

**The 13th Symposium with International
Participation**

**NEW TRENDS AND STRATEGIES IN
THE CHEMISTRY OF ADVANCED
MATERIALS WITH RELEVANCE IN
BIOLOGICAL SYSTEMS, TECHNIQUE
AND ENVIRONMENTAL PROTECTION**

**PROGRAM OF THE
CHEMISTRY SYMPOSIUM**

**ONLINE EVENT, October 7-8, 2021
Timișoara, România**

With financial support from:



**ABL&E–JASCO
România S.R.L.**



Agilrom

RONEXPRIM **30** 1991
YEARS
2021
WE DELIVER PERFORMANCE

ORGANIZERS

**ROMANIAN ACADEMY – TIMIȘOARA
BRANCH**

**“CORIOLAN DRĂGULESCU” INSTITUTE OF
CHEMISTRY**

**POLITEHNICA UNIVERSITY OF TIMISOARA
Faculty of Industrial Chemistry and
Environmental Engineering**

**ROMANIAN SOCIETY OF CHEMISTRY –
TIMIȘOARA BRANCH**

ORGANIZING COMMITTEE

Dr. Otilia COSTIȘOR	Institute of Chemistry Timișoara of the Romanian Academy
Prof. Dr. Francisc PETER	Politehnica University Timișoara
Prof. Dr. Florica MANEA	Politehnica University Timișoara
Dr. Liliana CSEH	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Elisabeta I. SZERB	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Simona Gabriela MUNTEAN	Institute of Chemistry Timișoara of the Romanian Academy

SCIENTIFIC COMMITTEE

Acad. Maria ZAHARESCU	Romanian Academy
Prof. Ion NEDA	Technische Universität Braunschweig, Germany
Prof. Goran UNGAR	University of Sheffield, United Kingdom
Prof. Alessandra CRISPINI	University of Calabria, Italy
Prof. Nicolae VASZILCSIN	Politehnica University Timișoara
Dr. Livius COTARCĂ	LC Consulting, Udine, Italy
Conf. Dr. Mihai MEDELEANU	Politehnica University Timișoara
Dr. Bertrand DONNIO	CNRS-Université de Strasbourg, France
Dr. Eugenia FĂGĂDAR–COSMA	"Coriolan Drăgulescu" Institute of Chemistry
Dr. Ana-Maria PUTZ	"Coriolan Drăgulescu" Institute of Chemistry
Dr. Liliana PĂCUREANU	"Coriolan Drăgulescu" Institute of Chemistry
Dr. Adriana POPA	"Coriolan Drăgulescu" Institute of Chemistry
Dr. Nicoleta PLEȘU	"Coriolan Drăgulescu" Institute of Chemistry
Dr. Alexandru POPA	"Coriolan Drăgulescu" Institute of Chemistry

PROGRAM COMMITTEE

Dr. Carmen CRETU	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Manuela CRIȘAN	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Alina BORA	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Aurelia VISA	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Ramona CURPĂN	Institute of Chemistry Timișoara of the Romanian Academy
Drd. Ildiko BUTA	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Orsina VERDES	Institute of Chemistry Timișoara of the Romanian Academy
Dr. Cristian NEANU	Institute of Chemistry Timișoara of the Romanian Academy



Thursday, 07 October 2021

OPENING SESSION

09.00-09.10

Dr. Otilia COSTISOR, Chairman of the Organizing Committee, Director of the "Coriolan Drăgulescu" Institute of Chemistry

PLENARY CONFERENCES & LECTURES

Chairmen: Dr. Otilia COSTISOR

09.10-09.40

PL1. Evamarie HEY-HAWKINS, Peter LÖNNECKE, John POPP, Axel STRAUBE

Leipzig University, Faculty of Chemistry and Mineralogy, Institute of Inorganic Chemistry, Leipzig, Germany

Redox-switchable catalysts

09.40-10.10

PL2. Ya-xin LI, Yi-nan XUE, Yan WANG, Goran UNGAR, Xiao-hong CHENG, Rui-bin ZHANG, Xiang-bing ZENG, Liliana CSEH, Hong-fei GAO, Feng LIU, Kutlwano GABANA, Gillian A. GEHRING

*University of Sheffield, Department of Materials Science and Engineering, Sheffield, UK
LC Consulting, Udine, Italia*

Liquid crystal phase of counter-twisting ribbons and stars – first examples of antiferro- and ferrichirality

