



National Institute for Research&Development in
Chemistry&Petrochemistry **ICECHIM**

International symposium

Priorities of Chemistry for a Sustainable Development



Bucharest, 27th - 28th October 2016

PROGRAMME

Sponsori:



Parteneri:  Societatea de Chimie din ROMÂNIA

Partener mediai:



Program simpozion PRIOCHEM, ediția a XII-a

Joi 27 octombrie 2016

| | | | |
|-------|---|--|--|
| 8:00 | Înregistrarea participanților | | |
| 8:30 | Deschiderea festivă. Cuvântul invitaților oficiali (Sala de festivități) | | |
| 9:00 | Conferințe plenare | Francois-Xavier PERRIN , Université de Toulon, France | Preparation of New Anticorrosive Nanopigments via Self-sacrificial and via Hard Template Methods. |
| 9:30 | | Hugues BRISSET , Université de Toulon, France | Electrochemical Molecularly Imprinted Polymer as Sensor Interfaces. |
| 10:00 | | Nnamdi NWAHARA , Africa de Sud | Photophysical Properties of Nanocomposites of Aluminum Tetrasulphonated Phthalocyanine with Graphene Quantum Dots Linked to Folic Acid. |
| 10:30 | Pauză de cafea | | |
| 11:00 | Conferințe plenare | Sorin ROȘCA , Societatea de Chimie din România | Romanian food products authentication by spectrophotometric and chromatographic methods |
| 11:30 | | Vlad Tudor POPA , ICF, Academia Română | Microcalorimetric Estimation of Bacterial Growth and Decaz, Kinetic Modeling and Thermal Signal Processing |
| 12:00 | | Carmen BITTENBINDER , Gabriela IONIȚĂ , Sartorom | - Specific Laboratory Equipments for Cell Culture. |
| | | Anca Daniela RAICIU , Hofigal | - HOFIGAL – prezentare companie |
| 12:30 | LUNCH oferit de organizatori | | |
| 14:00 | Prezentarea comunicărilor orale la secțiunile 1, 2, 3 și 4 și a posterelor: (Sala de festivități, Bibliotecă, Protocol) | | |

Vineri 28 octombrie 2016

| | | | |
|-------|--|--|---|
| 8:00 | Prezentarea comunicărilor orale la secțiunea 5 (Sala de protocol) | | |
| 9:00 | Conferințe plenare | Tănase DOBRE , UPB, Departamentul Inginerie Chimică și Biochimică | From where to where in chemical engineering. |
| 9:30 | | Olga COVALIOVA , Rep. Moldova | Conditioning and utilization of carbon dioxide resulted from biomass digestion |
| 10:00 | | Sanda VELEA , ICECHIM | INCDCP ICECHIM - Realizări și perspective II |
| 10:30 | WORKSHOP: Proiect POC “CLOSING THE LOOP INTO BIOECONOMY VALVE CHAINS” | | |
| | ➤ The biogas – a promising biofuel – able to improve the energy demand and reduction of green house effects | | |
| | ➤ Brevetul de invenție în contextul economiei bazate pe cunoaștere | | |
| | ➤ Modern learning system for new directions of business enhancement in life sciences applications | | |
| 10:30 | ➤ Sequential processes for closing the side streams from bioeconomy and resulted innovatives processes | | |
| | | | |
| 13:00 | Închiderea festivă - premiarea | | |



27th October 2016
OFFICIAL OPENING

PLENARY CONFERENCES
27th October 2016

PL – 1

PREPARATION OF NEW ANTICORROSIVE NANO-PIGMENTS VIA SELF-SACRIFICIAL AND VIA HARD
TEMPLATE METHODS

PERRIN FX, OUEINY C, BERLIOZ S

Laboratoire MAPIEM EA 4323 ,SeaTech-Ecole d'ingénieurs, Université de Toulon BP 20132, 83957 La Garde Cedex

PL – 2

ELECTROCHEMICAL MOLECULARLY IMPRINTED POLYMER AS SENSOR INTERFACES

Prof. PhD. **BRISSET Hugues**

Laboratoire MAPIEM, EA 4323, Université de Toulon, 83957 La Garde, France

PL – 3

PHOTOPHYSICAL PROPERTIES OF NANOCOMPOSITES OF ALUMINUM TETRASULFONATED
PHTHALOCYANINE WITH GRAPHENE QUANTUM DOTS LINKED TO FOLIC ACID.

Nnamdi Nwahara, Jonathan Britton and Tebello Nyokong

Department of Chemistry, P.O. 94, Rhodes University, Grahamstown, South Africa

PL – 4

ROMANIAN FOOD PRODUCTS AUTHENTICATION BY SPECTROPHOTOMETRIC AND CHROMATOGRAPHIC
METHODS

Sorin ROSCA

Politechnica University of Bucharest

PL – 5

MICROCALORIMETRIC ESTIMATION OF BACTERIAL GROWTH AND DECAY. KINETIC MODELING AND
THERMAL SIGNAL PROCESSING.

V. T. Popa¹

¹*Romanian Academy, Institute of Physical Chemistry, Splaiul Independentei 202, Bucharest – 060021, Romania*

28th October 2016

PL– 6

FROM WHERE TO WHERE IN CHEMICAL ENGINEERING

Dobre Tanase

Politehnica University of Bucharest, Chemical and Biochemical Engineering Department

PL – 7

INCDCP – ICECHIM. REALIZARI SI PERSPECTIVE II

Sanda VELEA

PL – 8

CONDITIONING AND UTILIZATION OF CARBON DIOXIDE
RESULTED FROM BIOMASS DIGESTION

V.Covaliov, O.Covaliova

State University of Moldova, Research Center of Applied and Ecological Chemistry
Republic of Moldova, Chisinau, MD 2009, 60 Mateevici Str.

WORKSHOP

CLOSING THE LOOP INTO BIOECONOMY VALUE CHAINS

Project manager: **Florin OANCEA**



27th October 2016

Section 1 – Bioresources and Biomaterials

ORAL COMMUNICATIONS - 14:00 – Conference Hall (1st floor)

Moderators:

Prof. dr. ing. Raluca STAN
Dr. Biochim. Florin OANCEA

ANAEROBIC CO-DIGESTION OF FOOD WASTE AND SPENT MICROALGAE BIOMASS OBTAINED BY DIFFERENT EXTRACTION METHODS O - 1

A.-M. Galan^{1*}, S.Velea¹, N. Lupu², V. Enache¹, C. Matei¹, D. Stilpeanu¹, E.E. Oprescu^{1,2}

¹The National R&D Institute for Chemistry and Petrochemistry - ICECHIM, Spl. Independentei nr. 202, Bucharest,

²Petroleum-Gas University of Ploiesti, 39 Bucharest Blv., 100680 Ploiesti, Romania

BIO-SILICA RECOVERY DURING BIOREFINERY INITIAL STEP O - 2

Florin Oancea,^{1,2} Mihaela Badea Doni,¹ Diana Constantinescu-Aruxandei^{1*}

¹National Institute for Research and Development in Chemistry and Petrochemistry - ICECHIM, Bucharest, Spl. Independentei 202, 060021 Romania

²University of Agronomy and Veterinary Medicine, Faculty of Biotechnologies, 59 Bd. Mărăști, 011464 Bucharest, Romania

PROTEIN STABILITY IN IONIC LIQUIDS AND THE TEMPERATURE DEPENDENCE OF THE HOFMEISTER SERIES O - 3

D. Constantinescu-Aruxandei^{1,2}, M. Senske³, M. Havenith³, S. Ebbinghaus^{3*},
C. Herrmann^{2*}, H. Weingärtner^{3*}

¹Department of Biotechnology & Bioanalysis, INCDCP-ICECHIM, Spl. Independentei 202, Bucharest, Romania

²Department of Physical Chemistry II, Ruhr-Universität Bochum, 44780 Bochum, Germany

³Department of Physical Chemistry I, Ruhr-Universität Bochum, 44780 Bochum, Germany

DETERMINATION OF ANTIOXIDANT CAPACITY OF SOME EXTRACTS BY USING A CERIA NANOMATERIAL BASED METHOD O - 4

Andrei-Florin DANET¹, Claudia Valentina POPA^{2*}, Simona-Carmen LITESCU³, Mihaela BADEA DONI⁴,
Mihaela Carmen CHEREGI¹

¹University of Bucharest, Department of Analytical Chemistry, Sos. Panduri 90-92, 050657, Bucharest, Romania.

²University of Bucharest, Department of Organic Chemistry, Biochemistry and Catalysis, Sos. Panduri 90-92, 050657, Bucharest, Romania.

³Centre of Bioanalysis, National Institute for Biological Sciences, 296 Spl. Independentei, Bucharest, 060031, Romania.

⁴National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, Department of Biotechnology, Spl. Independentei 202, 06002, Bucharest, Romania.

ONE STEP TOF LC/MS MEASUREMENTS OF MULTIPLE MYCOTOXINS FROM SINGLE MATRIX STORED GRAINS O - 5

E. Radu^{2*}, M. Popescu^{2,3}, M. Deșliu-Avram², R. Dudoiu^{1,3}, F. Oancea², C. Lupu¹

¹Institute for Research and Development for Plant Protection, Bucharest

²National Institute for Research and Development in Chemistry and Petrochemistry - ICECHIM, Bucharest

³University of Agronomic Sciences and Veterinary Medicine, Faculty of Agriculture, Bucharest

PHYTOCHEMICAL CHARACTERISATION OF TWO FREEZE DRIED EXTRACTS OF ROBINIA PSEUDOACACIA AND SOPHORA JAPONICA FLOWERS O - 6

Cristina LUNTRARU^{1*}, Viorica Tamas¹, Alexandru Suciu¹, Mihaela Neagu¹

¹ S.C. HOFIGAL EXPORT IMPORT S.A., Intrarea Serelor no.2, district 4, Bucharest, Romania,

O-7

NATURAL FOOD SUPPLEMENTS WITH SANOGENOUS EFFECT IN DIGESTIVE DISORDERS

Manea Stefan, Tamas Viorica

S.C.Hofigal Export Import SA -Intrarea Serelor Street.2 no, district 4, Bucharest, Romania

O-8

**AN WORLD OF USEFUL COMPOUNDS OBTAINED BY TRANSFORMATION OF δ -LACTONE TYPE
PROSTAGLANDIN INTERMEDIATES**

**C. Tănase^{1*}, C. Draghici², M. T. Căproiu², M. Maganu², S. Shova³, C. Enache⁴, L. Pintilie¹, C. Negu¹, M. Deaconu¹,
E. Mihai¹**

¹*National Institute for Chemical-Pharmaceutical Research and Development, 112 Vitan Av., 031299 Bucharest 3,
ROMANIA*

²*Organic Chemistry Center "C.D.Nenişescu, 202 B Splaiul Independentei, Bucharest 060023, ROMANIA*

³*Institute of Macromolecular Chemistry "Petru Poni", Iasi, ROMANIA*

⁴*Central Laboratory for Phytosanitary Quarantine, 11, Voluntari Blvd., 077190, Voluntari, ROMANIA*

