

## OPENING SESSION

### Day 1, September 11, 2013

Hall 1, "Aula Magna"

9:00 – 9:30

*Acad. Ionel Haiduc*, President of the Romanian Academy

*Prof. Tudor Prisecaru*, President of the National Authority for Scientific Research

*Prof. Mircea Dumitru*, Rector of the Bucharest University

*Acad. Ionel Valentin Vlad*, Vicepresident of the Romanian Academy

*Acad. Marius Andruh*, President of Chemical Sciences Section, Romanian Academy

*Acad. Eugen Segal*, Chairman of the Scientific Committee

*Dr. Maria Zaharescu*, CM of the Romanian Academy, Institute of Physical Chemistry

*Prof. Constantin Mihailciuc*, Dean of the Faculty of Chemistry

*Dr. Vlad Tudor Popa*, Director of the Institute of Physical Chemistry

## PLENARY LECTURES

### Day 1, September 11, 2013

Hall 1, "Aula Magna"

Chairs: Prof. Marius Andruh  
Dr. Maria Zaharescu

Secretary: Dr. Teodora Staicu

9:30 – 10:20 **Thermochemistry of porous materials - zeolites, mesoporous silicas, and metal organic frameworks**

PL-1 *Alexandra Navrotsky*  
University of California at Davis, USA

10:50 – 11:40 **Advanced X-ray analyses on epitaxially-grown mosaic thin films.**

PL-2 *Olivier Durand, Antoine Letoublon, Yan Ping Wang, Tra Nguyen Thanh, Charles Cornet and Alain Le Corre*  
INSA de Rennes, FOTON-OHM - UMR-CNRS 6082

11:40 – 12:30 **Development of vanadodrugs in cancer therapeutics. An interdisciplinary challenge.**

PL-3 *Athanasios Salifoglu*  
Aristotle University of Thessaloniki, Thessaloniki, Greece

### Day 2, September 21, 2013

Hall 1, "Aula Magna"

Chairs: Prof. Eugen Segal  
Dr. Vlad Tudor Popa

Secretary: Dr. Bogdan Jurca

9:00 – 9:50 **Integrative materials chemistry: from nanostructured to hierarchically structured functional solids.**

PL-4 *Clément Sanchez*  
Laboratoire de Chimie de la Matière Condensée de Paris, CNRS, Université Pierre et Marie Curie. Collège de France

9:50 – 10:40 **Mesoscale - The new frontier in carbon materials science.**

PL-5 *Cristian Contescu*  
Oak Ridge National Laboratory, Oak Ridge, USA

**Day 3, September 13, 2013**

**Hall 1, "Aula Magna"**

Chairs: Prof. Dumitru Oancea

Dr. Oana Carp

Secretary: Dr. Florentina Maxim

9:00 – 9:50

PL-6

**Ferroelectric nanostructures: from synthesis to applications.**

*Paula Ferreira and Paula M. Vilarinho*

CICECO, University of Aveiro, Portugal

9:50 – 10:40

PL-7

**Design of functional monolayers using diazonium electrochemistry.**

*Philippe Hapiot*

Université de Rennes 1, France

## KEYNOTES

**Section 1: Theoretical chemistry. Molecular spectroscopy.**

**Section 3: Surface phenomena. Colloids.**

**Day 1, September 11, 2013, 14:00 – 17:00**

**Hall 3, Council Hall**

Chairs: Prof. Elena Volanschi

Prof. Mihaela Hillebrand

Secretary: Dr. Adrian Beteringhe

14:00 – 14:20

S01-K1

**Drug-protein interactions: Experimental ICD-TDDFT calculations**

*Mihaela Hillebrand*

University of Bucharest, Department of Physical Chemistry, Bucharest, Romania

14:20 – 14:40

S01-K2

**New keys for old keywords: Ligand Field theory, revisited.**

*Fănică Cimpoesu*

Institute of Physical Chemistry "Ilie Murgulescu" of Romanian Academy, Bucharest, Romania

14:40 – 15:00

S01-K3

**Solute-solvent interactions in chlortetracycline diluted solutions – theoretical and spectral investigation**

*C. Nadejde, A. Airinei, Dorina Creanga and D. Dorohoi*

University Alexandru Ioan Cuza, Physics Faculty, Iasi, Romania

15:00 – 15:20

S01-K4

**Jahn-Teller and pseudo Jahn-Teller origin of structural distortions of coordinated and adsorbed molecules**

*Natalia Gorinchoy*

Institute of Chemistry, Academy of Sciences of Moldova, Chisinau, Republic of Moldova

15:20 – 15:40

S01-K5

**Structure based evaluation hints for sensitising dye candidates for DSSC solar cells by molecular modelling**

*Herbert Peter Storch*

University of Bucharest, Department of Physical Chemistry, Bucharest, Romania

15:40 – 16:00

**Coffee Break**

16:00 – 16:20

S01-K6

Spectroscopic analysis of textile and leather cultural heritage artifacts exposed to gamma radiations

*Ioana Stanculescu, I.V. Moise, M.M. Manea, M. Virgolici, F. Zorila, A. Alistar, D.C. Negut, I.B. Lungu, M. Cutrubinis and C.C. Ponta*

University of Bucharest, Department of Physical Chemistry, Bucharest, Romania

Horia Hulubei National Institute for Physics and Nuclear Engineering, Centre of Technological Irradiations (IRASM), Magurele, Romania

- 16:20 – 16:40 **Theoretical investigations on substituted disilacyclopropylidenoids and trisilacyclopropylidenoids**  
S01-K7 *Akın Azizoglu* and Cem Burak Yildiz  
Balikesir University, Faculty of Arts and Sciences, Department of Chemistry, Balikesir, Turkey
- 16:40 – 17:00 **2D miscibility behavior of two chemically similar amide amphiphiles**  
S03-K1 C. Stefaniu, D. Vollhardt and *Gerald Brezesinski*  
Max Planck Institute of Colloids and Interfaces, Potsdam, Germany

## Section 2: Chemical kinetics and thermodynamics.

**Day 2, September 12, 2013, 14:00 – 15:20**  
**Hall 1, “Aula Magna”**

Chairs: Dr. Speranta Tanasescu  
Secretary: Dr. Mariana Teodorescu

- 14:00 – 14:20 **Correlation between composition, defect structure and thermodynamic stability of conducting perovskite-type oxides**  
S02-K1 *Speranta Tanasescu*  
”Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania
- 14:20 – 14:40 **Strontium and iron doping influence on energetics of lanthanum manganites**  
S02-K2 *Cornelia Marinescu, Leonid Vradman, Speranta Tanasescu and Alexandra Navrotsky*  
”Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania
- 14:40 – 15:00 **Refractive indexes, molar refractions, and their deviations from ideality for selected binary systems of various polarities at 25°C**  
S02-K3 *Mariana Teodorescu*  
”Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania
- 15:00 – 15.20 **The calorimetric study of stereoisomers of irradiated and non irradiated serine**  
S02-K4 *Ana Neacșu, Daniela Gheorghe, Iulia Contineanu, Ștefan Perişanu, Mihail Contineanu and Speranța Tănăsescu*  
”Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania

**Day 3, September 13, 2013, 11:00 – 13:00**  
**Hall 1, “Aula Magna”**

Chairs: Dr. Domnina Razus  
Secretary: Dr. Cristian Hornoiu

- 11:00 – 11:20 **Graphs in catalytical kinetics**  
S02-K5 *Eugen Segal*  
Romanian Academy / Department of Physical Chemistry - Faculty of Chemistry - University of Bucharest, Romania
- 11:20 – 11:40 **Isoconversional evaluation of catalyst inactivation in homogeneous systems**  
S02-K6 *Dumitru Oancea, Adina Raducan, Mihaela Elena Puiu and Anca Ruxandra Cantemir*  
Department of Physical Chemistry University of Bucharest, Romania
- 11:40 – 12:00 **The role of Mn(II) ion in the oscillating Briggs-Rauscher reaction**  
S02-K7 *Gelu Bourceanu and Rodica Nitoi*  
”Al. I. Cuza” Univeristy of Iasi, Romania
- 12:00 – 12.20 **Extended vs. reduced kinetic models used for in-silico design of controlled drug release systems**  
S02-K8 *Gheorghe Maria, Ionela Luta, Daniela Berger, Silviu Nastase, Anca-Iulia Stoica, Daniela Stirbet and Gabriel Lucian Radu*  
University Politehnica of Bucharest

12:20 – 12.40 **Photodegradation of bisphenol F and its inclusion complex with beta-cyclodextrin in aqueous solutions**  
S02-K9 *Victoria A. Salomatova, Ivan P. Pozdnyakov, Nikolay M. Bazhin and Victor F. Plyusnin*  
Institute of Chemical Kinetics and Combustion, Russia

12:40 – 13.00 **Role of oxygen on the heterogeneous reaction of peroxy radicals with VOCs**  
S02-K10 *Hossein Jalali Jahromi*  
Islamic Azad University, Iran

#### Section 4: Electrochemistry. Corrosion. Ionic liquids.

Day 3, September 13, 2013, 11:00 – 11:40

Hall 3 - Council Hall

Chairs: Dr. Nicolae Spataru

Secretary: Dr. Cecilia Lete

11:00 – 11:20 **Electrochemical biosensors for catecholamines**  
S04-K1 *I.M. Apetrei, D. Tutunaru, C. V. Popa (Ungureanu) and C. Apetrei*  
Dunarea de Jos University of Galati

11:20 – 11:40 **Double layer Zn-Ni-P alloy coatings on mild steel for corrosion resistance**  
S04-K2 *Ana-Maria Popescu, Vasile Soare, Kazimir Yanushkevich, Elena Ionela Neacsu, Mihai Anastasescu and Virgil Constantin*  
Institute of Physical Chemistry "Ilie Murgulescu" of Romanian Academy, Bucharest, Romania

#### Section 5: Advanced materials science.

Day 1, September 11, 2013, 14:00 - 15:40

Hall 2 "Heliade Rădulescu"

Chairs: Dr. Victor Fruth

Dr. Vlastimil Matějčec

Secretary: Dr. Oana Cătălina Mocioiu

14:00-14:20 **Strontium titanate-based perovskites for energy applications**  
S05-K1 *C. Savaniu and J.T.S. Irvine*  
School of Chemistry, University of St Andrews, UK

