN ELECTROCHEMISTRY

16:30-17:00 Coffee Break

17:00-18:30 Rubin Gulaboski (Stip), LIQUID-LIQUID INTERFACE AS BIOCHEMICAL SENSOR FOR BIORELEVANT IONS

Tuesday, 9th of October, 2012

8:30-10:00 Valentin Mirčeski (Skopje), THREE-PHASE ELECTRODES AS ELECTROCHEMICAL SENSORS

10:00-10:30 Coffee Break

10:30-12:00 Blaga Radovanovic (Nis), CHEMICAL SENSORS AS A TOOL FOR ANTIOXIDANT CAPACITY ASSESSMENT

Workshop "Sensors" Skopje, Macedonia, 08-12 October, 2012

12:00-13:00 Lunch

13:00-14:30 Fetah Podvorica (Prishtina), THE USE OF CHEMICALLY AND ELECTROCHEMICALLY GRAFTED FILMS ON MATERIAL SURFACES AS ELECTROCHEMICAL SENSORS

14:30-15:00 Coffee Break

15:00-16:30 Fetah Podvorica (Prishtina), MODIFICATION OF DIFFERENT CARBON SURFACES WITH ORGANIC MOLECULES

16:30-17:00 Coffee Break

17:00-18:30 Catalin Popescu (Cluj-Napoca), SENSORS II: OPTICAL, MASS, THERMAL AND PIEZOELECTRIC SENSORS

STUDENT PRESENTATIONS

Wednesday, 10th of October, 2012

ORAL PRESENTATIONS:

- 9.30-9.45 Aleksandra Radovanović, Branimir Jovančičević, Jelena Zvezdanović, Blaga Radovanović DETERMINATION OF ANTIOXIDANT CAPACITY OF RED WINES BY USING MODIFIED CUPRAC METHOD
- 9.45-10.00 Flamur SOPAJ, Nihal OTURAN, Fetah I. PODVORICA, Mehmet A. OTURAN, ELECTRO-FENTON PROCESS EFFICIENCY DEPENDENCE FROM THE ELECTRODE MATERIAL
- 10.00-10.15 Albana Bytyqi, Besarta Kastrati, Avni Berisha, Musaj Paçarizi DETERMINATION OF THE STABILITY CONSTANTS OF THE Pb(II)-OXALATE COMPLEXES IN THE PRESENCE OF NTA AND EDTA BY USING DIFFERENTIAL PULSE POLAROGRAPHY (DPP)
- 10.15-10.30 Besarta Kastrati, Albana Bytyqi, Albert Maxhuni, Musaj Paçarizi, DETERMINATION OF THE STABILITY CONSTANTS OF THE Pb(II) CARBOXYLIC ACIDS COMPLEXES BY USING DIFFERENTIAL PULSE POLAROGRAPHY (DPP)
- 10.30-10.45 Veton Haziri, STUDY OF THE EFFECT OF SnO₂ AND MICRO PARTICLES OF COPPER WITH CARBON PASTE ELECTRODES IN THE DETERMINATION OF NO
- 10.45-11.00 Vjollca Berisha, Albert Maxhuni, Avni Berisha, Musaj Paçarizi, THE EVALUATION OF THE INTERACTION OF Fe(III) IONS WITH SALICILATES BY USING UV-VIS SPECTROSCOPY AND DIFFERENTIAL PULSE POLAROGRAPHY

Workshop "Sensors" Skopje, Macedonia, 08-12 October, 2012

11.00-11.30: Coffee-break

- 11.30-11.45 Noémi Deak, REACTIVITY OF GERMAPHOSPHAALLENES TOWARDS POLAR ORGANIC REAGENTS
- 11.45-12.00 Antonio Buzarevski, Bozhana Mikhova, Emil Popovski, SYNTHESIS AND SPECTRAL CHARACTERIZATION OF NOVEL METHANESULFONAMIDE DERIVATIVES
- 12.00-12.15 Andy Schmied, Markus Streitberger and Evamarie Hey-Hawkins, BIPHOSPHOLANE-BASED NANO-FRAMES
- 12.15-12.30 Marijana Denčić, Jorgovanka Bojić, Aleksandra Radovanović, Maja Stanković, Blaga Radovanović, SPECTROPHOTOMETRIC ASSAYS FOR DETERMINATION OF ANTIOXIDANT ABILITY OF WINES
- 12.30-12.45 Miljan Milenković, Ana Milenkovic Andjelkovic, Blaga Radovanovic, POLYPHENOLS AND FREE RADICAL SCAVENGING AND ANTIMICROBIAL ACTIVITIES OF BLACKTHORN (PRUNUS SPINOSA L) FROM SOUTHERN SERBIA
- 12.45-13.00 Liridon Berisha, Kurt Kalcher, Ahmet Hajrizi, Tahir Arbnesi, AMPEROMETRIC GLUCOSE BIOSENSOR BASED ON TIN(IV)-OXIDE MODIFIED SCREEN PRINTED CARBON ELECTRODES