10.10-10.25

L1. Angela CANDREVA, Giuseppe DI MAIO, Francesco PARISI, Francesca SCARPELLI, Massimo LA DEDA

University of Calabria, Department of Chemistry and Chemical Technologies, Italy

Luminescent self-assembled monolayer on gold nanoparticles: tuning of emission according to the surface curvature

10.25-10.40

L2. Petronela PASCARIU, Mihaela HOMOCIANU

"Petru Poni" Institute of Macromolecular Chemistry, Iasi

Electrospun cu doped TiO₂ nanofiber composites with high photocatalytic activity

10.40-10.55

L3. Ionel SARACHIE

ABL&E-JASCO Romania S.R.L.

“Jasco spectroscopic instruments used in supramolecular chemistry research”

Coffee Break 10.55-11.15

Chairmen: Prof. Dr. Francisc PÉTER

11.15-11.45

PL3. Gabriel DUNEȘ, Alpar PÖLLNITZ, Alexandru SAVA, Cristian SILVESTRU

Babes-Bolyai University, Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

Hypercoordinated organopnicogen(III) (Sb, Bi) compounds - C-H bond activation and reactivity

11.45-12.15

PL4. Gary HIX

School of Sciences, University of Wolverhampton, Wolverhampton, UK

Luminescent MOFs and metal phosphonate materials

12.15-12.30

L4. Loredana RICCIARDI

CNR NANOTEC - Institute of Nanotechnology, Italy

Glioblastoma treatment with photo-nanotherapeutics: the synergistic combination [Ir(ppy)₂(en)]OOCCH₃ complex/gold nanoparticles

12.30-12.45

L5. Rosario Mercedes Pérez COLODRERO, Aurelio CABEZA, Gary HIX

Universidad de Málaga, Dpto Química Inorgánica, Facultad de Ciencias, Málaga, Spain

Coordination polymers as biomedical platforms

Lunch Break 12.45-14.30

Chairmen: Dr. Liliana CSEH

14:30-15.00

PL5. G. Dan PANTOS, Dora-M. RĂȘĂDEAN

University of Bath, Department of Chemistry, Bath, UK

Small molecule g-quadruplex binders: a supramolecular problem and solution?

15.00-15.30

PL6. Cristian MOISA, Andreea I. LUPITU , Adriana CSAKVARI, Dana RADU, Dorina CHAMBRE, Lucian COPOLOVICI, Dana Maria COPOLOVICI

"Aurel Vlaicu" University of Arad , Faculty of Food Engineering, Tourism and Environmental Protection and Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University of Arad, Arad, Romania

Silver nanoparticles products for potential biological applications

15.30-15.45

L6. Toma GALAON

Agilrom Scientific S.R.L.

"An easy-to use, cost-effective LC/MSD solution for chromatographers"

Coffee Break 15.45-16.00

FLASH PRESENTATIONS/POSTERS

Chairmen: Dr. Elisabeta I. SZERB

16.00-16.05

FP1. Giuseppe DI MAIO, Angela CANDREVA, Francesco PARISI, Francesca SCARPELLI, Nicolas GODBERT, Iolinda AIELLO and Massimo LA DEDA

University of Calabria, Department of Chemistry and Chemical Technologies, Italy

Preparation and characterization of gold nanocubes two-dimensional monolayers

16.05-16.10

FP2. Angela CANDREVA, Francesco PARISI, Rosa BARTUCCI, Rita GUZZI, Giuseppe DI MAIO, Francesca SCARPELLI, Iolinda AIELLO, Nicolas GODBERT, Massimo LA DEDA

University of Calabria, Department of Chemistry and Chemical Technologies, Italy

Synthesis and characterization of hyper branched nanoparticles with magnetic and plasmonic properties

16.10-16.15

FP3. Camelia EPURAN, Ion FRATILESCU, Diana ANGHEL, Mihaela BIRDEANU , Eugenia FAGADAR-COSMA

"Coriolan Drăgulescu" Institute of Chemistry, Timisoara, Romania

Selection of the best sensitive material for uric acid detection from complexes of a functionalized porphyrin and CuNPs, PtNPs or Pt@CuNPs

