

***General Program  
of  
RICCCE XV  
19- 22 September 2005  
International Hotel  
Sinaia, ROMANIA***

**Wednesday 19 September 2007**

<b>12<sup>00</sup> - 20<sup>00</sup></b>	<b>Participants Registration</b>	<i>Main Lobby</i>
<b>20<sup>00</sup></b>	<b>Welcome Cocktail</b>	<i>International Hotel Restaurant</i>

**Thursday 20 September 2007**

	FORUM Hall	Hall No. 1 “Training 1”	Hall No. 2 “Training 2”	Hall No. 3 “Seminar”	Hall No 4 “Bussiness”
9 <sup>00</sup> - 10 <sup>00</sup>	Opening Ceremony				
10 <sup>00</sup> - 10 <sup>15</sup>	Coffee break				
10 <sup>15</sup> - 13 <sup>00</sup>	Plenary Lectures				
13 <sup>00</sup> - 14 <sup>00</sup>	Lunch				
14 <sup>30</sup> - 16 <sup>30</sup>	Plenary Lectures	Keynote Lectures and Oral Presentations Section 2 Biochemistry, Food & Health	Keynote Lectures and Oral Presentations Section 1 New Developments in Chemical Synthesis & Catalysis	Honorary Symposium Constantin Luca	Workshop Transfer of Knowledge to Eastern European Reference Pole for Micro and Nanotechnologies
16 <sup>30</sup> - 16 <sup>45</sup>	Coffee break				
16 <sup>45</sup> - 18 <sup>30</sup>	Plenary Lectures	Keynote lectures and Oral presentations Section 3 Physical Chemistry , Electrochemistry & Corrosion	Keynote lectures and Oral presentations Section 1 New Developments in Chemical Synthesis & Catalysis	Honorary Symposium Constantin Luca	Workshop Transfer of Knowledge to Eastern European Reference Pole for Micro and Nanotechnologies
18 <sup>30</sup> - 19 <sup>30</sup>			18 <sup>30</sup> -Extraordinary Meeting of the Council Board of the Applied Chemisty and Materials Science Faculty		
20 <sup>00</sup>	Dinner				

**Friday 21 September 2007**

	<b>FORUM Hall</b>	<b>Hall No. 1 “Training 1”</b>	<b>Hall No. 2 “Training 2”</b>	<b>Hall No. 3 “Seminar”</b>	<b>Poster exhibition Lobby</b>
<b>9<sup>00</sup> - 10<sup>00</sup></b>	Plenary Lectures	Keynote Lectures and Oral Presentations <b>Section 5</b> <i>Risk, Sustainability &amp; Environment</i>	Keynote lectures and Oral presentations <b>Section 3</b> <i>Physical Chemistry , Electrochemistry &amp; Corrosion</i>	<i>Honorary Symposium Constantin Luca</i>	<i>Poster Session Section 1, 2 and 4</i>
<b>10<sup>00</sup> - 10<sup>15</sup></b>	<b>Coffee break</b>				
<b>10<sup>15</sup> - 13<sup>00</sup></b>	Plenary Lectures	Keynote Lectures and Oral Presentations <b>Section 5</b> <i>Risk, Sustainability &amp; Environment</i>	Keynote lectures and Oral presentations <b>Section 3</b> <i>Physical Chemistry , Electrochemistry &amp; Corrosion</i>	<i>Honorary Symposium Constantin Luca</i>	<i>Poster Session Section 1, 2 and 4</i>
<b>13<sup>00</sup> - 14<sup>00</sup></b>	<b>Lunch</b>				
<b>14<sup>30</sup> - 16<sup>30</sup></b>	Plenary Lectures	Keynote Lectures and Oral Presentations <b>Section 6</b> <i>Materials and Nanomaterials</i>	Keynote Lectures and Oral Presentations <b>Section 6</b> <i>Materials and Nanomaterials</i>	Keynote Lectures and Oral Presentations <b>Section 4</b> <i>New concepts in Biochemical and Chemical Engineering</i>	<i>14<sup>00</sup> Poster Session Section 5 and 3 (Physical Chemistry)</i>
<b>16<sup>30</sup> - 16<sup>45</sup></b>	<b>Coffee break</b>				
<b>16<sup>45</sup> - 18<sup>00</sup></b>	Plenary Lectures	Keynote Lectures and Oral Presentations <b>Section 6</b> <i>Materials and Nanomaterials</i>	Keynote Lectures and Oral Presentations <b>Section 6</b> <i>Materials and Nanomaterials</i>	Keynote Lectures and Oral Presentations <b>Section 4</b> <i>New concepts in Biochemical and Chemical Engineering</i>	<i>Poster Session Section 5 and 3 (Physical Chemistry)</i>
<b>18<sup>00</sup> - 19<sup>30</sup></b>	<i>Extraordinary Meeting of the Romanian Chemical Society</i>				
<b>20<sup>00</sup></b>	<b>Gala Dinner</b>				

*Saturday 22 September 2007*

	<b>FORUM Hall</b>	<b>Hall No. 1 “Training 1”</b>	<b>Hall No. 2 “Training 2”</b>	<b>Hall No. 3 “Seminar”</b>	<b>Poster exhibition Lobby</b>
<b>9<sup>00</sup> - 10<sup>00</sup></b>	EURACHEM FORUM <i>Quality of Analytical Measurements</i>		MATNANTECH Workshop <i>Research Opportunities in the Frame of the National Programme for Research and Development II</i>	Workshop <i>Corrosion and Environment- Friendly Coatings</i>	<i>Poster Session</i> <b>Section 6 and 3</b> (Electrochemistry)
<b>10<sup>00</sup> - 10<sup>15</sup></b>	<b>Coffee break</b>				
<b>10<sup>15</sup> - 13<sup>00</sup></b>	EURACHEM FORUM <i>Quality of Analytical Measurements</i>		MATNANTECH Workshop <i>Research Opportunities in the Frame of the National Programme for Research and Development II</i>	Workshop <i>Corrosion and Environment- Friendly Coatings</i>	<i>Poster Session</i> <b>Section 6 and 3</b> (Electrochemistry)
<b>13<sup>00</sup></b>	<b>Official Closing of the Conference</b>				

# PLENARY LECTURES

Thursday, 20 September 2005

**FORUM Hall**

**Chairperson: Professor Sorin ROSCA, University POLITEHNICA of Bucharest**

10:15-11:10 **Non covalent interactions in adducts of platinum drugs with nucleobases in nucleotides and DNA**

Prof. Giovanni NATILE

*Faculty of Pharmaceutical Sciences of the Università degli Studi di Bari, ITALY*

11:10-12:05 **Polymeric Materials - from Fundamental Research to Specific Applications**

Acad. Bogdan SIMIONESCU

*Department of Natural and Synthetic Polymers, "Gh. Asachi" Technical University, Iasi, Romania*

12:05-13:00 **Radioprotective and anti-oxidant effects of organometallic and organic compounds against cellular damage caused by ionizing radiation**

Dr Ghassoub RIMA

*Hétérochimie fondamentale et appliquée, UMR 5069 CNRS/UPS, Université Paul Sabatier, Toulouse, FRANCE*

**Chairperson: Professor Horia IOVU, University POLITEHNICA of Bucharest**

14:30-15:25 **Thiuram sulfides in organic synthesis**

Prof. dr. hab. Iacob GUTU

*State University of Republic Moldova, Chinenew, Moldova*

15:25-16:15 **Micromechanical Modelling of the Fiber-Matrix Interphase in Polymeric Matrix Composites and Nanocomposites**

Prof. George C. PAPANICOLAOU

*Composite Materials Group, Department of Mechanical and Aeronautical Engineering, University of Patras, GREECE*

16:30-16:45 *Coffee break*

**Chairperson: Professor Mircea TEODORESCU, University POLITEHNICA of Bucharest**

16:45-17:40 **Soluble Nanoparticles Formed through Coulombic Interaction of Anionic Graft Copolymers with a Cationic Polyelectrolyte and/or Bovine Serum Albumin**

Prof. Georgios STAIKOS

*University of Patras, Department Of Chemical Engineering, GREECE*

17:49-18:25 **Applications of Double Hydrophilic Graft Copolymers : Stabilization in Water of Polymer-Surfactant or Metal Nanoparticles**

Prof. Georgios BOKIAS

*University of Patras, Department of Chemistry, GREECE*

# PLENARY LECTURES

**Friday, 21 September 2005**  
***FORUM Hall***

***Chairperson: Professor Grigore. BOZGA, University POLITEHNICA of Bucharest***

9:30-10:25    **The hydrogen society: a contribution from the research carried out at Politecnico of Turin**

Prof. Victor SPECCHIA

*Materials Science and Chemical Engineering Department, Politecnico di Torino, ITALY*

10:35-10:40    Coffee break

10:40-11:35    **Multiphase Catalytic Reactions in Fine Chemistry, is Rational Scale-up Possible?**

Prof. dr. Jacob MOULIJN

*Delft University of Technology, Faculty of Applied Sciences,  
DelftChemTech, Reactor&Catalysis Engineering, The NETHERLANDS*

***Chairperson: Professor Dan GEANA, University POLITEHNICA of Bucharest***

14:30-15:25    **High Pressure Phase Behaviour of Binary Gas-Diamondoid Systems**

Prof.Th.W. DE LOOS

*Engineering Thermodynamics, Department Process and Energy, Delft University of Technology, THE NETHERLANDS*

15:25-16:20    **Thermal Treatment of Energy Crop Residues: alternatives for energy and materials production**

Prof. Anastasia Zabaniotou

*Aristotle University of Thessaloniki, Dept. of Chemical Engineering, Thessaloniki, Greece*

16:30+16:45    *Coffee break*

***Chairperson: Professor Ioana DEMETRESCU, University POLITEHNICA of Bucharest***

16:45-17:40    **Nanocoating based on tin dioxides**

Prof. Erika KALMAN

*Department of surface modification and nanostructures Chemical Research Center, Hungarian Academy of Sciences, Budapest, HUNGARY*

# ORAL AND POSTER PRESENTATION ON SECTIONS

## SECTION 1: New Developments in Chemical Synthesis & Catalysis

Thursday, 20 September 2007

“Training 2” Hall

**Chairperson:** Professor Cornelia GURAN, *University POLITEHNICA of Bucharest*

### Keynote lecture

- 14:30-15:00     **S01-K-01 New cyclophanes: design, synthesis and molecular machines**  
Ion GROSU  
Organic Chemistry Department and CCOCCAN, “Babes-Bolyai” University,  
Cluj-Napoca, Romania
- 15:00-15:30     **S01-K-02 Cycloaddition reactions with Moore’s ketene**  
Anca Liana MARTON, L. PÂRVULESCU, C.DRĂGHICI, M.MIHAI,  
M.D.GHEORGHIU  
*Department of Organic Chemistry, University “Politehnica” of Bucharest,*  
*Romania*

### Oral presentations

- 15:30-15:45     **S01-O-01 Azomethine-amido-ethers from a new class**  
MIRCEA IOVU, O.STAMATOIU, A.BUBNOV  
*Faculty of Pharmacy, University of Medicine and Pharmacy „Carol Davila,*  
*Bucharest, Romania*
- 15:45-16:00     **S01-O-02 Macroporous ionic hydrogels. Cryogelation under isothermal conditions**  
Maria Valentina DINU, O.MURAT, E.S.DRAGAN, O.OKAY  
*“Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania*
- 16:00-16:15     **S01-O-03 Synthesis of new polycyclic compounds with potential neuropharmacological activity from n-chlorocarbonyl-dibenzo[b,f]azepine**  
I.COSTEA, P.BALAURE, Florin IORDACHE, I.SCHIKETANZ,  
C.ENACHE  
*Department of Organic Chemistry, University “Politehnica” of Bucharest,*  
*Romania*

- 16:15-16:30      **S01-O-05 Phase equilibria in  $\text{Cu}_2\text{S}(\text{Se})$  -  $\text{In}_2\text{S}(\text{Se})_3$  - " $\text{P}_2\text{S}(\text{Se})_4$ " systems**  
 I.PRITS, S.MOTRYA, S.GASYNETS, Oksana MYKAYLO, M.POTORII,  
 V.TOVT  
*Institute for Solid State Physics and Chemistry, Uzhgorod National  
 University, Uzhgorod, Ukraine*
- 16:30-16:45      **Coffee break**
- Chairperson:**    **Professor Luminița PÂRVULESCU, *University POLITEHNICA of  
 Bucharest***
- 16:45-17:00      **S01-O-06 Flow-vacuum pyrolysis of some dibenzocycloalkane acetates**  
Daniela ISTRATI, A.POPESCU, L.PARVULESCU, C.DRAGHICI,  
 D.MIHAIESCU  
*Department of Organic Chemistry, University "Politehnica" of Bucharest,  
 Romania*
- 11:00-17:15      **S01-O-07 Synthesis of some biological active derivatives on the basis of  
 tartaric acid alkyl esters**  
IACOB GUȚU, M.GONȚA, S.CALANCEA  
*State University of Moldova,, Chisinau, Moldova*