13.00-14.00 Lunch

- 14.00-14.15 Vladimir Radovanović, Snežana Đekić, Blaga Radovanović, APPLING GRAPE SEED FLOUR AS NATURAL ANTIOXIDANT I
- 14.15-14.30 Zorica Petrović, Maja Stanković, Dragan Đorđević, Blaga Radovanović, APPLICATION OF X-RAY DIFFRACTION (XRD) IN GEOCHEMICAL INVESTIGATIONS
- 14.30-14.45 Miloš G. Đorđević, Dragan M. Đorđević, Maja N. Stanković, Blaga Radovanović, APLICATION OF FTIR IN GEOCHEMISTRY: CHARACTERIZATION OF BITUMINOUS LIMESTONE (MAGANIK MOUNTAIN, MONTENEGRO)
- 14.45-15.00 Nevena Menković, Jelena Mladenović, Radoš Pavlović, Dragan Djordjević, Blaga Radovanović, FREE RADICAL SCAVENGING AND ANTIMICROBIAL ACTIVITIES OF RED CABBAGE (BRASSICA OLERACEA VAR. CAPITATA F. RUBRA) FROM CENTRAL SERBIA

15.00-15.15 Coffee-break

15.15-16.15 Meeting of the coordinators of the project

19.30 GET-TOGETHER DINNER

Workshop "Sensors" Skopje, Macedonia, 08-12 October, 2012

Thursday, 11th of October, 2012

POSTER-FLASH SESSION:

- 9.30-9.35 Bakai Imre, Lovász Tamás, SYNTHESIS AND CHARACTERIZATION OF NEW PHENOTHIAZINE CONTAINING N/S/P POLYTOPIC LIGANDS
- 9.35-9.40 Raul Ranete, Sebastian Paic SURFACE MODIFICATION OF CERAMIC MATERIALS WITH FUNCTIONALIZED CALIX[N]ARENES
- 9.40-9.45 Cristina Coman, Augustin Cătălin Moț, Marcel Pârvu, Radu Silaghi Dumitrescu SCLEROTINA SLEROTINUM LACCASE PRODUCTION. INSIGHTS INTO PHYSIOLOGICAL ROLE
- 9.45-9.50 Sanja Kostadinović, Peter Winterhalter, ISOLATION OF ANTHOCYANINS BY HIGH-SPEED COUNTERCURRENT CHROMATOGRAPHY AND APPLICATION OF THE COLOUR ACTIVITY CONCEPT TO DIFFERENT VARIETIES OF RED GRAPE POMACE FROM MACEDONIA
- 9.50-9.55 Galaba Naumova, Valentin Mirčeski, DETERMINATION OF ANTIOXIDANT CAPACITY OF VEGETABLE OILS BY MEANS OF CYCLIC VOLTAMMETRY
- 9.55-10.00 Maja Jancovska, Valentin Mirčeski, DEVELOPMENT OF ANODIC STRIPPING VOLTAMMETRIC METHOD FOR HEAVY METAL DETECTION AT BISMUTH-FILM ELECTRODES
- 10.00-10.05 Viktorija Maksimova, Liljana K. Gudeva, Rubin Gulaboski, Zorica Arsova Sarafinovska, DETERMINATION OF CAPSAICIN IN HOT PEPPERS NATIVE FOR MACEDONIA AND ITS ANTIOXIDANT PROPERTIES
- 10.05-10.10 Marija Sterjova, Viktorija Maksimova, CONTRIBUTION OF INTAKE ANTIOXIDANTS THROUGH COFFEES AND TEAS ON GENERAL HEALTH CONDITIONS IN STUDENT POPULATION
- 10.10-10.15 Monika Radevska, Biljana Minčeva-Šukarova, Kiro Stojanovski and Olgica Trenčevska, RAMAN AND INFRARED STUDY OF TEMPERATURE AND UV LIGHT INDUCED DENATURATION OF DNA
- 10.15-10.20 Daniela Bagashovska, Jasmina Petreska Stanoeva, Marina Stefova, CHARACTERIZATION OF URINARY BIOACTIVE PHENOLIC METABOLITES EXCRETED AFTER CONSUMPTION OF A CUP OF MOUNTAIN TEA (*Sideritis scardica*) USING LIQUID CHROMATOGRAPHY- TANDEM MASS SPECTROMETRY
- 10.20-10.25 Marija Petkovska, Olgica Trenčevska, Jasmina Petreska, Kiro Stojanoski, ELECTROSPRAY IONISATION STUDY OF PROTEINS ESI MS SPECTRA OF CASEIN AND BETA LACTOGLOBULIN
- 10.25-10.30 Hristina Tomovska, Zoran Zdravkovski, COMPARISON OF VARIOUS INJECTION MODES IN THE GC-MS ANALYSES OF HEXACHLOROCYCLOHEXANE ISOMERS.
- 10.30-10.35 Biljana Mitrova, Valentin Mirčeski, ELECTROCHEMICAL STUDY OF GLUCOSE OXIDASE WITH ORGANIC FILM MODIFIED ELECTRODES.
- 10.35-10.40 Nikolina Mitreska, Valentin Mirčeski, REDOX CHEMISTRY OF UBIQUINONES IN THE PRESENCE OF NUCLEOPHILIC THIOL REAGENTS.

Workshop “Sensors“ Skopje, Macedonia, 08-12 October, 2012

10.45-10.50 Angela Aleksovska, Valentin Mirčeski, ELECTROCHEMICAL DEPOSITION AND VOLTAMMETRIC INSPECTION OF METAL NANOPARTICLES ON A LIQUID – LIQUID INTERFACE

10.50-11.05 Coffee-break

11.05-12.00 DISCUSSION ON POSTER RESULTS

12.00-13.30 Lunch

14.30 Free Afternoon

Friday, 12th of October, 2012

Departure