International Conference

Progress in Organic and Macromolecular Compounds

30th Edition

Program

Dedicated to the 105th anniversary of

Acad. Cristofor I. Simionescu (1920-2007)

ICMPP – Petru Poni Institute of Macromolecular Chemistry
Iasi | Romania | September 23 - 26, 2025
https://icmpp.ro/macroiasi2025/index.php

Edited by

Marcela MIHAI

Radu-Dan RUSU

Marius-Mihai ZAHARIA

Cover by

Catalin-Paul CONSTANTIN

Dear colleagues from Romania and abroad,

It is our pleasure to invite you to attend at the 30th edition of the International Conference Progress in Organic and Macromolecular Compounds, MACRO Iasi 2025, a traditional event organized by the Petru Poni Institute of Macromolecular Chemistry, between 23 and 26 September 2025, in Iasi.

The International Conference addresses polymer and organic chemists and physicists from academia, research institutes and industry, being intended as a dynamic platform for the presentation and sharing of their research and ideas.

MACRO Iasi 2025 gives a broad overview of major topics in organic and polymer synthesis and physics, multifunctional polymeric architectures, engineering of polymeric materials and their applications.

Also, as part of the MACRO Iasi conference, the workshop *"POLYSACCHARIDE BASED (BIO)HYBRID NANOSTRUCTURES"* (*September 23, 2025*) will be organized, to which you are welcome to participate (please contact the organizers - hybsac.pnrr@icmpp.ro).

This meeting could not have been organized without the generous and tireless support and contribution of many individuals and groups within and outside the ICMPP. Therefore, we would like to acknowledge to all the invited lecturers, speakers, board and committee members, chairpersons, sponsors and all the people that have been involved in the organization and presentation of relevant results and perspectives.

Best wishes for a professionally rewarding conference!

Valeria HARABAGIU and Marcela MIHAI

Chairpersons of MACRO Iasi 2025

International Scientific Board

- David HADDLETON
  (U Warwick, UK)
- Eric GUIBAL
  (CME, Ales, France)
- Dieter SCHLUTER
  (ETH Zurich, Switzerland)
- Andreas FERY
  (IPF, Dresden, Germany)
- Stergios PISPAS
  (NHRF, Athens, Greece)
- Patrick NAVARD
  (CEMEF, Sophia Antipolis, France)
- Svetlana BRATSKAYA
  (ICB FEBRAS, Vladivostok, Russia)
- Olya STOILOVA
  (IP-BAS, Sofia, Bulgaria)
- Tania BUDTOVA
  (CNRS, Sophia Antipolis, France)
- Raluca-Ioana STEFAN-VAN STADEN
  (INCEMC, Bucharest, Romania)
- Carmen TEODOSIU
  (TU, Iasi, Romania)
- Florica MANEA
  (UPT, Timisoara, Romania)
- Calin DELEANU
  (CCO, Bucharest, Romania)
- Anton AIRINEI
  (ICMPP, Iasi, Romania)
- Maria CAZACU
  (ICMPP, Iasi, Romania)
- Mariana PINTEALA
  (ICMPP, Iasi, Romania)
- Luminita MARIN
  (ICMPP, Iasi, Romania)
- Gheorghe FUNDUEANU-CONSTANTIN
  (ICMPP, Iasi, Romania)
- Mariana Dana DAMACEANU
  (ICMPP, Iasi, Romania)
- Mariana CRISTEA
  (ICMPP, Iasi, Romania)

Organizing Board

Program

- Marcela MIHAI
- Sergiu COSERI
- Radu-Dan RUSU

Editorial

- Marius-Mihai ZAHARIA
- Catalin Paul CONSTANTIN
- Catalin BUZDUGAN – IT support

Executive

- Narcisa Laura MARANGOCI
- Mirela ZALTARIOV
- Florica DOROFTEI
- Alina-Petronela MORARU
- Timeea-Anastasia CIOBANU
- Melinda-Maria BAZARGHIDEANU
- Dumitru POPOVICI

Petru Poni Institute of Macromolecular Chemistry

Tuesday, 23.09.2025

Workshop HYBSAC

BCS Hall

	9:00 - 9.15	Opening S. PISPAS
W1	9:15 - 09:45	W.L1 Theoni GEORGIOU
W1	09:45 - 10:15	W.L2 Aurel RADULESCU
W1	10:15 - 10:45	W.L3 Maria Valentina DINU
	10:45 - 11.15	coffee break
W2	11:15 - 11:45	W.L4 Agnieszka KOWALCZUK
W2	11:45 - 12:15	W.L5 Sergiu COSERI
	12:15 - 14:00	Lunch break
W3	14:00 - 15.15	W.OC1 Maria KARAYIANNI
W3		W.OC2 Melinda BAZARGHIDEANU
W3		W.OC3 Marius ZAHARIA
W3		W.OC4 Diana LOGHIN
W3		W.OC5 Daniela LOTOS
	15:15 - 15:45	coffee break
W4	15:45 - 17:00	Round Table
	18:00-20:00	Dinner

Legend:
PLx. Plenary Lecture
Lx. Lecture
OCx. Oral Communication

Wednesday, 24.09.2025

ICMPP Conference Hall

S1	9:00 - 9.15	Opening
S1	9:15 - 09:30	about Cristofor Simionescu
S1	09:30 - 10:15	PL1. Marius ANDRUH
	10:15 - 10:45	Coffee break & Poster session
S2	10:45 - 11.30	PL2. Ion TIGINYANU
S2	11:30 - 12:00	L1. Corneliu BALAN
S2	12:00 - 12:15	OC1. Mariana CRISTEA
S2	12:15 - 12:30	OC2. Marius ZAHARIA
	12:30 - 14:00	Lunch break
S3	14:00 - 14.30	L2. Aurica FARCAS
S3	14:30 - 16.15	OC3. Irina BUTNARU
S3		OC4. Vera-Maria PLATON
S3		OC5. Cristina AL-MATARNEH
S3		OC6. Alexandru Gabriel BUCUR
S3		OC7. Irina APOSTOL
S3		OC8. Andra-Cristina ENACHE
S3		OC9. Paul LAZAR
	16.15-16.45	Coffee break & Poster session
S4	16.45 - 17.15	L3. Aatto LAAKSONEN
S4	17.15- 18:00	PL3. Michele LAUS