14:20 – 14:40 **Structural and functional properties of ferroelectric B-site substituted barium titanate-based solid solutions prepared by the polymeric precursor method**  
S05-K2 *A. C. Ianculescu, D. C. Berger, C. A. Vasilescu, B. S. Vasile, L. P. Curecheriu, M. Deluca and L. Mitoseriu*  
Faculty of Applied Chemistry and Materials Science, "Politehnica" University of Bucharest, ROMANIA

14:40 – 15:00 **Novel materials for up-scaled treatment of waters with complex pollutant load using photocatalysis**  
S05-K3 *A. Duta and M. Visa*  
R&D Institute, Centre Renewable Energy Systems and Recycling, Transilvania University of Brasov, ROMANIA

15:00 – 15:20 **The effect of thermal treatment on morphology and oxidation states of manganese in TiO<sub>2</sub> nanostructures derived from titanate precursor doped with Mn<sup>2+</sup>**  
S05-K4 *P. Umek, C. Bittencourt, A. Gloter, P. Guttman, S. D. Škapin and D. Arčon*  
Jožef Stefan Institute, Ljubljana, SLOVENIA  
Center of Excellence NAMASTE, Ljubljana, SLOVENIA

15:20 – 15:40 **Nanostructured photocatalysts prepared by atomic layer deposition**

S05-K5 *I. M. Szilágyi, T. Firkala, D. Nagy, M. Ritala and M. Leskelä*  
Budapest University of Technology and Economics, Department of Inorganic and Analytical Chemistry, MTABME, Technical Analytical Chemistry Research Group, Budapest, HUNGARY  
University of Helsinki, Department of Chemistry, FINLAND

**Day 1, September 11, 2013, 16:00 - 17:40**

**Hall 2 “Heliade Rădulescu”**

Chairs: Dr. Adelina Ianculescu

Dr. Oana Carp

Secretary: Dr. Irina Atkinson

16:00-16:20 **Computational thermochemistry of uranium dioxide and uranium nitride**

S05-K6 *M. Stan, Z. G. Mei, A. E. Thompson and C. M. Wolverton*

Argonne National Laboratory, U. S. A.

16:20 – 16:40 **Ab initio study of p-type and n-type conductivity in tin dioxide**

S05-K7 *A. Stashans, A. Chamba and F. Marcillo*

Grupo de Fisicoquímica de Materiales, Universidad Técnica Particular de Loja, ECUADOR

16:40 – 17:00 **Discovering the magnetic poles of molecules**

S05-K8 *M. Ferbințeanu*

University of Bucharest, Faculty of Chemistry, Inorganic Chemistry Department, ROMANIA

17:00 – 17:20 **New molecular-based magnetic materials. Towards heterotrimetallic nanomagnets**

S05-K9 *D. Vișinescu, M.A. Alexandru, A. Madalan, B. Jurca, M. Andruh, J.P. Sutter and R. Clérac*

"Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, Bucharest, ROMANIA

17:20 – 17:40 **Magnetic behavior of magnetite nanoparticles by MonteCarlo simulation**

S05-K10 *N. Stănică*

"Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, Bucharest, ROMANIA

## **Workshop 8 - Sol-gel science and applications. Section 5 – Advanced Materials Science.**

**Day 2, September 12, 2013, 11:00 - 12:40**

**Hall 1 “Aula Magna”**

Chairs: Dr. Anca Duță,

Dr. Polona Umek

Secretary: Dr. Luminița Predoană

11:00-11:20 **Sol-gel method for fabrication of Bragg fibers for delivery of high energies**

W08-K1 *V. Matějček, O. Podrazký, I. Bartoň, J. Mrázek, I. Kašík and J. Aubrecht*

Institute of Photonic and Electronic AS CR v.v.i., Prague, CZECH REPUBLIC

11:20 – 11:40 **High-*k* dielectric HfO<sub>2</sub> films obtained by sol-gel method**

W08-K2 *M. Zaharescu*

"Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, Bucharest, ROMANIA

- 11:40 – 12:00 **First principles electronic structure of HfO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub> doped with rare earth elements**
- S05-K11 *R. Plugaru and N. Plugaru*  
National Institute for R&D in Microtechnologies-IMT, Bucharest, ROMANIA
- 12:00 – 12:20 **Assessing microenvironment in supramolecular gels using spin probes and EPR spectroscopy**
- S05-K12 *V. Chechik, D. K. Smith and A. Caragheorgheopol*  
Department of Chemistry, University of York, UK
- 12:20 – 12:40 **Real-time tuning of interfacial impedance in rechargeable batteries**
- S05-K13 *V. Stankovski*  
CTO, LogiCoul Solutions, LLC, Bloomfield Hills, MI, USA

## Section 5 – Advanced Materials Science

**Day 3, September 13, 2013, 11:00 - 12:40**

**Hall 2 “Heliade Rădulescu”**

Chairs: Dr. Maria Zaharescu

Dr. Marius Stan

Secretary: Dr. Jeanina Cușu-Pandele

- 11:00-11:20 **Electrical current effects in field activated sintering technique (FAST)**
- S05-K14 *L. Groza*  
University of California, Davis, USA
- 11:20 – 11:40 **Oxychalcogenides : promising thermoelectric materials**
- S05-K15 *C. Barreteau, D. Bérardan, L-D. Zhao and N. Dragoe*  
Univ. Paris Sud – CNRS, ICMMO, FRANCE
- 11:40 – 12:00 **Thermal behavior and decomposition of mixed valence solids In<sub>5</sub>Ch<sub>5</sub>Cl (Ch = S, Se)**
- S05-K16 *K. Xhaxhiu, T. Kota, A. Xhelaj and H.-J. Deiseroth*  
Department of Chemistry, Faculty of Natural Sciences, University of Tirana, ALBANIA
- 12:00 – 12:20 **Detection and a modeling study of some explosives and nanobombs**
- S05-K17 *P. Ionita*  
University of Bucharest, Organic Chemistry Department, Bucharest, ROMANIA  
"Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, Bucharest, ROMANIA
- 12:20 – 12:40 **Kinetics and phase-formation features of niobium and tantalum high-temperature nitridation**
- S05-K18 *Ts. A. Adamyan*  
Yerevan State University, Yerevan, ARMENIA

## Section 6: Biophysical, environmental and green chemistry.

Day 1, September 11, 2013, 14:00 - 15:40

Hall 1, "Aula Magna"

Chairs: Prof. Athanasios Salifoglu  
Dr. Vlad Tudor Popa  
Secretary: Dr. Adina Magdalena Musuc

- 14:00 – 14:20 **Lipids and peptides confined in two-dimensional layers**  
S09-K1 *Gerald Brezesinski*  
Max Planck Institute of Colloids and Interfaces, Potsdam, Germany
- 14:20 – 14:40 **Starch-derived carbonaceous spheres - versatile templates for spherical structures**  
S06-K2 *Greta Mihaela Socoteanu, Jose Maria Calderón-Moreno, Ruxandra Birjega, Daniela Cristina Culiță, Simona Somăcescu, Adina Magdalena Musuc, Ramona Ene and Oana Carp*  
"Ilie Murgulescu" Institute of Physical Chemistry of Romanian Academy, Bucharest, Romania
- 14:40 – 15:00 **Carbohydrates-assisted synthetic routes of ZnO**  
S06-K3 *Alina Stan, Adina Magdalena Musuc, Adelina Ianculescu and Oana Carp*  
"Ilie Murgulescu" Institute of Physical Chemistry of Romanian Academy, Bucharest, Romania
- 15:00 – 15:20 **The use of X-ray absorption and synchrotron based micro X-ray fluorescence spectroscopy to investigate anti-cancer metal compounds *in vivo* and *in vitro***  
S06-K4 *Alfred A. Hummer and Annette Rompel*  
Institute of Biophysical Chemistry, University of Vienna, Vienna, Austria
- 15:20 – 15:40 **Cyclodextrin-ionic surfactants interactions investigated by spin probe method**  
S06-K5 *Elena Gabriela Ioniță, Ana Maria Ariciu, Ioana Maria Turcu and Maria Victoria Neacșu*  
"Ilie Murgulescu" Institute of Physical Chemistry of Romanian Academy, Bucharest, Romania

Day 1, September 11, 2013, 16:00 - 17:40

Hall 1, "Aula Magna"

Chairs: Prof. Annette Rompel  
Dr. Elena Gabriela Ioniță  
Secretary: Dr. Ana-Maria Toader

- 16:00 – 16:20 **Hybrid inorganic - biological materials**  
S06-K6 *Alexandra Snyder, Hangyu Zhang, Jeremy Schaffer and Lia Stanciu*  
School of Materials Engineering, Purdue University, West Lafayette, Indiana, USA  
School of Biomedical Engineering, Purdue University, West Lafayette, Indiana, USA
- 16:20 – 16:40 **Current trends in the functional oxides development**  
S06-K7 *Mircea Modreanu*  
Tyndall National Institute-University College Cork, Cork, Ireland
- 16:40 – 17:00 **Biomaterials with enhanced properties for electro-optics applications**  
S06-K8 *Ileana Rău, Alexandrina Țane, Aurelia Meghea, François Kajzar, Adrian Petriș, Tatiana Bazaru and Valentin Ionel Vlad*  
Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Bucharest, Romania
- 17:00 – 17:20 **Photochemistry of fulvic acid in aqueous solution**  
S06-K9 *Maria Yurkova, Ivan Pozdnyakov, Vyacheslav Grivin and Viktor Plyusnin*  
Institute of Chemical Kinetics and Combustion SB RAS, Novosibirsk, Russia
- 17:20 – 17:40 **Monod's bacterial growth model revisited. Kinetic arguments for "simple, but not too simple"**  
S06-K10 *Vlad Tudor Popa*  
"Ilie Murgulescu" Institute of Physical Chemistry of Romanian Academy, Bucharest, Romania

## Section 7: Catalysis and chemical engineering.

Day 2, Sept 12, 2013, 11:00 – 12:40

Hall 2 “Heliade Radulescu”