O-9

**STUDY REGARDING THE OPTIMIZATION OF POLYFURANS SYNTHESIS THROUGH
TRANSESTERIFICATION**

N. Petrea^{1*}, R. Petre¹, M. Sonu¹, A. Bobes¹, A. Pretorian¹, F. Neatu², V. Somoghi³

¹*Scientific Research Centre for CBRN Defense and Ecology, 225 Oltenitei Road, Bucharest, Romania*

²*University of Bucharest, Department of Organic Chemistry, Biochemistry and Catalysis, 4 – 12 Regina Elisabeta Bvd.,
Bucharest, Romania*

³*SC STIMPEX SA, 46-48 Nicolae Teclu Street, Bucharest, Romania*

O-10

ACTION OF GEMMODERIVATES IN COMPLEMENTARY THERAPIES

**Anca Daniela RAICIU¹; Marian POPESCU¹; Roxana SANDULOVICI²; Iulia BURGHIU-HOBEANU¹;
Iuliana CRIŞAN¹; Gabriela RIZEA¹; Ştefan MANEA¹**

¹*S.C. Hofigal Export-Import S.A., Intrarea Serelor street, no.2, district 4, cod.042124, Bucharest*

²*Faculty of Pharmacy "Titu Maiorescu", Bd. Gh. Şincai no.16, district 4 cod. 040 313, Bucharest*

O-11

**NEW COSMETICS BASED ON PASSIONFLORA (PASSIFLORA INCARNATA) EXTRACT FOR SKIN CARE
AND BEAUTY**

V. Carabela^{1*}, V. Tamas¹, A. Dima¹, V. Staicu¹, C. Luntraru¹, M. Popescu¹

¹*S.C. HOFIGAL Export-Import S.A., no. 2 Intrarea Serelor, zip code 042124, District 4, Bucharest, Romania*

O-12

ACTION OF AMARANTHUS CAUDATUS IN REVIVAL OF THE BODY

**Anca Daniela RAICIU¹; Marian POPESCU¹, Iulia BURGHIU-HOBEANU¹;
Iuliana CRIŞAN¹; Gabriela RIZEA¹; Ştefan MANEA¹**

¹*S.C. Hofigal Export-Import S.A., Intrarea Serelor street, no.2, district 4, cod.042124, Bucharest*

- P – 1**
- PURIFICATION OF BIOCELLULOSE FROM KOMBUCHA BIOMEMBRANES**
Ș.O. Dima, D.M. Panaitescu, S.M. Doncea, C.A. Nicolae, B. Trică,
R.C. Fierăscu, M. Ghiurea, V.A. Faraon, F. Oancea*
INCDCP ICECHIM, 202 Splaiul Independenței, 060021 Bucharest, Romania
- P – 2**
- REVERSE MICELLES - A MULTIFUNCTIONAL NANOSTRUCTURED MEDIUM**
M.L. Arsene^{1*}, L. Jecu¹, M. Badea-Doni¹, I Răut^{1,2}, M. Călin^{1,2} G. Vasilescu¹,
D. Aruxandei Constantinescu¹
¹ *INCDCP-ICECHIM, Spl. Independentei 202, 060021, Bucharest, Romania*
² *University Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest, Romania*
- P – 3**
- INFLUENCE OF VOLATILE AND NONVOLATILE METABOLITES OF *TRICHODERMA* SPP AGAINST *V. DAHLIAE* AND *S. SCLEROTIORUM***
I. Răut^{1,2}, M. Călin^{1,2}, E. Alecsandrescu¹, D. Aruxandei Constantinescu¹, M. Badea-Doni¹, L. Jecu¹, G. Vasilescu¹,
M.L. Arsene^{1*}
¹ *INCDCP-ICECHIM, Spl. Independentei 202, 060021, Bucharest, Romania*
² *University Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest, Romania*
- P – 4**
- NEW IMPROVED FORMULATIONS OF TEAS
 BASED ON SEA BUCKTHORN BERRIES**
D. Belala^{1*}, A. Dima¹, V. Tamas¹
¹ *S.C. HOFIGAL Export-Import S.A., No.2 Intrarea Serelor Street, zip code 042124, District 4, Bucharest, Romania*
- P – 5**
- NIGELLA SATIVA SEED OIL EXTRACTION FOR BIOACTIVE COMPOUNDS EXPLORATION**
M. Deșliu-Avram^{1*}, M. Popescu¹
¹ *INCDCP-ICECHIM, 202 Spl. Independentei, 060021, Bucharest, Romania*
- P – 6**
- SCREEN PRINTED CARBONELECTRODES MODIFIED WITH COBALT PHTHALOCYANINE VS POLY(2,6 – DIHYDROXYNAPHTHALENE) FOR PEROXYNITRITE DETERMINATION**
I.S. Hosu¹, D. Constantinescu-Aruxandei¹, L. Jecu¹, M. Arsene¹,
F. Oancea¹, M. Badea Doni^{1,*}
¹ *National Institute for Research & Development in Chemistry & Petrochemistry - ICECHIM, 202 Spl. Independentei, Bucharest, Romania*
- P – 7**
- OMEGA-3 FATTY ACIDS ESTERS FROM FISH WASTES**
C-E. Enascuta^{1,2*}, E-E. Oprescu^{1,3}, E. Stepan¹, E. Radu¹, A. Radu¹, A-A Galan^{1,2}
¹ *National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, 202 Splaiul Independentei St., P.O. Box 194, 060021, Bucharest, Romania*
² *University "POLITEHNICA" Bucharest, Faculty of Applied Chemistry and Materials Science, 1-7 Polizu St., 011061, Bucharest, Romania*
³ *Petroleum-Gas University of Ploiesti, 39 Bucharest Blv., 100680, Ploiesti, Romania*
- P – 8**
- SCREENING OF INULINASE PRODUCING MICROORGANISMS**
Mihaela Carmen Eremia^{*}, Maria Monica Petrescu, Mariana Vladu, Gabriela Savoiu
National Institute for Chemical-Pharmaceutical Research and Development (ICCF) Bucharest, 112 Vitan Av., 031299, Bucharest, Romania
- P – 9**
- USE OF BACTERIA TO REPAIR CRACKS IN CEMENTOUS MATERIALS**
V. Fruth^{1*}, J. Pandele-Cusu¹, I. Atkinson¹, L. Predoana¹, A. Rusu¹, I. Raut², M. Doni²,
L. Jecu², M.L. Arsene², D. Vasilescu³, A. Badanoiu³
¹ *Institute of Physical Chemistry, Romanian Academy, Spl. Independentei 202, 060021 Bucharest Romania*
² *INCDCP-ICECHIM, Spl. Independentei 202, 060021 Bucharest, Romania*
³ *University Politehnica Bucharest, Str. Polizu 1-7, 011061 Bucharest, Romania*

THERMAL AND DYNAMIC MECHANICAL ANALYSIS OF POLYHYDROXYALKANOATES AND THEIR COMPOSITES

**Augusta Raluca Gabor¹, Denis Mihaela Panaitescu¹, Irina Lupescu², Ioana Chiulan¹, Adriana Nicoleta Frone^{1*},
Cristian Andi Nicolae¹, Michaela Iorga¹**

¹*NIRD in Chemistry and Petrochemistry ICECHIM*

²*National Institute for Chemical Pharmaceutical Research & Development*

NEW STRIGOLACTONE MIMICS

**Emilian Georgescu,¹ Florentina Georgescu^{2*}, Florin Oancea,^{3,4} Sanda Velea,³ Alina Nicolescu,^{5,6} Lucian Vladulescu,²
Marius-Constantin Vladulescu,² Calin Deleanu^{5,6}**

¹ *Research Center Olchim, Str. Uzinei 1, 240050, Ramnicu Valcea, Romania*

² *Research Dept., Teso Spec S. R. L., Str. Muncii 53, 915200 Fundulea, Calarasi, Romania*

³*National Institute for Research and Development in Chemistry and Petrochemistry, Bucharest, Spl. Independentei 202, 060021 Romania*

⁴*University of Agronomy and Veterinary Medicine, Faculty of Biotechnologies, Bd. Mărăști nr. 59, 011464 Bucharest*

⁵*“Petru Poni” Institute of Macromolecular Chemistry, Romanian Academy, Aleea Grigore Ghica Voda 41-A, 700487 Iasi, Romania.*

⁶*“C. D. Nenitzescu” Centre of Organic Chemistry, Romanian Academy, Spl. Independentei 202-B, 060023 Bucharest*

RESEARCH REGARDING OBTAINING HERBAL EXTRACTS WITH ANTITUMOR ACTIVITY. Note I.

QUALITY EVALUATION OF RAW MATERIALS

**Cerasela Elena Gîrd¹, Teodora Costea¹, Ioana Nencu^{1*}
Ligia Elena Duțu¹, Maria Lidia Popescu¹, Bruno Velescu¹,
Zhai Guangxi²**

¹*University of Medicine and Pharmacy „Carol Davila”, Faculty of Pharmacy, Bucharest, Romania*

²*Shandong University, R.P. China*

VARIATION IN COMPOSITION OF ESSENTIAL OIL FROM *TANACETUM VULGARE* L. FLOWERS FROM DIFFERENT LOCATIONS

Claudia Maria GUTU^{1*}, Octavian Tudorel OLARU¹, Anca Andreea IORDACHE¹, Ciprian CHIRIȚĂ¹, Ionuț Mihai IONIȚĂ¹, Bruno Ștefan VELESCU¹, Oana Cristina ȘEREMET¹, George Mihai NIȚULESCU¹

¹ *Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest 020956, Romania*

STUDY OF SOME STEROIDAL GLYCOSIDES EXTRACTED FROM ROOTS OF PEPPER *CAPSICUM ANNUM* L. AND THEIR CHEMICAL CHARACTERIZATION

Elena Gutu^{*}

*State Agrarian University of Moldova,
str. Mircești, 44, Chisinau, Republic of Moldova.*

ABILITY OF BASIDIOMYCETES TO GROW ON AGRO-INDUSTRIAL WASTES

**M. Calin^{1,2}, I. Raut^{1,2}, E. Alexandrescu¹, D. Aruxandei Constantinescu¹,
M. Badea-Doni¹, M. L. Arsene¹, G. Vasilescu¹, L. Jecu^{1,*}**

¹ *INCDCP-ICECHIM, Spl. Independentei 202, 060021, Bucharest, Romania*

² *University Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest, Romania*

MICROSCOPIC EXAMINATION OF POLYMERS SURFACE UPON EXPOSURE TO DEGRADING MICROORGANISMS

**I. Raut^{1,2}, M. Calin^{1,2}, E. Alexandrescu¹, D. Aruxandei Constantinescu¹,
M. Badea-Doni¹, M. L. Arsene¹, Z. Vuluga¹, G. Vasilescu¹, L. Jecu^{1,*}**

¹ *INCDCP-ICECHIM, Spl. Independentei 202, 060021, Bucharest, Romania*

² *University Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest, Romania*

THE ANALYTICAL CHARACTERIZATION OF HUMIC ACIDS FROM BIOSTIMULATORS OF PLANTS

Mariana MATEESCU¹, Iulian MINCA¹, Irina CIOBANU¹

¹ *National R & D Institute for Chemistry and Petrochemistry, Splaiul Independenței nr. 202, Bucharest 060021, Romania*