Thursday, 25.09.2025

ICMPP Conference Hall

S5	9:00 - 9.45	PL4. Cristian SILVESTRU
S5	9:45 - 10:30	PL5. Theoni GEORGIOU
	10:30 - 11:00	Coffee break & Poster session
S6	11:00 - 11.45	PL6. Mariana PINTEALA
S6	11:45 - 12:15	L4. Marcelina BOCHENEK
S6	12:15 - 12:30	OC10. Camelia MIRON
	12:30 - 14:00	Group photo Lunch break
S7	14:00 - 14.30	L5. Gabriela IONITA
S7	14:30 - 16.00	OC11. Elena-Laura URSU
S7		OC12. Taishi YAMAKAWA
S7		OC13. Ioana-Victoria PLATON
S7		OC14. Florin BUCATARIU
S7		OC15. Daniela PAMFIL
S7		OC16. Marin-Aurel TROFIN
	16.00-16.30	Coffee break & Poster session
S8	16.30 - 17.00	L6. Ionel MANGALAGIU
S8	17.00 - 17:45	PL7. Brigitte VOIT
	19:00 - 22:00	Dinner Traian Hotel

Friday, 26.09.2025

ICMPP Conference Hall

S9	9:00 - 9.45	PL8. Aurel RADULESCU
S9	9:45 - 10:30	PL9. Agnieszka KOWALCZUK
	10:30 - 11:00	Coffee break & Poster session
S10	11:00 - 11.45	OC17. Ioana-Sabina TRIFAN
S10		OC18. Catalin-Paul CONSTANTIN
S10		OC19. Larisa-Maria PETRILA
S10	11:45 - 12:30	PL10. C. Remzi BECER
	12:40 - 13:00	Awards and closing
	13:00 - 14:30	Lunch

Part of the presented papers are published in the volume

Progress in Organic and Macromolecular Compounds - Proceedings

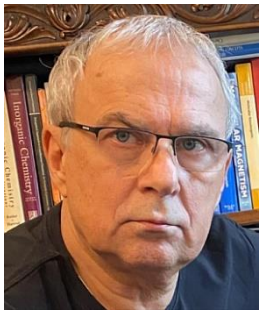
ISSN 2810 – 2126 | ISSN-L 2810 – 2126

ISSN 2810 – 2347 (Online version)

https://icmpp.ro/macroiasi2025/proceedings.php

INVITED LECTURES

Marius ANDRUH studied Chemistry at the University of Bucharest and received his PhD in 1988. He



was a post-doc in Orsay with Professor Olivier Kahn, and an Alexander von Humboldt fellow in Göttingen, in the group of Professor Herbert W. Roesky. His major research interests are focused on metallo-supramolecular chemistry, molecular magnetism and crystal engineering. He was Chair of the Inorganic Chemistry Department at the University of Bucharest. Since 2021, Professor Andruh is Director of the C. D. Nenitzescu Institute of Organic and Supramolecular Chemistry of the Romanian Academy. He is member of the Romanian Academy (and Vice-President since 2022), member of the Academia Europaea, and member of the European Academy of Sciences. Marius Andruh is author of more than 330 papers, H index 53.

C. Remzi BECER has completed his PhD at Eindhoven University of Technology, the Netherlands

(2009). He received a Marie Curie Research Fellowship (2009–2011) and joined University of Warwick, UK. He was awarded a Science City Senior Research Fellowship (2011–2013) to start up his independent research group at the same university. He was appointed (2013–2018) as a Senior Lecturer at Queen Mary, University of London. He is currently a Professor in Sustainable Polymer Chemistry at the University of Warwick (2019-), acting as an editor of European Polymer Journal (2018-) and chair of the RSC Macro Group UK.
More information at https://warwick.ac.uk/fac/sci/chemistry/research/becer/

Sergiu COSERI is a senior researcher and head of the Polyaddition and Photochemistry Department

at the "Petru Poni" Institute of Macromolecular Chemistry of the Romanian Academy in Iasi. His work centers on polysaccharide chemistry—especially selective, mild oxidations of cellulose—free-radical processes, and nanocellulose-based materials for environmental and energy applications. He earned his PhD in organic chemistry in 2001 and completed a habilitation in 2016 on nitroxyl-radical-mediated functionalization of biopolymers. Dr. Coseri has led the department since 2019 and previously held an NSERC fellowship at the National Research Council of Canada with Keith U. Ingold. He has authored influential reviews and research articles, including the widely cited "Cellulose: To Depolymerize… or Not?" (Biotechnology Advances, 2017) and a groundbreaking study on nanocellulose as a key material for soft robotics, published in Advanced Functional Materials in 2022, and has contributed perspective pieces on the evolution of cellulose research in Romania.

Maria Valentina DINU studied Chemistry at "Al. I. Cuza" University of Iasi, and received her Ph.D.

in 2009 from Romania Academy, Petru Poni Institute of Macromolecular Chemistry. During her Ph.D. studies, an important part of the work was carried out at Istanbul Technical University, Turkey, and Wroclaw University of Technology, Poland. She done a post-doctoral fellowship financially supported by the European Social Fund – Cristofor I. Simionescu Postdoctoral Fellowship Programme. Within the research activities performed during this post-doctoral fellowship (2010-2013), she spent some months in Leibniz Institute of Polymer Research Dresden, Germany, and in Institute of Macromolecular Chemistry, Prague, Czech Republic. After a postdoc in the Department of Chemistry, University of Basel, Switzerland, she returned to the Functional Polymers Department, in 2015, as a Senior Researcher.

Since 2021 she habilitated and member of the School of Advanced Studies of the Romanian Academy. Dr. Dinu is highly active in the field of synthesis and functionalization of various hydrogel-based systems, composite materials, and (bio) functional self-organized polymeric nanostructures, being co-author of 104 papers, with an H-index of 34. In 2012, she received the "Nicolae Teclu" Romanian Academy Award. Currently, Dr. Dinu is Group Leader in the Department of Functional Polymers, and is acting as an editor of Reactive and Functional Polymers from Elsevier, B.V.
For more information visit: https://icmpp.ro/laboratories/l4/g2/topics.php.

Theoni GEORGIOU is a Professor in Polymer Chemistry at the Department of Materials at Imperial College London. She obtained a BSc in Chemistry and a PhD in Polymer Chemistry from the University of Cyprus. Following her PhD studies, she joined Professor Antonios (Tony) Mikos' group at Rice University in USA as a postdoctoral fellow. In October 2007 she moved to UK when she was awarded a five-year RCUK Fellowship in Colloidal Nanotechnology at the University of Hull. In 2014 she joined Imperial College as a Lecturer where she is now a professor since 2022. She has been an active member of the scientific community; was a member of the Macro group committee from 2017 to 2022 and the chair of the committee from 2019 and 2022. She was also a member of the Materials Chemistry Division Council of the Royal Society of Chemistry and of the European Polymer Federation (EPF) council. She is currently a member of the Colloid & Interface Science Group of RSC. In 2017 she was awarded the 2016 Macro Group UK Young Researchers Medal. She is a member of the advisory editorial board of Polymer International, Polymer Chemistry and European Polymer Journal. Finally, she is an Associate Editor for European Polymer Journal since 2022. (ResearcherID: A-4229-2008, http://orcid.org/0000-0003-4474-6931).