Chairs: Prof. Ken-ichi AIKA  
Dr. Georgeta Postole  
Secretary: Dr. Razvan State

- 11:00 – 11:20 **Feature of ammonia catalysts being used for mini plants at the renewable energy production site**  
S07-K1 Ken-ichi Aika  
The Open University of Japan, Dogenzaka 1-10-7, Shibuya-ku, Tokyo, JAPAN
- 11:20 – 11:40 **Catalytic denitration over simple and alumina-supported Pt-Cu bimetallic nanoparticles**  
S07-K2 Ioan Balint  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 11:40 – 12:00 **Overall kinetic models for heterogeneous catalytic oscillatory reactions**  
S07-K3 Niculae Ionescu  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 12:00 – 12:20 **NO reduction with CO on Cu-Cr and Co-Cr oxide catalysts supported on alumina and aluminosilica**  
S07-K4 Vasile Georgescu  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 12:20 – 12:40 **The effect of H<sub>2</sub>S in steam reforming of methane over Ce<sub>0.9</sub>Gd<sub>0.1</sub>O<sub>2</sub> for SOFC application**  
S07-K5 Georgeta Postole  
Université Lyon 1, CNRS, UMR 5256, IRCÉLYON, Institut de recherches sur la catalyse et l’environnement de Lyon, Villeurbanne, France

Day 2, Sept 12, 2013, 14:00 – 15:40

Hall 2 “Heliade Radulescu”

Chairs: Dr. Niculae Ionescu  
Dr. Silviya Todorova  
Secretary: Dr. Ramona Ene

- 14:00 – 14:20 **Support effect in the catalytic behavior for denitration reaction over well-defined Pd-Cu nanoparticles**  
S07-K6 Cornel Munteanu  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 14:20 – 14:40 **Comparative study on the catalytic and photocatalytic reduction of NO<sub>3</sub><sup>-</sup> over Pd-Cu nanoparticles supported on Al<sub>2</sub>O<sub>3</sub> and TiO<sub>2</sub>**  
S07-K7 Mariana Scurtu  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 14:40 – 15:00 **Effects of composition and synthesis methods on structure and catalytic properties of PtTi-SBA-15 mesoporous catalyst**  
S07-K8 Viorica Parvulescu  
Institute of Physical Chemistry “Ilie Murgulescu” of Romanian Academy, Bucharest, Romania
- 15:00 – 15:20 **Simultaneous production of  $\gamma$ -butyrolactone and 2-methyl furan by hydrogenation of furfural and dehydrogenation of 1,4-butanediol**  
S07-K9 Ahtesham Javaid  
University Politehnica of Bucharest, Department of Chemical Engineering, Bucharest, Romania
- 15:20 – 15:40 **Phase equilibria in Li/W/Mn/SiO<sub>2</sub> catalysts of methane oxidative coupling**  
S07-K10 George Nipan  
Institute of General and Inorganic Chemistry RAS, Moscow, Russia



## Workshop 9: Advanced ellipsometry and X-ray techniques for nanostructured materials characterization.

Day 2, September 12, 2013 , 11.00-12.40

Hall 3 Council Hall

Chairs: Dr. M.Gartner  
Dr. Octavian Buiu  
Secretary: Dr. Mihai Stoica

- 11:00 – 11.20 **Sol-gel TiO<sub>2</sub> thin films: Electrical and optical characterization**  
W09-K1 *A. Szekeres, S. Bakalova, S. Simeonov, M. Gartner, M. Anastasescu and M. Stoica*  
Institute of Solid State Physics, 72 Tzarigradsko Chaussee Blvd., 1784 Sofia, Bulgaria
- 11.20-11.40 **Materials and Structures for SOI-Based Sensors**  
W09-K2 *M. Brezeanu, B. Serban, O. Buiu, S. Costea, V. Avramescu, F. Udrea, S.Z. Ali, A.D. Luca, V. Dumitru, C. Cobianu, C. Bostan*  
Sensors and Wireless Lab Bucharest, ACS Global Lab, Honeywell Romania
- 11.40-12.00 **Correlations between structural, optical and electrical properties of aluminum doped zinc oxide thin films deposited by rf-magnetron sputtering**  
W09-K3 *A.C. Galca, C. Besleaga-Stan, M. Secu*
- 12.00-12.20 **Optical and electrical properties of In-N doped sol-gel ZnO films**  
W09-K4 *M. Duta, M. Nicolescu, M. Gartner, S. Mihaiu, A. Toader and M. Anastasescu*  
"Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, 202 Splaiul Independentei, 060021 Bucharest, Romania
- 12.20-12.40 **Optical properties of Ga<sub>1-x</sub>Mn<sub>x</sub>N determined by pectroscopic ellipsometry on large spectral range**  
W09-K5 *M. Stoica, M. Gartner, G. Kunnert, C. Kruse*  
"Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, 202 Splaiul Independentei, 060021 Bucharest, Romania

Day 2, September 13, 2013 , 14.00-15.40

Hall 3 Council Hall

Chairs: Dr. Anna Szekeres  
Dr. A. Galca  
Secretary: Dr. Maria Duta

- 14:00 – 14.20 **Magnetism in oxide nanostructures**  
W09-K6 *Zorana Dohčević-Mitrović*  
Institute of Physics, Center for Solid State Physics and New Materials, University of Belgrade, Serbia
- 14.20-14.40 **Influence of a hydrophobin buffer layer on the structuring and antimicrobial properties of ZnO thin films synthesized by PLD on textile materials**  
W09-K7 *L. Duta, A. C. Popescu, G. Dorcioman, G. E. Stan, I. Pasuk, I. Dumitrescu, I. N. Mihailescu*  
National Institute for Lasers, Plasma and Radiation Physics, Magurele, Romania
- 14.40-15.00 **Chemical state distribution study on transparent conductive oxide materials**  
W09-K8 *A. Marin, P. Osiceanu, M. Modreanu, E. Aperathitis, M. Gartner*  
"Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, 202 Splaiul Independentei, 060021 Bucharest, Romania
- 15.00-15.20 **Complex (In-depth characterization of TCO thin films deposited on different substrates (by r.f. sputtering method)**  
W09-K9 *H. Stroescu, M. Anastasescu, M. Gartner, P. Osiceanu, S. Preda, E. Aperathitis, M. Modreanu*  
"Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, 202 Splaiul Independentei, 060021 Bucharest, Romania

15.20-15.40 **Nb-doped TiO<sub>2</sub> thin films prepared by sol-gel method**  
 W09-K10 *M. Nicolescu, L. Predoana, S. Preda, M. Anastasescu, M. Duta, M. Gartner and M. Zaharescu*  
 "Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, 202 Splaiul  
 Independentei, 060021 Bucharest, Romania

**POSTER SESSION 1**  
**Day 2, September 12, 2013, 15:40 – 18:40**

**Section 1: Theoretical chemistry. Molecular spectroscopy.**

S1-P01	Computational study of the molecular complexes between 5-HTP with ATP and DHEA. Potential new drug resulting from this complexation. <i>Josette Weinberg, Dan Lerner and Constantin Bălăceanu-Stolnici</i>
S1-P02	High resolution electron energy loss spectroscopy for studying planar model catalyst: A technique test on NO/Rh(100) <i>Adelaida Andoni</i>
S1-P03	A DFT approach to explain the biological behavior of some Pubchem compounds <i>Ramona Curpăn and Cristian Bologa</i>
S1-P04	Approaches to G-protein coupled receptors deorphanization: the GPR32 case study <i>Liliana Ostopovici-Halip and Cristian G. Bologa</i>
S1-P05	Template structure selection for homology modeling of class A orphan G-protein coupled receptors <i>Liliana Ostopovici-Halip and Cristian G. Bologa</i>
S1-P06	FTIR (DRIFT) analysis of some printing inks from the 19 <sup>th</sup> and 20 <sup>th</sup> centuries <i>Sanda Maria Doncea and Rodica - Mariana Ion</i>
S1-P07	Experimental and theoretical study of N,N'-(o-/ m-/ p- phenylene) bis(4-chlorobutanamide) structures <i>Olesea Cuzan</i>
S1-P08	Lipophilicity and cytotoxicity of novel amino pyrazole derivatives biologically active <i>Christina Zălaru, Florea Dumitrascu, Constantin Draghici, Mircea Iovu, Rodica Tatia, Lucia Moldovan and Maria Marinescu</i>
S1-P09	Molecular docking studies involving mixed complex combinations of lantanides (La(III), Pr(III), Nd(III), Gd(III)) with ligands from oxicam class and flavonols against Aurora A kinase <i>Adrian Beteringhe, Daniela C. Culiță, Gabriela Marinescu, Rodica Bărățoiu, Luminița Patron, Sultana Niță and Adrian Andrieș</i>
S1-P10	QSPR studies involving solubility, hydrophilic-lipophilic balance and calculated energies for some fulerene derivatives <i>Adrian Beteringhe, Ana Cristina Răduțiu, Marioara Bem, Alice Mischie, Florica Spafiu, Elena Nușă Hristea, Titus Constantinescu and Alexandru T. Balaban</i>
S1-P11	Steady-state and time-resolved fluorescence analysis of 3,6-dihydroxiflavone <i>Mariana Voicescu, Sorana Ionescu, Florentina Gatea and Rodica Bandula</i>
S1-P12	DFT study of some intermediate complexes in decomposition of H <sub>2</sub> O <sub>2</sub> by Mn(II) buffer <i>Ion Arsene and Natalia Gorinchoy</i>
S1-P13	Theoretical approach of antibiotic inclusion in cyclodextrin <i>Claudia Nadejde, Anton Airinei, Nicusor Fifere and Dorina Creanga</i>
S1-P14	Comparative spectroscopic study on the structure of the complex compounds formed by Pd(II) and Pt(II) with two similar ligands, namely sodium 1,2,3,4-tetrahydroquinoline-N-carbodithioate and sodium 1,2,3,4-tetrahydroisoquinoline-N-carbodithioate <i>Liana-Simona Sbirnă, Sebastian Sbirnă and Cristian Codreși</i>
S1-P15	Electronic properties of Cu <sup>2+</sup> vinylphosphonate by PM3 semiempirical method <i>Aurelia Vișa, Bianca Maranescu and Mircea Mracec</i>
S1-P16	Induced circular dichroism and molecular modeling of the interaction between 5,6-benzocoumarin-3-carboxylic acid and human or bovine serum albumins <i>Aurica Precupaș, Sorana Ionescu and Mihaela Hillebrand</i>
S1-P17	Induced chirality of 3-carboxy-5,6-benzocoumarin in cyclodextrin and micelle <i>Cristina Tablet, Iulia Matei, Sorana Ionescu and Mihaela Hillebrand</i>