16.15-17.00

Poster discussions

First day closing session

Friday 08 October 2021

PLENARY CONFERENCES & LECTURES

Chairmen: Dr. Aurelia VIŞA

09.00-09.30

PL7. Anca SILVESTRU

Babes-Bolyai University Faculty of Chemistry and Chemical Engineering, Cluj-Napoca, Romania

Organochalcogen compounds with relevance for biology. structure and reactivity

09.30-10.00

PL8. Konstantinos D. DEMADIS

Crystal Engineering Growth and Design Laboratory, Department of Chemistry, University of Crete, Heraklion, Greece

Fighting osteoporosis: controlled release drug delivery systems based on coordination polymers

10.00-10.15

L7. Catalin-Paul CONSTANTIN, Andra-Elena BEJAN, Mariana-Dana DAMACEANU

“Petru Poni” Institute of Macromolecular Chemistry, Electroactive Polymers and Plasmochemistry Department, Iasi, Romania

Effect of dianhydride segment structure on the electrochromic properties of novel triphenylamine-based polyimides

10.15-10.30

L8. Gabriel KISS, Gerlinde RUSU, Geza BANDUR, Francisc PÉTER

University Politehnica Timișoara, Faculty of Industrial Chemistry and Environmental Engineering, Timișoara, Romania

Achievements in polyurethane foam degradation and recycling, addressing current environmental challenges

10.30-10.45

L9. Mihai BALAS

Ronexprim

“RONEXPRIM - your reliable partner for integrated solutions in r&d for 30 years”

Coffee Break 10.45-11.00

Chairmen: Dr. Ramona CURPĂN

11.00-11.30

PL9. Alessandra CRISPINI, Francesca SCARPELLI, Debora POLICASTRO, Iolinda AIELLO, Massimo LA DEDA, Fabio MARCHETTI, Corrado DI NICOLA, Riccardo PETTINARI, Claudio PETTINARI

Department of Chemistry and Chemical Technologies, University of Calabria, Italy

Metal-based active biofilms: modulation of properties by using zinc and silver coordination compounds

11.30-12.00

PL10. Mirabbos HOJAMBERDIEV

Berlin Technical University, Institute of Chemistry, Berlin, Germany

Bismuth-based layered photocatalytic materials for environmental remediation

12.00-12.30

PL11. Snežana USKOKOVIĆ MARKOVIĆ

University of Belgrade - Faculty of Pharmacy, Belgrade, Serbia

Are composites the best direction for developing new applications of tungstophosphates?

12.30-12.45

L10. Konstantinos E. PAPATHANASIOU, Vera I. ISAEVA, Pawel ZAJDEL, Leonid M. KUSTOV, Gary B. HIX

University of Wolverhampton, School of Sciences, University of Wolverhampton, Wolverhampton, United Kingdom

Bottom-up synthesis of novel 3- & 4-connected boron imidazolate frameworks

Lunch Break 12.45-14.30

Chairmen: Dr. Nicoleta PLEȘU

14.30-14.45

L11. Mariana-Dana DAMACEANU, Catalin-Paul CONSTANTIN

"Petru Poni" Institute of Macromolecular Chemistry, Electroactive Polymers and Plasmochemistry Department, Iasi, Romania

Phenoxazine-based polymers with blue and green light emission in solid state for light-emitting diode applications

14.45-15.00

L12. Dora-M. RĂȘĂDEAN, Dan G. PANTOȘ

University of Bath, Department of Chemistry, Bath, U.K

Flavin-based molecular rotors

15.00-15.15

L13. Magdalena Cristina STANCIU, Marieta NICHIFOR

"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania

Dextran-based antimicrobial polymers

15.15-15.30

L14. Ion FRATILESCU, Zoltán DUDÁS, Mihaela BIRDEANU, Camelia EPURAN, Diana ANGHEL, Ionela FRINGU, Anca LASCU, Adél LEN, Eugenia FAGADAR-COSMA

"Coriolan Drăgulescu" Institute of Chemistry Timisoara, Romania

Hybrid silica materials containing platinum, impregnated with porphyrins and/or platinum nanoparticles for fuchsine B color removal from wastewaters