Agnieszka KOWALCZUK is an Associate Professor at the Centre of Polymer and Carbon Materials PAS, where she leads the Laboratory of Nano- and Microstructural Materials. Her research focuses on developing novel polymers for applications in medicine and nanotechnology. She specializes in anionic and cationic polymerization of oxiranes and cyclic imines, as well as controlled radical polymerization of (meth)acrylates, enabling the synthesis of macromolecules with precise composition, molar mass, and topology. Beyond linear polymers and copolymers, she is interested in designing branched macromolecules, including star-shaped, dendritic, and hyperbranched structures, particularly those responsive to environmental stimuli and functionalized for interactions with bioactive agents.

Michele LAUS graduated in Industrial Chemistry with honours in 1983 and obtained a PhD in Industrial Chemistry in 1987. In 1997 he became Associate Professor of Industrial Chemistry and since November 2005, Full Professor of Industrial Chemistry and Polymeric Materials. He spent periods as visiting professor at Cornell University (invited by Prof. C. K. Ober) and at the Martin Luter University of Freiburg (invited by Prof. W. Gronski). At present, he is the Coordinator of EUPOC (European Polymer Conferences), President of AIM (Italian Association for Science and Technology of Macromolecules) and General Secretary of EPF (European Polymer Federation). At the beginning, his research activity focused on the development of hybrid nanocomposites, functional micro and nanospheres for biomedical and analytical use and superstructural systems organized in 2D and 3D (polymer liquid crystals, monolayers and opals) for optical, microelectronic and sensor applications. Subsequently, the research was directed towards the study of materials for microelectronics through

block copolymers and through the use of doping polymers, including the development of new precision polymers. Alongside these activities, two new lines of research have been activated relating to the synthesis of polymers using CO_2 as a monomer and the preparation and study of reversible networks. Prof. M. Laus is author of 280 articles in international journals and 20 patents with an H-index of 44. Furthermore, he has participated as an invited or plenary speaker in more than 100 international conferences.

Mariana PINTEALA studied chemical engineering and received her PhD at "Gheorghe Asachi" Technical University, Iasi, Romania, in 1995. She has been active in "Petru Poni" Institute of Macromolecular Chemistry since 1987 and from 2010 is the Head of the "IntelCenter" integrated into institute (www.intelcentru.ro). She has published more than 200 papers, 1 book and 12 book chapters, is evaluator for national projects in the chemistry field. The scientific and managerial activities include the successful coordination of two EU projects, 8 national projects and 4 bilateral projects, as well as the participation to an NSF grant and others. In addition, she has implemented the IntelCentre infrastructure project based on EU Structural Funds, The research interests are focused on the development of polymer-based biomaterials, supramolecular assemblies of hydrophobic and hydrophilic (co)polymers; pseudo- and polyrotaxanes, (co)polymers containing cyclodextrins, and more recently on biomedical-oriented nanotechnologies (non-viral vectors for gene and drug delivery systems; nanoparticles based on metal and metal oxides for tumors imaging and therapy; development of fullerene, cyclodextrin, and polymer derivatives for medical applications; design of cyclodextrin inclusion complexes with different drugs as potential drug delivery systems).

Aurel RADULESCU is a senior scientist at Forschungszentrum Jülich GmbH in Germany and is primarily responsible for the small-angle neutron diffractometer KWS-2 at the Jülich Centre for Neutron Science at the Heinz Maier-Leibnitz Zentrum in Garching, Germany. He received his PhD in nuclear physics from the University of Bucharest, Romania, in 2000 and received a Young Scientist Award from the European Neutron Scattering Association in 1999. Between 2016 and 2021, he also served as a specially appointed professor at the University of Osaka, Japan. His current work focuses on semi-crystalline polymers, polymer-protein complexes and methodological developments in neutron scattering.

Cristian SILVESTRU research (born on 1955, Baia-Mare) is Professor at Babes-Bolyai University of Cluj-Napoca. His research activities concentrated on development of organometallic and coordination chemistry, with particular focus on Main Group metal compounds. In collaboration with foreign research groups, he brought significant contributions to the chemistry of hypervalent Main Group organometallics, reporting on the first examples of some new types of compounds as alkoxides, halochalcogenides, metal heterocycles, etc. as well as CO_2 fixation, and C−H bond activation. He published more than 250 original articles and reviews in international journals (more than 4700 citations; Hirsch index of 36). From 2016 he is representative of Romanian Chemical Society in the Division of Organometallic Chemistry of EuCheMS. He is member of the Romanian Academy (from 2017), the European Academy of Sciences and Arts (Salzburg, Austria; from 2019) and European Academy of Sciences (Brussels, Belgium; from 2021).

Ion TIGINYANU is received his Ph.D. degree in Semiconductor Physics from Lebedev Institute of Physics, Moscow, in 1982. Starting from 2001, he serves as the founding Director of the National Center for Materials Study and Testing, Technical University of Moldova. In 2019 he was elected president of the Moldova Academy of Sciences. Professor Tiginyanu's research interests are related to nanotechnologies, smart nanomaterials and development of photonic and electronic novel device structures for various applications, including microfluidic and biomedical applications. He is Fellow of the International Science Council, honorary member of the Romanian Academy, honorary professor of Shizuoka University (Japan), member of the Academia Europaea, Fellow of the International Society for Optics and Photonics (SPIE), and member of AAAS, IEEE, Optica (formerly OSA) etc. For more information visit https://asm.md/en/membru?id=52.

Brigitte VOIT received her PhD in Macromolecular Chemistry 1990 from University Bayreuth, Germany. After postdoctoral work in 1991/1992 at Eastman Kodak in Rochester, USA, she joined Technische Universität München. After habilitation in 1996, she was appointed 1997 full professor for "Organic Chemistry of Polymers" at Technische Universität (TU) Dresden as well as Director of the Division Macromolecular Chemistry at the Leibniz Institute of Polymer Research (IPF) Dresden. From 2002 to 2022 she was also Scientific Director of IPF. At TU Dresden she is member of the Center for Advancing Electronics Dresden (CFAED), Dresden International Graduate School for Biomedicine and Bioengineering (DIGS BB), and the DFG Graduate School Hydrogel-based Microsystem. She is active in the European Polymer Federation (president 2014/2015), elected member of ACATECH, and holder of the Staudinger Award. Her scientific interest is in functional polymer architectures and responsive polymers for e.g. biomedicine, smart systems and organic electronics.