S1-P18	Theoretical study of the G-tetrad in the ground and excited states <i>Octav Caldararu and Sorana Ionescu</i>
S1-P19	Tacrine-tacrine exciton coupling assessed by time-dependent density functional theory calculations <i>Iulia Matei, Sorana Ionescu and Mihaela Hillebrand</i>
S1-P20	Theoretical study on the electronic and structural properties of germacyclopropylidenoids <i>Akın Azizoglu and Cem Burak Yildiz</i>
S1-P21	Formation enthalpy for conformers of (3R,5R,6S)-6-acetylamidopenicillanic acid calculated by the PM3, PM6 and PM7 semiempirical MO methods <i>Liviu Mocanu, Maria Mracec and Mircea Mracec</i>
S1-P22	Chiral interactions of bilirubin in organized media <i>Aurica Precupaş and Sorana Ionescu</i>
S1-P23	Vibrational spectroscopy and colour analysis of cultural heritage icons bio-decontaminated by gamma irradiation <i>Maria Mihaela Manea, Ioana Rodica Stanculescu, Ioan Valentin Moise, Marian Virgolici, Daniel Constantin Negut, Mihalis Cutrubinis and Corneliu Catalin Ponta</i>
S1-P24	DFT study of C-H bond breaking in acrylonitrile catalyzed by an ionic liquid <i>M.Yu. Gorbachev, N.N. Gorinchoy and F. Makaev</i>
S1-P25	Experimental, Theoretical and Biological Study on Linearol Isolated from Sideritis Species <i>Turgut Kılıç, Zuleyha Özer Sagir, Sema Çarıkçı, Selvihan Çitak and Akın Azizoglu</i>
S1-P26	Magnetic and luminescent binuclear double stranded helicates <i>Paula Cucoş, Cătălin Maxim, Sergiu Shova, Ruxandra Gheorghe, Floriana Țuna and Marius Andruh</i>

## Section 5 – Advanced Materials Science

S5-P01	Synthesis of spinel-type cobalt chromite as catalyst in CH <sub>4</sub> total oxidation <i>Dana Gingașu, Ioana Mîndru, Luminița Patron, Daniela Cristina Culiță, Jose Maria Calderon-Moreno, Petre Osiceanu, Ovidiu Oprea, Viorica Pârvulescu and Silviu Preda</i>
S5-P02	Gluconate precursors for CuFe <sub>2-x</sub> Cr <sub>x</sub> O <sub>4</sub> synthesis <i>Dana Gingașu, Ioana Mîndru, Luminița Patron, Gabriela Marinescu, Jose Maria Calderon-Moreno, Lucian Diamandescu, Marcel Feder, Viorica Pârvulescu and Ovidiu Oprea</i>
S5-P03	4f metal complexes of non-steroidal anti-inflammatory drugs (oxicams). Synthesis and characterization. <i>Daniela Cristina Culiță, Gabriela Marinescu, Luminița Patron, Sultana Niță, Luminița Mărutescu, Mariana Carmen Chifiriuc, Nicolae Stănică and Ovidiu Oprea</i>
S5-P04	New d <sup>10</sup> -metal coordination polymers based on Schiff–base ligands and dicyanometallates. Crystal structures and photophysical properties. <i>Gabriela Marinescu, Augustin Mădălin Mădălan, Cătălin Maxim and Marius Andruh</i>
S5-P05	Binuclear alkoxo-bridged copper(II) complexes derived from monoethanolamine and propanolamine. Syntheses, crystal structures and magnetic properties. <i>Violeta Tudor, Teodora Mocanu, Augustin Madalan, Catalin Maxim, Sergiu Sova, Floriana Tuna and Marius Andruh</i>
S5-P06	2-D Coordination polymers constructed from [NiIIInIII] nodes and [WIV(bpy)(CN) <sub>6</sub> ] <sup>2-</sup> spacers: A network of [NiIIdyIII] SMMs <i>Maria-Gabriela Alexandru, Diana Visinescu, S. Shova, F. Lloret, M. Julve and Marius Andruh</i>
S5-P07	Complexes of Keggin-type monolacunary heteropolytungstates with lanthanides: synthesis and magnetic properties <i>Doina Humelnicu, Ionel Humelnicu, Petre Badica and Marilena Ferbințeanu</i>
S5-P08	Synthesis and crystal structure of dinuclear manganese(II) compounds with an o-vanillin nicotinoylhydrazone ligand <i>Alina Gutu, Liudmila Gusina, Diana Dragancea, Paulina Bourosh, Victor Kravtsov and Ion Bulhac</i>
S5-P09	Synthesis, characterization and crystal structure of copper (II) complexes with 1,5-bis(thiophenylidene) thiocarbohydrazone <i>Diana-Carolina Ilies, Sergiu Shova, Rodica Georgescu, Nicolae Stanica and Tudor Rosu</i>
S5-P10	Dinuclear Iron(III) complex with the compartmental ligand N,N'-bis-(2-hydroxy-3-carboxy-naphthylidene)propane-1,2-diamine <i>Ana Lazarescu, Alina Munteanu, Elena Melnic, Victor Kravtsov and Constantin Turta</i>

S5-P11	Synthesis and characterization of new luminescent complexes of trivalent lanthanides with 2-carboxybenzaldehyde-2-benzothiazolyl hydrazone and heterocyclic bases <i>Mirela Calinescu, Luiza Crăciun, Monica Iliș and Bogdan Jurca</i>
S5-P12	Spectral and biological studies on new copper(II) complexes with curcumin derivatives <i>Mirela Calinescu, Mălina Fiastru, Ticuța Negreanu-Pîrjol, Florea Dumitrașcu and Bogdan Jurca</i>
S5-P13	Synthesis and crystal structure of a one-dimensional copper(II) coordination polymer based on square-planar copper(II) acetylacetonate and 4,4'-bipyridine as a spacer ligand <i>Elena Melnic</i>
S5-P14	New Co(II) and Ni(II) cubane-like structures. Synthesis and structure analysis. <i>Irina Dinu, Christina Zalaru, Daniela Bala, Constantin Mihailciuc and Marilena Ferbinteanu</i>
S5-P15	Structure and properties of a new series of systems with distant <i>d</i> and <i>f</i> sites <i>Violeta Macovei, Daniela Stamate and Marilena Ferbinteanu</i>
S5-P16	A study on the effects of synthesis parameters of a new divalent metal phosphonate <i>Bianca Maranescu and Aurelia Visa</i>
S5-P17	Room-temperature emissive liquid crystalline materials based on palladium(II) imine derivatives containing the 2-phenylpyridine core <i>Monica Iliș, Marin Micutz, Teodora Staicu, Florea Dumitrașcu, Iuliana Pasuk, Yann Molard, Thierry Roisnel and Viorel Cîrcu</i>
S5-P18	Nematic ionic liquid crystalline materials based on silver-carbene complexes <i>Amalia Pana, Laura Badea, Monica Iliș, Marin Micutz, Florea Dumitrașcu, Iuliana Pasuk and Viorel Cîrcu</i>
S5-P19	Photochemical and thermal stability investigation of porphyrins/phthaocyanines heteroaggregates embedded in epoxy-resin <i>Simona-Florentina Pop, Adrian Catangiu, Adam Harris and Rodica-Mariana Ion</i>
S5-P20	Preparation and mechanism reaction investigation of doped lanthanum galate (LSGM) electrolyte using a modified Pechini route <i>Cristian Andronescu, Elena Maria Anghel, Ecaterina Tenea, Jeanina Pandeale Cușu and Victor Fruth</i>
S5-P21	Microstructure and surface chemistry investigations on Pr <sub>0.5</sub> Ba <sub>0.5</sub> Cu <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>5+δ</sub> and La <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-δ</sub> cathodes for IT-SOFCs applications <i>Simona Somacescu, Petre Osiceanu, Jose Maria Calderon-Moreno, Codruta Rotaru and Mihaela Florea</i>
S5-P22	Porous collagen scaffolds crosslinked via $\gamma$ -irradiation for biomedical use <i>Marin Micutz, Teodora Staicu, Viorel Cîrcu, Corneliu Ghica, Gabriela Ioniță and Vlad Tudor Popa</i>
S5-P23	Hydrogels based on poly(acrylic acid-co-2-hydroxyethyl methacrylate) crosslinked by $\gamma$ -irradiation <i>Marin Micutz, Rodica Mihaela Lungu, Viorel Cîrcu and Teodora Staicu</i>
S5-P24	Synthesis and characterisation of mesoporous materials in Sr or Ce doped SiO <sub>2</sub> systems <i>Cristina Stan, Cristian Andronescu, Adriana Rusu, Jeanina Pandeale Cușu, Cornel Munteanu, Daniela Culita, Irina Atkinson and Victor Fruth</i>
S5-P25	Influence of external factors on drug-delivery properties of some polymer systems <i>Andreea Irina Barzic, Cristina Delia Nechifor and Dana Ortansa Dorohoi</i>
S5-P26	Thermophysical properties of some PS/AlN nanocomposites <i>Răzvan Florin Barzic, Andreea Irina Barzic and Gheorghe Dumitrașcu</i>
S5-P27	Effect of tannic acid on chitosan-gelatin composite <i>Manuela Florea-Spiroiu, Marin Micutz, Madalina-Georgiana Albu, Sandu Peretz, Cornel Munteanu and Dan-Florin Anghel</i>
S5-P28	Morphological and thermal properties of trimethylsilyl cellulose-organically modified montmorillonite nanocomposites <i>Altin Mele, Kledi Xhaxhiu, Arjan Korpa and Bledar Murtaç</i>
S5-P29	Composition of bi-component nanoparticles in water-in-oil microemulsions investigated by Monte Carlo simulations <i>Daniel Angelescu, Miguel Magno and Cosima Stubenrauch</i>
S5-P30	The influence of redox chemical surface treatment on silver nanoparticles <i>Mădălina Tudose, Cornel Munteanu, Gabriela Marinescu, Daniela Culiță, Elena Hristea and Petre Ioniță</i>
S5-P31	Synthesis of Ytterbium selenite and selenide <i>Miluvka Stancheva, Tsvetan Dimitrov and Daher Daher</i>