OLEIC ACID AMIDES DERIVATIVES WITH PERSPECTIVE IN THE TREATMENT OF OBESITY

C. Neguț^{1*}, C. Tanase¹, L. Pintilie¹, D. I. Udeanu^{2*}¹National Institute for Chemical - Pharmaceutical Research and Development ICCF, Bucharest, Romania²Faculty of Pharmacy, University of Medicine and Pharmacy “Carol Davila”, Bucharest, Romania

PHYTOCHEMICAL STUDY OF A BAMBOO SHOOTS, A COMMON INGREDIENT IN CHINESE CUISINE

Ioana NENCU^{1*}, Maria Lidia POPESCU¹, Ligia Elena DUȚU¹, Teodora COSTEA¹, Cerasela Elena GÎRD¹

Department of Pharmacognosy, Phytochemistry and Phytotherapy, Faculty of Pharmacy, University of Medicine and Pharmacy, “Carol Davila”, 6 Traian Vuia street, Bucharest, Romania

WHEY PRE AND PRO-BIOTIC NUTRITIONAL SUPPLEMENTS DERIVATIVES AND THEIR TESTING ON POULTRY IN LAB AND PRODUCTION CONDITIONS

I. Nicolae^{1*}, C. Chiurciu¹, Viorica Chiurciu¹, P. Sevcuic¹, P. Stiube¹, Elena Lupu¹, B. Frunzăreanu¹, Silvia Stănculescu¹, Valentina Filip¹, Lucia Diaconu¹, Diana Păsărin², Camelia Rovinaru², Lavinia Berca³, G. Mustățea³, G. Oltean¹, A. Nica¹, Violeta Tauber¹, C. Uluitu¹, N. Levandovschi¹, Alina Radu¹, Iulia Călin¹, S. Gusita¹¹ROMVAC Company S.A.; ²The National Institute for Research & Development in Chemistry and Petrochemistry; ³National Institute of Research & Development for Food Bioresources

COMBINATORIAL LIBRARY DESIGN TARGETED ON BREST CANCER CELLS

G. M. Nitulescu^{1*}, O. T. Olaru¹, G. Nițulescu¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest 020956, Romania

FT-IR SPECTROSCOPIC ASSAY METHOD FOR ACETYLCYSTEINE IN SOLID FORMULATIONS

I. C. Ciotu¹, G. M. Nitulescu^{1*}, I. B. Voinicu¹, M. Hîrjău¹, D. Lupuliasa¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest 020956, Romania

SYNTHESIS OF NEW PHENAZONE DERIVATIVES AS POTENTIAL BACTERIAL SORTASE A INHIBITORS

G. M. Nitulescu^{1*}, C. Drăghici², Ș. F. Bărbuceanu¹, L. I. Socea¹, O. T. Olaru¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest 020956, Romania² C.D. Nenitzescu Institute of Organic Chemistry, 202B Spl. Independentei, Bucharest 060023, RomaniaTHE OBTAINING AND ANALYSIS OF SALVIA GLUTINOSA L. (LAMIACEAE) VOLATILE OIL
Octavian Tudorel OLARU^{1*}, Claudia Maria GUȚU¹, Ciprian CHIRIȚĂ¹, Anca Andreea IORDACHE¹, Ionuț Mihai IONIȚĂ¹, Mihaela ILIE¹, Anca ZANFIRESCU¹, George Mihai NIȚULESCU¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest 020956, Romania

HPTLC DETERMINATION OF β-AESCIN IN EXTRACTS FROM FIVE SPECIES OF AESCULUS L. (SAPINDACEAE)

Octavian Tudorel OLARU^{1*}, Oana Marina PÎRVU¹, Cristiana Elena SPÎNU¹, Iulia Marina POTOLEA¹, Eugenia NAGODA², Cristina DINU-PÎRVU¹, Petronela Carmen COMĂNESCU², Narcisa BĂBEANU³, Mihaela ILIE¹, George Mihai NIȚULESCU¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest, Romania,² “Dimitrie Brandza” Botanical Garden, Bucharest, Romania,³ University of Agronomic Sciences and Veterinary Medicine, Faculty of Biotechnology, Bucharest,

SIMULTANEOUS DETERMINATION OF PHENOLIC ACIDS AND FLAVONOIDS IN EXTRACTS FROM THREE FALLOPIA ADANS. SPECIES BY HPLC

Octavian Tudorel OLARU^{1*}, Corina ARAMĂ¹, Maryna VAN DE VENTER², Luanne SPIES², Trevor KOEKEMOER², Mihaela DINU¹, Robert ANCUCEANU¹, Viorica ISTUDOR, George Mihai NIȚULESCU¹¹ Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest, Romania,² “Nelson Mandela” Metropolitan University, Port Elizabeth, South Africa

HIGHLIGHTING THE ACTION MECHANISM OF SOME NEW PLANT BIOSTIMULANTS**E. I. Oprita¹, F. Georgescu², E. Georgescu², A. Oancea^{1*}, C. Tudora¹, R. Tatia¹**¹*National Institute of Research and Development for Biological Sciences, Bucharest, Spl. Independentei 296, 060031 Romania.*²*Research Dept., Teso Spec S. R. L., Str. Muncii 53, 915200 Fundulea, Călărași, Romania*³*Research Center Oltchim, Str. Uzinei 1, 240050, Râmnicu Vâlcea, Romania***INFLUENCE OF TWO BIOPLASTICIZERS OVER SOME PROPERTIES OF PLA BIOCOSMOSITES FOR FOOD APPLICATIONS****Maria RÂPĂ^{1*}, Anuța TRIFOI¹, Raluca Nicoleta DARIE-NIȚĂ², Anamaria IRIMIA², Cornelia VASILE², Amalia Carmen MITELUȚ³, Elisabeta Elena TĂNASE³, Paul Alexandru POPESCU³, Jan Thomas ROSNES⁴, Morten SIVERTSVIK⁴**¹*ICPAO S.A., 8 Carpati St., 551022 Medias, Sibiu, Romania*²*Petru Poni” Institute of Macromolecular Chemistry, 700487 Iasi, Romania*³*University of Agronomic Sciences and Veterinary Medicine Bucharest, Faculty of Biotechnology, 59 Mărăști Blv., District 1, 011464, Bucharest, Romania*⁴*Nofima AS, Dept. Processing Technology, Richard Johnsen gt 4, 4068 Stavanger, Norway***IN VITRO CHARACTERIZATION OF SCAFFOLDS BASED ON PHB AND BACTERIAL CELLULOSE BIOCOSMOSITES****Maria Râpă¹, Elena Grosu^{1*}, Mihaela Hetvary¹, Cătălin Zaharia², Paul Octavian Stănescu², Angela Cășeriu³, Irina Lupescu³**¹*S.C. ICPE BISTRITA S.A., 7 Parcului Str., 420035, Bistrita, Romania*²*UNIVERSITY POLITEHNICA OF BUCHAREST, Advanced Polymer Materials Group, 1-7 Gh. Polizu Str., 011061 Bucharest*³*THE NATIONAL INSTITUTE FOR CHEMICAL PHARMACEUTICAL RESEARCH AND DEVELOPMENT, 112 Calea Vitan Str., 031299 Bucharest, Romania***CHARACTERIZATION OF TRICHODERMA ISOLATE FOR ANTAGONISTIC ACTIVITY AGAINST PHYTOPATHOGENS****I. Răut¹, M. Călin^{1,2}, F. Oancea¹, T. E. Șesan^{1,2}, M. Badea Doni¹, M. L. Arsene¹, G. Vasilescu¹, D. Constantinescu-Aruxandei¹, L. Jecu^{1*}**^[1]*INCDCP-ICECHIM, Spl. Independentei 202, Bucharest*^[2]*University of Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest***MORPHO-PHENOTYPIC AND MOLECULAR CHARACTERIZATION OF KLUYVEROMYCES YEAST STRAINS ADAPTED TO MODIFIED PARAMETERS****C. Rovinaru¹, D. Pasarin¹, L. Berca²**¹*National Institute of Research and Development in Chemistry and Petrochemistry*²*National Institute of Research and Development for Food Bioresources***EXTRACTION OF THE MAIN POLYSACCHARIDES FROM KLUYVEROMYCES MARXIANUS STRAINS CELL WALL****C. Rovinaru, D. Pasarin***National Institute of Research and Development in Chemistry and Petrochemistry***IN VITRO EVALUATION OF ANTIDIABETIC ACTIVITY OF MOMORDICA CHARANTIA PLANTS TREATED WITH MULTIFUNCTIONAL PRODUCTS****A.M. Seciu¹, G. Negru², A.F. Bira², A. Toma¹, S. Savin¹, T. Sesan³, A. Oancea^{1*}**¹*National Institute of Research and Development for Biological Sciences, 296, Splaiul Independentei, Bucharest*²*S.C. Hofigal Export Import S.A, Bucharest, Romania*³*Department of Botany & Microbiology, Biology Faculty, University of Bucharest, Spl. Independentei 91-95, Bucharest***PHARMACOLOGICAL RESEARCH REGARDING THE ANTI-INFLAMMATORY EFFECT OF SOME EXTRACTS OBTAINED FROM PLANTAGINACEAE FAMILY****Bruno Ștefan VELESCU¹, Oana Cristina ȘEREMET^{1*}, George Mihai NIȚULESCU¹, Denisa MARGINA¹, Octavian Tudorel OLARU¹**¹*Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest, Romania*

INFLUENCE OF TREATMENTS WITH *TRICHODERMA* ON PHYSIOLOGICAL AND PHYTOCHEMICAL PARAMETERS OF *PASSIFLORA CAERULEA* L.

T. E. Sesan^{*1,2}, F. Oancea², A. Oancea³, S. Savin³, A. Toma³, L. Ștefan³, G. Negru⁴, I. Răut², M. Ghiurea², L. Jecu², G. Vasilescu², A. F. Bira⁴, C. M. Pomohaci⁵

¹ University of Bucharest, Biology Faculty, 1-3 Portocalelor Alley, sector 6, Bucharest, Romania;

² National Research & Development Institute for Chemistry and Petrochemistry ICECHIM, Splaiul Independenței 202, sector 6, Bucharest, Romania

³ National Research & Development Institute for Biological Sciences INCDSB, Splaiul Independenței 296, sector 6, Bucharest, Romania

⁴ S.C. HOFIGAL Export-Import S.A., Intrarea Serelor 2, sector Buchares, Romania

⁵ University of Agronomical Sciences and Veterinary Medicine Bucharest, Bd. Mărăști 59, sector 1, Bucharest

COMPUTED MOLECULAR DESCRIPTORS FOR SULFUR-CONTAINING AMINO ACIDS

A. Stefanu^{1*}, V.G. Săvoiu¹, I. Lupescu^{1,2}

¹ National Institute for Chemical - Pharmaceutical Research and Development (ICCF) - Bucharest, 112 Vitan Av., 031299, Bucharest, Romania

² Spiru Haret University, Faculty of Veterinary Medicine, 030352, Bucharest, Romania

STUDIES CONCERNING THE BIOLOGICALLY ACTIVE COMPOUNDS IN *M. CHARANTIA* L. EXTRACTS AND THEIR *IN VITRO* BIOCOMPATIBILITY

A. Toma, S. Savin^{*}, R. Tatia, V. Coroiu, O. Craciunescu, L. Moldovan

National Institute R&D for Biological Sciences, 296, Splaiul Independentei, Bucharest