MACRO Iași 2025

Oral presentations

PL invited lectures (45 min, Q & A included)
L lectures (30 min, Q & A included)
OC oral contributions (15 min, Q & A included)

Poster presentations

PP posters
Posters (A1 size, portrait orientation) *will be posted after registration and will remain displayed during the entire conference*

Language

The conference language is English


MACRO Iași 2025

Finanțat de Uniunea Europeană NextGenerationEU
Planul Național de Redresare și Reziliență

PROGRAM WORKSHOP HYBSAC

Bogdan C. Simionescu Hall

TUESDAY, September 23

$09^{00} – 09^{15}$	**Opening - Dr. Stergios PISPAS**
	$09^{00} – 10^{45}$
	Workshop Session 1
	Chairs: Marcela MIHAI and Stergios PISPAS
$09^{15} – 09^{45}$	**W.L1. SHOULD WE BE USING WELL-DEFINED POLYMERS OR NOT?** Theoni K. GEORGIOU *Department of Materials, Imperial College London, London, United Kingdom*
$09^{45} – 10^{15}$	**W.L2. POLYMER-PROTEIN COMPLEXES AS VERSATILE CARRIERS FOR TARGETED PROTEIN AND DRUG DELIVERY CHARACTERIZED BY SMALL-ANGLE NEUTRON SCATTERING** Aurel RADULESCU *Forschungszentrum Jülich GmbH, Jülich Centre for Neutron Science (JCNS) at Heinz Maier-Leibnitz Zentrum (MLZ), Garching, Germany*
$10^{15} – 10^{45}$	**W.L3. MULTIFUNCTIONAL POLYSACCHARIDE-BASED HYBRID HYDROGELS WITH POROSITY TAILORED BY CRYOTROPIC GELATION** Maria-Valentina DINU *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$10^{45} – 11^{15}$	**Coffee Break**
	$11^{15} – 12^{15}$
	Workshop Session 2
	Chairs: Marcela MIHAI and Stergios PISPAS
$11^{15} – 11^{45}$	**W.L4. REACHING FOR THE STARS WITH NEW GENERATIONS OF FUNCTIONAL POLYMETHACRYLATES** Agnieszka KOWALCZUK *Centre of Polymer and Carbon Materials, Polish Academy of Sciences, Zabrze, Poland*
$11^{45} – 12^{15}$	**W.L5. FROM TREES TO TECH: THE SILENT REVOLUTION OF CELLULOSE NANOFIBERS IN BIOELECTRONICS** Sergiu COSERI *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$12^{15} – 14^{00}$	**Lunch Break**

Finanțat de Uniunea Europeană NextGenerationEU
Planul Național de Redresare și Reziliență

TUESDAY, September 23

$14^{00} – 15^{15}$

Workshop Session 3

Chairs: Marcela MIHAI and Stergios PISPAS

$14^{00} – 14^{15}$ **W.OC1. CHITOSAN-*g*-POLY(*N*-ISOPROPYLACRYLAMIDE) POLYPLEXES WITH DNA MOLECULES OF DIFFERENT LENGTHS**

Maria KARAYIANNI,[1] Elena-Daniela LOTOS,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

$14^{15} – 14^{30}$ **W.OC2. GREEN SYNTHESIS OF GOLD NANOPARTICLES STABILIZED BY AMYLOPECTIN-*g*-POLY (ACRYLIC ACID) COPOLYMER**

Melinda-Maria BAZARGHIDEANU,[1] Marius-Mihai ZAHARIA,[1] Alina-Petronela MORARU,[1] Florin BUCATARIU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

$14^{30} – 14^{45}$ **W.OC3. NEW THERMORESPONSIVE COMPOSITES CONTAINING CHITOSAN-*g*-PNIPAM AND *IN SITU* FORMED GOLD NANOPARTICLES**

Marius-Mihai ZAHARIA,[1] Melinda-Maria BAZARGHIDEANU,[1] Alina-Petronela MORARU,[1] Florin BUCATARIU,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

$14^{45} – 15^{00}$ **W.OC4. SYNTHESIS AND CHARACTERIZATION OF pH-RESPONSIVE GRAFT COPOLYMER BASED ON POTATO STARCH AND POLY (ACRYLIC ACID)**

Diana Felicia LOGHIN,[1] Stefania RACOVITA,[1] Silvia VASILIU,[1] Mihaela Iuliana AVADANEI,[1] Ana-Maria MACSIM,[1] Melinda-Maria BAZARGHIDEANU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

$15^{00} – 15^{15}$ **W.OC5. NEW POLYSACCHARIDE GRAFTING METHOD PAIRING CHITOSAN WITH PNIPAM BEARING CARBOXYL END GROUP**

Elena-Daniela LOTOS,[1] Maria KARAYIANNI,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece*

$15^{15} – 15^{45}$ **Coffee Break**

$15^{45} – 17^{00}$

Workshop Session 4

ROUND TABLE

$18^{00} – 20^{00}$ **Dinner**

Finanțat de Uniunea Europeană NextGenerationEU
Planul Național de Redresare și Reziliență

POLYSACCHARIDE BASED (BIO)HYBRID NANOSTRUCTURES (HYBSAC)

https://icmpp.ro/hybsac/

Call: PNRR-III-C9-2022 – I8

Contract 760082/23.05.2023, code CF201/28.11.2022

Project director: Dr. Asterios (Stergios) PISPAS

Project manager: Dr. Marcela MIHAI


MACRO Iași 2025

PROGRAM

ICMPP Conference Hall

WEDNESDAY, September 24

$08^{00} – 09^{00}$	**Registration of Participants**
	$09^{00} – 10^{15}$ **Session 1** **Chairs: Valeria HARABAGIU and Marcela MIHAI**
$09^{00} – 09^{15}$	**Conference Opening**
$09^{15} – 09^{30}$	**CRISTOFOR I. SIMIONESCU, THE MAN WITHIN** Bogdana SIMIONESCU *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$09^{30} – 10^{15}$	**PL1. MAGNETIC AND LUMINESCENT MOLECULAR MATERIALS CONSTRUCTED FROM LANTHANIDES: NEW SYNTHETIC APPROACHES** Marius ANDRUH[1,2] *[1]C. D. Nenitescu Institute of Organic and Supramolecular Chemistry, Bucharest, Romania* *[2]University of Bucharest, Faculty of Chemistry, Inorganic Chemistry Laboratory, Bucharest, Romania*
$10^{15} – 10^{45}$	**Coffee Break & Poster session**
	$10^{45} – 12^{30}$ **Session 2** **Chairs: Andreea Laura SCUTARU and Gheorghe FUNDUEANU**
$10^{45} – 11^{30}$	**PL2. EMERGING FUNCTIONAL HYBRID NANOMATERIALS BASED ON GALLIUM NITRIDE AND AEROGALNITE** Ion TIGINYANU, Tudor BRANISTE *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$11^{30} – 12^{00}$	**L1. RETRACTION OF VISCOELASTIC FLUID AFTER THE RUPTURE OF THE FILAMENT** Ciprian MATEESCU,[1,2] Doru-Daniel CRISTEA,[1,2] Nicoleta TANASE,[2] Corneliu BALAN[2] *[1]UMF Carol Davila, Bucharest, Romania* *[2]NUST Politehnica, Energetics, Bucharest, Romania*
$12^{00} – 12^{15}$	**OC1. INACCURACIES IN INTERPRETING THERMORHEOLOGICAL BEHAVIOR OF SOME POLYMERS: TO WHAT EXTENT THEY INFLUENCE THE CONCLUSIONS** Daniela IONITA, Mariana CRISTEA, Costel GAINA *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$12^{15} – 12^{30}$	**OC2. SORPTION PERFORMANCE OF ZWITTERIONIC RESINS FOR HEAVY METAL DECONTAMINATION OF POLLUTED WATERS** Marius-Mihai ZAHARIA,[1] Alina-Petronela MORARU,[1] Ramona CIOBANU,[2] Florin BUCATARIU,[1] Marcela MIHAI[1] *[1]Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania* *[2]Cristofor Simionescu Faculty of Chemical Engineering and Environmental Protection, Ghe. Asachi Technical University of Iasi, Romania*