S5-P32	Application of A <sup>IV</sup> B <sup>VI</sup> -type layered crystals in the modern photonics <i>D. I. Bletskan, M. M. Bletskan, V. M. Kabatsii and O. A. Mykaylo</i>
S5-P33	The nature of crystalline inclusions in Sb-S-Se-I glasses matrix <i>O. A. Mykaylo, O. V. Gorina, V. V. Strelchuk, A. S. Nikolenko, A. M. Solomon, S. M. Gasinets and V. M. Rubish</i>
S5-P34	Synthesis and characterization of pigments with rare earth elements <i>Tsvetan Dimitrov and Dragostin Marinov</i>
S5-P35	Synthesis and investigation colour pigments from waste <i>Tsvetan Dimitrov, Mihail Doynov and Mariana Sviretcova</i>
S5-P36	Synthesis of ceramics in different colors from industrial waste <i>Mihail Doynov, Tsvetan Dimitrov and Maria Kokkori</i>
S5-P37	Motion for technological scheme for synthesis of ceramics of waste <i>Mihaill Doynov, Tsvetan Dimitrov and Miluvka Stancheva</i>
S5-P38	Photocatalytic behavior of doped BiFeO <sub>3</sub> 1D nanostructures <i>Victor Fruth, Irina Atkinson, Jeanina Pandele Cusu, Veronica Bretan, Cornel Munteanu, Elena Maria Anghel and Ion Balint</i>
S5-P39	Anti-microbial property of cotton fabric treated with zinc oxide nanoparticles <i>Irina Atkinson, Alex Muntean, Jeanina Pandele Cusu, Cornel Munteanu, Elena Maria Anghel, Veronica Bretan, Vlad Tudor Popa and Victor Fruth</i>
S5-P40	Superhydrophobicity of polyester fabrics by electroless deposition of ZnO nanoparticles <i>Ligia Frunza, Nicoleta Preda, Elena Matei, Stefan Frunza and Paul Ganea</i>
S5-P41	Influence of preparation route on growth mechanism of different morphologies of ZnO crystals <i>Jeanina Pandele Cusu, Irina Atkinson, Cornel Munteanu, Elena Maria Anghel and Victor Fruth</i>
S5-P42	Structural and morphological investigations of the ZnO micro and nanostructures obtained by hydrothermal methods <i>Maria Susana Mihaiu, Alexandra Toader, Irina Atkinson, Oana Cătălina Mocioiu, Jeanina Pandele, Cornel Munteanu and Maria Zaharescu</i>
S5-P43	Correlation between structure-properties in the ZnO-SnO <sub>2</sub> system <i>Alexandra Toader, Maria Susana Mihaiu, Cristi Hornoiu and Maria Zaharescu</i>
S5-P44	N and Mg co-doping in chromium oxide to elucidate p-type conductivity <i>Arvids Stashans and Soraya Jácome</i>
S5-P45	Protective coatings for the silicate glasses with Fe <sub>2</sub> O <sub>3</sub> <i>Oana Cătălina Mocioiu, Alexandra Toader, Irina Atkinson, Jeanina Pandele, Cristian Andronescu, Ana Maria Mocioiu, Lucica Boroica, Bogdan Sava and Maria Zaharescu</i>
S5-P46	Sr-doped sodium potassium niobate thin films <i>Oana Cătălina Mocioiu, Alja Kupec and Barbara Malic</i>
S5-P47	Multilayer Sr doped BiFeO <sub>3</sub> thin films deposition and characterization <i>Ecaterina Tenea, Charlotte Thésé, Madalina Nicolescu, Elena Maria Anghel, Irina Atkinson, Cornel Munteanu, Mihai Anastasescu, Veronica Bretan, Nicolae Stanica, Adelina Ianculescu and Victor Fruth</i>
S5-P48	Optical properties of nanocrystalline europium titanate <i>Jan Mrazek, Ivan Kasik, Ivo Barton and Vlastimil Matejec</i>
S5-P49	Titanate nanostructures obtained by microwave and hydrothermal reaction <i>Silviu Preda, Polona Umek and Maria Zaharescu</i>

## Section 6: Biophysical, environmental and green chemistry.

S6-P01	Information on the encapsulation ability of gels derived from spin probe method <i>Ana-Maria Ariciu, Ioana Maria Turcu and Gabriela Ioniță</i>
S6-P02	Bovine serum albumin induces formation of gold nanoparticles <i>Ioana-Maria Turcu, Ana-Maria Ariciu, Cornel Munteanu and Gabriela Ioniță</i>
S6-P03	Changes induced by HPB on pluronic F127 assembly revealed by microcalorimetry and EPR spectroscopy <i>Maria Victoria Neacșu, Ana Maria Ariciu, Ioana Maria Turcu, Marian Micuț, Teodora Staicu and Vlad Tudor Popa</i>
S6-P04	Accelerating ageing effects on denaturation and softening behavior of parchments <i>Andrei Cucos, Petru Budrugaec and Lucreția Miu</i>
S6-P05	Microbial degradation of wood-PVA composites evaluated by thermo-gravimetric analysis <i>Mariana Calin, Melania-Liliana Arsene, Iuliana Răut, Mihaela Doni, Elena Grosu, Adina Musuc, Cristian-Andi Nicolae and Luiza Jecu</i>
S6-P06	Biological control of microbial pathogens for a health and safe environment <i>Iuliana Raut, Mariana Călin, Melania-Liliana Arsene, Mihaela Doni, Anca Roseanu and Luiza Jecu</i>
S6-P07	MicroDSC analysis - a tool for the fast evaluation of low density polyethylene biodegradation by <i>Aspergillus Niger</i> <i>Adina Magdalena Mușuc, Mihaela Badea-Doni, Luiza Jecu and Vlad Tudor Popa</i>
S6-P08	The thermal reactivity of some ZnO - methylcellulose composites <i>Adina Magdalena Mușuc, Alina Stan, Adelina C. Ianculescu, Raluca Dumitru and Oana Carp</i>
S6-P09	ZnO obtained by methyl cellulose-mediated synthesis <i>Alina-Georgiana Stan, Adelina Ianculescu, Adina Musuc and Oana Carp</i>
S6-P10	ZnO nanocrystal clusters: polyol-assisted synthesis, optical and catalytic properties <i>Diana-Beatrice Vișinescu, Oana Carp, Raluca Negrea, Maria Scurtu, Ruxandra Birjega, Jose Claderon Moreno and Ioan Balint</i>
S6-P11	Shape stabilized nanocomposite elements for green houses based on phase change materials (PCMs)-epoxy <i>Mariella Constantinescu, Elena Maria Anghel, Vlad T. Popa, Elena Buixaderas, Irina Atkinson, Alina Stoica and Mircea Olteanu</i>
S6-P12	Physico-chemical characterization of the sealant glasses in the SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> -CaO-Me <sub>2</sub> O-M <sub>x</sub> O <sub>y</sub> system (Me=Na/ K and M=Ti/ La) <i>Elena Maria Anghel, Mariella Constantinescu, Simona Petrescu, Mohamed Malki, Irina Atkinson and Mircea Olteanu</i>
S6-P13	Reductive dechlorination of mono- and dichlorophenols in aqueous phase over Pd-Cu nanostructured catalysts <i>Corina Bradu, Florica Papa, Ioan Balint, Elena Alina Olaru, Constantin Căpăț and Ligia Frunză</i>
S6-P14	Characterization of silver nanoparticles obtained from rosemary extract and antioxidant activity <i>Radu Claudiu Fierăscu, Ioana Raluca Bunghez, Raluca Șomoghi, Irina Fierăscu, Sanda Maria Doncea and Rodica Mariana Ion</i>
S6-P15	Comparative study of antifungal effect of natural extracts and essential oils on selected artefacts <i>Irina Fierăscu, Mihail Radu, Rodica Mariana Ion and Radu Claudiu Fierăscu</i>
S6-P16	New substituted N,N-bis-(1-methyl-3,5-dimethyl-4-nitropyrazole-1-yl)-4'-aminobenzen with potential antibacterial and antifungal activity. Structural analysis <i>Alexandra Iordache, Marinela Iote, Marilena Cimpoesu, Mircea Iovu, Florea Dumitrascu, Constantin Draghici, Maria Marinescu and Christina Zălaru</i>
S6-P17	Light-induced advanced degradation of nitrobenzene by metal doped TiO <sub>2</sub> photocatalyst <i>Petruta Oancea, Ines Nitoi, Ionut Cristea, Nicolae Dragan, Dorel Crisan, Malina Raileanu and Maria Crisan</i>
S6-P18	Translocation of Radiostrontium in Common Beans <i>Raluca Runceanu, Silvana Vasilca and Valentin Munteanu</i>
S6-P19	Adaptive response to radioactive stress. First generation of contaminated seeds <i>Silvana Vasilca, Raluca Runceanu and Valentin Munteanu</i>
S6-P20	Photophysical and photochemical studies of some flavones probes <i>Mariana Voicescu, Sorana Ionescu and Florentina Gatea</i>

S6-P21	Spectral and biological evaluation of some mesoporphyrinic complexes <i>Rica Boscencu, Radu-Petre Socoteanu, Mihaela Ilie, Anabela Sousa Oliveira, Carolina Constantin, Georgiana Vasiliu, Veronica Nacea and Luis Fililpe Vieira Ferreira</i>
S6-P22	Magnetic automatic extraction and purification for human DNA <i>Alexandru Ioan Chivulescu, Mihaela Filip, Melania-Liliana Arsene, Maria Luiza Jecu and Mihaela Badea - Doni</i>
S6-P23	Relationships between buffer capacities of chemical components in heterogeneous natural systems <i>Oxana Spinu and Igor Povar</i>
S6-P24	Examining the redox activity of the ambient particulate matter (PM <sub>10</sub> and PM <sub>2.5</sub> ) in Craiova urban area during 2012 and statistically analyzing OC and EC graphs by using a charge-transfer reaction of dithiothreitol catalyzed by 9,10-phenanthraquinone <i>Liana-Simona Sbîrnă, Sebastian Sbîrnă and Cristian Codreși</i>
S6-P25	Ordering of entire molecules in monolayers of GPIs fragments <i>Cristina Stefaniu, Ivan Vilotijevic, Mark Santer, Daniel Varón Silva, Gerald Brezesinski and Peter H. Seeberger</i>
S6-P26	Hydrothermally prepared biochars from potato and potato peels as green approach: The effect of activation route on drug adsorption capacity <i>George Kyzas and Eleni Deliyanni</i>
S6-P27	Evidences for differences in biogenic amines content from several Romanian red and white wines using HPLC <i>Florion Harja, Michaela Dina Stănescu and Eleonora Mihaela Ungureanu</i>
S6-P28	Removal of Pb <sup>2+</sup> from aqueous solutions by slovak bentonites <i>Zuzana Melichová, Ladislav Hromada and Andrea Luptáková</i>
S6-P29	Metal content in moss samples from copper old mining areas Lubietová, Staré Hory and Špania Dolina, central Slovakia <i>Zuzana Melichová, Anna Petrášová, Ingrid Turisová and Iveta Nagyová</i>
S6-P30	Solidification study of a PCM composite system PEG 6000-Epoxy into a spherical cell <i>Petrică Mircea Pavel, Mariella Constantinescu and Elena Maria Anghel</i>