KERATINOPHILIC *MICROSPORUM GYPSEUM* ISOLATED FROM SOIL

M. Călin^{1,2}, I. Răut¹, G. Vasilescu^{1*}, D. Constantinescu-Aruxandei¹, E. Alexandrescu¹, L. Jecu¹, M. Badea-Doni¹, M.-L. Arsene¹, O.-N. (Drăcea) Corneli³, V. Lazăr²

^[1] INCDCP-ICECHIM, Spl. Independentei 202, Bucharest, Romania

^[2] University of Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest

^[3] The National Institute of Research & Development for Microbiology and Immunology "Cantacuzino", Spl. Independentei 103, Bucharest, Romania

THE EFFECT OF LIGHT INTENSITY ON CARBON DIOXIDE SEQUESTRATION BY *NANNOCHLORIS SP.* CULTURE

S. Velea¹, P. Munoz², A.-M. Galan^{1*}, V. Enache¹, E. Radu¹, D. Stilpeanu¹

¹ The National R&D Institute for Chemistry and Petrochemistry - ICECHIM, Spl. Independentei nr. 202, Bucharest

² University Institute of Technology - The University of Perpignan Via Domitia, Chemin de la Passio Vella BP 79905, 66962 PERPIGNAN Cedex 9, France

OPTIMIZATION OF CULTIVATION MEDIUM FOR BIOMASS BIOSYNTHESIS OF A BIOSTIMULANT *TRICHODERMA* STRAIN

V. Zamfiropol-Cristea^{1,2}, I. Răut², T.E. Sesan^{2,3}, M. Badea Doni², G. Vasilescu², L. Jecu², F. Oancea^{2,1}

¹ University of Agronomy and Veterinary Medicine, Faculty of Biotechnologies, 59 Bd. Mărăști, 011464 Bucharest

² National Institute for Research & Development in Chemistry & Petrochemistry - ICECHIM, 202 Spl. Independentei, 060022, Bucharest, Romania

³ University of Bucharest, Faculty of Biology, 91-95 Spl. Independentei, 050095, Bucharest, Romania

AMYLASE PRODUCTION IN SUBMERGED CULTIVATION USING A NEWLY ISOLATED *BACILLUS MYCOIDES* STRAIN

Caterina Tomulescu^{1,2}, Mișu Moscovici², Claudia Sevcenco², Maria Petrescu², Mariana Vladu², Adrian Vamanu¹

¹ University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Marasti Blvd, District 1, Bucharest

² National Institute for Chemical-Pharmaceutical Research & Development ICCF, 112 Vitan Ave, District 3, Bucharest

USE OF UV MUTAGENESIS FOR OBTAINING MUTANT STRAINS OF *ASPERGILLUS BRASILIENSIS* ATCC 16404 REGARDING THEIR ABILITY TO PRODUCE XYLANASES

Aglaiie Burlacu¹, Florentina Israel Roming¹, Calina Petruta Cornea¹

¹ University of Agricultural Sciences and Veterinary Medicine, Faculty of Biotechnologies, Bd. Marasti 59, Bucharest



27th October 2016

Section 2 – Environmental engineering and cultural heritage protection

ORAL COMMUNICATIONS - 14:00 - Library (2nd floor)

Moderatoris

Prof. dr. eng. Tanase DOBRE

Prof. dr. chim. Rodica-Mariana ION

CONTRIBUTIONS TO THE INTERPRETATION OF MASS SPECTRUM OF HEXAETHOXYDISILOXANE. LINKED SCANS AND ISOTOPIC EFFECTS O-1

V. Badescu

*National Research & Development Institute for Chemistry & Petrochemistry – ICECHIM, 202 Spl. Independentei,
Bucharest, Romania*

TRENDS IN NUTRIENTS CONCENTRATIONS IN THE LOWER DANUBE (1996-2012) O-2

R.M. Frîncu^{1,2*}, O. Iulian²

¹INCDCP ICECHIM –Călărași Branch, 64 Calea Calarasi, Grădiștea – Rasa, Calarasi, Romania

² Politehnica University of Bucharest, Faculty of Applied Chemistry and Materials Science, 1-7 Polizu Street, Bucharest,
Romania

RECYCLING OF WASTE POLYPROPYLENE AS HIGH IMPACT RESISTANCE COMPOSITES O-3

P. Ghioca^{1*}, L. Iancu¹, R.M. Grigorescu¹, B. Spurcaci¹, M. Rapa², E. Matei³, A. Pica⁴, C. Cincu⁴

¹ The National Institute for Research & Development in Chemistry and Petrochemistry, 202 Splaiul Independentei, District
6, Bucharest, Romania

² S.C. ICPAO S.A., 8 Carpati Street, Medias, Sibiu, Romania

³ Politehnica University of Bucharest, Center for Research and Eco-Metallurgical Expertise, 313 Splaiul Independentei,
District 6, Bucharest, Romania

⁴ SC. ICA S.A, 49A Theodor Palady Biv, Bucharest, Romania

SYSTEM AND METHOD OF IRRIGATION WITH DILUTED WASTE WATER O-4

I. Biolan, C. Biolan, C. Necula

*National Institute of Research and Development for Land Reclamation “ISPIF”, 35 – 37 Oltenitei Ave. Bucharest,
Romania*

BIOFILM ON INVAZIVE ACTIVITIES EXTRA-CELLS OF MICROBIOTA O-5

F. Dumitrescu*

Technical College "General David Praporgescu", 2 Taberei Str., Turnu Magurele, Teleorman, Romania

POSTERS – MAIN HALL, GROUND FLOOR

P – 1

HPLC-UV DETERMINATION OF NITROFURAN ANTIBIOTICS USING MOLECULARLY IMPRINTED POLYMERS FOR SAMPLE ENRICHMENT

**E. Bacalum¹, A. Gheorghe¹, M. Cheregi¹, V. David^{*1},
E. Rusen², A. Diacon², F. Rizea²**

¹ University of Bucharest, Faculty of Chemistry, 90-92 Sos Panduri, Bucharest Romania

² University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, 313 Spl. Independentei, Bucharest, Romania

P – 2

STUDIES ABOUT THE MICROBIAL COMPOSITION OF AN WASTEWATER RESULTED FROM THE GLUCOSE INDUSTRIAL MANUFACTURE

A.D. Ionescu^{*}, A. Casarica, E. Boca

National Institute for Chemical - Pharmaceutical Research and Development, Vitan Avenue, No.112, District 3, Bucharest

P – 3

SYNTHESIS AND PROPERTIES OF TWO-HEADED SURFACTANT DIGLUCONAMIDODODECANE

I. Chican^{*}, D. Varasteanu, R. Somoghi, S. Nitu, S. Doncea

National Research and Development Institute for Chemistry and and Petrochemistry- ICECHIM Bucharest, 202 Spl. Independentei, Romania

P – 4

ENVIRONMENT FRIENDLY METHOD OF OBTAINING POLYOLS FOR POLYURETHANE FOAMS FROM WASTE AND RENEWABLE MATERIALS

**M. Duldner^{1*}, S. Capitanu¹, E. Bartha², S. Nica², S. Garea³, M. Pandelescu³, A. Sarbu¹,
S. Apostol¹, T. Sandu¹, S. Iancu¹**

¹ INCDPC-ICECHIM, 202 Spl. Independentei, Bucharest, Romania ² Center of organic Chemistry "C.D. Nenitescu", Romanian Academy of Science, 202B Spl. Independentei, Bucharest ³ University "Politehnica" Bucharest, 1-7 Gh. Polizu

P – 5

NEW ECO AGENT FOR WASHING / TREATMENT OF WOOL FIBERS

L.C. Oproiu^{1*}, I. Chican¹, D. Varasteanu¹, A. A. Athanasiu¹, S. Doncea¹, M. Deaconu¹, M. Ruse¹, C. Filipescu¹, D. C. Radu², C. Munteanu³, S. Florescu⁴, G. Cristescu⁴

¹INCDPC-ICECHIM, Bucharest, 202 Spl. Independentei, Romania ²"Gh.Asachi" University, 67 Prof. Dimitrie Mangeron Blvd., Iasi, Romania ³Institute of Physical Chemistry "I. Murgulescu" - ICF, 202 Spl. Independentei, Bucharest, Romania ⁴SC CHEMIX SRL, 61 Iuliu Maniu Blvd., Bucharest, Romania

P – 6

SYNTHESIS AND CHARACTERIZATION OF SILICA ORDERED MESOPOROUS MATERIALS

S. Velea, R. Ganea^{*}, G. Vasilevici, R.C. Fierascu

National Research and Development Institute of Chemistry and Petrochemistry ICECHIM. 202 Spl. Independentei, Bucharest, Romania

P – 7

MECHANICAL PROPERTIES OF DOCUMENT PAPER TREATED WITH HYDROXYAPATITE NANOPARTICLES

S.M. Doncea, R.M. Ion, Z.Vuluga

National Institute for Research and Development in Chemistry and Petrochemistry – ICECHIM, 202 Spl. Independentei, Bucharest, Romania

P – 8

THE ACTIVITY OF MDR1 TRANSPORTER ON A NEUROBLASTOMA CELL LINE, AFTER EXPOSURE TO SEVERAL CNS ACTIVE DRUGS

Alina Crenguța Nicolae¹, Cristina Manuela Drăgoi^{1*}, Vlad Vuță², Gabriela Zamfir², George Traian Alexandru Burcea-Dragomiroiu³, Daniela Elena Popa³, Ion-Bogdan Dumitrescu⁴, Andreea Letiția Arsene⁵

¹UMF „Carol Davila”, Faculty of Pharmacy, Biochemistry Department, Bucharest, Romania ²Institute for Diagnosis and Animal Health, Virology Department, Bucharest, Romania ³UMF „Carol Davila”, Faculty of Pharmacy, Department of Drug Control, Bucharest, Romania ⁴UMF „Carol Davila”, Faculty of Pharmacy, Department of Pharmaceutical Physics and Informatics, Bucharest, ⁵UMF „Carol Davila”, Faculty of Pharmacy, Department of Microbiology, Bucharest



27th October 2016

Section 3 – Multifunctional materials and nanocomposites

ORAL COMMUNICATIONS - 14:00 – Meeting Hall (1st floor)

Moderators

Prof. dr. eng. Mircea TEODORESCU

Dr. eng. Andrei SARBU

O - 1

RESEARCH ON THE DEVELOPMENT OF TEXTILE FABRICS, WITH THE ROLE OF PREVENTING THE SPREAD OF TICK INFECTIOUS DISEASES

COZEA Andreea^{1*}, TAMAS Viorica 1, CARABELA Viorica¹
BORDEI Natalita¹, POPESCU Marian¹, IORDACHE Ovidiu²

¹S.C.Hofigal Export Import SA Intrarea Serelor Street.2 no, district 4, Bucharest, Romania 1

²National Institute for Research and Development for Textile and Leather, Patrascanu Street, nr. 16, Bucharest, Sector 3, Romania

O - 2

STUDY OF PROLONGATION EFFECT OF SOME ANTIMICROBIAL SUBSTANCES FUNCTIONALIZED ON THE SUPPORT OF COPOLYMERS OF N-VINYLPYRROLIDONE AND OTHERS