Closing Remarks

Thursday, 07 October 2021, 16.15 - 17.00

POSTER SESSION

1.	PHOTOCATALYTIC COMPOSITE MEMBRANES FOR WATER TREATMENT: RESULTS, LIMITATIONS, AND NEW INSIGHTS Radu Mihaela HOMOCIANU, Petronela PASCARIU
2.	SILVER TUNGSTOPHOSPHATE/BETA ZEOLITE – A SOLUTION FOR PESTICIDE INDUCED OXIDATIVE STRESS Dejana JANIĆIJEVIĆ, Anka JEVREMOVIĆ, Aleksandra JANOŠEVIĆ LEŽAIĆ, Bojana NEDIĆ VASILJEVIĆ, Snežana USKOKOVIĆ-MARKOVIĆ, Maja MILOJEVIĆ-RAKIĆ Danica BAJUK-BOGDANOVIĆ
3.	IN VITRO CYTOTOXIC RESPONSE OF THE BEA ZEOLITE/ACETAMIPRID SYNERGISTIC ACTION Anka JEVREMOVIĆ , Dragana ARSENIJEVIĆ , Aleksandar ARSENIJEVIĆ, Bojana NEDIĆ VASILJEVIĆ, Danica BAJUK-BOGDANOVIĆ, Maja MILOJEVIĆ-RAKIĆ
4.	SYNTHESIS, CHARACTERIZATION AND CO₂ ADSORPTION-DESORPTION OF MCM-48 AND MCM-41 MOLECULAR SIEVE Silvana BORČĂNESCU, Alexandru POPA, Paul BARVINSCHI, Orsina VERDES, Mariana SUBA
5.	3D Cd(II) COORDINATION POLYMER ASSEMBLED FROM BIPHENYL-4,4'-DICARBOXYLIC ACID AND N,N'-(1,4-PHENYLENE)BIS(1-(PYRIDIN-4-YL)METHANIMINE)

	LIGANDS Vasile N. LOZOVAN, Victor Ch. KRAVTSOV, Marina S. FONARI
6.	NOVEL vic-DIOXIME LIGANDS AND ITS ANTIMICROBIAL ACTIVITY Dumitru URECHE
7.	THE CYCLIC ADSORPTION-DESORPTION OF CO₂ ON KIT-6 AND NI/KIT-6 STUDIED BY TEMPERATURE-PROGRAMMED DESORPTION Mariana SUBA, Alexandru POPA, Orsina VERDEȘ, Silvana BORCĂNESCU, Paul BARVINSCHI
8.	EXPLORATION OF MAO-B INHIBITORS AS A POTENTIAL ANTI-DIABETIC DRUG Daniela ISTRATE, Luminita CRISAN, Alina BORA
9.	INSIGHTS INTO CRYSTAL STRUCTURE AND HIRSHFELD SURFACE ANALYSIS OF Cu(II) TRIETHANOLAMINE 4-NITROBENZOATE Anastasia GOROBET, Manuela E. CRISAN, Paulina N. BOUROSH, Lilia CROITOR
10.	A WEB TOOL TO COMPUTE THE DIFFRACTION PRECISION INDEX OF PROTEIN STRUCTURES Cristian NEANU, Sorin AVRAM
11.	PROSPECTIVE FLUORESCENT PLANT GROWTH REGULATORS AND THEIR RESPONSE IN PLANTS Manuela CRISAN, Liliana HALIP, Radu SUMALAN, Lilia CROITOR, Anatolii SIMINEL, Paulina BOUROSH, Yurii CHUMAKOV, Massimo MAFFEI
12.	DISCRETE AND POLYMERIC Mn(II) COORDINATION COMPOUNDS WITH DIHYDRAZONE SCHIFF BASES Olga DANILESCU, Lilia CROITOR, Maria COCU, Paulina N. BOUROSH, Ion BULHAC, Victor Ch. KRAVTSOV, Oleg PETUHOV
13.	HOMO- AND HETEROMETALLIC Zn(II) AND Cd(II) COORDINATION POLYMERS CAPABLE OF RETAINING GUEST MOLECULES Olga DANILESCU, Paulina N. BOUROSH, Oleg PETUHOV, Olga V. KULIKOVA, Yurii M. CHUMAKOV, Ion BULHAC, Lilia CROITOR
14.	HIRSHFELD SURFACE ANALYSIS OF π-π STACKING INTERACTIONS IN THE CRYSTALS OF Cu(II) COMPLEXES WITH AROMATIC LIGANDS