### Workshop 8 - Sol-gel science and applications.

S8-P01	The influence of Co dopant on TiO <sub>2</sub> structure of sol-gel nanopowders <i>Maria Crișan, Adelina Ianculescu, Mălina Răileanu, Dorel Crișan, Nicolae Drăgan, Simona Șomăcescu, Petre Osiceanu, Nicolae Stănică and Ligia Todan</i>
S8-P02	The role of Fe dopant on TiO <sub>2</sub> structure of sol-gel nanopowders <i>Dorel Crișan, Nicolae Drăgan, Maria Crișan, Mălina Răileanu, Adelina Ianculescu, Petre Osiceanu, Simona Șomăcescu, Nicolae Stănică and Cristina Stan</i>
S8-P03	Effects of Ni dopant on TiO <sub>2</sub> structure of sol-gel nanopowders <i>Mălina Răileanu, Maria Crișan, Adelina Ianculescu, Dorel Crișan, Nicolae Drăgan, Ligia Todan, Petre Osiceanu, Simona Șomăcescu and Nicolae Stănică</i>
S8-P04	Nanosized oxide powders in the MgO-TiO <sub>2</sub> binary system obtained by sol-gel method <i>Ligia Todan, Dana Culiță, Silviu Preda, Cristian Andronescu, Cornel Munteanu, Tiberiu Dăscălescu and Maria Zaharescu</i>
S8-P05	Sol-gel processes in SiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> system studied by NMR spectroscopy <i>Alina Nicolescu, Ligia Todan, Calin Deleanu and Maria Zaharescu</i>
S8-P06	Modeling of some parameters of interest in the sol-gel process <i>Adrian Beteringhe, Maria Zaharescu and Virgil Bădescu</i>
S8-P07	Thin silica layers doped with GeO <sub>2</sub> for Bragg waveguides <i>Ivo Barton, Jan Mrazek and Vlastimil Matejec</i>
S8-P08	Sol-gel ITO films for solar cell applications <i>Luminita Predoana, Silviu Preda, Adriana Rusu, Madalina Nicolescu, Mihai Anastasescu, Jose Calderon Moreno, Mariuca Gartner and Maria Zaharescu</i>
S8-P09	Synthesis of zeolite NaA with facets by the sol-gel technology <i>Dimitar Georgiev and Tsvetan Dimitrov</i>

S8-P10	Bioactive glasses in the SiO <sub>2</sub> -CaO-P <sub>2</sub> O <sub>5</sub> -ZnO system: Preparation, structural study and in vitro evaluation <i>Irina Atkinson, Luminița Predoană, Maria Elena Anghel, Jeanina Pandeale Cușu, Simona Petrescu, Cornel Munteanu, Oana Cătălina Mocioiu, Silviu Preda, Cristian Andronescu and Maria Zaharescu</i>
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**POSTER SESSION 2**  
**Day 3, September 13, 2013, 14:00 – 17:00**

**Section 2: Chemical kinetics and thermodynamics.**

S2-P01	Ultrasonic and interaction studies of amino acids in aqueous electrolytes solutions at 308 K <i>Yasmin Akhtar and Tanveer Ahmad</i>
S2-P02	Comparative study of acoustic and optical parameters in binary mixtures of exfoliated graphite nanoplatelets - water and exfoliated graphite nanoplatelets - tetrahydrofuran from experimental data at 298.15 K <i>Florinela Sirbu, Alina Catrinel Ion and Ion Ion</i>
S2-P03	A comparative study of the volumetric properties of aqueous D-glucose solutions containing glycine and sarcosine at 298.15 K <i>Florinela Sirbu, Ioana Leontina Gheorghe and Cristina Stoicescu</i>
S2-P04	Speed of sound, isentropic compressibility and refractive index for nitromethane with chloroalkane binary mixtures at temperatures of 298.15 - 318.15 K <i>Dana Drăgoescu and Daniela Gheorghe</i>
S2-P05	Densities and excess molar volumes for the binary mixtures of nitroethane with chloroalkane at temperatures between (298.15 and 318.15) K <i>Dana Drăgoescu and Daniela Gheorghe</i>
S2-P06	Thermodynamic modeling of heterogeneous speciation in natural aqueous systems <i>Igor Povar and Oxana Spinu</i>
S2-P07	Plait point determination by consistency tests <i>Cristina-Silvia Stoicescu and Gabriel Munteanu</i>
S2-P08	The influence of the temperature during the extraction of chamomile with subcritical carbon dioxide <i>Adelaida Andoni, Kledi Xhaxhiu, Pranvera Lazo and Krenaida Taraj</i>
S2-P09	Isothermal vapour-liquid equilibrium (VLE) and thermophysical properties for 1-butyl-3-methylimidazolium chloride with n-butanol binary system <i>Mariana Teodorescu and Bruno Marongiu</i>
S2-P10	Isotherms and thermodynamic parameter of adsorption aromatic compounds by multiwalled carbon nanotubes <i>Iman Fardad and Mina Zakeri</i>
S2-P11	Thermodynamic study of adsorption some of carcinogenic polycyclic aromatic hydrocarbons (PAHs) on multiwalled carbon nanotubes <i>Mina Zakeri, Iman Fardad and Sedigheh Tvakoli</i>
S2-P12	Thermochemical and thermophysical properties of some nitrates with amino acids cation <i>Daniela Gheorghe, Ana Neacșu, Dana Dragoescu, Iulia Contineanu and Speranța Tănăsescu</i>
S2-P13	Enthalpies of dissolution for two amino acid nitrates in water <i>Daniela Gheorghe, Dana Drăgoescu, Ana Neacșu and Speranța Tănăsescu</i>
S2-P14	DSC and FT-IR measurements on inclusion compounds of $\alpha$ - $\beta$ -cyclodextrins with D-/L-tryptophan isomers <i>Andreea Dana Neacsu, Ana Neacsu, Iulia Contineanu and Speranta Tanasescu</i>
S2-P15	Inclusion compounds of cyclodextrins with bio-pharmaceutical molecules <i>Andreea Neacșu and Gabriel Munteanu</i>
S2-P16	Atenolol interaction with $\beta$ -cyclodextrin: Isothermal titration calorimetric vs. spectroscopic results <i>Romică Sandu, Cristina Tăbleț, Iulia Matei and Mihaela Hillebrand</i>
S2-P17	Comparative study of the thermal and thermomechanical properties of natural and synthetic hydroxyapatite <i>Ancuța Sofronia, Cornelia Marinescu, Florentina Maxim, Oana Gingu, Radu Băieș and Speranța Tănăsescu</i>



S2-P18	Oxygen vacancies in barium titanate: structural, thermodynamic and electrical correlation <i>Florentina Maxim, Florina Teodorescu and Speranta Tanasescu</i>
S2-P19	Thermodynamic and electrical properties of Ba-Sr-Co-Fe-O perovskite type oxide <i>Florina Teodorescu, Alina Botea-Petcu, Florentina Maxim and Speranța Tănăsescu</i>
S2-P20	Thermodynamic measurements in the Ag-Cu nanoalloys <i>Alexandru Milea, Oana Gîngu, Anca Sofronia, Florentina Maxim and Speranța Tănăsescu</i>
S2-P21	On bimodal thermal denaturation of collagen type I <i>Marin Micutz, Teodora Staicu, Viorel Cîrcu, Corneliu Ghica, Gabriela Ioniță and Vlad Tudor Popa</i>
S2-P22	Thermal decomposition kinetics of bis(pyridine)manganese(II) chloride <i>Mihaela Badea, Petru Budrugaec, Eugen Segal and Andrei Cucos</i>
S2-P23	Characterization of cellulose acetate phthalate/ethylcellulose films by thermal analysis and FTIR spectroscopy <i>Mihaela Dorina Onofrei, Adina Maria Dobos and Silvia Ioan</i>
S2-P24	On the kinetics of ZnO 1D nanostructures formation from solution <i>Viorica Musat, Monica Mazilu and Eugen Segal</i>
S2-P25	Explosion of gaseous ethylene-air mixtures in closed cylindrical vessels with asymmetrical ignition <i>Codina Movileanu, Domnina Razus and Vasile Gosa</i>
S2-P26	Flame propagation in near-limit fuel-air-inert gaseous mixtures <i>Venera Giurcan, Domnina Razus, Maria Mitu and Dumitru Oancea</i>
S2-P27	Inert gas influence on propagation parameters of propane-air mixtures <i>Venera Giurcan, Maria Mitu, Domnina Razus, Codina Movileanu and Dumitru Oancea</i>
S2-P28	Conformational properties of quaternized polysulfone for specific applications <i>Raluca Marinica Albu, Ecaterina Avram, Iuliana Stoica and Silvia Ioan</i>
S2-P29	Pseudoplastic behaviour of quaternized polysulfone/poly(vinylidene fluoride) blends, with implications in cellular engineering <i>Luminita-Ioana Buruiana, Ecaterina Avram, Adriana Popa and Silvia Ioan</i>
S2-P30	Effect of polyvinyl alcohol additive on the morphological characteristics of functionalized polysulfone membranes <i>Anca Filimon, Ecaterina Avram and Silvia Ioan</i>
S2-P31	Reactivity ratios assessment for acrylonitrile copolymerization with etoxylated co-monomers <i>Andrei Sârbu, Teodor Sandu, Ana-Mihaela Florea and Liliana Sârbu</i>
S2-P32	Influence of casting solution properties on the morphological characteristics of some alicyclic polyimides films <i>Silvia Ioan, Anca Filimon, Camelia Hulubei and Iulia Stoica</i>
S2-P33	Detailed desorption study of dye molecule from polymeric material: Effect of pH, temperature, contact time and initial concentration <i>George Kyzas, Nikolaos Lazaridis and Margaritis Kostoglou</i>