V. Prisacari¹, S. Robu², A. Ivancic², P. Ghioca³, V. Filip², A. Dizdari¹

¹ State University of Medicine and Pharmacy “Nicolae Testemitanu”, 165 B Ivd. Ștefan cel Mare, Chisinau, Republic of Moldova

² Moldova State University, 0, A. Mateevici Str., MD -2012 Chisinau, Republic of Moldova

³ National Research-Development Institute for Chemistry and Petrochemistry, ICECHIM 202, Spl. Independentei, Bucharest, Romania

O - 3

PILOT E-BEAM PVD FACILITY OF NOVEL MATERIALS WITH APPLICATION AS FUNCTIONALLY GRADED MATERIALS

S.Motoiu¹, A.Sobetskii¹, C.F.Rusti¹, M.Olaru¹, R.R.Piticescu^{1*}, G.Plaiasu², A.Rinaldi³

¹National R&D Institute for Nonferrous and Rare Metals, Pantelimon, Ilfov, Romania

²University of Pitesti, Arges, Romania ³ENEA, Cassacia Research Centre, Rome, Italy

O - 4

IMPORTANCE OF CHEMICAL PROCESSES FOR THE DEVELOPMENT OF COMPLEX NANOSTRUCTURED SYSTEMS. APPLICATIONS IN MEDICINE

L.M. Popescu^{1*}, C. Bogdanescu¹, A. Burlacu², R.M. Piticescu¹

¹National R&D Institute for Non-ferrous and Rare Metals – IMNR, 102 Biruintei Blvd., 077145, Ilfov, Romania

²Institute of Cellular Biology and Pathology “Nicolae Simionescu”, 050568 Bucharest, Romania

O - 5

MORPHOLOGY STUDY AND PHOTOVOLTAIC PERFORMANCE OF THE PHTHALOCYANINES/PERYLENE THIN FILMS

T. Potlog¹, D. Duca¹, V. Furtuna¹, S. Robu², G. Dragalina², A. Popusoi²

Physics Department and Engineering¹, Faculty of Chemistry and Chemical Technology²

Moldova State University, Chisinau, MD 2009, Republic of Moldova

O - 6

IMPROVED DELIVERY OF A POORLY SOLUBLE QUINOLONE FROM MESOPOROUS SILICA

M. Deaconu^{1,2*}, L. Pintilie², R.A. Mitran^{1,3}, C. Matei¹, D. Berger¹

¹University „Politehnica” of Bucharest, Department of Inorganic Chemistry, Physical-Chemistry and Electrochemistry, Polizu Street no. 1-7, Bucharest 011061, Romania

²National Institute for Chemical-Pharmaceutical Research and Development, Vitan Avenue no. 112, Bucharest 031299, Romania

³„Ilie Murgulescu” Institute of Physical-Chemistry, Romanian Academy, 202 Splaiul Independentei, Bucharest 060021, Romania

**BIOHYBRID MATERIALS OBTAINED FROM PLANT EXTRACTS SUPPORTED ON MSN OR COMPOSITE
MSN-ORGANIC POLYMER SUPPORTS**

M. Ciobanu^{1*}, L. Parvu², G. Paun³,

J. Pandele Cusu¹, I. Atkinson¹, C. Munteanu¹, V. Parvulescu¹

¹*Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy, Spl. Independentei 202, 060021 Bucharest*

²*National Institute for Chemical Pharmaceutical Research and Development, Calea Vitan 112, 031299, Bucharest, Romania*

³*National Institute for Research-Development of Biological Sciences – Centre of Bioanalysis, 296 Spl. Independentei, PO Box 17-16, 060031, Bucharest 6, Romania*

NEW CATALYST FOR SET-LRP REACTION AND BLOCK COPOLYMERS SYNTHESIS

Aurel Diacon^{1,*}, Edina Rusen¹, Alexandra Mocanu¹, Leona Cristina Nistor²

¹*University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, 1-7 Gh. Polizu Street, 011061 Bucharest, Romania*

³*National Institute of Materials Physics, 105 bis Atomistilor, 077125 Magurele-Ilfov, Romania*

DEGRADATION OF SOMAN THROUGH COPPER-ION CATALYZED ALCOHOLYSIS

N. Petrea^{1*}, R. Petre¹, C. Toader¹, G. Epure¹, C. Lazaroaie¹, S. Neatu², V. Somoghi²

¹*Scientific Research Centre for CBRN Defence and Ecology, 225 Oltenitei Ave., Bucharest, Romania*

²*STIMPEX SA, 46-48 Teclu Nicolae Street, Bucharest, Romania*

POSTERS – MAIN HALL, GROUND FLOOR

CHARACTERIZATION AND APPLICATION OF POROUS CARBON FROM DIFFERENT PRECURSORS

B. Tsyntsarski^{1*}, I. Stoycheva², N. Petrov¹, T. Budinova¹,

A. Sarbu³, A.L. Radu³, E.B. Georgescu³, E. Grigorova¹

¹*Institute of Organic Chemistry, Bulg. Acad. of Sciences, Acad. G. Bonchev str., BL. 9, 1113 Sofia, BULGARIA*

²*Institute of General and Inorg. Chem., Bulg. Acad. Sci., Acad. G. Bonchev str., BL. 9, 1113 Sofia, BULGARIA* ³*INCDCP-ICECHIM, Spl. Independentei 202, sector 6, Bucuresti, ROMANIA*

**ELIMINATION OF RISK FACTORS IN USE OF PROSTHETIC MEDICAL DEVICES USING ECOLOGICAL
PLASTICIZERS IN MEDICAL PVC RECIPES**

E. Grosu^{1*}, A. Fica², M. Rapa¹, L. Alexandrescu³, M. Georgescu³, M. Hetvary¹, M. Andreica¹

¹*SC ICPE Bistrita SA, Parcului Street, nr. 7, Bistrita, Bistrita-Nasaud county, Romania*

²*University POLITEHNICA from Bucharest, Faculty of Applied Chemistry and Materials Sciences, 313, Splaiul Independentei*

³*The National Research and Development Institute for Textile and Leather, ICPI, 93 Ion Minulescu Street, Bucharest*

**MULTIFUNCTIONAL MATERIALS BASED ON CARBON NANOTUBES-REINFORCED EPOXY
COMPOUNDS**

**M. A. Ladaniuc^{*}, L. Dumitrache, R. A. Gabor, C. A. Nicolae,
T. Sandu, B. Spurcaci**

National Research-Development Institute for Chemistry and Petrochemistry-ICECHIM, Splaiul Independentei 202-6, PO Box 174/35, 060021 - Bucharest, Romania

**TRI-DOPED Ti-KIT-6 MULTIFUNCTIONAL PHOTOCATALYSTS USED FOR DEGRADATIONS OF DYES
AS WATER CONTAMINANTS**

D. Negoescu^{*}, M. Ciobanu, V. Bratan, V. Parvulescu

Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy, Spl. Independentei 202, 060021 Bucharest, Romania

**TITLE OF PAPER – SWELLING STUDIES OF BACTERIAL CELLULOSE COMPOSITES –
R.-D. Păvăloiu^{1*}, F. Sha'at², D.-C. Sălceanu³, A. Voiculeț⁴, C. Hlevca⁵**

¹National Institute for Chemical-Pharmaceutical Research and Development – ICCF Bucharest, Vitan Avenue 112, 3rd District, Bucharest, Romania

**TWO-COMPONENT COMPOSITES BASED ON MODIFIED CLAYS AND BIOACTIVE COMPOUNDS
T. Sandu¹, A. L. Radu¹, A. Sarbu¹, C. L. Nistor¹, M. A. Ladaniuc¹, S. Iancu¹, M. Duldner¹, C. P. Spatarelu¹, E.B. Georgescu¹, S. A. Garea², A. Mihai²**

¹National Research-Development Institute for Chemistry and Petrochemistry- ICECHIM, Splaiul Independentei 202, 6th District, Zip Code 060021, Bucharest, Romania

²Department of Bioresources and Polymer Science, University Politehnica, Polizu 1-7, 1st District, Bucharest, Romania

CHROMOGENIC LUMINESCENT ACETYLACETONE DERIVATIVES OBTAINED UNDER MICROWAVE IRRADIATION

Monica Raduly^{*}, Valentin Raditoiu, Alina Raditoiu, Luminita Wagner, Viorica Amariutei

National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, 202 Splaiul Independentei, 060021, Bucharest, Romania

THERMAL, OPTICAL AND DYNAMIC MECHANICAL PROPERTIES OF POLYPROPYLENE/TiO₂ NANOCOMPOSITES

**Augusta Raluca GABOR¹, Cristian-Andi NICOLAE^{1*}, Valentin RĂDIȚOIU¹,
Viorica AMARIUȚEI¹, Mona MIHĂILESCU²**

¹ICECHIM Bucharest, 202 Spl. Independentei, POB 35-174, 060021 - Bucharest, Romania

² University Politehnica of Bucharest, Physics Department, 060042, Romania

STUDY OF LDPE PHOTODEGRADATION FOR SHORT DURATION MATERIALS

Augusta Raluca GABOR^{1*}, Cristian-Andi NICOLAE¹, Valentin RĂDIȚOIU¹, Adriana FRONE¹, Mona MIHĂILESCU²

¹ICECHIM Bucharest, 202 Spl. Independentei, POB 35-174, 060021 - Bucharest, Romania

² University Politehnica of Bucharest, Physics Department, 060042, Romania

REMOVAL OF DYE FROM SYNTHETIC WASTEWATERS USING POLYMER MEMBRANES ENHANCED WITH PLANT EXTRACT

**S. Caprarescu¹, A.R. Miron², V. Purcar^{3*}, A.-L. Radu³, A. Sarbu³, C. Petcu³,
R. Ianchis³, E. Alexandrescu³, C.L. Nistor³, C.I. Spataru³, S. Nitu³, I. Maior¹**

¹Faculty of Applied Chemistry and Materials Science, Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry, Politehnica University of Bucharest, Calea Grivitei no. 132, P.O. 010737, Bucharest, Romania

²Faculty of Applied Chemistry and Materials Science, Analytical Chemistry and Environmental Engineering Department, Politehnica University of Bucharest, Calea Grivitei no. 132, P.O. 010737, Bucharest, Romania ³National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, Polymer Department, Splaiul Independentei no. 202, P.O. 060021, Bucharest, Romania

FABRICATION OF BILAYER COATINGS ON GLASS SURFACE USING HYDROPHOBIC SILICA NANOPARTICLES OBTAINED BY SOL-GEL PROCESS

C.I. Spataru¹, V. Purcar^{1*}, C. Petcu¹, E. Alexandrescu¹, R. Somoghi¹, T. Bogdan¹, D. Panaitescu¹, R. Ianchis¹, C.L. Nistor¹, N. Sabina¹, D. Donescu¹, S. Caprarescu²

¹National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, Polymer Department, 202 Splaiul Independentei, PO 060021, Bucharest, Romania

²Faculty of Applied Chemistry and Materials Science, Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry, Politehnica University of Bucharest, 132 Calea Grivitei, PO 010737, Bucharest, Romania

FAST SCREENING OF WHOLE BLOOD SAMPLES FOR COLON CANCER BIOMARKERS

**L.A. Gugoasa^{1*}, R.I. Stefan-van Staden^{1,2}, I.R. Comnea-Stancu^{1,2}
C. Stanciu-Gavan³**

¹Laboratory of Electrochemistry and PATLAB, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei Str., 060021, Bucharest-6, Romania.