WEDNESDAY, September 24

$12^{30} – 14^{00}$	**Lunch Break**
	$14^{00} – 16^{15}$ **Session 3** **Chairs: Mariana CRISTEA and Florin BUCATARIU**
$14^{00} – 14^{30}$	**L2. SUPRAMOLECULAR ORGANIC SEMICONDUCTING MATERIALS FOR BIO-ELECTRONICS** Aurica FARCAS, Ana-Maria RESMERITA *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$14^{30} – 14^{45}$	**OC3. SENSING COATINGS BASED ON A HARD-SOFT COPOLYIMIDE FOR TOLUENE DETECTION** Irina BUTNARU, Adriana-Petronela CHIRIAC, Loredana VACAREANU, Mariana-Dana DAMACEANU *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$14^{45} – 15^{00}$	**OC4. NANOMETRIC EM-VESICLES WITH ENHANCED BIOPHARMACEUTICAL ATTRIBUTES** Vera-Maria PLATON, Anda M. CRACIUN, Irina ROSCA, Natalia SIMIONESCU, Luminita MARIN *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$15^{00} – 15^{15}$	**OC5. OLD COMPOUNDS, NEW PURPOSE: IODINE-SUBSTITUTED PYRROL-2-ONES FOR TARGETED ANTITUMOR THERAPY** Cristina M. AL-MATARNEH,[1] Natalia SIMIONESCU,[1] Ashraf AL-MATARNEH,[1,2] Ionel I. MANGALAGIU[2] *[1]Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania* *[2]Alexandru Ioan Cuza University of Iasi, Faculty of Chemistry, Iasi, Romania*
$15^{15} – 15^{30}$	**OC6. THE EFFECT OF MICELLIZATION ON THE EPR SPECTRA OF NITRONYL NITROXIDES WITH ALKYL CHAINS RADICALS** Alexandru Gabriel BUCUR,[1] Alexandru V. F. NECULAE,[1] Mihaela Lavinia CIUTU,[1] Georgiana Alexandra SANDA,[1,2] Sevasti MATSIA,[1] Gabriela IONITA[1] *[1]Ilie Murgulescu Institute of Physical Chemistry, Bucharest, Romania* *[2]University of Bucharest, Faculty of Chemistry, Bucharest, Romania*
$15^{30} – 15^{45}$	**OC7. LIGNIN CARBON-BASED STRUCTURES: SYNTHESIS ROUTE AND PHYSICOCHEMICAL FEATURES** Irina APOSTOL, Narcis ANGHEL *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$15^{45} – 16^{00}$	**OC8. SUSTAINABLE PET RECYCLING THROUGH DESIGN THINKING: CIRCULAR CHEMISTRY SOLUTIONS** Andra-Cristina ENACHE, Petrisor SAMOILA, Corneliu COJOCARU, Ionela GRECU, Valeria HARABAGIU *Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
$16^{00} – 16^{15}$	**OC9. MODULATED TEMPERATURE DSC: FROM THEORY TO APPLICATIONS IN POLYMER CHARACTERIZATION** Paul LAZAR *Laboratorium SRL Bucharest, Romania*

WEDNESDAY, September 24

$16^{15} – 16^{45}$	**Coffee Break & Poster session**
	$16^{45} – 18^{00}$
	Session 4
	Chairs: Luminita MARIN and Catalin-Paul CONSTANTIN
$16^{45} – 17^{15}$	**L3. MAKING LINEAR CIRCULAR: FROM CELLULOSE/LIGNIN TO BIOPLASTICS, BIO-H_2 AND AROMATICS** Xiaoyan JI,[1] Leon ENGELBRECHT,[2] Yonglei WANG,[3] Francesca MOCCI,[2] Narcis CIBOTARIU,[4] Aatto LAAKSONEN[5] *[1]Division of Energy Science, Energy Engineering, Luleå University of Technology, Sweden* *[2]University of Cagliari, Italy* *[3]National Supercomputing Center (NSC), Linköping University, Sweden* *[4]Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania* *[5]Department of Chemistry, Stockholm University, Sweden*
$17^{15} – 18^{00}$	**PL3. "GRAFTING TO" MECHANISM: AN ENIGMA REVEALED** Michele LAUS,[1] Riccardo CHIARCOS,[1] Michele PEREGO[2] *[1]University of East Piemonte, DISIT Dept., Alessandria, Italy* *[2]CNR-IMM, Unit of Agrate Brianza, Agrate Brianza, Italy*

THURSDAY, September 25

	$09^{00} – 10^{30}$
	Session 5
	Chairs: Maria CAZACU and Mihai BREBU
$09^{00} – 09^{45}$	**PL4. TURNING LIQUIDS SOLID: FROM EMULSIONS TO MICROMIXERS** Cristian SILVESTRU,[1] Gabriel DUNES,[1,2] Alpar PÖLLNITZ,[1] Alexandru SAVA,[1] Yann SARAZIN[2] *[1]Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Department of Chemistry, Supramolecular Organic and Organometallic Chemistry Centre (SOOMCC), Cluj-Napoca, Romania* *[2]Université de Rennes, CNRS, Institut des Sciences Chimiques de Rennes, Cedex, France*
$09^{45} – 10^{30}$	**PL5. EFFECTS OF MONOMER SEQUENCE AND CHEMICAL COMPOSITION ON THERMORESPONSIVE PHASE TRANSITION OF OEGMA-BASED SYMMETRIC PENTABLOCK TERPOLYMERS** Shaobai WANG, Theoni K. GEORGIOU *Department of Materials, Imperial College London, United Kingdom*
$10^{30} – 11^{00}$	**Coffee Break & Poster session**
	$11^{00} – 12^{30}$
	Session 6
	Chairs: Mihaela DASCALU and Anton AIRINEI
$11^{00} – 11^{45}$	**PL6. ENGINEERING FUNCTIONAL NANOPLATFORMS FOR BIOIMAGING AND THERAPEUTIC AGENT DELIVERY** Mariana PINTEALA,[1] Dragos PEPTANARIU,[1] Bogdan CRACIUN,[1] Denisse-Iulia BOSTIOG,[1] Tudor VASILIU,[1] Petru TIRNOVAN,[1] Razvan PUF,[1] Cristina URITU,[2] Teodora RUSU,[1] Adrian FIFERE,[1] Andrei NEAMTU[3]