### Section 3: Surface phenomena. Colloids.

S3-P01	Effect of cholesterol-poly(N,N-dimethylaminoethyl methacrylate) on the properties of stimuli-responsive polymer liposome complexes <i>Patrícia Alves, Elizabeth Tymczyszyn, Ayelen Hugo, André Ferreira, Rui Fausto, Pablo Pérez, Jorge Coelho, Pedro Simões and Andrea Gomez-Zavaglia</i>
S3-P02	Functionalization of poly(dimethyl siloxane) membranes for the development of voice prosthesis <i>Paula Ferreira, Álvaro Carvalho, Ayelen Hugo, Tiago Valente, Ilidio Correia and Patrícia Alves</i>
S3-P03	Surface modification of polyurethane membranes by plasma and ultraviolet light to improve haemocompatibility and cell adhesion <i>Patrícia Alves, Rute Cardoso, Tiago Valente, Ilidio Correia and Paula Ferreira</i>
S3-P04	The effect of some hydrophobically modified polyacrylates in aqueous solutions <i>Ludmila Aricov, Adriana Baran, Alina Iovescu, Marieta Balcan, Elena Livia Vasilescu, Ioana Cătălina Văcăreșteanu, Cristina Florentina Mihăilescu and Dan Florin Anghel</i>

S3-P05	The behavior of pyrene as such, label and derivative in some colloidal systems <i>Adriana Baran, Gabriela Stîngă, Dan-Florin Anghel, Alina Iovescu, Cristina Florentina Mihăilescu, Mădălina Tudose and Petre Ioniță</i>
S3-P06	Changes of BSA secondary structure induced by a nonionic surfactant and a fluorescently labeled polyelectrolyte <i>Anca-Ruxandra Cantemir, Alina Iovescu, Gabriela Stînga and Dan Florin Anghel</i>
S3-P07	Spectroscopic and molecular modelling studies on pyrene-labeled polyelectrolyte-bovine serum albumin systems <i>Cornelia Ilie, Anca-Ruxandra Cantemir, Adriana Băran and Dan-Florin Anghel</i>
S3-P08	Associative polyacrylates in thin liquid films and bulk <i>Alina Iovescu, Elena Mileva, Khristo Khristov, Gabriela Stîngă, Borislav Soklev, Hristina Petkova, Cristina-Florentina Mihăilescu, Dan Florin Anghel, Roumen Todorov and Ludmila Aricov</i>
S3-P09	Layer-by-layer (LbL) depositions and the non-radiative energy transfer (NRET) in multistructures of fluorophore graft polymers <i>Monica Elisabeta Maxim, Gabriela Stîngă, Adriana Băran, Alina Iovescu, Cristina Florentina Mihăilescu, Cătălina Văcăreșteanu and Dan Florin Anghel</i>
S3-P10	The response of fluorescently-labeled poly(acrylic acid) to external stimuli <i>Cristina-Florentina Mihăilescu, Cornelia Ilie, Monica-Elisabeta Maxim, Marieta Balcan and Dan-Florin Anghel</i>
S3-P11	Pyrene labeled poly(acrylic acid) probing the AOT reverse micelles <i>Gabriela Stîngă, Adriana Baran, Alina Iovescu, Monica Maxim and Dan Florin Anghel</i>
S3-P12	Superhydrophobic organic-inorganic polymer films <i>Ioana Cătălina Vacaresteanu, Monica Maxim, Elena Livia Vasilescu, Ludmila Aricov, Cornelia Ilie and Dan Florin Anghel</i>
S3-P13	Micro- and nanoemulsions with diesel and vegetable oils as alternative fuels <i>Marieta Balcan, Dan-Florin Anghel, Gabriela Stîngă, Cristina-Florentina Mihăilescu, Cătălina-Ioana Văcăreșteanu, Ludmila Aricov and Elena-Livia Vasilescu</i>
S3-P14	Fabrication and characterization of silica nanoparticles used as drug-delivery systems for antineoplastic drugs of various polarities <i>Ada Ioana Bunea and Otilia Ludmila Cintează</i>
S3-P15	Chitosan microparticulate systems prepared in polymer-surfactant systems <i>Sandu Peretz, Dan F. Anghel, Cornel Munteanu, Manuela Florea-Spiroiu, Cristina Stoian and Gheorghe Zgherea</i>
S3-P16	Surface free energy of solids from contact angle measurement: model surfaces <i>Irina Zgura, Ligia Frunza, Rodica Moldovan, Catalin Negrila, Florin Cotorobai and Ștefan Frunza</i>
S3-P17	Study of surface area and porosity variation during the course of early hydration of tricalcium silicate aerogel dried by a method that combines Soxhlet extraction with supercritical evacuation <i>Arjan Korpa, Argana Buzi, Arjan Xhelaj, Altin Mele and Reinhard Trettin</i>
S3-P18	Physico-chemical characterization of some synthetic busserites and todorokites <i>Kledi Xhaxhiu, Albana Bolani, Teodor Kota, Arjan Xhelaj, Arjan Korpa and Tom Münster</i>
S3-P19	Cyclic voltammetry of nitroxide radical TEMPO in the presence of nonionic surfactants <i>Georgiana Baci, Constantin Mihailciuc and Teodora Staicu</i>
S3-P20	Determination of critical micelle concentration by capillary electrophoresis using an UV marker <i>Elena Livia Vasilescu, Marieta Balcan, Gabriela Stîngă, Adriana Băran, Ioana Cătălina Văcăreșteanu, Ludmila Aricov and Dan Florin Anghel</i>

#### Section 4: Electrochemistry. Corrosion. Ionic liquids.

S4-P01	Corrosion behavior of Ti-6Al-4V in molten NaCl-KCl-LiF <i>Elena Ionela Neacșu, Ana-Maria Popescu, Petre Osiceanu, Mihai V. Popa, Mihai Anastasescu and Virgil Constantin</i>
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S4-P02	Influence of CuCl and CuCl <sub>2</sub> on the physicochemical properties of Reline, Maline and Ethaline deep eutectic solvents <i>Cristina Donath, Ana-Maria Popescu, Florinela Sirbu and Virgil Constantin</i>
S4-P03	Electrochemical synthesis of chromium, molybdenum, and tungsten borides powders from Na <sub>3</sub> AlF <sub>6</sub> -NaCl based melts <i>Victor Malyshev, D Shakhnin, Angelina Gab, Virgil Constantin and Ana Maria Popescu</i>
S4-P04	Electrochemical synthesis of chromium, molybdenum, and tungsten silicides powders from chloro-fluoride-oxide melts <i>Victor Malyshev, D. Shakhnin, Angelina Gab, Virgil Constantin and Ana Maria Popescu</i>
S4-P05	Synthesis, microstructure and magnetic properties of the electrodeposited Zn-Ni-P thin films on copper substrate from chloride bath <i>Ana-Maria Popescu, Kazimir Yanuskevich, Olga Demidenko, Jose Calderon Moreno, Elena Ionela Neacșu and Virgil Constantin</i>
S4-P06	Activity coefficients of triglycine in NaCl aqueous mixtures by potential difference measurements at 298.15 K <i>Florinela Sirbu and Olga Iulian</i>
S4-P07	Morphology and corrosion behaviour of the nano-NdFeB thin films on glass <i>Ana-Maria Popescu, Kazimir Yanuskevich, Anatolie Galyas, Jose Calderon Moreno, Petre Osiceanu, Elena Ionela Neacsu and Virgil Constantin</i>
S4-P08	A comparative study on the corrosion behaviour of NdFeB in different electrolyte solutions <i>Ana-Maria Popescu, Kazimir Yanushkevich, Olga Demidenko, Elena Ionela Neacsu, Cristina Donath and Virgil Constantin</i>
S4-P09	A generic SPR immunosensor for aflatoxins determination <i>Emilia Ocnaru, Cecilia Lete, Melania-Liliana Arsene, Florin Oancea, Dana Andreea Neacșu and Mihaela Badea - Doni</i>
S4-P10	Electrochemistry of several hydrazine derivatives <i>Ramona Raileanu, Carmen Zorzone, Constantin Mihailciuc and Daniela Bala</i>
S4-P11	Electrochemistry of cubane-like coordination compounds <i>Daniela Bala, Constantin Mihailciuc, Christina Zalaru and Marilena Ferbinteanu</i>
S4-P12	Nanocomposite based on carbon nanotubes and conducting polymers with different dopants for obtaining of modified electrodes <i>Florina Brânzoi, Viorel Brânzoi, Cătălina Păcurețu, Zoia Pahom and Mihai Iordoc</i>
S4-P13	Inhibition effect of the new friendly environment inhibitors for anticorrosion protection on carbon steels in different aggressive media <i>Florina Brânzoi, Viorel Brânzoi, Cătălina Păcurețu, Mihai Iordoc and Angela Stanca</i>
S4-P14	Doping effects on the electrochemical behavior of cysteine-thiolate self assembled monolayers on GaAs (100) electrodes in acidic media <i>Mirela Enache, Loredana Preda, Mihai Anastasescu, Geanina Dobrescu, Catalin Negrila, Mihai Florin Lazarescu and Valentina Lazarescu</i>
S4-P15	Amperometric investigation of adenine, guanine and epinephrine <i>Ramona Georgescu, Jacobus Frederick van Staden, Raluca-Ioana Stefan-van Staden and Ioan Calinescu</i>
S4-P16	New sensors for the assay of hormones responsible for obesity <i>Livia Alexandra Gugoasă and Raluca-Ioana Stefan-van Staden</i>
S4-P17	Comparative study of electrochemical and photoelectrochemical properties of organic/inorganic heterojunction devices <i>Farid Habelhames, Leila Lamiri, Wided Zerguine, Hanene Khentit and Belkacem Nessark</i>
S4-P18	Highly stable glucose biosensor based on Prussian Blue covered with a permselective non-conducting film copolymer as enzyme immobilization support <i>Florentina Huțanu, Emilia Ocnaru, Melania Liliana Arsene, Gelu Vasilescu and Mihaela Badea-Doni</i>
S4-P19	The electrochemistry of copolymer films based on azulene and 3-thiophene acetic acid <i>Cecilia Lete, Bhushan Gadgil and Carita Kvarnstrom</i>