**Posters**  
**Friday, 21 September 2007**

**(09.00-13.30)**  
**Poster Exhibition Lobby**

- S01-P-01**      **Synthesis of (4S,5S)-taddol and derivatives thereof**  
Emeric BARTHA, Raluca PÎNTEA, Dragoş GHERASE and Cornelia UNCUȚA  
*"C.D.Nenitzescu" Center of Organic Chemistry of the Romanian Academy, Bucharest, Romania*
- S01-P-02**      **New polynuclear Mn(II,III) and Fe(III) oxo complexes**  
Ioana JITARU, Maria-Gabriela ALEXANDRU, Ovidiu OPREA, Mihaela Eleonora UNGUREANU, Andra DUMITRU, Diana GIOL  
*Faculty of Applied Chemistry and Material Science, University Politehnica of Bucharest*
- S01-P-03**      **Study of complexes isolated in Ln(III)-I system (I - 1-phenyl-2(morpholine) ethanone)**  
M. STANESCU, I. JITARU, M. BICHER, L. BANCU, M. ALEXANDRU, O. OPREA  
*Department of Inorganic Chemistry, University "Politehnica" of Bucharest, Romania*
- S01-P-04**      **The synthesis of N-nitroso bis (1 $\alpha$ ,2 $\alpha$ ,7 $\alpha$ ,7 $\beta$ -tetrahydro-1 $\beta$ -methylene-2,7-methano-1h-cylopropa[b]naphtalene)amine**  
Emilia OLTEANU, Constantin DRĂGHICI, and Marieta PLĂVEȚI  
*"Costin D. Nenitzescu" Institute of Organic Chemistry, Romanian Academy, Bucharest, Romania*
- S01-P-05**      **New synthetic receptors for anions: mercapto-2,6-pyridinediamides**  
Mihaela ALEXIE, Florina DUMITRU, Denisa MANZU, Cornelia GURAN  
*Department of Inorganic Chemistry, University "Politehnica" of Bucharest, Romania*
- S01-P-06**      **New coordination compounds of Co(II) and Ni(II) with ligand derived from 2-(4-chloro-phenylsulfanyl)-1-(3,5-dibromo-2-hydroxy-4-methyl-phenyl)-ethanone**  
M. FLONDOR, D. SIBIESCU, I. ROSCA  
*Faculty of Chemistry Engineering, Technical University „Gh. Asachi” Iasi*
- S01-P-07**      **Coordination compounds of Ni(II) with organic ligands**  
M. FLONDOR, D. SIBIESCU, I. ROSCA and M. VIZIUTIU  
*Faculty of Chemistry Engineering, Technical University „Gh. Asachi” Iasi*

- S01-P-08**      **Pigments and dyes sulphonamidic derivatives of copper phthalocyanine**  
Elena STINGACIU, Corneliu MINCA, Ion SEBE  
*Faculty of Applied Chemistry and Material Science, University Politehnica of Bucharest, Romania*
- S01-P-09**      **Preparation and characterization of gas-separation phosphazene membranes**  
Denisa MANZU, Ioana VIEZURE, Anca RAZVAN, Florina DUMITRU, Cornelia GURAN  
*Department of Inorganic Chemistry, University "Politehnica" of Bucharest, Romania*
- S01-P-10**      **New thiourea derivatives of 2-(4 methyl-phenoxy-methyl)-benzoic and 2-(4 methoxy-phenoxy-methyl)-benzoic acids with biological activity**  
Carmen LIMBAN, Alexandru- Vasile MISSIR, Ileana Cornelia CHIRIȚĂ, Carmellina Daniela BĂDICEANU, Constantin DRĂGHICI, Mariana Carmen BALOTESCU, Oana STAMATOIU  
*Faculty of Pharmacy, University of Medicine and Pharmacy „Carol Davila, Bucharest, Romania*
- S01-P-11**      **Molecular chirality: design, synthesis and structural analysis of new chiral spiro-1,3-dioxane macrocycles**  
Elena BOGDAN, Monica CÎRCU, Mihaela ȚÂNȚAȘ, Andrei GÂZ, Ion GROSU  
*„Babeș-Bolyai” University, Faculty of Chemistry and Chemical Engineering, Organic Chemistry Department*
- S01-P-12**      **Synthesis and characterization of some new thiourea derivatives of 2-thiophenecarboxylic acid with potential pharmacological activity**  
Carmellina Daniela BĂDICEANU, Alexandru-Vasile MISSIR  
*Department of Pharmaceutical Chemistry, University of Medicine and Pharmacy “Carol Davila”, Bucharest*
- S01-P-13**      **New studies of biological activity of proflavine**  
Adina RUS, Ticuța NEGREANU-PÎRJOL, Victoria BADEA and Cornelia GURAN  
*University "Politehnica" of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest*
- S01-P-14**      **Pyrylium salts with long alkyl substituents, derived pyridines and pyridinium salts**  
Mariana Viorica BOGĂȚIAN, Anca HÎRTOPEANU, Alina NICOLESCU, Filip CHIRALEU, Maria MAGANU, Mircea VÎNATORU, Demetra SIMION, and Călin DELEANU  
*“Costin D. Nenitzescu” Institute of Organic Chemistry, Romanian Academy, Bucharest, Romania*
- S01-P-15**      **Oxaphosphetanes intermediates complexed with lithium ions in Wittig reaction**  
Aurelia PASCARIU, Mircea MRACEC, Smaranda ILIESCU, Gheorghe ILIA  
*Institute of Chemistry Timisoara of Romanian Academy, Romania*

- S01-P-16**      **New 1,10-phenanthroline derivatives by 1,3-dipolar cycloaddition reactions between *n*-ylides and activated alkynes**  
Miron Teodor CĂPROIU, Denisa DUMITRESCU, Constantin DRĂGHICI, Loredana BARBU, Florea DUMITRAȘCU  
*Center of Organic Chemistry "C. D. Nenitzescu", Romanian Academy, Bucharest, Romania*
- S01-P-17**      **Synthesis and characterization of new complexes of Cu(II) and V(IV) with potential biological activity**  
T. ROSU, S. PASCULESCU, M. NEGOIU, G. L. ALMAJAN  
*Inorganic Chemistry Department, Faculty of Chemistry, University of Bucharest, Romania*
- S01-P-18**      **Optimization of phthalocyanine catalytic structures in order to provide the best compatibility in homogeneous and pseudohomogeneous catalytic processes**  
Adina Ionuta GAVRILA, Petre CHIPURICI, Lambrache PAPAHAĞI, Ștefan TOMAȘ  
*Faculty of Applied Chemistry and Material Science, University Politehnica of Bucharest, Bucharest, Romania*
- S01-P-19**      **The influence of the reaction parameters on yield and inherent viscosity of the polyphosphate obtained by inverse phase transfer catalysis (IPTC)**  
Smaranda ILIESCU, Gheorghe ILIA, Nicoleta PLESU, Adriana POPA, Macarie LAVINIA, Aurelia PASCARIU  
*Institute of Chemistry, Romanian Academy, Timisoara, Romania*
- S01-P-20**      **Oxidation behaviour of nuclear fuel pellets in air**  
Iulia DUMITRESCU, Dumitru OHAI, Tiberiu MELEG  
*Institute for Nuclear Research, Campului Str., Pitesti, Romania*
- S01-P-21**      **Polymeric thermo-resistant pigments**  
D. ATANASOAI, L. OPRISAN, I. SEBE, L. ISCRULESCU  
*"Politehnica" University Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania*
- S01-P-22**      **New polymeric materials containing nonlinear optical chromophores**  
Matei D. RAICOPOL, Roxana I. LEHADUS, Anamaria GEBAILA, Ruxandra ATASIEI, Anca L. IONESCU and Sorin I. ROSCA  
*"Politehnica" University Bucharest, Faculty of Applied Chemistry and Materials Science, Organic Chemistry Department, Bucharest, Romania*
- S01-P-23**      **Solid phase enantioselective reduction of aryl-alkyl ketones**  
Cristina OTT, Alexandra PLESU, Raluca STAN, Matei D. RAICOPOL and S. I. ROSCA  
*"Politehnica" University Bucharest, Faculty of Applied Chemistry and Materials Science, Organic Chemistry Department, Bucharest, Romania*

**S01-P-24      Syntheses of nanostructured silica mediated by organogelators derived from d-sorbitol**

Raluca STAN, Cristina OTT, Sorin I. ROȘCA, Alina BĂDĂNOIU,  
Georgeta VOICU, Stefania STOLERIU

*“Politehnica” University Bucharest, Faculty of Applied Chemistry and  
Materials Science, Organic Chemistry Department, Bucharest, Romania*

**S01-P-25      New reactions of carbon-carbon formation mediated by chromium hexacarbonyl**

Elena-Camelia BRATU, Elena PÂRLEA, Raluca STAN and S.I. ROȘCA

*“Politehnica” University Bucharest, Faculty of Applied Chemistry and  
Materials Science, Organic Chemistry Department, Bucharest, Romania*

## SECTION 2: Biochemistry, Food & Health

Thursday, 20 September 2007

“Training 1” Hall

**Chairperson:** Professor . Angela POPESCU, *University “Politehnica” of Bucharest, Romania*

### Oral presentations

14.30-14.45 **S02-O01 THE APPEARANCE OF TRANSIENT PORES IN UNILAMELLAR LIPIDIC VESICLES UNDER INDUCED MECHANICAL TENSION**  
Corneliu Nicolae ZAHARIA<sup>1</sup>, Alin Gabriel POPESCU<sup>2</sup> and Dumitru POPESCU<sup>3</sup>

<sup>1</sup>*Institute of Virology, Bucharest, Romania,* <sup>2</sup>*Faculty of Automatics and Computer Science, Polytechnical University of Bucharest, Bucharest, Romania,* <sup>3</sup>*Department of Neurobiology and Biophysics, Faculty of Biology, University of Bucharest, Bucharest, Romania,* <sup>4</sup>*Institute of Mathematical Statistics and Applied Mathematics, Bucharest, Romania*

14.45-15.00 **S02-O02 THE WORKING OF PULSATORY LIPOSOMES BASED ON TRANSIENT PORES**  
Dumitru POPESCU<sup>1,2</sup>, Corneliu Nicolae ZAHARIA<sup>3</sup>, Alin Gabriel POPESCU<sup>4</sup>

<sup>1</sup>*Department of Neurobiology and Biophysics, Faculty of Biology, University of Bucharest, Bucharest, Romania,* <sup>2</sup>*Institute of Mathematical Statistics and Applied Mathematics, Bucharest, Romania,* <sup>3</sup>*Institute of Virology, Bucharest, Romania,* <sup>4</sup>*Faculty of Automatics and Computer Science, Polytechnical University of Bucharest, Bucharest, Romania*

15.00-15.15 **S2-O03 LACTIC ACID FERMENTATION OF MIXED JUICES OBTAINED FROM DIFFERENT VEGETABLES**  
Lavinia BURULEANU, Daniela AVRAM, Magda BRATU, Iuliana MANEA

*Valahia University of Targoviste, Faculty of Environmental Engineering and Biotechnologies, Targoviste, Romania*

15.15-15.30 **Coffee break**

15.30-15.45 **S02-O04 STABILITY OF ADENINE TYPE NUCLEOTIDES BY CAPILLARY ELECTROPHORESIS TECHNIQUES**  
Camelia DRĂGHICI<sup>1,2</sup>, H. BILLIET<sup>1</sup>, G. van DEDEM<sup>1</sup>, Gh. COMAN<sup>3</sup>, S. GOCAN<sup>4</sup>

<sup>1</sup>*Kluyver Laboratory for Biotechnology, Delft University of Technology, The Netherlands,* <sup>2</sup>*Chemistry Department, Transilvania University of Brasov, Romania,* <sup>3</sup>*Preclinical Department, Transilvania University of Brasov, Romania,* <sup>4</sup>*Babes-Bolyai University of Cluj-Napoca, Romania*

15.45-16.00

**S02-O05 ADENINE TYPE NUCLEOTIDES SEPARATION BY  
CAPILLARY ZONE ELECTROPHORESIS**

C. DRĂGHICI<sup>1,2</sup>, H. BILLIET<sup>1</sup>, G. van DEDEM<sup>1</sup>, Gheorghe COMAN<sup>3</sup>, S.  
GOCAN<sup>4</sup>