²Faculty of Applied Chemistry and Material Science, Politehnica University of Bucharest, Bucharest, Romania.

³University of Medicine and Pharmacy “Carol Davila” Bucharest, Romania

SYNTHESIS AND CHARACTERIZATION OF STYRENE-DIENE BLOCK COPOLYMERS REINFORCED WITH BENTONITE

Spurcaci Bogdan, Bujanca Ioneta*, Ghioca Paul, Iancu Lorena, Grigorescu Ramona, Nicolae Cristian-Andi, Gabor Raluca, Ladaniuc Magdalena, Mateescu Mariana

*National Institute for Research & Development in Chemistry and Petrochemistry,
202 Spl. Independentei, 060021, Bucharest, Romania*

THERMO-OXIDATIVE AND DYNAMIC MECHANICAL PROPERTIES OF STYRENE-ETHYLENE BLOCK COPOLYMERS WITH CLAY REINFORCEMENT

Bujanca Ioneta, Spurcaci Bogdan*, Ghioca Paul, Iancu Lorena, Grigorescu Ramona, Nicolae Cristian-Andi, Gabor Raluca, Mateescu Mariana

*National Institute for Research & Development in Chemistry and Petrochemistry,
202 Spl. Independentei, 060021, Bucharest, Romania*

PREPARATION OF POLYMER MEMBRANES ENHANCED WITH MEDICINAL PLANT EXTRACT FOR REMOVAL OF HEAVY METALS

S. Caprarescu¹, A. R. Miron², V. Purcar^{3*}, A.-L. Radu³, A. Sarbu³, D. Ion-Ebrasu⁴, D. E. Pascu⁵, M. (Neagu) Pascu^{5,6}

¹*Faculty of Applied Chemistry and Materials Science, Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry, Politehnica University of Bucharest, Calea Grivitei no. 132, P.O. 010737, Bucharest, Romania*

²*Faculty of Applied Chemistry and Materials Science, Analytical Chemistry and Environmental Engineering Department, Politehnica University of Bucharest, Calea Grivitei no. 132, P.O. 010737, Bucharest, Romania* ³*National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, Polymer Department, Splaiul Independentei no. 202, P.O. 060021, Bucharest, Romania*

⁴*National Research & Development Institute for Cryogenics and Isotopic Technologies-ICSI-Rm. Valcea, P.O. Box Raureni 7, 240050 Ramnicu Valcea, Romania*

⁵*Politehnica University of Bucharest, Faculty of Applied Chemistry and Material Science, 1-5 Polizu Street, Bucharest, Romania*

⁶*SC HOFIGAL S.A., Analytical Research Department, 2 Intr. Serelor, Bucharest-4, Romania*

THE PERFORMANCE OF REINFORCING FIBRES IN POLYMER COMPOSITE MATERIALS

Petre Răzvan^{1*}, Zecheru Teodora¹, Petrea Nicoleta¹, Mureşan Mihaela¹, Ginghină Raluca¹, Badea Simona¹, Hubca Gheorghe²

¹*Scientific Research Centre for CBRN Defence and Ecology, 225 Oltenitei Av., 041309 Bucharest, Romania*

²*University POLITEHNICA of Bucharest, 1-7 Polizu Str., 011061 Bucharest, Romania*

ASSESSMENT OF THE BULLET IMPACT ON A NEW BALLISTIC GELATIN

Teodora Zecheru¹, Alexandru Dena², Mihaela Lăzăroaic¹, Florentina Alexe¹, Claudiu Lăzăroaic¹, Ciprian Său¹

¹*Scientific Research Center for CBRN Defense and Ecology, 225 Olteniței Sos., 041309 Bucharest, Romania*

²*Military Technical Academy, 39-49 G. Cosbuc Bvd., 050141 Bucharest, Romania*

SYNTHESIS AND CHARACTERIZATION OF NANOSIZED COPPER(II) -PHYHALOCYANINE PIGMENT (P BL 15:3) WITH THE MODIFIED SURFACE.

CS I, ing. A. A. Athanasiu, CS II¹, dr. S. Doncea, CS II¹ ing. M. Deaconu, CS II¹ ing. L. Cornelia Oproiu, CSI, dr. M. Crudu², CS I¹, dr. ing. M. Ruse, CS III ing. C. Filipescu¹

¹*National Research and Development Institute for Chemical and Petrochemical –ICECHIM
Splaiul Independentei, no 202, sector 6, Bucharest, Romania*

²*National Research and Development Institute for Leather –Footwear- ICPI*

OXYTETRACYCLINE DELIVERY SYSTEMS CONTAINING MESOPOROUS SILICA-TITANIA COMPOSITES

D. Georgescu^{1*}, A.M. Brezoiu², R.A. Mitran², B. Negreanu-Pirjol³, C. Matei¹, D. Berger¹

¹*University „Politehnica” of Bucharest, Department of Inorganic Chemistry, Physical-Chemistry and Electrochemistry,
Polizu Street no. 1-7, Bucharest 011061, Romania*

²*„Ilie Murgulescu” Institute of Physical-Chemistry, Romanian Academy, 202 Splaiul Independentei, Bucharest 060021*

³*Ovidius University of Constanta, Department of Pharmaceutical Sciences, Romania*

STUDY ON MATERIALS AVAILABLE FOR BALLISTIC PROTECTION VEST FABRICATION

**Mihaela Lăzăroaie¹, Claudiu Lăzăroaie¹, Marcel Istrate²,
Simona Badea¹, Gabriel Epure¹, Teodora Zecheru¹**

¹Scientific Research Center for CBRN Defense and Ecology, 225 Sos. Oltenitei, 041309 Bucharest, Romania

²S.C. STIMPEX S.A., N. Teclu Str., 032368 Bucharest, Romania

STUDIES OF OXYGEN AND HYDROGEN PERMEABILITY THROUGH PROTON EXCHANGE MEMBRANES

Irina Petreanu, Marius Miricioiu, Claudia Sisu, Mihai Varlam

National R&D Institute for Cryogenic and Isotopic Technologies, ICSI Rm. Valcea

IN VITRO INVESTIGATIONS OF HIGHLY ADHERENT BIOLOGICAL HYDROXYAPATITE THIN FILMS FOR A NEW GENERATION OF IMPLANTS

**G. Popescu-Pelin¹, G.E. Stan², A.C. Popescu¹, V. Grumezescu¹, M. Enculescu², C. Besleaga², I. Zgura², P.E. Florian³,
L.E. Sima³, A. Roseanu³, F.N. Oktar⁴, I.N. Mihailescu¹, L. Duta^{1*}**

¹National Institute for Lasers, Plasma and Radiation Physics, Magurele, Romania

²National Institute of Materials Physics, Magurele, Romania

³Institute of Biochemistry of the Romanian Academy, Bucharest, Romania

⁴Nanotechnology and Biomaterials Application & Research Centre, Marmara

STUDIES ON MESOPOROUS SILICA AS CARRIERS FOR KETOPROFEN

M. Petrescu^{1*}, R.A. Mitran², C. Matei¹, D. Berger¹

¹University „Politehnica” of Bucharest, Department of Inorganic Chemistry, Physical-Chemistry and Electrochemistry, Polizu Street no. 1-7, Bucharest 011061, Romania

²„Ilie Murgulescu” Institute of Physical-Chemistry, Romanian Academy, 202 Splaiul Independentei, Bucharest 060021

ELECTROCHEMICAL RESPONSE OF SONOGEL CARBON ELECTRODE TOWARD MELATONIN

C. Lete^{1*}, J. J. G. Guzmán², J. M. P.Santander², L. C. Aguilera², I. N.Rodríguez², B.N. Manolescu³, M. Marin¹, S. Lupu³

¹ Institute of Physical Chemistry “Ilie Murgulescu” of the Romanian Academy, Bucharest, Romania

² Department of Analytical Chemistry, Faculty of Science, University of Cadiz, Spain

³ Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Romania

DIMINISHING THE MORPHOLOGICAL DEFECTS OF NEW RENEWABLE MATERIALS BY CONTROLLING THE SHEAR STRESS AT MELT EMBEDDING OF TARGET FILLER

**M. Musat¹, M. Grigore¹, R.M. Grigorescu^{1*}, M. Petrache², C. Damian³, R. Trusca⁴,
E. Vasile⁴, M. Rapa⁵, L. Anton¹, D. Dimonie¹**

¹ICECHIM Bucharest, 202 Splaiul Independentei, 060021 Bucharest, Romania

² PhD Student at UPB, 313 Splaiul Independentei, 060042 Bucharest, Romania

³ Department of Bioresources and Polymer Science, UPB, 1-7 Polizu, 011061 Bucharest, Romania

⁴ METAV-CD S.A., 31 C.A. Rosetti, 020011 Bucharest, Romania

⁵ ICPAO SA, 8 Carpati, Medias, 551022 Sibiu, Romania

PRUSSIAN BLUE NANOPARTICLES FOR LASER ABLATION OF TUMORS

M. Marin^{1*}, R. Jijie², C. Lete¹, S. Petrescu¹, S. Lupu³, R. Boukherroub²

¹“I. Murgulescu” Institute of Physical Chemistry, Bucharest, Romania

² Institut d’Electronique, de Microélectronique et de Nanotechnologie (IEMN), Lille, France

³ Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest

THE EFFICIENCY OF SILANE TREATMENT OF HEMP FIBERS IN POLYPROPYLENE COMPOSITES

M. D. Iorga¹, C. Vitelaru², D. M. Panaitescu^{1*}, Z. Vuluga¹, R. Gabor¹, M. C. Corobea¹

¹NIRD in Chemistry and Petrochemistry ICECHIM Bucharest, ROMANIA

²National Institute for Optoelectronics INOE 2000 Bucharest, ROMANIA

TEM studies on new synthesised nanocomposite membranes based on polyethersulfone and advanced modified mineral clay used in wastewater treatment

R.Ianchiș¹, R. Somoghi¹, B. Trică¹, S.Căprărescu²,

A.L.Radu¹, C.L.Nistor¹, V. Purcaru¹, C.I.Spătaru¹, S.Nițu¹, C.Petcu¹

¹ R&D National Institute for Chemistry and Petrochemistry, Spl. Independentei, No 202, 060021, Bucharest, Romania

² Politehnica University of Bucharest, Faculty of Applied Chemistry and Materials Science, Inorganic, Chemistry, Physical Chemistry and Electrochemistry Department, 1-7 Polizu Street, 011061, Bucharest, Romania

SYNTHESIS OF PANI/Fe₃O₄ NANOCOMPOSITES; TRANSMISSION ELECTRON MICROSCOPY CHARACTERISATION

R. Somoghi, B. Trică, R. Fierascu, R. Ianchiș, F.Oancea, D. Donescu

¹R&D National Institute for Chemistry and Petrochemistry, Spl. Independentei, No 202, 060021, Bucharest, Romania