THURSDAY, September 25

[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Prof. C. Mungiu Advanced Center for Research and Development in Experimental Medicine, Gr. T. Popa University of Medicine and Pharmacy of Iasi*
[3]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Iasi, Romania*

$11^{45} – 12^{15}$ **L4. ENGINEERING POLY(2-OXAZOLINE) NANOSTRUCTURES FOR BIOMEDICAL USE**

Marcelina BOCHENEK,[1] Natalia OLESZKO-TORBUS,[1] Barbara MENDREK,[1] Alicja UTRATA-WESOŁEK,[1] Wojciech WAŁACH,[1] Violeta MITOVA,[2] Neli KOSEVA,[3] Agnieszka KOWALCZUK[1]
[1]*Centre of Polymer and Carbon Materials, Polish Academy of Sciences, Zabrze, Poland*
[2]*Institute of Polymers, Bulgarian Academy of Sciences, Sofia, Bulgaria*
[3]*Bulgarian Academy of Sciences, Sofia, Bulgaria*

$12^{15} – 12^{30}$ **OC10. PLASMA-ACTIVATED POLYMERS AND FORMULATIONS FOR CANCER TREATMENT**

Camelia MIRON,[1] Luminita MARIN,[2] Taishi YAMAKAWA,[1] Koki ONO,[1] Ryo WAKATSUKASA,[1] Manuela IFTIME,[2] Kenji ISHIKAWA,[1] Shinya TOYOKUNI,[3] Masaru HORI,[1] Hiromasa TANAKA[1]
[1]*Center for Low-temperature Plasma Sciences, Nagoya University, Nagoya, Japan*
[2]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[3]*Department of Pathology and Biological Responses, Nagoya University, Graduate School of Medicine, Nagoya, Japan*

$12^{30} – 14^{00}$ **Group photo & Lunch Break**

$14^{00} – 16^{00}$

Session 7

Chairs: Irina BUTNARU and Corneliu COJOCARU

$14^{00} – 14^{30}$ **L5. USING EPR SPECTROSCOPY TO INVESTIGATE COMPLEX SUPRAMOLECULAR SYSTEMS**

Gabriela IONITA,[1] Sylvain R. A. MARQUE,[1,2] Jean-Patrick JOLY,[1,2] Iulia MATEI,[1] Alexandru Gabriel BUCUR[1]
[1]*Ilie Murgulescu Institute of Physical Chemistry, Bucharest, Romania*
[2]*Aix-Marseille University, CNRS, ICR, France*

$14^{30} – 14^{45}$ **OC11. SUPRAMOLECULAR GOLD AGGREGATES WITH ENHANCED VISIBLE-LIGHT ABSORPTION FOR PHOTOTHERMAL APPLICATIONS**

Elena-Laura URSU
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

$14^{45} – 15^{00}$ **OC12. ENHANCEMENT OF AUTOPHAGY-INDUCING COMPOUNDS BY NITROGEN REACTIVE SPECIES FROM ATMOSPHERIC PRESSURE PLASMA**

Taishi YAMAKAWA,[1] Ayako TANAKA,[2] Miron CAMELIA,[2] Kenji ISHIKAWA,[2] Masaru HORI,[2] Hiromasa TANAKA[2]
[1]*Department of Electronics, Graduate School of Engineering, Nagoya University, Nagoya, Japan*

THURSDAY, September 25

[2]*Center for Low-temperature Plasma Sciences, Nagoya University, Nagoya, Japan*

$15^{00} – 15^{15}$ **OC13. MULTIFUNCTIONALITY OF XANTHAN-BASED CRYOGELS ENRICHED WITH ANTHOCYANINS**

Ioana-Victoria PLATON, Irina Elena RASCHIP, Nicusor FIFERE, Maria Valentina DINU
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

$15^{15} – 15^{30}$ **OC14. INTERACTION STUDIES OF CHITOSAN-*g*-PNIPAM MULTIRESPONSIVE CHAINS WITH A MODEL PROTEIN**

Florin BUCATARIU,[1] Marius-Mihai ZAHARIA,[1] Larisa-Maria PETRILA,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece*

$15^{30} – 15^{45}$ **OC15. EVALUATION OF BACCAUREA PLANT FOR THEIR USE AS ANTIOXIDANT COMPOUNDS IN POLYMERIC MATERIALS**

Daniela PAMFIL,[1] Elena BUTNARU,[1] Benedict SAMLING,[2] Sim Siong FONG,[2] Shafri Bin SEMAWI,[2] Mihai BREBU,[1] Elena STOLERU[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*University Malaysia Sarawak, Faculty of Resource Science & Technology, Sarawak, Malaysia*

$15^{45} – 16^{00}$ **OC16. SYNTHESIS OF AN INDOLOBENZAZOCINE DERIVATIVE FOR INHIBITION OF TUBULIN POLYMERIZATION**

Marin-Aurel TROFIN, Irina KUZNETCOVA, Ioana-Antonia IFTIMIE, Mihaela BALAN-PORCARASU, Mihaela DASCALU, Gheorghe ROMAN, Maria CAZACU, Vladimir ARION
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

$16^{00} – 16^{30}$ **Coffee Break & Poster session**

$16^{30} – 17^{45}$

Session 8

Chairs: Petronela PASCARIU and Sergiu COSERI

$16^{30} – 17^{00}$ **L6. MULTIPLE TARGET LIGANDS WITH AZAHERECYCLES SKELETON**

Ionel I. MANGALAGIU,[1] Dorina AMARIUCAI-MANTU,[1] Vasilichea ANTOCI,[1] Gheorghita ZBANCIOC,[1] Costel MOLDOVENU,[1] Violeta MANGALAGIU[1,2]
[1]*Al. I. Cuza University of Iasi, Faculty of Chemistry, Iasi, Romania*
[2]*Alexandru Ioan Cuza University of Iasi, Institute for Interdisciplinary Research, CERNESIM and RECENTAIR Centers, Iasi, Romania*

$17^{00} – 17^{45}$ **PL7. RESPONSIVE POLYMERIC NANOCAPSULES AND MULTI-COMPARTMENTS AS CELLULAR MIMICS**

Brigitte VOIT
Leibniz-Institut fuer Polymerforschung Dresden e.V., Dresden, Germany