<sup>1</sup> *Kluyver Laboratory for Biotechnology, Delft University of Technology, The Netherlands,* <sup>2</sup>  
*Chemistry Department, Transilvania University of Brasov, Romania,* <sup>3</sup> *Preclinical*  
*Department, Transilvania University of Brasov, Romania,* <sup>4</sup> *Babes-Bolyai University of Cluj-*  
*Napoca, Romania*

16.00-16.15

**S02-O06 HIGH SENSIBILITY METHODS FOR FOOD  
CONTAMINANT DETECTION, ESPECIALLY ACRYLAMIDE**

Mihaela STOICA

*Applied Physics Chemistry and Electrochemical Department, Faculty of Applied Chemistry  
and Materials Science, University „Politehnica” of Bucharest, Bucharest, Romania*

**Posters**  
**Friday 21 September 2001**  
**(9.00-13.30)**  
**Poster Exhibition Lobby**

- S02-P01**      **STRUCTURE AND COMPOSITION DETERMINATION FOR ROMANIAN VEGETABLE OILS USING NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY**  
Nicoleta CHIRA<sup>1</sup>, Maria-Cristina TODAȘCĂ<sup>1</sup>, Călin DELEANU<sup>2,3</sup>, Sorin. I. ROȘCA<sup>1</sup>  
*<sup>1</sup>"Politehnica" University of Bucharest, Faculty of Applied Chemistry and Materials' Science, Bucharest, Romania, <sup>2</sup>"C.D. Nenitescu" Institute of Organic Chemistry, Bucharest, Romania, <sup>3</sup>National NMR Laboratory, Bucharest, Romania*
- S02-P02**      **DETERMINATION OF MOISTURE CONTENT AND ITS CORRELATION WITH OTHER PARAMETERS IN HONEY QUALITY CONTROL**  
Elena DIACU<sup>1</sup> and Elena Florica TANTAVEANU<sup>2</sup>  
*<sup>1</sup> University "Politehnica" of Bucharest, Faculty of Applied Chemistry and Materials' Science Bucharest, Romania, Hygiene and Veterinary Public Health Institute, Bucharest, Romania*
- S02-P03**      **ANTIMICROBIAL AGENTS BASED ON N,N-DIMETHYLBIGUANIDE DERIVATIVES**  
Rodica OLAR<sup>1</sup>, Mihaela BADEA<sup>1</sup>, Carmen BALOTESCU<sup>2</sup>, Veronica LAZAR<sup>2</sup>, Elena CRISTUREAN<sup>1</sup>, Dana MARINESCU<sup>1</sup>, Ana EMNADI<sup>1</sup> and Coralia BLEOTU<sup>3</sup>  
*University of Bucharest, Faculty of Chemistry, Bucharest, Romania, <sup>2</sup>University of Bucharest, Faculty of Biology, Bucharest, Romania, <sup>3</sup>Institute of Virology, Bucharest, Romania*
- S02-P04**      **ACRYLATE COMPLEXES DISPLAYING A LARGE SPECTRUM OF BIOLOGIC ACTIVITY**  
Mihaela BADEA<sup>1</sup>, Rodica OLAR<sup>1</sup>, Dana MARINESCU<sup>1</sup>, Elena CRISTUREAN<sup>1</sup>, Ana EMANDI<sup>1</sup>, Carmen BALOTESCU<sup>2</sup>, Marcela BUCUR<sup>2</sup> and Veronica LAZAR<sup>2</sup>  
*<sup>1</sup>University of Bucharest, Faculty of Chemistry, Bucharest, Romania, <sup>2</sup>University of Bucharest, Faculty of Biology, Bucharest, Romania*
- S02-P05**      **STUDY ABOUT THE INFLUENCE OF SOME FACTORS ABOUT THE LACTIC ACID FERMENTATION OF CARROT JUICES**  
Magda BRATU, Daniela AVRAM, Lavinia BURULEANU  
*Valahia University of Targoviste, Targoviste, Romania*
- S02-P06**      **POTENTIAL ANTIDIABETES/ANTIOBESITY COMPOUNDS,  $\beta$ -3-ADRENERGIC RECEPTORS AGONISTS, DERIVATIVES OF  $\beta$ -PHENYLETHANOLAMINE**  
Corina ILIE<sup>1</sup>, PUTINA Gabriela<sup>1</sup>, GUTA Rodica<sup>1</sup>, NANAU-ANDREESCU Doina<sup>1</sup>, GHITA Cristina<sup>1</sup>, NITA Sultana<sup>1</sup>, CAPROIU Teodor<sup>2</sup>, NEGRES Simona<sup>3</sup>  
*<sup>1</sup>National Institute for Chemical-Pharmaceutical Research & Development, Bucharest, Romania, <sup>2</sup>"C. D. Nenitescu" Institute of Organic Chemistry of Romanian Academy, Bucharest, Romania, <sup>3</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania*

- S02-P07**      **POTENTIAL MATRIX METALL PROTEINASES INHIBITORS FROM THE BENZIMIDAZOLE ND TRIAZINE CLASS, POTENTIAL MMP INHIBITORS**  
 PUTINA Gabriela<sup>1</sup>, CRISTESCU Carol<sup>1</sup>, GHITA Cristina<sup>1</sup>, ILIE Corina<sup>1</sup>, GUTA Rodica<sup>1</sup>, NANAU-ANDREESCU Doina<sup>1</sup>, NITA Sultana<sup>1</sup>, CAPROIU Teodor<sup>2</sup>, GANEA Elena<sup>3</sup>  
<sup>1</sup>National Institute for Chemical-Pharmaceutical Research & Development, Bucharest, Romania, <sup>2</sup>“C. D. Nenitescu” Institute of Organic Chemistry of Romanian Academy, Bucharest, Romania, <sup>3</sup> Institute of Biochemistry of the Romanian Academy, Bucharest, Romania
- S02-P08**      **SYNTHESIS AND ANTIMICROBIAL ACTIVITY OF SAME NEW DIAZINIC DERIVATIVES**  
 Roxana M. BUTNARIU, Maria D. CAPROȘU, Ionel I. MANGALAGIU  
 “Al. I. Cuza” University, Iasi, Romania.
- S02-P09**      **SYNTHESIS OF NEW TETRACYCLES COMPOUNDS FROM PHTHALAZINE BY CONVENTIONAL AND NONCONVENTIONAL METHODS**  
 Vasilichia I. BEJAN, Maria D. CAPROȘU, Ionel I. MANGALAGIU\*  
 “Al. I. Cuza” University, Iasi, Romania.
- S02-P10**      **THE REACTION OF 4-R-PYRIMIDINIUM YLIDES WITH METHYL PROPIOLATE: A THEORETICAL AND EXPERIMENTAL STUDY**  
 Costel MOLDOVEANU<sup>a,\*</sup>, Geanina MANGALAGIU<sup>b</sup>, Dan MAFTEI<sup>a</sup>, Magda PETROVANU<sup>a</sup> și Ionel I. MANGALAGIU<sup>a</sup>  
<sup>a</sup>“Al. I. Cuza” University, Iasi, Romania, <sup>b</sup> National Colleague, Iasi, Romania
- S02-P11**      **MICROWAVE ASSISTED SYNTHESIS OF SOME HIGHLY FLUORESCENT COMPOUNDS**  
 Gheorghiță ZBANCIOC, Maria CAPROȘU and Ionel MANGALAGIU  
 “AL. I. CUZA” UNIVERSITY, IASI, ROMANIA
- S02-P12**      **ANTIOXIDANT ACTIVITIES BY CHEMILUMINESCENCE METHOD FOR SOME NEW ELAEAGNUS ANGUSTIFOLIA L. EXTRACTS AND PHARMACEUTICAL PRODUCTS**  
 Laura BUCUR<sup>1</sup>, Ticuța NEGREANU-PÎRJOL<sup>1</sup>, Maria GIURGINCA<sup>2</sup>, Viorica ISTUDOR<sup>3</sup>  
<sup>1</sup>“Ovidius” University of Constanța, Constanța, Romania, <sup>2</sup>“Politehnica” University of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania, <sup>3</sup> University of Medicine and Pharmacy “Carol Davila” Bucharest, Faculty of Pharmacy, Bucharest, Romania
- S02-P13**      **EFFECT OF TOTAL GERM NUMBER OF RAW MILK ON FREE AMINO ACID AND FREE D-AMINO ACID CONTENTS OF VARIOUS DAIRY PRODUCTS**  
 Csilla ALBERT<sup>1</sup>, Katalin LÓKI<sup>2</sup>, Szidónia SALAMON<sup>1</sup>, Beáta ALBERT<sup>1</sup>, PÉTER Sára<sup>2</sup>, TAMÁS Melinda<sup>1</sup>, Jánosné CSAPÓ<sup>2</sup>, János CSAPÓ<sup>1,2</sup>  
<sup>1</sup>Sapientia Hungarian University of Transylvania, Miercurea-Ciuc, Romania, <sup>2</sup>University of Kaposvár, Faculty of Animal Science, Kaposvár, Hungary



- S02-P14 CHANGES IN FATTY ACID COMPOSITION OF FOODSTUFFS DURING CONVENTIONAL AND MIKROWAVE HEAT TREATMENT**  
 Rozália Veronika SALAMON<sup>1</sup>, Anikó GYÖRI<sup>2</sup>, Tamás Melinda<sup>1</sup>, SALAMON Szidónia<sup>1</sup>, ALBERT Beáta<sup>1</sup> VARGÁNE VISI ÉVA<sup>3</sup>, JÁNOS CSAPÓ<sup>1,3</sup>  
<sup>1</sup>Sapientia Hungarian University of Transylvania, Miercurea-Ciuc, Romania, <sup>2</sup>University of Debrecen, Hungary, <sup>3</sup>University of Kaposvár, Faculty of Animal Science, Kaposvár, Hungary
- S02-P15 STUDY OF NEW QUATERNARY SYSTEMS AS MODELS FOR FENI HYDROGENASES**  
 Laura BANCU, Ioana JITARU  
 University Politehnica of Bucharest, Faculty of Applied Chemistry and Material Science, Bucharest, Romania
- S02-P16 IMINOSUGARS WITH BIOLOGICAL ACTIVITY**  
 Anca HIRTOPEANU<sup>1</sup>, Robert M. MORIARTY<sup>2</sup>, Rajesh NAITANI<sup>2</sup>, Carmen MITAN<sup>2</sup>, Angela POPESCU<sup>3</sup>, Daniela ISTRATI<sup>3</sup>, Alina SIMION<sup>3</sup> and Mihaela BALASU<sup>3</sup>  
<sup>1</sup>"Costin D. Nenitzescu" Institute of Organic Chemistry, Bucharest, Romania, <sup>2</sup>University of Illinois at Chicago, Chicago, USA, <sup>3</sup>"Politehnica" University of Bucharest, Bucharest, Romania
- S02-P17 BACTERIA VACCINE OBTAINED BY MICROWAVE AND ELECTRON BEAM IRRADIATION**  
 GABRIELA CRACIUN<sup>1</sup>, IULIAN TOGOE<sup>2</sup>, DIANA MARTIN<sup>1</sup>, LAURENTIU TUDOR<sup>2</sup>, ELENA MANAILA<sup>1</sup>, DANIEL IGHIGEANU<sup>1</sup>, CONSTANTIN MATEI<sup>1</sup>  
<sup>1</sup>National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania  
<sup>2</sup>Agriculture and Veterinary Medicine University, Bucharest, Romania
- S02-P18 BIOLOGICAL WASTE TREATMENT BY RADIATION TECHNOLOGIES**  
 Gabriela CRACIUN<sup>1</sup>, Diana MARTIN<sup>1</sup>, Iulian TOGOE<sup>2</sup>, Elena MANAILA<sup>1</sup>, Daniel IGHIGEANU<sup>1</sup>, Constantin MATEI<sup>1</sup>, Nicusor IACOB<sup>1</sup>, Constantin OPROIU<sup>1</sup>  
<sup>1</sup>National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania  
<sup>2</sup>Agriculture and Veterinary Medicine University, Bucharest, Romania
- S02-P19 EFFECTS OF COMBINED MICROWAVE AND ELECTRON BEAM IRRADIATION ON HUMAN BLOOD COMPONENTS**  
 Daniel IGHIGEANU<sup>1</sup>, Diana MARTIN<sup>1</sup>, Dana STAN<sup>2</sup>, Sabin CINCA<sup>3</sup>, Monica NEAGU<sup>4</sup>, Nicusor IACOB<sup>1</sup>, Gabriela CRACIUN<sup>1</sup>, Elena MANAILA<sup>1</sup>, Irina MARGARITESCU<sup>5</sup>, Doru CHIRITA<sup>5</sup>  
<sup>1</sup>National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania  
<sup>2</sup>DDS Diagnostics, Bucharest, Romania, <sup>3</sup>Oncology Institute "A. Trestioreanu", Bucharest, Romania, National Institute for Pathology and Medical Sciences "Victor Babes", Bucharest, Romania, <sup>5</sup>Military Clinical Hospital, Bucharest, Romania