TETRAMETHYLTHIURAM DISULFIDE IN THE SYNTHESIS OF HETEROCYCLIC COMPOUNDS

Iacob Gutu

State University of Moldova, str. A. Mateevici 60, Chisinau, Republic of Moldova

MACROPHAGE RESPONSE TO BIOMIMETIC-COATED MATERIAL

**M. Icriverzi^{1,2*}, L.E. Sima¹, N. Dumitrescu³, V. Marascu³, R.W. Evans⁴, A. Cimpean²,
V. Dinca³, A. Roseanu¹**

¹Institute of Biochemistry, Romanian Academy, Bucharest, Romania

²University of Bucharest, Faculty of Biology, Bucharest, Romania

³National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania

⁴Brunel University, School of Engineering and Design, London, UK

ANTIMICROBIAL PROPERTIES OF COATINGS BASED ON NIGELLA SATIVA FUNCTIONALIZED FE₃O₄ NANOPARTICLES DEPOSITED BY MAPLE

I. Negut^{1,2}, V. Grumezescu^{2,3}, A.M. Holban⁴, F. Iordache⁵, R. Trusca⁶, M. Petrus², G. Socol²

¹ Faculty of Physics, University of Bucharest, Magurele, Ilfov, Romania, 077125

²National Institute for Lasers, Plasma, and Radiation Physics, 409 Atomistilor Street, RO-77125, MG-36, Magurele - Ilfov, Romania

³Faculty of Applied Chemistry and Materials Science, Politehnica University of Bucharest, Polizu Street, No. 1-7

⁴Faculty of Biology, University of Bucharest, Microbiology Immunology Department, Aleea Portocalelor 1-3, Sector 5, 77206 Bucharest, Romania

⁵Institute of Cellular Biology and Pathology of Romanian Academy, "Nicolae Simionescu", Department of Fetal and Adult Stem Cell Therapy, 8, B.P. Hasdeu, Bucharest 050568, Romania

⁶S.C Metav-CD S.A., 31 Rosetti Str., 020015 Bucharest, Romania

SURFACE DIFFUSION CONTROL IN PLD/VLS GROWING

A.Marcu¹, B. Calin¹

¹ National Institute for Laser, Plasma and Radiation Physics, 077125 Bucharest, Romania

LASER PYROLYSIS VERSUS LASER ABLATION IN IRON BASED NANOPARTICLE FABRICATION

B. Calin¹, A. Marcu¹, F. Dumitrache¹, C.Fleaca¹, R. Ianchiș²

¹National Institute for Laser Plasma and Radiation Physics, 077125 Bucharest-Magurele, Romania

²National Institute for Research and Development in Chemistry and Petrochemistry, 202 Splaiul Independentei, Bucharest

DEVELOPMENT PHOTOCONDUCTOR POLYMERS BASED ON LIGNIN AND 9- EPOXYPROPYL CARBAZOLE

S. Robu¹, V. Culcitchi², A. Mesalchin³, N. Ungur²

¹Moldova State University, Chisinau, Moldova;

²The Institute of Chemistry of the Academy of Sciences of Moldova, Chisinau, Moldova;

³Institute of Applied Physics of the Academy of Sciences of Moldova, Chisinau, Moldova

PERFORMANCE OF RECYCLED POLYPROPYLENE COMPOUNDED WITH THERMOPLASTIC
ELASTOMERS

Maria RÂPĂ¹, Elena GROSU¹, Andreea Anca ȚURCANU¹, Árpád Andor ANDRÁS¹, Paul Nicolae GHIOCA²,
Lorena IANCU², Bogdan SPURCACIU², Ramona Marina GRIGORESCU², Ecaterina MATEI³, Alexandra PICA⁴,
Corneliu CINCU⁴

¹S.C. ICPAO S.A., 8 Carpati, 551022 Medias, Sibiu, Romania

²INCDCP-ICECHIM, 202 Spl. Independentei, 060021 Bucharest, Romania

³ POLITEHNICA UNIVERSITY of BUCHAREST, Center for Research and Eco - Metallurgical Expertise, 313 Spl.
Independentei, 060042 Bucharest, Romania

⁴ S.C. ICAA S.A., Theodor Pallady Bld, No. 49A, 032258, Bucharest, Romania



27th October 2016

Section 4 – Petrochemistry, biorefining and chemical engineering

ORAL COMMUNICATIONS - 14:00 - Library (2nd floor)

Moderators

Prof. dr. eng. Tanase DOBRE

Prof. dr. chim. Rodica-Mariana ION

BIODIESEL FROM WASTE OIL

P. Chipurici, A. Gavrilă, A. Vlaicu*

Politehnica University of Bucharest, 313 Spl. Independentei, Romania

O-1

MODIFICATION OF LAVENDER OIL BY HYDROGENATION

I. Cârstea¹, S. Velea², R. Doukeh^{1,3}, D. Bombos¹, M. Bombos², G. Vasilievici^{2*}

¹*Petroleum - Gas University of Ploiesti, 39 Calea Bucuresti, 100520, Ploiesti, Romania*

²*National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucuresti, 202 Spl. Independentei, 060021, Bucharest, Romania*

³*SC Research Institute For Auxiliary Organics Products SA, Icpao Medias*

O-2

ALKYLATION OF CRESOLS ON TUNGSTOPHOSPHORIC ACID

S. Velea¹, R. Doukeh², M. Bombos¹, R. Ganea¹, G. Vasilievici¹, D. Bombos^{3*}

¹*National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucuresti, 202 Spl. Independentei, 060021, Bucharest, Romania*

²*SC Research Institute For Auxiliary Organics Products SA, Icpao Medias*

³*Petroleum - Gas University of Ploiesti, 39 Calea Bucuresti, 100520, Ploiesti, Romania*

O-3

FURFURAL HYDROGENATION ON Ni-Co-Mo CATALYSTS DOPPED WITH Ba

M. Bombos¹, R. Doukeh², S. Velea^{1*}, G. Vasilievici¹, D. Bombos³

¹*National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucuresti, 202 Spl. Independentei, 060021, Bucharest, Romania*

²*SC Research Institute For Auxiliary Organics Products SA, Icpao Medias*

³*Petroleum - Gas University of Ploiesti, 39 Calea Bucuresti, 100520, Ploiesti, Romania*

O-4

NEW OXYGENATED FUEL ADDITIVES OBTAINED BY REACTIVE DISTILLATION

E. Stepan, S. Velea, E. Radu, C. Enascuta, G. Vasilievici, E. Oprescu, A. Radu

National Research and Development Institute for Chemistry and Petrochemistry ICECHIM Bucharest, 202 Spl. Independentei, Romania

O-5

SPECTROSCOPIC PROPERTIES OF COPPER (II) COMPLEXES OF SCHIFF BASES DERIVED FROM SUBSTITUTED BENZALDEHYDES

G. Zamfir^{1*}, N. Stanica²

¹*Technical Collegium Mircea cel Batrin, 52 Feroviarilor Street, Bucharest, Romania.*

²*Institute of Physical Chemistry of Romanian Academy, 202 Spl. Independentei, Bucharest, Romania*

O-6

- P – 1**
- MOLECULAR MODELING AND SAR STUDIES OF SOME QUINOLONE DERIVATIVES**
L. Pintilie*, A. Stefanu
*National Institute for Chemical - Pharmaceutical Research and Development (ICCF) - Bucharest, 112 Vitan Av.,
 Bucharest, Romania*
- P – 2**
- STUDY OF DENSITY AND VISCOSITY OF DIESEL FUEL + i-PROPANOL MIXTURES**
 G-R. Stoica¹, A-R. Popescu¹, I. Nita², O. Iulian¹, **S. Osman^{2*}**, E. Geacai¹
¹ Politehnica University of Bucharest, 132 Calea Grivitei, Bucharest Romania
² "Ovidius" University of Constanta, bd. Mamaia 124, Constanta, Romania
- P – 3**
- DEHYDRATION OF FRUCTOSE TO HYDROXYMETHYL FURFURAL, CATALYSED BY DIFFERENT HETEROGENEOUS CATALYSTS**
A. Trifoi¹, R. Doukeh¹, D. Dobre¹, A. Crucean¹, D. Bomboș²
¹ SC Research Institute For Auxiliary Organics Products SA – ICPAO, Carpati Str., Medias, Romania
² Petroleum - Gas University of Ploiesti, 39 Calea Bucuresti, Ploiesti, Romania
- P – 4**
- GLYCEROL DERIVATES USED FOR DIESEL FUELS FORMULATION**
 A. Gavrilă, **P. Chipurici***, A. Vlaicu
Politehnica University of Bucharest, 313 Spl. Independentei, Romania
- P – 5**
- MODIFIED ROAD BITUMEN WITH RUBBER CRUMB SPENT**
 G. Vasilievici¹, **M. Bomboș^{1*}**, S. Velea¹, D. Bomboș², V. Georgescu³
¹ National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM, 202 Spl. Independentei, 060021, Bucharest, Romania
² Petroleum - Gas University of Ploiesti, 39 Calea Bucuresti, 100520, Ploiesti, Romania
³ „Ilie Murgulescu” Institute of Physical Chemistry, 202 Spl. Independentei, Bucharest, Romania
- P – 6**
- EXCESS MOLAR ENTHALPIES AT HIGH DILUTION FOR HALOGENATED IMIDAZOLIUM IONIC LIQUIDS (ILs) WITH 1-BUTANOL OR WATER SYSTEMS**
M. Teodorescu*, V. T. Popa
„Ilie Murgulescu” Institute of Physical Chemistry of the Romanian Academy, 202 Splaiul Independentei, Bucharest
- P – 7**
- KINETIC ANALYSIS OF TOTAL OXIDATION OF BENZENE USING MIXED OXIDES TYPE CATALYST Cu-Cr SUPPORTED ON Al₂O₃ + SiO₂**
V. Georgescu^{1*}, D. Bomboș², G. Vasilievici³, V. T. Popa¹
¹ „Ilie Murgulescu” Institute of Physical Chemistry of the Romanian Academy, Spl. Independentei 202, Bucharest, Romania
² Petroleum-Gas University of Ploiesti, Bucuresti 39, Ploiesti, Romania
³ National and Development Institute for Chemistry and Petrochemicals-ICECHIM, Romania
- P – 8**
- PHYTOCHEMICAL DETERMINATION OF ROSMARINUS OFFICINALIS EXTRACT OBTAINED BY USING DIFFERENT SOLVENTS AND METHODS**
I.R. Suica-Bunghez^{1*}, N. Stirbescu², R.M. Ion^{1,3}
¹ National R&D Institute for Chemistry and Petrochemistry – ICECHIM, 202 Splaiul Independentei Street, Bucharest
² Multidisciplinary Science and Technology Research Institute of Valahia University of Targoviste - ICSTM-UVT, 13 Aleea Sinaia, Targoviste, Romania
³ Valahia University, Materials Engineering Department, 13 Aleea Sinaia, Targoviste, Romania.
- P – 9**
- FERMENTATION BUTANOL USABLE AS ALCOHOLIC FUELS**
V. Georgescu^{1*}, D. Bomboș², G. Vasilievici³, C. Hornoiu¹
¹ „Ilie Murgulescu” Institute of Physical Chemistry of the Romanian Academy, Spl. Independentei 202, Bucharest, Romania
² Petroleum-Gas University of Ploiesti, 39 Calea Bucuresti, Ploiesti, Romania
³ National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucuresti, 202 Spl. Independentei, Bucharest, Romania