$19^{00} – 22^{00}$ **Galla Dinner Traian Hotel**

FRIDAY, September 26

$09^{00} – 10^{30}$

Session 9

Chairs: Maria-Valentina DINU and Marin-Aurel TROFIN

$09^{00} –09^{45}$ **PL8. POLYMER MEMBRANES FOR ENERGY APPLICATIONS CHARACTERIZED BY NEUTRON SCATTERING TECHNIQUES**

Aurel RADULESCU

Forschungszentrum Jülich GmbH, Jülich Centre for Neutron Science (JCNS) at Heinz Maier-Leibnitz Zentrum (MLZ),Garching, Germany

$09^{45} –10^{30}$ **PL9. NEW WAYS FOR FUNCTIONAL NANOMATERIALS: THE JOURNEY FROM LINEAR TO STAR-SHAPED POLYMERS**

Barbara MENDREK, Marcelina BOCHENEK, Natalia OLESZKO-TORBUS, Agnieszka KOWALCZUK

Centre of Polymer and Carbon Materials, Polish Academy of Sciences, Zabrze, Poland

$10^{30} –11^{00}$ **Coffee Break & Poster session**

$11^{00} – 12^{30}$

Session 10

Chairs: Marcela MIHAI and Radu-Dan RUSU

$11^{00}– 11^{15}$ **OC17. MULTIFUNCTIONAL PULLULAN–POLYVINYL ALCOHOL HYDROGELS WITH MULTIPLE CROSSLINKING STRATEGIES**

Ioana-Sabina TRIFAN, Gabriela BILIUTA, Raluca BARON, Sergiu COSERI

Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

$11^{15}– 11^{30}$ **OC18. DUAL FUNCTIONAL PHENOXAZINE-BASED POLYMERS: BRIDGING NIR ELECTROCHROMIC AND ENERGY STORAGE APPLICATIONS**

Catalin-Paul CONSTANTIN, Andra-Elena BEJAN, Adriana-Petronela CHIRIAC

Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

$11^{30}– 11^{45}$ **OC19. NOVEL BIOCATALYSTS AS LACCASE/POLYSACCHARIDE NANOASSEMBLIES**

Larisa-Maria PETRILA,[1] Maria KARAYIANNI,[1] Tudor VASILIU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*

[2]*Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece*

$11^{45} –12^{30}$ **PL10. POLYMER PRECISION IN POLYMER SYNTHESIS: FROM SUSTAINABLE POLYMERS TO BIOACTIVE GLYCOPOLYMERS**

C. Remzi BECER

Department of Chemistry, University of Warwick, Coventry, United Kingdom

$12^{40} –13^{00}$ **AWARDS & Conference Closing**

$13^{00} –14^{30}$ **Lunch**

POSTERS LIST

Chairs: Narcisa-Laura MARANGOCI and Marius-Mihai ZAHARIA

PP1 **FLUORESCENCE PROPERTIES OF CARBON DOTS SYNTHESIZED *VIA* HYDROTHERMAL TREATMENT OF TRYPTOPHAN/N-HYDROXYPHTHALIMIDE PRECURSORS WITH MANGANESE DOPING: AN EXCITATION-EMISSION MATRIX STUDY**
Adina COROABA, Ioan-Andrei DASCALU, Oana-Elena CARP, Narcisa-Laura MARANGOCI
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP2 **THEORETICAL NORFLOXACIN LOADED BIODEGRADABLE CHITOSAN/QUATERNIZED CHITOSAN NANOFIBERS FUNCTIONALIZED WITH AN ANTIFUNGAL ALDEHYDE AS WOUND DRESSINGS**
Vera-Maria PLATON,[1] Sandu CIBOTARU,[1] Alexandru ANISIEI,[1] Irina ROSCA,[1] Isabela-Andreea SANDU,[1] Corneliu-George COMAN,[2,3] Liliana MITITELU-TARTAU,[2] Bianca-Iustina ANDREICA,[1] Luminita MARIN[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Faculty of Medicine, Pharmacology, Clinical Pharmacology and Algesiology Department, Iasi, Romania*
[3]*Université de Mons, Faculté de Médecine, Pharmacie et Sciences Biomédicales, Belgium*

PP3 **DEVELOPMENT AND CHARACTERIZATION OF A MULTIFUNCTIONAL BIOACTIVE COMPLEX AS A REGULATOR FOR MELANOGENESIS**
Alexandra VIERU,[1] Alina Gabriela RUSU,[1] Alina GHILAN,[1] Liliana MITITELU-TARTAU,[2] Alexandru SERBAN,[1] Loredana Elena NITA[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Iasi, Romania*

PP4 **NEXT-GENERATION ANTIBACTERIAL MATERIALS: TAILORED DESIGN AND SYNTHESIS OF PULLULAN DERIVATIVES**
Gabriela BILIUTA, Raluca Ioana BARON, Sergiu COSERI
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP5 **IDENTIFICATION OF FLUORESCENCE ORIGIN IN CARBON DOT SYNTHESIS – CASE STUDY**
Ioan-Andrei DASCALU, Maurusa IGNAT, Adina COROABA, Narcisa-Laura MARANGOCI
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP6 **INVESTIGATION OF AMINE-RESPONSIVE PROPERTIES OF FUNCTIONALIZED AZULENES FOR POTENTIAL SENSING APPLICATIONS**
Mihaela HOMOCIANU,[1] Dragos Lucian ISAC,[1] Anton AIRINEI,[1] Mihaela CRISTEA[2]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*C. D. Nenitescu Institute of Organic and Supramolecular Chemistry, Bucharest, Romania*

PP7 **POLY(VINYL ALCOHOL)/GELATIN/TANNIC ACID/LIGNIN NANOPARTICLES HYDROGELS FOR AGRICULTURE APPLICATION**
Cosmina-Maria BOGZA, Maria-Cristina POPESCU
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP8 **NEW NANOCOMPOSITE MATERIALS WITH MULTIPLE THERMOREGULATION MECHANISMS**

George Theodor STIUBIANU,[1] Bianca-Iulia CIUBOTARU,[1,2] Alexandra BARGAN,[1] Mihaela DASCALU,[1] Adrian BELE,[1] Cristian URSU,[1] Roxana SOLOMON[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Department of Biomedical Sciences, Faculty of Medical Bioengineering, Iasi, Romania*

PP9 **VERSATILE POLYIMIDE-BASED SENSING COATINGS FOR PHENOL VAPOURS DETECTION**

Adriana-Petronela CHIRIAC, Irina BUTNARU, Mariana-Dana DAMACEANU
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP10 **HYBRID THERMOREVERSIBLE POLYURETHANE-PEPTIDE HYDROGELS WITH SELF-HEALING PROPERTIES**