**S02-P20      DRUGS CELL UPTAKE STIMULATION BY MICROWAVE IRRADIATION**

Diana MARTIN<sup>1</sup>, Nicusor IACOB<sup>1</sup>, Mihaela MOISESCU<sup>2</sup>, Sabin CINCA<sup>3</sup>, Elena MANAILA<sup>1</sup>, Gabriela CRACIUN<sup>1</sup>, Irina MARGARITESCU<sup>4</sup>, Daniel IGHIGEANU<sup>1</sup>, C. MATEI<sup>1</sup>, C. OPROIU<sup>1</sup>

<sup>1</sup>National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Human Medicine, Bucharest, Romania, <sup>3</sup>Oncology Institute "A.Trestioreanu", Bucharest, Romania, National Institute for Pathology and Medical Sciences "Victor Babes", Bucharest, Romania, <sup>5</sup>Military Clinical Hospital, Bucharest, Romania

**S02-P21      STUDIES OF THE EFFECT OF SOME BENZOIC ACIDS AND THEIR MONOETHANOLAMINE SALTS ON *CUCUMIS SATIVUS* L. SEED GERMINATION**

Manuela CRISAN<sup>1</sup>, Mata GROZAV<sup>1</sup>, Ludovic KURUNCZI<sup>1</sup>, Cinzia BERTEA<sup>2</sup>, Massimo MAFFEI<sup>2</sup>

<sup>1</sup>Institute of Chemistry Timisoara, Timisoara, Romania, <sup>2</sup>Department of Plant Biology and Centre of Excellence CEBIOVEM, University of Turin, Turin, Italy

**S02-P22      ESSENTIAL OILS FROM CHAMOMILE - EXTRACTION TECHNIQUES BY HYDRODISTILLATION**

Nectara MIRCIOAGA, Ioan CALINESCU

"Politehnica" University of Bucharest, Faculty of Applied Chemistry and Materials' Science, Bucharest, Romania

**SECTION 3: Physical Chemistry , Electrochemistry & Corrosion  
ProgrammeProgra**

**Thursday, 20 September 2007  
"Training 1" Hall**

**Chairpersons:** Professor Dan GEANĂ, Professor Viorel FEROIU, *University  
"Politehnica" of Bucharest, Romania*

**Oral presentations**

- 16:45-17:00     **S03-O-01 Comparative XRD and IR study of Mg-Al(In)-V materials as precursors for propane oxidative dehydrogenation catalysts**  
M. GABROVSKA, P. TZVETKOV, Rumeana EDREVA-KARDJIEVA, D. CRIȘAN, M. GIURGINCA, A. MEGHEA  
*Institute of Catalysis, Bulgarian Academy of Sciences, Sofia, Bulgaria*
- 17:05-17:20     **S-03-O-02 XPS study of silver modified Ni-Mg/SiO<sub>2</sub> precursors of vegetable oil hydrogenation catalysts**  
D. NIKOLOVA, G. ATANASOVA, M. GABROVSKA, M. STANKOVIĆ, P. STEFANOV, Rumeana EDREVA-KARDJIEVA, D. JOVANOVIĆ  
*Institute of Catalysis, Bulgarian Academy of Sciences, Sofia, Bulgaria*
- 17:25-17:40     **S-03-O-03 The source of the carbon monoxide evolution in the oscillatory Belousov-Zhabotinsky reaction**  
Lavinia ONEL, M. WITTMANN, K. PELLE, Z. NOSZTICZIUS, L. SCIASCIA  
*Department of Physical and Theoretical Chemistry, Faculty of Chemistry, University "Al. I. Cuza", IAȘI, Romania*
- 17:45-18:00     **S-03-O-04 Measurements and theoretical analysis of excess volumes for binary mixtures of dimethyl sulfoxide with xylenes at 298.15 K**  
Oana CIOCÎRLAN, O. IULIAN  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- 18:05-18:20     **S-03-O-05 Vapour- liquid equilibria in binary mixtures of cyclic ketones with chloroform**  
Dana DRĂGOESCU, M. TEODORESCU, A. BÂRHALĂ  
*"Ilie Murgulescu" Institute of Physical Chemistry, Bucharest, Romania*

- 18:25-18:40      **S03-O-06 Phase equilibria calculations for carbon dioxide + methanol binary mixture with the Huron-Vidal infinite dilution (HVID) mixing rules**  
Catinca SECUIANU, V. FEROIU, D. GEANĂ  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- 18:45-19:00      **S-03-O-07 Study of absorption and emission spectra of fluorescent components from light-generating devices**  
Răzvan PETRE, I. STÂNCULESCU, C. MANDRAVEL  
*Department of Physical Chemistry, Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- 19:05-19:15      **S-03-O-08 Rate laws of one-plus type, as tools in interpreting reaction schemes of some thiocompounds oxidation**  
Alexandra CSAVDARI, D. M. SABOU, I. BÂLDEA  
*Department of Physical Chemistry, Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania*
- 19:20-19:35      **S-03-O-09 Chromate oxidation reactions applied in kinetic methods of analysis**  
Alexandra CSAVDARI, I. BÂLDEA  
*Department of Physical Chemistry, Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania*

**Friday, 21 September 2007**  
**“Training 2” Hall**

**Chairperson:**      **Professor Ioana DEMETRESCU, University “Politehnica” of Bucharest ROMANIA**

**Oral presentations**

- 09:00-09:15      **S03-O-01 Applications of the electrochemical impedance spectroscopy in classifying the drugs and in testing their therapeutic effect**  
Nicolae BONCIOCAT, A. COTÂRȚĂ  
*Department of Physical Chemistry, “Babes Bolyai” University, Cluj Napoca, Romania*
- 09:20-09:35      **S-03-O-02 Solution properties of some cationic polyelectrolytes**  
Luminița GHIMICI, E. S. DRĂGAN, M. BERCEA  
*“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*

- 09:40-09:55      **S-03-O-03 Electrochemical study of azo-azulene derivatives by cyclic and differential pulse voltammetry**  
Eleonora - Mihaela UNGUREANU, M. –S. CREȚU, A. RĂZUȘ, L. BÎRZAN  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- 10:00-10:15      **Coffee break**
- Chairperson:**    **Professor Teodor VISAN, University “Politehnica”of Bucharest ROMANIA**
- 10:15-10:30      **Mine oxidase vs. polyamine oxidase-based biosensors for biogenic amines detection using liquid chromatography**  
Laura MUREȘAN, Mihaela NISTOR, Elisabeth CSÖREGI, Ionel Catalin POPESCU  
*Department of Physical Chemistry, “Babeș-Bolyai” University, Cluj-Napoca, Romania*
- 10:35-10:50      **Carbon paste electrode incorporating calcium-exchanged zeolite and methylene blue for amperometric detection of NADH**  
Codruța VARODI, Delia GLIGOR, Andrada MĂICĂNEANU, Liana MUREȘAN  
*Department of Physical Chemistry, “Babeș-Bolyai” University, Cluj-Napoca, Romania*
- 10:55-11:10      **Effect of collagen coating on Co-Cr-Mo bioalloy**  
 Magdalena SOVAR, Gratiela TIHAN, Florin MICULESCU, Viorica TRANDAFIR  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- 11:15-11:30      **Surface treatments in electrochemical behavior of tini wires for implant purposes**  
Mădălina CAPOSI, D. IONITA, Florin MINCULESCU, Ioana DEMETRESCU  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*

**Posters**  
**Friday, 21 September 2007**

**(14.00-19.30)**  
**Poster Exhibition Lobby**

- S03-P-01**      **New methods from old: using modern techniques to improve graphical data processing routine**  
Adrian CRIȘCIU, Catinca SECUIANU  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-02**      **Solid - gas equilibrium in systems containing aromatic compounds and supercritical carbon dioxide**  
Viorel FEROIU, Dan GEANĂ, Octavian PARTENIE  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-03**      **Prediction of the volumetric properties for the two ternary systems H<sub>2</sub>O – NaCl - KCl and H<sub>2</sub>O – KCl - CaCl<sub>2</sub>**  
Florinela SÎRBU, Olga IULIAN, Cristina STOICESCU  
*"Ilie Murgulescu" Institute of Physical Chemistry of Roumanian Academy, Bucharest, Romania*
- S03-P-04**      **Liquid-liquid equilibria in ternary systems with water and n-alcohols. experimental data and comparative study**  
Cristina STOICESCU, Olga IULIAN, Florinela SÎRBU  
*"Ilie Murgulescu" Institute of Physical Chemistry of Roumanian Academy, Bucharest, Romania*
- S03-P-05**      **Modeling liquid -vapour equilibria in the systems consisting of R23 and phenylalkane**  
Cristina BOGATU, Rodica VÎLCU, Dan GEANĂ, Viorel FEROIU, Anca DUȚĂ, Wim POOT, Theo de LOOS  
*Centre: Product Design for Sustainable Development, Transilvania University of Brașov, Brașov, Romania*
- S03-P-06**      **Reactions leading to CO and CO<sub>2</sub> evolution in the Briggs-Rauscher reaction**  
Lavinia ONEL, Gelu BOURCEANU, Gabriella SZABÓ, Alexandra CSAVDÁRI, Zoltán NOSZTICZIUS, Maria WITTMANN  
*Department of Physical and Theoretical Chemistry, Faculty of Chemistry, University "Al.I.Cuza", Iași, Romania*

- S03-P-07**      **Solubility of propylene and propane gases in N-methylpyrrolidone and dimethylformamide solvents**  
 Mihaela PETRE  
*Department of Chemical and Petrochemical Engineering, Petrol-Gaze University Ploiești, Ploiești, Romania*
- S03-P-08**      **Experimentals and regressions concerning liquid-liquid equilibrium in the system paraffins, aromatics and 1,2-propylene glycol**  
 Oana Alina GUȚU, Florin OPREA  
*Department of Chemical and Petrochemical Engineering, Petrol-Gaze University Ploiești, Ploiești, Romania*
- S03-P-09**      **Artificial neural networks used in prediction of excess thermodynamic properties from experimental refractive index of binary mixtures**  
Gabriela LISA, Cătălin LISA and Silvia CURTEANU  
*Faculty of Chemical Engineering, "Gh. Asachi" Technical University, Iași, Romania*
- S03-P-10**      **Prediction of the liquid crystalline behavior for some symmetrically derivatives with two ferrocene units using the artificial intelligence methods**  
 Cătălin LISA, Silvia CURTEANU, Victor BULACOVSCI and Daniela APREUTESEI  
*Faculty of Chemical Engineering, "Gh. Asachi" Technical University, Iași, Romania*
- S03-P-11**      **The spectroscopic characteristics of some azomethine dyes, precursors in mixed condensed systems with phthalocyanines synthesis**  
Marilena VASILESCU, Rodica BANDULA, Mariana VOICESCU, V. RADITOIU, Luminița Eugenia WAGNER, Alina RADITOIU, Cristian BOSCORNEA  
*Institute of Physical Chemistry "Ilie Murgulescu", Romanian Academy, Bucharest, Romania*
- S03-P-12**      **Radiation processing of rubber mixtures with polyfunctional monomers**  
Elena MANAILA, Daniela ZUGA, Diana MARTIN, Gabriela CRACIUN, Daniel IGHIGEANU, Constantin MATEI, Constantin OPROIU  
*National Institute for Lasers, Plasma and Radiation Physics, Măgurele, Romania*
- S03-P-13**      **Physical-chemical methods used in characterization of the oxide films formed on some nuclear metallic materials**  
 Manuela FULGER, Dumitra LUCAN, Maria MIHALACHE, Alice DINU  
*Institute for Nuclear Research, Mioveni, Romania*