**POLYPHENOLS CONTENT AND TOXICITY ASSESSMENT OF SOME PLANT EXTRACTS WITH ANTI-
DERMATITIS POTENTIAL**

M. Dinu¹, O. T. Olaru^{1*}, G. M. Nițulescu¹, N. Băbeanu², O. Popa², R. Ancuceanu¹

¹ *Carol Davila University of Medicine and Pharmacy, Traian Vuia 6, Bucharest, Romania,*

² *University of Agronomic Sciences and Veterinary Medicine, 59 Mărăști Boulevard, Bucharest, Romania*



28th October 2016

Section 5 – Students section

ORAL COMMUNICATIONS - 08:00 – Meeting Hall (1st floor)

Moderators

Prof. dr. eng. Mircea TEODORESCU

Dr. eng. Sanda VELEA

O - 1

MORPHOLOGICAL ASPECTS OF KERATIN SUBSTRATES BIODEGRADED BY KERATINOLYTIC FUNGI
M. Călin^{1,2}, D. Constantinescu-Aruxandei¹, I. Răut¹, E. Alexandrescu¹, O.-N. Corneli³, G. Vasilescu¹, L. Jecu^{1*}, M. Badea-Doni¹, M.-L. Arsene¹, M.A. Antemir² and V. Lazăr²

^[1] *INCDCP-ICECHIM, Spl. Independentei 202, Bucharest, Romania*

^[2] *University of Bucharest, Faculty of Biology, Spl. Independentei 91-95, Bucharest*

^[3] *The National Institute of Research & Development for Microbiology and Immunology “Cantacuzino”, Spl. Independentei 103, Bucharest, Romania*

O - 2

EFFECT OF PROCESS FACTORS ON PERVAPORATION DEHYDRATION OF ALCOHOLS

Bogdan Trică, Oana Cristina Pârvulescu, Ali A.A. Al Janabi, Tănase Dobre

Politehnica University of Bucharest, Chemical and Biochemical Engineering Department, 1-3 Gheorghe Polizu, 011061, Bucharest, Romania

O - 3

FRUIT – MEDIATED BIOSYNTHESIS OF SILVER NANOPARTICLES

PhD student Ana-Alexandra SORESCU^{1,2}, PhD chem. Alexandrina NUTA^{2,3}, prof. PhD chem. Rodica-Mariana ION^{1,2}, PhD chem. Ioana-Raluca SUICA-BUNGHEZ², PhD eng. Cristina - Lavinia NISTOR²

¹ *Valahia University, Materials Dept., 13th Sinaia Alley, 130004, Targoviste, Romania*

² *National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, 202 Splaiul Independentei Street, district 6, 060021, Bucharest, Romania*
³ *The Romanian Academy “Stefan S. Nicolau” Institute of Virology, 285 Mihai Bravu Avenue, 030304, Bucharest, Romania*

O - 4

SYNTHESIS AND MOLECULAR MODELING STUDIES OF SOME BENZIMIDAZOLES AND MANNICH BASES

D.-G. Tudorache¹, M. Marinescu^{1*}, G. Marton², C. Stavarache³

¹ *University of Bucharest, Faculty of Chemistry, 90-92 Pandurilor, 010184, Bucharest, Romania*

² *University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, 1-7 Polizu, 011061, Bucharest*

³ *Institute of Organic Chemistry C.D. Nenitescu of the Romanian Academy, 202B Splaiul Independentei*

O - 5

ELECTROCHEMICAL STUDIES OF EXTRACTS OBTAINED FROM BLACK FETEASCA AND LARGE BURGUNDY

G. Petcu^{1,2*}, D. Bala¹, S. Tomas³, C. Mihailciuc¹

¹ *Department of Physical Chemistry, Faculty of Chemistry, University of Bucharest, Bd. Regina Elisabeta 4-12, 030018 Bucharest, Romania*

² *Institute of Physical Chemistry “Ilie Murgulescu” of the Romanian Academy, Spl. Independentei 202, 060021 Bucharest*

³ *Department of bioresources and polymer science, University Politehnica of Bucharest, 1-7 Gh. Polizu St., 011061 Bucharest*

O - 6

pNIPAM-BASED BIOINTERFACES EFFECT ON CELLULAR BEHAVIOR
M. Icriverzi^{1,2*}, L. Rusen³, L.E. Sima¹, N. Mihailescu³, A. Bonciu^{3,4}, S. Brajnicov^{3,5}

M. Dinescu³, A. Cimpean², V. Dinca³, A. Roseanu¹

¹ *Institute of Biochemistry, Romanian Academy, Bucharest, Romania*

² *University of Bucharest, Faculty of Biology, Bucharest, Romania*

³ *National Institute for Lasers, Plasma and Radiation Physics, Magurele, Romania*

⁴ *University of Bucharest, Faculty of Physics, Magurele, Romania*

⁵ *University of Craiova, Faculty of Mathematics and Natural Sciences, Craiova, Romania*

O - 7

CONSIDERATIONS ON BIODIESEL SYNTHESIS WITH FED BATCH REACTOR

Cristian Eugen RĂDUCANU, Oana Cristina PÂRVULESCU, Rodica ANGHEL, Tănase DOBRE
University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Dept. of Chemical and Biochemical Engineering

O - 8

ASSESSMENT OF P53 USING GRAPHITE BASED AMPEROMETRIC SENSORS

Ahmed Jassim Muklive AL-Ogaidi*¹, Livia Alexandra Gugoasa², Raluca-Ioana Stefan-van Staden
¹University Politehnica, Bucharest, 313 Splaiul Independentei Str, 060021, Bucharest, Romania
²Laboratory of Electrochemistry and PATLAB Bucharest, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei 060021, Bucharest, Romania

POSTERS – MAIN HALL, GROUND FLOOR

P - 1

ENCAPSULATION OF THYMOL IN ALKYLATED MESOPOROUS SILICA CARRIERS

C.L.Nistor, C.I. Spătaru, S.G. Nițu*, R. Ianchiș, B. Trică, C. Petcu, R. Șomoghi, V. Purcar, E. Alexandrescu
National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, Polymer Department, 202 Splaiul Independentei, PO 060021, Bucharest, Romania

P - 2

ADSORPTION AND DESORPTION OF VOLATILE ORGANIC COMPOUNDS IN/FROM ADSORBANT FIXED BED

O.C. Pârvulescu, S.G. Nițu*, V. Purcar, C. Petcu, C.L. Nistor, T. Dobre, C.I. Spătaru, R. Ianchiș, E. Alexandrescu
National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, Polymer Department, 202 Splaiul Independentei, PO 060021, Bucharest, Romania

P - 3

THE INFLUENCE OF TECHNOLOGICAL PARAMETERS-VOLTAGE AND ELECTRICAL CAPACITY ON GENERATING OF CARBON SPATIAL FORMATIONS FULLERENE TYPE, AT THE TREATMENT OF METAL SURFACES BY ELECTRICAL DISCHARGES IN PULSE WITH GRAPHITE CATHODE METHOD;(POSTER)

Drd.MARIN Laurentiu CS II¹ Prof. Dr. Hab.TOPALA Pavel²

¹ Institutul National de Cercetare Dezvoltare pentru Chimie si Petrochimie ICECHIM Bucuresti, Splaiul Independentei nr. 202. sector 6, Bucuresti , Romania

² Universitatea de Stat Alecu Russo Balti, Str.Puskin, Rep,Moldova

P - 4

QUALITATIVE ANALYSIS OF PHYTOCHEMICALS IN DIFFERENT AQUEOUS PLANT EXTRACTS PhD student Ana-Alexandra SORESCU^{1,2}, PhD chem. Alexandrina NUTA^{2,3}, prof. PhD chem. Rodica-Mariana ION^{1,2}, PhD chem. Ioana-Raluca SUICA-BUNGHEZ²

¹ Valahia University, Materials Dept., 13th Sinaia Alley, 130004, Targoviste, Romania

² National Research and Development Institute for Chemistry and Petrochemistry – ICECHIM, 202 Splaiul Independentei Street, district 6, 060021, Bucharest, Romania

³ The Romanian Academy “Stefan S. Nicolau” Institute of Virology, 285 Mihai Bravu Avenue, 030304, Bucharest

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IDENTIFICATION OF FORGED BIOMETRIC TRAVEL DOCUMENTS

PhD. Marius PADURARU^{1*}, PhD. Ovidiu TANASA¹, PhD. Daniel POTOLINCA¹, PhD. Cosmin Tudor IURCOVSCI¹, Viorica VASILACHE², Prof. Dr. Ion SANDU²

¹ Alexandru Ioan Cuza University of Iasi, Faculty of Geography and Geology, 22 Blvd Carol I, Corp G-Demisol, Iasi

² Alexandru Ioan Cuza University of Iasi, Arheoinvest Interdisciplinary Platform, 22 Blvd Carol I, Corp G-Demisol, 700506, Iasi, Romania

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EXAMINATION OF THE CELLULOSIC SUPPORT FROM THE COUNTERFEITED PASSPORT

PhD. Student Daniel POTOLINCA¹, Ioan Cristinel NEGRU², Prof.Dr. Ion SANDU³, PhD. Student Marius PADURARU¹, PhD. Student Ovidiu Petru TANASA¹, Researcher Dr. Viorica VASILACHE³

¹⁾ Alexandru Ioan Cuza University of Iasi, Faculty of Geography and Geology, 22 Blvd Carol I, Corp G-Demisol, 700506, Iasi²⁾ Iasi Border Police Territorial Inspectorate, 3-5 George Cosbuc str. Iasi, Romania;

³⁾ Alexandru Ioan Cuza University of Iasi, Arheoinvest Interdisciplinary Platform, 22 Blvd Carol I, Corp G-Demisol, 700506, Iasi, Romania

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EVALUATION OF KRAS BIOMARKERS USING GRAPHITE BASED AMPEROMETRIC SENSORS

Ahmed Jassim Muklive AL-Ogaidi^{*1}, Livia Alexandra Gugoasa², Raluca-Ioana Stefan-van Staden

¹University Politehnica, Bucharest, 313 Splaiul Independentei Str, 060021, Bucharest, Romania

²Laboratory of Electrochemistry and PATLAB Bucharest, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei 060021, Bucharest, Romania

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ANTAGONISM OF SOME MICROBIAL STRAINS, ISOLATED FROM VARIOUS PLANT MATERIALS,

AGAINST *Erwinia carotovora* AND *Xanthomonas campestris*

M.G. Soare (Vladu)^{1,2*}, N. Babeanu¹, O. Popa¹, I. Lupescu², M. Moscovici²

¹University of Agronomic Sciences and Veterinary Medicine, Bucharest, Mărăști Blv., 59, 011464, Romania,

²National Institute for Chemical Pharmaceutical Research and Development-ICCF, Bucharest, Vitan Avenue, 112, Bucharest

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COMPARISON OF EXTRACTION METHODS FOR THE RECOVERY OF PEANUT PROTEINS FROM OILS AND FATS

Elena MIHAI (DRĂGHICI)^{1,2*}, Maria PELE²

¹University of Agronomic Sciences and Veterinary Medicine of Bucharest, 59 Marasti Blvd, District 1, Bucharest

²National Institute for Chemical Pharmaceutical Research and Development, 112 Calea Vitan, District 3, Bucharest