Alexandra LUPU,[1] Luiza Madalina GRADINARU,[1] Vasile-Robert GRADINARU,[2] Maria BERCEA[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Alexandru Ioan Cuza University, Faculty of Chemistry, Iasi, Romania*

PP11 **POLY(2-OXAZOLINE)S CONJUGATED WITH CHELATORS FOR THE DESTRUCTION OF BACTERIAL CELL MEMBRANES**

Marcelina BOCHENEK,[1] Barbara MENDREK,[1] Wojciech WAŁACH,[1] Aleksander FORYŚ,[1] Jerzy KUBACKI,[2] Łukasz JAŁOWIECKI,[3] Jacek BORGULAT,[3] Grażyna PŁAZA,[4] Agnieszka KLAMA-BARYŁA,[5] Anna SITKOWSKA,[5] Agnieszka KOWALCZUK,[1] Natalia OLESZKO-TORBUS[1]
[1]*Centre of Polymer and Carbon Materials, Polish Academy of Sciences, Zabrze, Poland*
[2]*A. Chelkowski Institute of Physics, University of Silesia in Katowice, Chorzow, Poland*
[3]*Institute for Ecology of Industrial Areas, Katowice, Poland*
[4]*Faculty of Organization and Management, Silesian University of Technology, Zabrze, Poland*
[5]*Dr. Stanislaw Sakiel Center for Burn Treatment, Siemianowice Slaskie, Poland*

PP12 **SIMULTANEOUS QUANTITATIVE DETERMINATION OF URSOLIC, POMOLIC, OLEANOLIC AND ROSMARINIC ACIDS IN PEPPERMINT EXTRACTS. A COMPARATIVE STUDY OF 2D-NMR AND HPLC DATA**

Veaceslav KULCIȚKI,[1] Adrian TOPALA,[1] Vladilena GIRBU,[1] Alic BARBA,[1] Alina NICOLESCU,[2] Calin DELEANU[2,3]
[1]*Moldova State University, Institute of Chemistry, Republic of Moldova*
[2]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[3]*C. D. Nenitescu Institute of Organic and Supramolecular Chemistry, Romania*

PP13 **SILSESQUIOXANES-BASED HYBRID MATERIALS FOR ENVIRONMENTAL APPLICATIONS (CO_2 CAPTURE)**

Alexandra BARGAN,[1] Mihaela DASCALU,[1] Bianca-Iulia CIUBOTARU,[1,2] Mirela-Fernanda ZALTARIOV,[1] Adrian BELE,[1] George Theodor STIUBIANU,[1] Muslum DEMIR,[3,4] Maria CAZACU[1]
[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Department of Biomedical Sciences, Faculty of Medical Bioengineering, Iasi, Romania*
[3]*Bogazici University, Department of Chemical Engineering, Istanbul, Turkey*
[4]*Material Institute, TUBITAK Marmara Research Center, Gebze, Turkey*

PP14 **DESIGN AND ENGINEERING OF FLOATABLE HYBRID AEROGELS BASED ON CELLULOSE NANOFIBERS**

Andreea L. CHIBAC-SCUTARU, Violeta MELINTE, Gabriela BILIUTA, Madalina E. BISTRICEANU, Raluca I. BARON, Sergiu COSERI
Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania

PP15 **3D PRINTED SCAFFOLDS BASED ON FUNCTIONALISED GELATIN AND XANTHAN GUM FOR SOFT TISSUE ENGINEERING**

Isabella NACU,[1] Anca TOMA,[1] Maria BUTNARU,[1] Loredana Elena NITA,[2] Liliana VERESTIUC[1]
[1]*Gr. T. Popa University of Medicine and Pharmacy of Iasi, Department of Biomedical Sciences, Faculty of Medical Bioengineering, Iasi, Romania*
[2]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*

POSTERS – Workshop HYBSAC

W.PP1 **ECO-FRIENDLY SYNTHESIS OF CHITOSAN-*g*-PNIPAM/AuNPs THERMORESPONSIVE NANOCOMPOSITES**

Marius-Mihai ZAHARIA,[1] Melinda-Maria BAZARGHIDEANU,[1] Alina-Petronela MORARU,[1] Florin BUCATARIU,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

W.PP2 **CHITOSAN-*g*-POLY(N-ISOPROPYLACRYLAMIDE) BASED POLYPLEXES: EFFECT OF DNA LENGTH**

Maria KARAYIANNI,[1] Elena-Daniela LOTOS,[1] Marcela MIHAI,[2] Stergios PISPAS[1,2]

W.PP3 ***IN SITU* AuNPs SYNTHESIS USING AS STABILIZER/MEDIATOR AMYLOPECTIN-*g*-POLY(ACRYLIC ACID)**

Melinda-Maria BAZARGHIDEANU,[1] Marius-Mihai ZAHARIA,[1] Alina-Petronela MORARU,[1] Florin BUCATARIU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

W.PP4 **NATURAL–SYNTHETIC HYBRID NANOSTRUCTURES BY INTERACTION OF CHITOSAN WITH CARBOXYLATE ENDED PNIPAM**

Elena-Daniela LOTOS,[1] Maria KARAYIANNI,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

W.PP5 **HUMAN SERUM ALBUMIN INTERACTION WITH MODIFIED CHITOSAN IN AQUEOUS SYSTEM**

Florin BUCATARIU,[1] Marius-Mihai ZAHARIA,[1] Larisa-Maria PETRILA,[1] Marcela MIHAI,[1] Stergios PISPAS[1,2]

W.PP6 **HYBRID MATERIALS BASED ON GRAFT COPOLYMERS CONTAINING POTATO STARCH AND POLY(ACRYLIC ACID)**

Diana-Felicia LOGHIN,[1] Stefania RACOVITA,[1] Silvia VASILIU,[1] Mihaela Iuliana AVADANEI,[1] Ana-Maria MACSIM,[1] Melinda-Maria BAZARGHIDEANU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

W.PP7 **ENZYME/POLYSACCHARIDE NANOASSEMBLIES: PREPARATION, CHARACTERISATION AND POTENTIAL APPLICATIONS**

Larisa-Maria PETRILA,[1] Maria KARAYIANNI,[1] Timeea-Anastasia CIOBANU,[1] Tudor VASILIU,[1] Stergios PISPAS,[1,2] Marcela MIHAI[1]

[1]*Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania*
[2]*Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece*

ORGANIZERS

Petru Poni Institute of Macromolecular Chemistry of Romanian Academy

Romanian Society of Chemistry

Project Polysaccharide based (Bio)Hybrid Nanostructures Contract 760082/23.05.2023, code CF201/28.11.2022

SPONSORS

Notes, ideas and thoughts

Notes, ideas and thoughts