- S03-P-14 Mathematical modeling and computer simulation of emulsion copolymerization of butyl acrylate and vinyl acetate**  
Teodora STAICU, Marin MICUTZ, Gabriela CRISTESCU, Minodora LECA  
*Department of Physical Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-15 Procedure of occupational health risk evaluation based on tlv's of some volatile organic compounds**  
Roxana DONE, Valentina CHIOSA, G. MÂNDRILĂ, Cristina MANDRAVEL  
*Department. of Physical Chemistry , Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-16 FTIR spectral study of calcium and magnesium complexes with bisbenzylisoquinoline derivatives**  
Ioana STÂNCULESCU, Roger DOMMISSE, Wouter HERREBOUT, Alina TÎRȘOAGĂ, Cristina MANDRAVEL  
*Department. of Physical Chemistry , Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-17 Helix-coil transitions in aqueous dispersions of type I collagen**  
Marin MICUT, Teodora STAICU, Minodora LECA  
*Department. of Physical Chemistry , Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-18 Multi-grade correspondence of some viscosity improver solutions in SAE 10W mineral oil**  
Ioana STANCIU, Minodora LECA  
*Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-19 Inerting effects of the combustion products on the confined deflagration of liquefied petroleum gas - air mixtures**  
Codina MOVILEANU, Domnina RĂZUȘ, Venera BRÎNZEĂ, Maria MITU, Dumitru OANCEA  
*"Ilie Murgulescu" Institute of Physical Chemistry, Bucharest, Romania*
- S03-P-20 Maximum rates of pressure rise and severity factors of propane-air mixtures in a spherical vessel at elevated temperatures**  
Venera BRÎNZEĂ, Domnina RĂZUȘ, Dumitru OANCEA  
*"Ilie Murgulescu" Institute of Physical Chemistry, Bucharest, Romania*
- S03-P-21 Unperturbed dimensions and adsorption coefficients of cellulose acetate in mixed solvents**  
Adina Maria NECULA, Liliana OLARU, Nicolae OLARU, Silvia IOAN  
*"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*



- S03-P-22 Platelet Adhesion on the Surface of Poly(ester urethane)s**  
Mihaela LUPU, Maria BUTNARU, Doina MACOCINSCHI, Silvia IOAN  
*"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*
- S03-P-23 Association equilibria in the ternary system donor solvent/acceptor solvent/acceptor quaternized polysulfone**  
Anca FILIMON, Ecaterina AVRAM, Silvia IOAN  
*"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*
- S03-P-24 Caracterization of some steel corrosion products by FTIR spectroscopy**  
Aurel SOARE, Valentina CHIOSA, Cristina MANDRAVEL  
*Department of Physical Chemistry, Faculty of Chemistry, University of Bucharest, Bucharest, Romania*
- S03-P-25 Changes in fatty acid and conjugated linoleic acid content of milk according to season**  
Rozália Veronika SALAMON, Anikó GYÖRI, Visi Éva VARGÁNÉ, Zsuzsanna CSAPÓNE KISS, Györi ZOLTÁN, Sára PÉTER , Szidónia SALAMON, Melinda TAMÁS, János CSAPÓ
- S03-P-25 Alignment layers prepared from hydroxypropylcellulose and partially aliphatic polyimides**  
Andreea Irina COSUTCHI, Camelia HULUBEI, Daniela FILIP, Silvia IOAN  
*"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania*
- S03-P-27 Effects of substituents on the spectroscopic properties of new pyridyl-pyrrolo[1,2-a]pyridine derivatives**  
Rodica BANDULA, Marilena VASILESCU, F. DUMITRAȘCU, and H. LEMMETYINEN  
*Institute of Physical Chemistry "Ilie Murgulescu", Romanian Academy, Bucharest, Romania*
- S03-P-28 Effects of the environmental conditions on the pigments used for restoration and conservation of cultural heritage**  
Maria GIURGINCA, Nicoleta BADEA, Walter MARACINEANU, Cristian DECIU, Roxana RADVAN, Aurelia MEGHEA  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-29 Spectroscopic study of pluramycin antibiotics aggregation in aqueous solutions**  
Loredana Elena VÎJAN, Alina RĂDUCU  
*Faculty of Science, University of Pitești, Pitești, Romania*

- S03-P-30**      **Experimental study of altromycin – DNA interaction**  
Loredana Elena VÎJAN, Alina RĂDUCU  
*Faculty of Science, University of Pitești, Pitești, Romania*
- S03-P-31**      **Influence of triethylamine over 3-methyl-phenacylpyridazinium ylides transilidation with isocyanates. *ab initio* study**  
Daniela IVANOV, Mircea CONSTANTINESCU, Mihaela ROMAN, Magda PETROVANU  
*“Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania*
- S03-P-32**      **Kinetics of crystal violet mineralization in water by the electro- fenton process**  
Ilie SIMINICEANU, Carmen-Ionela ALEXANDRU, Eric BRILLAS  
*Faculty of Chemical Engineering, “Gh. Asachi” Technical University of Iași, Iași, Romania*
- S03-P-33**      **Excess properties of methyl *tert*-butyl ether with heptane from 293.15 K to 303.15 K**  
V. DUMITRESCU, S. RADU, Al. CAMENITA  
*Petrol-Gaze University Ploiești, Ploiești, Romania*

**Saturday, 22 September 2007**

**Posters**

**(09:00-13.00)**

**Poster Exhibition Lobby**

- S03-P-01**      **Initiation of some localized corrosion processes as a function of changes in water chemistry from candu reactor primary system**  
Ioana PÎRVAN, Maria RĂDULESCU, Alice DINU, Lucian VELCIU  
*Institute for Nuclear Research, Mioveni, Romania*
- S03-P-02**      **Corrosion processes of the candu steam generator tubing in high pressure and temperature aqueous environments**  
Dumitra LUCAN, Manuela FULGER, Gheorghita JINESCU  
*Institute for Nuclear Research, Mioveni, Romania*
- S03-P-03**      **The establishing of main parameters characteristic to chemical descaling of filmed carbon steels**  
 Maria RĂDULESCU, Ioana PÎRVAN, Manuela FULGER, Alice DINU  
*Institute for Nuclear Research, Mioveni, Romania*

- S03-P-04**      **Some contributions on SCC behaviour of incoloy 800 in alkaline solutions**  
Alice DINU, Marioara ABRUDEANU, Manuela FULGER  
*Institute for Nuclear Research, Mioveni, Romania*
- S03-P-05**      **The electrochemical study of the 316L stainless steel behaviour in glucose artificial solution**  
B. TUTUNARU, A. PĂTRU, M. AGIU, M. PREDA  
*Faculty of Chemistry, University of Craiova, Craiova, Romania*
- S03-P-06**      **Corrosion inhibitors based on ethylene glycol for antifreezing agents**  
Petre CHIPURICI, Lambrache PAPAHAĞI, Adina IONUTA GAVRILĂ  
*Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Bucharest, Romania*
- S03-P-07**      **Determination of 4-chlorophenol using two types of graphite based composite electrodes**  
Aniela POP, F. MANEA, C. RADOVAN, I. CORB, G. BURTICA, P. MALCHEV, S. J. PICKEN, J. SCHOONMAN  
*"Politehnica" University of Timișoara, Timișoara, Romania*
- S03-P-08**      **Structure and behaviour of ceramic materials based on SnO<sub>2</sub> used as inert anods in electrowining processes**  
AnaMaria POPESCU, Suzana MIHAIU, Virgil CONSTANTIN, Mircea OLTEANU, Nikolai SHUMILKIN, George NIPAN  
*Institute of Physical Chemistry of Ceramic, RAS, Moscow, Russian Federation*
- S03-P-09**      **Electrochemical corrosion and structural aspects of nano and micro structured composite coatings**  
Alina-Crina CIUBOTARIU, Lidia BENEĂ, Magda LAKATOS-VARSANY  
*Dunarea de Jos University of Galati, Dept. of Metallurgy and Materials Science, CC-ITES, Galați, Romania*
- S03-P-10**      **Electrochemical synthesis of powders /coatings of the diborides of group IVB transition metals by HTIL**  
AnaMaria POPESCU, Virgil CONSTANTIN, Victor MALYSHEV, Angelina GAB  
*"Ilie Murgulescu" Institute of Physical Chemistry, Bucharest, Romania*
- S03-P-11**      **Repassivation kinetics of cobalt chromium alloy in aqueous solutions**  
Lidia BENEĂ, François WENGER, Pierre PONTIAUX  
*Faculty of Metallurgy and Materials Science, Dunarea de Jos University of Galați, Galați, Romania*

- S03-P-12**      **Dispersed nano- and micro – structured composite coatings obtained by codeposition of ceramic particles with metals**  
 Lidia BENEĂ  
*Faculty of Metallurgy and Materials Science, Dunarea de Jos University of Galați, Galați, Romania*
- S03-P-13**      **Ecological compounds used as corrosion inhibitors in cooling waters**  
I. CAMENITA, Viorel BRÂNZOI, Alexandru SCHIOPEȘCU, M. MORARU  
*“Petroleum – Gas” University of Ploiești, Romania*
- S03-P-14**      **Photoelectrochemical characterization of polypyrrole electrodeposited in aqueous and non-aqueous solutions**  
V. FIGĂ, F. Di QUARTO  
*Department of Chemical Engineering, Process and Materials, University of Palermo, Palermo, Italy*
- S03-P-15**      **Electrochemical studies of 4-(azulene-1-il)-2,6 diphenyl pyranilium perchlorate and 4-(azulene-1-il)-2,6 dimethyl pyranilium perchlorate**  
M. MARIN, C. LETE, A. C. RAZUS, O. A. ANGHEL, N. TOTIR  
*“Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania*
- S03-P-16**      **Preparation and characterization of mocvd-fabricated TiO<sub>2</sub> thin films deposited on titanium for biomedical applications**  
Simona POPESCU, Ioana DEMETREȘCU, Alain N. GLEIZES  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-17**      **Effect of the content on the electrochemical stability of titanium alloys with vanadium or zirconium**  
Ecaterina VASILEȘCU, Paula DROB, Cora VASILEȘCU, Mariana PRODANA, D. BOJIN  
*“Ilie Murgulescu” Institute of Physical Chemistry, Bucharest, Romania*
- S03-P-18**      **Electropolymerization of polypyrrole films doped with phosphomolybdate anions onto aluminum substrate**  
Liana ANICĂI, A. PERTACHE, Mihai BUDA, Teodor VIȘAN  
*PETROMSERVICE S.A., Division of Ecological Technologies Development, Bucharest, Romania*
- S03-P-19**      **Correlation between various fabrication procedures of TiAlV and TiAlFe and their stability in hank solution**  
Mihaela MINDROIU, Ekrem CICEK, Florin MINCULEȘCU, Ioana DEMETREȘCU  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*

- S03-P-20**      **Ion release of tini with different surface treatment in artificial saliva with various acidities**  
D. IONIȚĂ, Nicoleta BADEA, M. CAPOSI, Ioana DEMETRESCU  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-21**      **Evaluating titanium alloys' bioactivity in terms of hydroxyapatite (HA) forming capability**  
Elena ALDEA, Nicoleta BADEA, Ioana DEMETRESCU  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-22**      **Evaluation of pesticide-induced acetylcholinesterase inhibition using a needle type amperometric biosensor**  
Graziella L. TURDEAN, I. C. POPESCU  
*Physical Chemistry Department, "Babes Bolyai" University, Cluj-Napoca, Romania*
- S03-P-23**      **Evaluation of the inhibition activity of some new scaling and corrosion inhibitors for cooling waters from different industrial systems**  
Florina BRÂNZOI, Angela STANCA and Ioan Viorel BRÂNZOI  
*Department of Applied Physical Chemistry and Electrochemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-24**      **Anticorrosive properties of hybride organic (polypirole) inorganic (zinc) coatings on steel surface**  
Cristian PÎRVU, R. STANCIU, Magdalena SOVAR  
*Department of General Chemistry, Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Bucharest, Romania*
- S03-P-25**      **Considerations on a dual high impedance buffer amplifier used in potentiometric methods (II)**  
Eugenia EFTIMIE TOTU, Daniela MANUC, Elena RUSE  
*Department of Analytical Chemistry, Faculty of Chemistry and Materials Science, University Politehnica Bucharest, Bucharest, Romania*