S4-P20	Electrochemical behavior of cysteine-covered p-GaAs (100) electrodes at pH 5.5 <i>Mirela Enache, Mihai Anastasescu, Geanina Dobrescu, Catalin Negrila, Mihai Florin Lazarescu and Valentina Lazarescu</i>
S4-P21	The local structure and dynamics properties of dimethylimidazolium chloride - alcohols systems at T=400K <i>Nataliia Atamas, Feng-Shou Zhang and Diana Vasil'eva</i>
S4-P22	Nanostructured GOD/TiO <sub>2</sub> /SCPE electrode for amperometric glucose biosensors <i>Florentina Huțanu, Maria Marcu and Gheorghe Gutt</i>
S4-P23	Amperometric sensing of thioctic acid <i>Mariana Marin, Cecilia Lete, Mihaela Badea-Doni and Bogdan Manolescu</i>
S4-P24	Electrochemical sensors used for the screening of HER1 <i>Iuliana Moldoveanu and Raluca-Ioana Stefan-van Staden</i>
S4-P25	Structure-directing effect of an anionic surfactant on the morphological and electrochemical features of electrodeposited Pt–TiO <sub>2</sub> composites <i>Tanța Spătaru, Loredana Preda, Mihai Anastasescu, Maria Marcu, Cornel Munteanu, Alexandru Ioan Căciuleanu and Nicolae Spătaru</i>
S4-P26	Electrochemical sensors for glucose detection <i>Florina Teodorescu, Cecilia Lete, Mariana Marin and Nicolae Totir</i>
S4-P27	pH Effects on the electrochemical behavior of glutathione modified Cu electrodes <i>Ana Maria Toader, Cătălin Negrilă, Mihai Anastasescu and Valentina Lăzărescu</i>
S4-P28	Electrochemical behaviour of the new bioalloy in simulated extra-cellular fluids and its <i>In Vitro</i> cytocompatibility <i>Mihai Vasile Popa, Ecaterina Vasilescu, Paula Drob, Anisoara Cimpean, Cora Vasilescu and Silviu Iulian Drob</i>
S4-P29	Microstructural, mechanical and electrochemical characteristics of a new titanium base alloy in artificial saliva <i>Jose Maria Calderon Moreno, Cora Vasilescu, Silviu Iulian Drob, Elena Ionela Neacșu and Mihai Vasile Popa</i>
S4-P30	Characterisation of oxidized nanolayer on Ti-20Zr alloy surface <i>Jose Maria Calderon Moreno, Mihai Vasile Popa, Cora Vasilescu, Silviu Iulian Drob, Elena Ionela Neacșu and Monica Popa</i>
S4-P31	Surface characterization, corrosion behaviour and biocompatibility of nitrated Ti and Ti–6Al–4V alloy <i>Mihai Vasile Popa, Daniel Busardo, Doina Margareta Gordin, Anisoara Cimpean, Cora Vasilescu, Silviu Iulian Drob and Thierry Gloriant</i>
S4-P32	Corrosion and corrosion control of OL37 steel in Cl <sup>-</sup> and S <sup>2-</sup> solutions by different corrosion inhibitors <i>Elena Grigore, Octav Pânteaa, Dorin Bomboș and Cătălina Călin</i>
S4-P33	Electrochemical assessment of the corrosion resistance of steel reinforced concretes produced with blended cements that contain industrial solid waste <i>Arjan Korpa, Enera Xhaferrri, Arjan Xhelaj, Teodor Kota and Kledi Xhaxhiu</i>
S4-P34	The electrochemical studies about the anti corrosion properties of new diffusion barrier coatings on gamma titanium aluminide in aqueous environments <i>Maria Marcu, Alexandra Banu, Elena Maria Anghel and Elvira Alexandrescu</i>
S4-P35	Morphological features of platinum incorporated three dimensionally in electrodeposited Co <sub>3</sub> O <sub>4</sub> coatings <i>Cornel Munteanu, Tanta Spataru, Loredana Preda and Nicolae Spataru</i>
S4-P36	Liquid-liquid equilibria in quaternary system [bmim][PF6] + water + 1-chlorobutane + 1-methylimidazole: experiment, correlation, and prediction <i>Magdalena Bendová, Zuzana Sedláková, Adéla Andresová and Zdenek Wagner</i>
S4-P37	Electrochemical sensors for biomedical applications <i>Raluca-Ioana Stefan-van Staden</i>

S4-P38	Electrode processes during preparation of antimony telluride and antimony selenide films from choline chloride – based ionic liquids <i>Adriana-Simona Catrangiu, Ion Sin, Anca Cojocar, Adina Cotarta, Florentina Golgovici and Teodor Vişan</i>
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### Section 7: Catalysis and chemical engineering.

S7-P01	Oxidation of CO over Pd/TiO <sub>2</sub> catalyst <i>Veronica Brătan, Cristian Hornoiu, Daniela Negoescu, Cornel Munteanu and Nicolae I. Ionescu</i>
S7-P02	CO sensing properties of SnO <sub>2</sub> supported on ceria <i>Paul Chesler, Cristian Hornoiu, Veronica Bratan, Tania Youzhakova and Nicolae Ionescu</i>
S7-P03	Fractal analysis of Pt-Cu nanoparticles <i>Gianina Dobrescu, Florica Papa, Iudit Fangli and Ioan Balint</i>
S7-P04	Hybrid catalysts with Cu(II) and Mn(II) complexes obtained by functionalization of polymeric organic and inorganic supports <i>Ramona Ene, Mihaela Filip, Adriana Popa, Mihaela Mureşeanu and Viorica Pârvulescu</i>
S7-P05	Photocatalytic properties of titanium modified nanoxides <i>Mihaela Filip, Ramona Ene, Cornel Munteanu and Viorica Pârvulescu</i>
S7-P06	A detailed X-ray study of the tested Ni-Al catalysts in CO <sub>2</sub> methanation reaction <i>Margarita Gabrovska, Nicolae Drăgan, Rumeana Edreva-Kardjieva, Dimitrinka Nikolova and Dorel Crişan</i>
S7-P07	Metallic nanoparticles for the synthesis of asphalt nanocomposites <i>Mihaela Bomboş, Gabriel Vasilevici, Vasile Georgescu, Dorin Bomboş and Radu Gabor</i>
S7-P08	In situ impedance spectroscopy measurements for oxide catalyst semiconductors <i>Cristian Hornoiu, Anca Vasile, Veronica Bratan and Nicolae Ionescu</i>
S7-P09	Au/Co <sub>3</sub> O <sub>4</sub> -CeO <sub>2</sub> catalysts for complete benzene oxidation <i>Lyuba Ilieva, Petya Petrova, Tanya Tabakova, Rodolfo Zanella, Mihail Tsvetkov and Gabriel Munteanu</i>
S7-P10	Synthesis and characterization of Cu(II)-Schiff base complexes immobilized on layered double hydroxides for cyclohexene oxidation <i>Mihaela Mureşeanu, Irina-Andra Georgescu and Gabriela Cârjă</i>
S7-P11	The second metal effect and SBA-15 support functionalization on Co catalytic activity in oxidation of organic compounds <i>Violeta Niculescu, Simona Somacescu, Nicolae Aldea, Jose Calderon-Moreno and Viorica Pârvulescu</i>
S7-P12	The effect of surface basicity on the C <sup>2+</sup> formation yield over an equimolecular mixture of M <sub>2</sub> O <sub>3</sub> -MgO (M= Fe, La, Nd, Sm, Gd) <i>Florica Papa, Georgeta Postole, Dana Gingasu, Luminita Patron, Gianina Dobrescu and Ioan Balint</i>
S7-P13	Biocatalysts obtained by immobilization of enzymes on inorganic supports for oxidation of organic compounds <i>Ramona Ene, Mihaela Filip, Gabriela Păun, Mihaela Mureşeanu and Viorica Pârvulescu</i>
S7-P14	Propene oxidation on V <sub>2</sub> O <sub>5</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts <i>Mariana Scurtu and Nicolae. I Ionescu</i>
S7-P15	Determination of metal dispersion in cobalt based catalysts <i>Maya Shopska, Georgi Kadinov and Iskra Shtereva</i>
S7-P16	Synthesis and characterization of Cu-M (M = Pd, Pt, Rh) bimetallic nanoparticles <i>Răzvan State, Florica Papa, Akane Miyazaki, Mariana Scurtu, Gianina Dobrescu and Ioan Balint</i>

S7-P17	Cobalt-manganese supported oxides as catalysts for complete n-hexane oxidation: relationship between structure and catalytic activity <i>Iliyana Yordanova, Silviya Todorova, Zara Cherkezova-Zheleva, Daniela Paneva, Krasimir Tenchev, Boris Kunev and Maya Shopska</i>
S7-P18	Catalytic oxidation of methane over Pd-Co catalysts – influence of Pd/Co ratio and method of preparation <i>Plamen Stefanov, Anton Naydenov, Silviya Todorova, Boriana Tzaneva, Hristo Kolev, Iliyana Yordanova and Daniela Stoyanova</i>
S7-P19	Catalytic oxidation of methane over Pd-MeO <sub>x</sub> (Me=Mn, Co, Ni, Ce) catalysts – influence of metal oxides <i>Silviya Todorova, Plamen Stefanov, Anton Naydenov, Genoveva Atanasova, Boriana Tzaneva and Daniela Stoyanova</i>
S7-P20	Influence of preparation methods on SnO <sub>2</sub> -CeO <sub>2</sub> catalysts in CO and hydrocarbons total oxidation reactions <i>Anca Vasile, Cristian Hornoiu, Veronica Bratan, Mariana Chelu, Nicolae I. Ionescu, Tatiana Yuzhakova and Akos Redey</i>

### **Workshop 9: Advanced ellipsometry and X-ray techniques for nanostructured materials characterization.**

S9-P01	Particle size and shape analysis of the supported metal catalysts by SAXS spectroscopy using synchrotron radiation <i>Nicolae Aldea, Vasile Rednic, Marius Rada, Zhonghua Wu and Xueqing Xing</i>
S9-P02	Effects of the additives on the properties of ZnO TCO's films <i>Maria Susana Mihaiu, Alexandra Toader, Traian Petrisor, Mihai Gabor, Maria Duță, Mădălina Nicolescu, Jose Calderon Moreno, Măriuca Gartner and Maria Zaharescu</i>