## SECTION 4: New Concepts in Biochemical and Chemical Engineering

**Friday, 21 September 2007**  
**“Seminar” Hall**

**Chairpersons:** **Professor Gheorghe MARIA, Reader Raluca ISOPESCU, *University “Politehnica of Bucharest, Romania”***

### **Oral presentations**

- 14:30-14:50    **S04-O-01 Reduced Modular Representation Applied to Simulate Some Genetic Regulatory Circuits**  
Gheorghe MARIA  
*University “Politehnica” of Bucharest, Romania*
- 14:50-15:10    **S04-O-02 Characterization of Vegetal Materials Pyrolysis Assisted by Impregnated Ni**  
Tanase DOBRE, Oana PÂRVULESCU, Marta STROESCU, Gustav IAVORSCHI  
*University “Politehnica” of Bucharest, Romania*
- 15:10-15:30    **S04-O-03 A Study of Polychloropene Pyrolysis**  
Yannick SOUDAIS <sup>1</sup>, Cristina SERBANESCU <sup>2</sup>, Gheorghe SOARE <sup>3</sup>, Grigore BOZGA  
<sup>1</sup> *Ecole des Mines d’Albi-Carmaux, France*  
<sup>2</sup> *Institut National Polytechnique de Toulouse, Ecole doctorale TYFEP, France*  
<sup>3</sup> *“Politehnica” University of Bucharest, Romania*
- 15:30-15:50    **S04-O-04 Cold Burner Experimental Axial Mixing Chart**  
Daniel DINCULESCU<sup>1</sup>, Elena Daniela LAVRIC<sup>1,3</sup>, Alexander KONNOV<sup>2</sup>, Jack de RUYCK<sup>2</sup>, Vasile LAVRIC<sup>1</sup>  
<sup>1</sup> - *University “POLITEHNICA” of Bucharest, Romania*  
<sup>2</sup> - *Vrije Universiteit Brussel, Dept of Mechanical Engineering*  
<sup>3</sup> - *SAS, Corning European Technology Center, France*
- 15:50-16:10    **S04-O-05 Statistical Optimum Operating Parameters Search for the Extraction-Back-Extraction Column**  
Daniel DINCULESCU, Luminita Cristiana GÎJIU, Vasile LAVRIC  
*University “Politehnica” of Bucharest, Romania*
- 16:10-16:30    **S04-O-06 Parameter Estimation for Semi-Continuous Precipitation Using Genetic Algorithms**  
Raluca ISOPESCU, Vasile LAVRIC  
*University “Politehnica” of Bucharest, Romania*
- 16:30-16:45    *Coffee break*

**Chairpersons:** Reader Marta STROESCU, Reader Anicuta STOICA, *University “Politehnica of Bucharest, Romania*

- 16.45-17.05     **S04-O-07 Ion Exchange and Imprinted Polymers for Membrane Separation Technology: Similitude and Differences**  
Tanase DOBRE<sup>1</sup>, Silvia PATACHIA<sup>2</sup>, Anicuta STOICA<sup>1</sup>, Marta STROESCU<sup>1</sup>, Jose SANCHEZ<sup>3</sup>  
<sup>1</sup> *University „Politehnica” Bucharest, Romania*  
<sup>2</sup> *University „Transilvania” Brasov, Romania*  
<sup>3</sup> *European Membranes Institute, Montpellier, France*
- 17.05-17.25     **S04-O-08 A Comparative Study of Methane Combustion Kinetics on Different Catalysts**  
Magdalena BOȘOMOIU<sup>1</sup>, Grigore BOZGA<sup>1</sup>, Daniela BERGER<sup>2</sup>, Cristian MATEI<sup>2</sup>  
*University “Politehnica” of Bucharest, Romania*
- 17.25-17.45     **S04-O-09 Integration of Chemical Engineering in the European Higher Education Area**  
Ana Maria JOSCEANU, Paula POSTELNICESCU, Raluca ISOPESCU, Anca DUMITRESCU, Razvan ONOFREI  
*University “Politehnica” of Bucharest, Romania*
- 17.45-18.05     **S04-O-10 Coupling Exothermic and Endothermic Reactions in PFR-Separations-Recycle Systems**  
Pietro ALTIMARI, Costin Sorin BILDEA  
*Delft University of Technology, The Netherlands*

## Posters

**Friday, 21 September 2007**

**(9.00-13.30)**

**Poster Exhibition Lobby**

- S04-P-01      The Technological Optimisation of Aerobic Bioprocess for a Bacterial Immunomodulator Obtaining**  
Camelia UNGUREANU<sup>1\*</sup>, Ovidiu MUNTEAN<sup>1</sup>, Ana Aurelia CHIRVASE<sup>1</sup>, Iosif NAGY<sup>1</sup>, Adrian ONU<sup>2</sup>, Aurora SĂLĂGEANU<sup>2</sup>, Alina MIHALCEA<sup>2</sup>  
<sup>1</sup>*University "Politehnica" of Bucharest, Romania*  
<sup>2</sup> *National Institute of Research and Development for Microbiology and Immunology "Cantacuzino", Bucharest, Romania*
- S04-P-02      Oxygen Mass Transfer in Wastewater Films from Biological Treatment Facilities**  
Rodica E. CECLAN, Maria MIHALY, Mihai CECLAN  
*University "Politehnica" of Bucharest, Romania*
- S04-P-03      A Biological Treatment for the Purification of Waste Waters Containing Volatile Organic Compounds**  
Luiza JECU<sup>1</sup>, Amalia GHEORGHE<sup>1</sup>, Gabriel EPURE<sup>2</sup>, Florina POPEA<sup>1</sup>, Andreea ROSU<sup>1</sup>, Anca ROSEANU<sup>3</sup>  
<sup>1</sup> *National Research and Development Institute for Chemistry and Petrochemistry-ICECHIM, Bucharest, Romania*  
<sup>2</sup> *Scientific Research Center for Defense NBC and Ecology, Bucharest, Romania*  
<sup>3</sup> *Biochemistry Institute, Bucharest, Romania*
- S04-P-04      The Kinetic of Phenol Degradation by *Pseudomonas Putida***  
Roxana CRUTESCU<sup>1</sup>, Camelia UNGUREANU<sup>2</sup>  
<sup>1</sup> *PETROM S.A., Bucharest, Romania*  
<sup>2</sup> *University Politehnica of Bucharest, Romania*
- S04-P-05      Study of Antifungal Activity of  $\alpha$ -Fenoxi- $\alpha$ (1,2,4-Triazol-1-IL) Acetic Acid**  
Rodica DIACONESCU<sup>1</sup>, Nicoleta VORNICU<sup>2</sup>  
<sup>1</sup> *Technical University of Iasi, Romania*  
<sup>2</sup> *Metropolitan Center of Research T.A.B.O.R., Iasi, Romania*
- S04-P-06      Discontinuous vs. Fed-Batch in Alcoholic Fermentation. Sensitivity Analysis to Kinetic Parameters**  
Pompilia BUZATU, Vasile LAVRIC  
*University "Politehnica" of Bucharest, Romania*
- S04-P-07      Corrosion of SA 508 in High Temperature and Pressure Water Containing Silicon Compounds**  
Dumitra LUCAN<sup>1</sup>, Manuela FULGER<sup>1</sup>, Gheorghita JINESCU<sup>2</sup>  
<sup>1</sup> *Institute for Nuclear Research POB 78, Mioveni, Romania*  
<sup>2</sup> *University "Politehnica" Bucharest, Romania*



- S04-P-08**      **Studies on Corrosion Process within Heat Exchangers**  
Constantin GHEORGHIȘ, OANCEA Constantin, GHEORGHIȘ Livia,  
CANTARAGIU A., CANANAU N.  
*“Dunarea de Jos” University, Galati, Romania*
- S04-P-09**      **Energy Efficiency Study for Thermally Integrated Separation Schemes**  
Loredana DRAGHICIU<sup>1</sup>, Raluca ISOPESCU<sup>2</sup>, Alexandru  
WOINAROSCHY<sup>2</sup>  
<sup>1</sup>*ICECHIM, Bucharest, Romania*  
<sup>2</sup>*University “Politehnica” of Bucharest, Romania*
- S04-P-10**      **Hidro-Distillation of Volatil Oil of Cinnamomum Zeylanicum**  
Adrian RUS, Vasile PODE  
*University “Politehnica” Timisoara, Industrial Chemistry and Chemical  
Engineering Faculty, Timisoara, Romania*
- S04-P-11**      **Considerations Concerning the Drying Process of Some Sludges from  
Electrochemical Industry**  
Andra TĂMAȘ, Vasile PODE  
*“Politehnica” University of Timisoara, CAICON Department, Timisoara,  
Romania*
- S04-P-12**      **Liquid Flow Structure and Mass Transfer in a Rotating Disc Contactor**  
Tănase DOBRE, Gustav IAVORSCHI, Dragoș Nicolae ȘTEFAN  
*University “Politehnica” of Bucharest, Romania*
- S04-P-13**      **The Rock Salt Dissolution Parameters Estimation along an Inclined  
Bore Hole**  
Romulus DIMA<sup>1</sup>, Florian ZAMFIRESCU<sup>2</sup>, Cristiana Luminița GÎJIU<sup>1</sup>,  
Vasilica DIMA<sup>1</sup>  
<sup>1</sup>*University “Politehnica” of Bucharest, Romania*  
<sup>2</sup>*Bucharest University, Geology and Geophysics Department, Romania*
- S04-P-14**      **Particle Size Distribution in Suspension Polymerization of Styrene**  
Raluca ISOPESCU, Paula POSTELNICESCU, Anca DUMITRESCU,  
Mihaela MIHAI  
*University “Politehnica” of Bucharest, Romania*
- S04-P-15**      **Use of Fixed Bed Multicomponent Sorption Models for Simulation of  
Breakthrough Curves for Ion Exchange Water Demineralization**  
Tănase DOBRE, Laura CALOTĂ, Oana PÂRVULESCU  
*University “Politehnica” Bucharest, Romania*
- S04-P-16**      **Amino Acid Removal Using liquid Surfactant Membranes**  
Amalia GHEORGHE<sup>1</sup>, Anicuta STOICA<sup>2</sup>, Luiza JECU<sup>1</sup>, Octavian  
FLOAREA<sup>2</sup>, Gabriel EPURE<sup>3</sup>  
<sup>1</sup> *National Research and Development Institute for Chemistry and  
Petrochemistry-ICECHIM, Bucharest, Romania*  
<sup>2</sup> *University “Politehnica” of Bucharest, Romania*  
<sup>3</sup> *Scientific Research Center for defense NBC and Ecology, Bucharest,  
Romania*

**S04-P-17      Advanced Purification Methods for Volatile Organic Compounds  
Removal from Surface and Underground Waters**

Amalia GHEORGHE<sup>1</sup>, Anicuta STOICA<sup>2</sup>, Marta STROESCU<sup>2</sup>, Luiza JECU<sup>1</sup>

<sup>1</sup> *National Research and Development Institute for Chemistry and Petrochemistry-ICECHIM, Bucharest, Romania*

<sup>2</sup> *University "Politehnica" of Bucharest, Romania*

**S04-P-18      Bacterial Cellulose Fibre Reinforced Epoxy Laminates**

Tanase DOBRE<sup>1</sup>, Anicuta STOICA<sup>1</sup>, Florin TACHE<sup>1</sup>, Gelu CHICIUDEAN<sup>2</sup>

<sup>1</sup> *University "Politehnica" of Bucharest, Romania*

<sup>2</sup> *Design, Integration and Operation of Aircraft and Rotorcraft (DAR)  
Faculty of Aerospace Engineering, Delft University of Technology, The Netherlands*

## SECTION 5: Risk, Sustainability & Environment

Friday, 21 September 2007

“Training 1” Hall

### Oral presentations

- Chairpersons:** Prof. Dr. Anastasia ZABANIOTOU, *Aristotle University of Thessaloniki, GREECE*, Prof.dr.eng.Cristina COSTACHE, *University “Politehnica” of Bucharest, ROMANIA*
- 9:00-9:15      **S05-O-01 Radiolytic dechlorination of polychlorinated biphenyls (PCBs)**  
Adrian TRIFAN, Ioan CALINESCU, Diana I. MARTIN  
*Polytechnic University, Bucharest, Romania, National Institute for Lasers, Plasma and Radiation Physics, Bucharest, Romania*
- 9:15-9:30      **S05-O-02 Metallic ions removal from aqueous systems with alkylhydroxamic acids**  
Ligia STOICA, Carolina CONSTANTIN, Olimpia MICU  
*Politehnica University of Bucharest, Faculty of Applied Chemistry and Materials Science, Inorganic Chemistry Department, Polizu Street, S 1, 011061, Bucharest, Romania*
- 9:30-9:45      **S05-O-03 Anionic Surfactant separation from aqueous systems by flotation with dissolved air (DAF)**  
Mihai STEFANESCU, L. A. CONSTANTIN, Ligia STOICA, Andreea MOISE, Cristiana COSMA  
*National Research and Development Institute for Industrial Ecology – ECOIND, University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Inorganic Chemistry Department, Romania*
- 9:45-10:00      **S05-O-04 Environmental Impact Assessment induced by a unit of basic chemical organic compounds synthesis using improved method of global pollution index**  
Carmen ZAHARIA, Ilie MURĂRAȘU  
*Department of Environmental Engineering and Management, Faculty of Chemical Engineering, “Gh.Asachi” Technical University of Iași, Romania, SC AROMA RISE SA Company, Onești, Romania*
- 10:00-10:15      **Coffee break**

**Chairpersons:** Professor Ion UNTEA, lect.drd.eng. Madelene DANCILA, *University “Politehnica” of Bucharest, ROMANIA*

- 10:15-10:30     **S05-O-05 Research regarding the recycling of building materials from demolition**  
George POTERAȘ, Anca FRĂȚILĂ  
*The National Research & Development Institute for Environmental Protection –ICIM, Romania*
- 10:30-10:45     **S05-O-06 Comparative study of some pretreatment methods of sludge for AAS determination of heavy metals.**  
Gabriela VASILE, Liliana CRUCERU, Jana PETRE, Iancu VASILE  
*National Research and Development Institute for Industrial Ecology – ECOIND, Romania*
- 10:45-11:00     **S05-O-07 Enzymatic methods for intoxication rate evaluation of aquatic organisms (fish) subject to toxic action of dangerous chemicals**  
Stefania IVAN, Irina LUCACIU, Gentiana RUSU  
*National Research and Development Institute for Industrial Ecology – ECOIND, Romania*
- 11:00-11:15     **S05-O-08 Arsenic separation from dilute aqueous systems by dissolved air flotation.**  
Adriana IRIMIA, Ligia STOICA  
*Department of Inorganic Chemistry, Faculty of Applied Chemistry and Materials Science, University Politehnica Bucharest, Romania*
- 11:15-11:30     **S05-O-09 Pesticides’ analyses by modern and hyphenated techniques**  
Cristian ENACHE-PREOTEASA and Andrei NICULAE  
*Central Laboratory for Phytosanitary Quarantine, Pesticides’ Quality Control Laboratory, Bucharest, Romania*
- 11:30-11:45     **S05-O-10 Implementation opportunity of an industrial wastes incinerator**  
Roxana PATRASCU, Adriana – Gratiela PRIBEANU  
*Associated Professor Dept. of Power Plant, University Politehnica Bucharest, eng. CEPROCIM – Research and Engineering Institute for Cement, ROMANIA*

**Posters**  
**Friday, 21 September 2007**

**(14.00-19.30)**  
**Poster Exhibition Lobby**

- S05-P-01**     **The Impact of urban soils pollution with heavy metals (Cr)-case study: industrial zone, Iasi City**  
Laura BULGARIU, Brindusa ROBU, D. BULGARIU, M. MACOVEANU<sup>1</sup>
- S05-P-02**     **Experimental design applied for investigation of diesel oil spill removal from water using polypropylene needlepunched nonwoven sorbents**  
Corneliu COJOCARU Matei MACOVEANU Vasile Catalin CRETU  
Constantin PREDA
- S05-P-03**     **Treatment of a tannery residues**  
Celia M SUAREZ, Sebastian O. PEREZ, Maria de la CONCEPTION LING
- S05-P-04**     **Application of polymers obtained by radiation technologies to water treatment**  
Elena MANAILA, Diana MARTIN, Gabriela CRACIUN, Daniel IGHIGEANU, Anton ANTON, Elena VULPASU, Constantin MATEI, Constantin OPROIU
- S05-P-05**     **A study of the silver modified clinoptilolite envisaging its using as water disinfectant**  
Corina ORHA, Florica MANEA, Georgeta BURTICA, P. BARVINSCHI
- S05-P-06**     **VOCs decomposition by combined use of electron beam, microwave and catalyst**  
I. CALINESCU, D. IGHIGEANU, D. MARTIN, C. MATEI, A. TRIFAN, C. OPROIU
- S05-P-07**     **Environmental impact and risk quantification of Minerals and heavy metals presence in surface wate: case study – Bahlui river, Iasi**  
Brindusa ROBU, Laura BULGARIU, D. BULGARIU, M. MACOVEANU
- S05-P-08**     **Study of a simple and fenton oxidation process with hydrogen peroxide applied on wastewaters generated into a pigs farm**  
Carmen ZAHARIA, Mioara SURPATEANU
- S05-P-09**     **Influence of thermal ageing on the activity of a heterogeneous photo-fenton cataliyst**  
Beatrice IURASCU, Ilie SIMINICEANU, Miguel VICENTE
- S05-P-10**     **Kinetics of crystal violet mineralization in water by the electro fenton process**  
Ilie SIMINICEANU, Carmen-Ionela ALEXANDRU, Eric BRILLAS
- S05-P-11**     **Synthesis of nanocrystalline zinc sulphide with limited particle size distribution**  
Cristian ONOSE, Carmen Suzana ONOSE, Horațiu NICIU
- S05-P-12**     **Modern wastewater treatment methods: The kinetic of sonochemical cyanide oxidation**  
Ioan IORDACHE, Mihaela IORDACHE, Mircea Teodor NICHITA

- S05-P-13**      **The influence of the inorganic species on oxidative degradation of 4-Chlorophenol by Photo-Fenton type process**  
 Ion UNTEA, Cristina ORBECI, Elena TUDORACHE, Giorgios KOPSIAFTIS
- S05-P-14**      **ZnO–TiO<sub>2</sub> based sorbents for high temperature gas desulphurization – structural and textural modifications by Al<sub>2</sub>O<sub>3</sub> addition and thermal treatments**  
 Madelene DĂNCILĂ, Ion UNTEA, Mihai BELCU
- S05-P-15**      **Polyelectrolyte-surfactant complexes used in the coagulation flocculation proceses**  
 Mihaela MIHAI, Gabriel DABIJA, Cristina COSTACHE
- S05-P-16**      **Complex formation between medium polyelectrolytesand surfactans**  
 Mihaela MIHAI, Gabriel DABIJA, Cristina COSTACHE
- S05-P-17**      **Removal of heavy metals from anaerobically digested sewage sludge**  
 Marius GHEJU, Florica MANEA, Rodica PODE
- S05-P-18**      **Methods and technics applied in the determination of dangerous substances biodegradability.**  
Georgiana MANOLIU, Elena DIACU
- S05-P-19**      **The nitrate reduction from groundwater by iron at low pH value**  
Cristina MODROGAN, Cristina COSTACHE, Oanamari ORBULET, Alexandra MIRON, Ionel CONSTANTINESCU
- S05-P-20**      **Chemical studies recquired for a scientific management of the natural mineral water sources, from the proximity of old salt mines.**  
Ana Despina IONESCU, Elena BOCA, Nicolae GIURGIU, Adrian VAMANU, Sultana NITA, Domnica RUGHINIS, Eugenia MOCANU, Cristina CASARIU, Ionela DUMITRU, Emanuel VAMANU, Diana BARBULESCU
- S05-P-21**      **Procedure of occupational health risk evaluation based on TLV's of some volatile organic compounds**  
Roxana DONE, V. CHIOȘA, G. MANDRILĂ, C. MANDRAVEL
- S05-P-22**      **Rapid determination of nitrogen in agrochemical samples using a Behrotest IR digestion system coupled with fully automatic Behrotest WD 40 distiller**  
Lidia PREDA, Georgeta RATEA, Silvia BOTOROGEANU
- S05-P-23**      **Soil amendment and plant fertilization by residual magnesium and calcium**  
Lidia TAUBERT, Hortensia RADULESCU, Sándor A. KISS, Ecaterina PRINCZ, Éva STEFANOVITS - BÁNYAI

## **SECTION 6: Materials And Nanomaterials**

**Oral presentations**  
**Friday, 21 September 2007**

### **“Training 1”Hall**

**Chairperson:** Professor . Mircea Teodorescu, *University “Politehnica” of Bucharest, Romania*

- 14:30-14:45 **S6-O-01 Nanocomposites based on epoxy resin and different types of carbon nanotubes**  
Sorina-Alexandra GÂREA, C. PETREA, C. ANDRONESCU, H. IOVU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Polymers,*
- 14:45-15:00 **S6-O-02 Modern trends in nanocomposite materials**  
K.E.GIANNADAKIS, D.E. MOUZAKIS, I. ZUBURTIKUDIS AND G.C. PAPANICOLAOU  
*Department of Mechanical and Aeronautical Engineering, University of Patras, Patras 26500, Greece*
- 15:00-15:15 **S6-O-03 Manufacturing and Testing of Polymer Concrete Reinforced with UD-CFRP**  
G.C. PAPANICOLAOU, D.E. MOUZAKIS, A.G. XEPAPADAKI, D. FAKOS, E. KOUNDOURAKI  
*Department of Mechanical and Aeronautical Engineering, University of Patras, Patras 26500, Greece*
- 15:15-15:30 **S6-O-04 The effect of imperfect adhesion on the interfacial stress and strain distribution in frp's**  
G.C. PAPANICOLAOU, N.K.ANIFANTIS, L.K. KEPPAS  
*Department of Mechanical and Aeronautical Engineering, University of Patras, Patras 26500, Greece*
- 15:30-15:45 **S6-O-05 Use of phema microbeads with human endothelial cells**  
Herve Oscar NYANGOGA, T. ZECHERU, R. FILMON, C. CINCUI, D. CHAPPARD  
*INSERM, EMI 0335 « Remodelage Osseux et Biomateriaux »University of Angers, Faculty of Medicine, Rue haute de reculée 49045 ANGERS cedex. France*
- 16:00-16:15 **S6-O-06 New poly(ethylene oxide) - based hydrogels**  
Mircea TEODORESCU, E. DIACONU, C. COCA, O. DAVID  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Polymers,*

16:15-16:30 **S6-O-07 Influence of temperature on the yielding properties of epoxy resin and silica fume mix from the composition of polymeric concrete**  
Anca MOISE, M. BĂRBUȚĂ, C. IBĂNESCU, M. PETCU  
*Technical University "Gh. Asachi" of Iasi, Department of Chemical Engineering*

16:30-16:45 Coffee break

### **"Training 2" Hall**

**Chairperson:** Assoc Prof.. Alina BĂDĂNOIU, *University "Politehnica" of Bucharest, Romania*

14:30-14:45 **S6-O-01 Study on the recycling of borate silicate vitreous waste**  
Adriana DIACONU, B.A. SAVA, Luminita-Daniela URSU, Ileana MITIU, Elisabeta ROSU, D. RADU, O. DUMITRESCU, M. EFTIMIE  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science,*

14:45-15:00 **S6-O-02 Structure, microstructure and electrical behaviour of pzt and europium-doped pzt thin films prepared by sol-gel method**  
Adelina IANCULESCU, M. GARTNER, F. VASILIU, V. TEODORESCU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials,*

15:00-15:15 **S6-O-03 Valorification of glass wastes as addition in blended cements**  
Maria GEORGESCU, Ana CONDRUT, Gabriel DODOȚ  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials,*

15:15-15.30 **S6-O-04 Physical, mechanical and rheological properties of finely-ground grouting cement**  
Adriana MOANȚĂ, E. ANDREESCU, and F. AMZICĂ  
*S.C. CEPROCIM S.A., Bucuresti*

15:30-15:45 **S6-O-05 Hydraulic lime-based composite materials designed for conservation and restoration by filling the gaps in the mural painting support — *in situ* applications: doamnei church**  
Ileana MOHANU, E. ANDREESCU, F. AMZICĂ, D. MOHANU and I. GOMOIU  
*S.C. CEPROCIM S.A., Bucuresti*

15:45 – 16:00 **S6-O-06 Fly ash based alkaline cements**  
Annemarie PURI, A. BADANOIU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials,*



**Posters**  
**Saturday, 22 September 2007**  
**(9:00-13:00)**  
**Poster Exhibition Lobby**

- S6-P-01**      **Synthesis of new ferrocene mesogenes containing azo groups**  
Roxana AIOANEI, D. APREUTESEI AND D. SCUTARU  
*Gh. Asachi Technical University of Iasi, Faculty of Chemical Engineering, Romania*
- S6-P-02**      **Nanocrystals with rare earths in fluorescent photosensitive glass ceramic**  
Ecaterina ANDRONESCU, S. JINGA, E. PAVEL, E. ROTIU, L. IONESCU, C. MAZILU, D. PATROI, S. HODOROGEA, M. DAVIDESCU, V. VULPE  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials,*
- S6-P-03**      **Synthesis and characterization of doped bzt materials**  
E. ANDRONESCU, Sorin JINGA, S. STOLERIU, G. VOICU, C. JINGA, A. IOACHIM, M. I. TOACSAN, L. NEDELCU, M. G. BANCUI  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*
- S6-P-04**      **Optical testing of ferrofluids prepared by in-situ precipitation of magnetite for biotechnological applications**  
G. APREOTESEI, R. BĂDESCU, L.E. UDREA, O. ROTARIU, V. BĂDESCU  
*Technical University "Gh. Asachi" Iasi, Romania*
- S6-P-05**      **On preparation of magnetic microbeads by two microfluidic emulsification techniques and polymerization**  
Vasile BĂDESCU, L.E. UDREA, O. ROTARIU, R. BĂDESCU, G. APREOTESEI  
*Technical University "Gh. Asachi" Iasi, Romania*
- S6-P-06**      **[1,3,4]oxadiazole derivatives for biaxial nematics**  
Daniela APREUTESEI, D. SCUTARU AND G. MEHL  
*Gh. Asachi Technical University of Iasi, Faculty of Chemical Engineering, Romania*
- S6-P-07**      **The sulfate resistance of blended and composite portland cements with limestone filler and slag/volcanic tuff content**  
Alina BADANOIU, G. VOICU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*

- S6-P-08**      **New anticorrosive protections for rotatory air preheaters from energetical installations**  
Adriana BANTAȘ, L. CIOROIANU, G. CIOROIANU, M. LECA, A. PICA, E.J. POPOVICI, D. GHEORGHE  
*SC Energy Research and Modernization Institute – ICEMENERG SA, Bucharest, Romania*
- S6-P-09**      **New 1,10-phenanthroline derivatives by 1,3-dipolar cycloaddition reactions between *n*-ylides and activated alkynes**  
M.T. CĂPROIU, D. DUMITRESCU, C. DRĂGHICI, Loredana BARBU, F. DUMITRAȘCU  
*Center of Organic Chemistry “C. D. Nenitzescu”, Romanian Academy, Bucharest Romania*
- S6-P-10**      **Corrosion effect of aggressive agents on samples with hybrid section**  
Marinela BĂRBUȚĂ, E. DECHER, A. MOISE  
*Technical University „Gh. Asachi” of Iasi, Department of Civil Engineering*
- S6-P-11**      **The photochemical properties of some quinacridone derivatives, precursors for phthalocyanines synthesis**  
C. BOSCORNEA, M. VASILESCU, R. BANDULA, M. VOICESCU, V. RADITOIU, L.E. WAGNER AND A. RADITOIU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania*
- S6-P-12**      **Multipurpose carbon materials (mcm) used as adsorbants for depolluting water**  
I. CALINESCU, Petre CHIPURICI, R. AVRAM, A.I. GAVRILA, R. CALINESCU, G. PREDEANU, S. LAMBESCU, V. SLAVESCU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania*
- S6-P-13**      **Characterization of poly(aspartic acid) carrier template with zeta potential measurements**  
Aurica CHIRIAC, L. NITA, I. NEAMTU  
*PETRU PONI” Institute Of Macromolecular Chemistry, Iasi, Romania*
- S6-P-14**      **Dependency of particle sizes and colloidal stability of polyelectrolyte complex dispersions on polyion structure and preparation mode**  
Ecaterina Stela DRAGAN, M. MIHAI  
*PETRU PONI” Institute Of Macromolecular Chemistry, Iasi, Romania*
- S6-P-15**      **Correlations basicity-deformation properties in borosilicatic vitreous systems**  
C. MAZILU, M. EFTIMIE, O. DUMITRESCU, D. RADU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*
- S6-P-16**      **Collagen/hydroxyapatite composite materials for bone tissue repairing**  
Anton FICAI, V. TRANDAFIR, E. ANDRONESCU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials, Bucharest, Romania*

- S6-P-17**      **Nanohybrids with organic-inorganic mixed structure from ciprofloxacin-layered double hydroxides. preparation and characterization**  
Mihaela FRUNZA, M.I. POPA  
*Technical University of Iasi, Department of Physical Chemistry, Faculty Chemical Engineering, Iasi, Romania*
- S6-P-18**      **Theoretical study of structure of compounds obtained by grafting reactions**  
Simona FUNAR-TIMOFEI, G. ILIA, E. SECLAMAN  
*Institute of Chemistry, Romanian Academy, Timisoara, Romania*
- S6-P-19**      **Influences of zn (as salts) immobilisation on the compositional and structural characteristics of binding matrices**  
Maria GEORGESCU, G. VOICU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*
- S6-P-20**      **Nonstoichiometric complex nanoparticles based on chitosan as flocculants for kaolin**  
M. MIHAI, Luminita GHIMICI, E. S. DRAGAN  
*PETRU PONI” Institute Of Macromolecular Chemistry, Iasi, Romania*
- S6-P-21**      **Dental ceramics for opaque restorations**  
B. S. VASILE, E. ANDRONESCU, Cristina GHITULICA, O. NICOLA  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*
- S6-P-22**      **Characteristics of  $\text{BaTi}_{0.85}\text{Zr}_{0.15}\text{O}_3$  ceramics prepared by alternative techniques**  
Adelina IANCULESCU, A. BRĂILEANU, M. CRIȘAN, L. MITOȘERIU, F. TUFESCU, G. VOICU, N. DRĂGAN, D. CRIȘAN AND E. VASILE  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials*
- S6-P-23**      **Synthesis of copper 1-phenylvinylphosphonate in hydrothermal conditions**  
Gheorghe ILIA, S. ILIESCU, A. POPA, N. PLESU, A. PASCARIU, L. MACARIE, B. MARANESCU  
*Institute of Chemistry of Romanian Academy, Timisoara, Romania*
- S6-P-24**      **Studiul experimental de optimizare al parametrilor de reactie pentru policondensarea prin cataliza prin transfer interfazica inversa (ctii) a fenildiclorfosfonatului cu bisfenolul A**  
Smaranda ILIESCU, G. ILIA, A. POPA, N. PLESU, L. MACARIE  
*Institute of Chemistry of Romanian Academy, Timisoara, Romania*
- S6-P-25**      **Nanostructures of poly acrylic acid Cu(ii) complexes for non linear optic**  
Ana EMANDI, I. IORDACHE, R. OLAR, M. BADEA  
*University of Bucharest, Faculty of Chemistry, Department of Inorganic Chemistry, Bucuresti, Romania*

- S6-P-26 Ecological knowledge based fire protecting materials for sectorial and cross-sectorial applications**  
Lelian CIOROIANU, G. CIOROIANU, G.S. DAMIAN, A.M. MATEI, G.C. COSTEA  
*S.C. Energy Research and Modernization Institute - ICEMENERG S.A., Bucharest, Romania*
- S6-P-27 Prediction of the liquid crystalline behavior for some symmetrically derivatives with two ferrocene units using the artificial intelligence methods**  
Cătălin LISA, S. CURTEANU, V. BULACOVSCI and D. APREUTESEI  
*Gh. Asachi Technical University, Faculty of Chemical Engineering, Iasi, Romania*
- S6-P-28 Synthesis and applications of *o*-chloro- and *p*-chlorobenzoyldialkylphosphonates as photoinitiators**  
Lavinia MACARIE, Gh. ILIA, S. ILIESCU, A. POPA, N. PLESU, A. PASCARIU  
*Institute of Chemistry Timisoara of the Romanian Academy, Timisoara, Romania*
- S6-P-29 Oxaphosphetanes intermediates complexed with lithium ions in Wittig reaction**  
Aurelia PASCARIU, M. MRACEC, S. ILIESCU, Gh. ILIA  
*Institute of Chemistry Timisoara of Romanian Academy, Timisoara, Romania*
- S6-P-30 Synthesis of polyaniline from vapor aniline**  
Nicoleta PLESU, GH.ILIA, S. ILIESCU, L. MACARIE, A. POPA  
*Institute of Chemistry of Romanian Academy, Timișoara, Romania*
- S6-P-31 Capture of micro-organisms by phosphonium salts grafted on polymers**  
Adriana POPA, R. TRIF, Gh. ILIA, C.M. DAVIDESCU, S. ILIESCU  
*Institute of Chemistry Timisoara of Romanian Academy, Timisoara, Romania*
- S6-P-32 Direct synthesis of hierarchical organosilica: functional incorporation by co-condensation with organosilane**  
Simona UNGUREANU, M. BIROT, B. JULIAN, B. AGRICOLE, M.F. ACHARD, M.I. POPA, C. SANCHEZ AND R. BACKOV  
*Facultatea de Inginerie Chimica, Iasi, ROMANIA*
- S6-P-33 Functionalization reactions of carbon nanoparticles**  
Paul STĂNESCU, M. TEODORESCU, H. IOVU, G. UNGUREANU, C. IVAN, D. STANCIU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Polymers, 149 Calea Victoriei, 010072 Bucharest, Romania*
- S6-P-34 Organic-inorganic hybrids based on ethylene oxide-propylene oxide block copolymers**  
Cristina Lavinia NISTOR, D. DONESCU, V. PURCAR, C. PETCU, M. GHIUREA, P.O. STANESCU  
*National Institute of Chemical and Petrochemical Research and Development-ICECHIM, Polymer Department, Bucuresti, Romania*

- S6-P-35**      **The influence of cross-linking agents in hybrid systems based on polyether polyols doped with cationic dyes**  
Violeta PURCAR, D. DONESCU, C.L. NISTOR, C. PETCU, P.O. STANESCU  
*National Institute of Chemical and Petrochemical Research and Development-ICECHIM, Polymer Department, Bucuresti, Romania*
- S6-P-36**      **Surface plasmon resonance imaging sensors based on mucin – antimucin interaction**  
Izabela Cristina STANCU, A.F. GONZÁLEZ, L.M. BUTAC, F. SIMON, R. SALZER  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Polymers, 149 Calea Victoriei, 010072 Bucharest, Romania*
- S6-P-37**      **The preparation and characterisation of some glass ionomer dental cements**  
Georgeta VOICU, A. BADANOIU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Oxide Materials and Nanomaterials, 1-7 Gh. Polizu, P.O. Box 12-134, 011061 Bucharest, Romania*
- S6-P-38**      **Synthesis, physico-chemical properties and biological evaluation of p(HEMA-co-MOEP) microbeads**  
Teodora ZECHERU, C. ZAHARIA, E. RUSEN, D. CHAPPARD, C. CINCU  
*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Science and Engineering of Polymers, 149 Calea Victoriei, 010072 Bucharest, Romania*

# Honorary Symposium - Constantin LUCA

**Thursday 20 September 2007**  
**“Seminar” Hall**

**14<sup>30</sup>-16<sup>30</sup>**

***Dr. Mihail BARBOIU***

**Chairperson:**

***Institut Européen des Membranes, CNRS Montpellier***

**Hommage au professeur Constantin Luca**

Prof. Louis COT

*Institut Européen des Membranes, ENS Chimie Montpellier*

**From Alchemy to modern Chemistry**

Prof. Armand LATTES

*Laboratoire des Interactions Moléculaires et Réactivité Chimique et Photochimique, Université Paul Sabatier, Toulouse, Président de la Société Française de Chimie*

**16<sup>30</sup>-16<sup>45</sup>**

***Coffee break***

**16<sup>45</sup>-19<sup>30</sup>**

***Prof. André AYRAL***

**Chairperson:**

***Institut Européen des Membranes, Université Montpellier 2***

**Membranes processes tomorrow: Some questions to polymer chemists and engineers**

Dr. Pierre AIMAR

*Laboratoire de Génie Chimique, CNRS Toulouse*

**From superstructures to functions: dynamic constitutional chemistry**

Dr. Mihai BARBOIU

*Institut Européen des Membranes, CNRS Montpellier*

**Assembling functional molecular systems in between magnetic**

Dr. Pierre RABU

*Institut de Physique et Chimie des Matériaux de Strasbourg, CNRS Strasbourg*

**Dynamic Combinatorial Resolution: A New Method to Adaptive Enrichment**

Prof. Olof RAMSTRÖM

*Royal Institute of Technology, Stockholm*

**Friday 21 September 2007**  
**“Seminar” Hall**

**8<sup>30</sup>-10<sup>00</sup>**

**Chairperson:**

***Prof. André AYRAL***

***Institut Européen des Membranes, Université Montpellier 2***

**Membrane engineering : a natural way towards process intensification  
using microsystem-based Technologies**

**Prof. Gilbert RIOS**

***Institut Européen des Membranes, ENS Chimie de Montpellier***

**Conductimetric microbiosensors for enviromental monitoring**

**Dr. Nicole JAFFREZIC**

***Centre de Génie Electrique de Lyon, CNRS Lyon***

**10<sup>00</sup>-10<sup>15</sup>**

***Coffee break***

**10<sup>15</sup>-13<sup>00</sup>**

**Chairperson:**

***Prof. Gilbert RIOS***

***Institut Européen des Membranes, ENS Chimie de Montpellier***

**Innovative strategies in the design and the characterization of ceramic  
membranes**

**Prof. André AYRAL**

***Institut Européen des Membranes, Université Montpellier 2***

**Biosynthetic and Mechanistic Investigations of Two Enzymatic Ring  
Contractions**

**Prof. Stéphane VINCENT**

***FUNDP, Faculté des Sciences, Namur***

**Speciation of actinides in oxidation state IV using polyaminocarboxylateas  
a complexing agent**

**Dr. Philippe MOISY**

***Centre d'étude Valrhô, Commissariat à l'Énergie Atomique***