	Elena MELNIC, Yurii M. CHUMAKOV, Victor Ch. KRAVTSOV
15.	HETEROMETALLIC {Fe^{III}₄Na₂} PIVALATE CLUSTER – SYNTHESIS AND STRUCTURE CHARACTERISATION Daniel PODGORNII, Svetlana G. BACA, Victor Ch. KRAVTSOV
16.	BIMETALLIC LIQUID CRYSTALLINE FUNCTIONAL MATERIALS Evelyn POPA, Bianca-Nicoleta BADESCU, Alexandru VISAN, Sorin MARINESCU, Ildiko BUTA, Carmen CRETU, Elisabeta I. SZERB
17.	LINEAR TRINUCLEAR COBALT(II) ISOBUTYRATE WITH 1,10-PHENANTHROLINE Ecaterina NIRCA, Victor Ch. KRAVTSOV, Svetlana G. BACA
18.	REMOVAL OF ACETYLSALICYLIC ACID FROM AQUEOUS SOLUTIONS USING POLYMERS CONTAINING AMINOPHOSPHINIC GROUPS Radu ARDELEAN, Aurelia VISA, Adriana POPA, Manuela MIHETIU, Corneliu-Mircea DAVIDESCU
19.	POLYMERS OF VINYLPHOSPHONIC ACID WITH DIALKYL VINYL PHOSPHONATES AND THEIR ANTICORROSION PROPERTY Lavinia MACARIE, Nicoleta PLESU, Gheorghe ILIA, Milica TARA-LUNGA-MIHALI, Adriana POPA
20.	ORDERED MESOPOROUS SILICA FUNCTIONALIZED WITH AMINOPROPYL GROUPS BY CO-CONDENSATION AND POST GRAFTING Ana-Maria PUTZ, Oleksandr I. IVANKOV, Cătălin IANĂȘI, Marija MILANOVIĆ, Ivan STIJEPOVIĆ, László ALMÁSY
21.	CRYSTALLINE MULTI-COMPONENT COMPOUNDS INVOLVING HEXAAMINE COBALT(III) CATIONS AND THEIR EFFECTS AGAINST PLANT PATOGENIC BACTERIA Mariana DARII, Ecaterina NIRCA, Victor Ch. KRAVTSOV, Paulina BOUROSH, Jürg HAUSER, Silvio DECURTINS, Shi-Xia LIU, Olga SULTANOVA, Svetlana G. BACA
22.	APPLICATION OF FULL FACTORIAL DESIGN FOR ADSORPTION OF METHYLENE BLUE DYE FROM AQUEOUS SOLUTION Maria Andreea NISTOR, Simona Gabriela MUNTEAN, Liliana HALIP
23.	LACCASSES STABILIZATION BY COVALENT

	<p>IMMOBILIZATION ONTO FUNCTIONALIZED MAGNETIC AND SEPABEADS SUPORTS Ioan BÎTCAN, Andreea PETROVICI, Andrei ȘTEFAN, Anamaria TODEA, Iulia PĂUȘESCU, Francisc PÉTER</p>
24.	<p>ENZYMATIC APPROACH FOR THE SYNTHESIS OF ϵ-CAPROLACTAM AND HYDROXY ACIDS POLYESTERAMIDES Ioana-Cristina BENEĂ, Diana Maria DREAVĂ, Anamaria TODEA, Lajos NAGY, Sándor KÉKI, Francisc PÉTER</p>
25.	<p>POLYMERIC SORBENT FOR DYE RETAINING Milica TARA-LUNGA-MIHALI, Nicoleta PLESU</p>
26.	<p>MODULATED SYNTHESIS OF Zr(IV) METAL-ORGANIC FRAMEWORK BASED ON A DICARBOXYLIC ACID (H₂BDC) Elena-Mirela PICIORUS, Alexandru POPA, Catalin IANASI, Elisabeta I. SZERB, Carmen CRETU</p>
27.	<p>NATURAL PRODUCTS AS ANTI-HIV AGENTS: AN IN SILICO INSIGHT Luminita CRISAN, Alina BORA</p>
28.	<p>MONO- AND OLIGONUCLEAR COMPLEXES BASED ON A O-VANILLIN DERIVED SCHIFF-BASE LIGAND Ildiko BUTA, Sergiu SHOVA, Sorina ILIES, Florica MANEA, Marius ANDRUH, Otilia COSTISOR</p>
29.	<p>SYNTHESIS AND CHARACTERISATION OF 2-HYDROXYBENZYLIDENE DERIVATIVES Livia DEVESELEANU-CORÎCI, Ana Maria PANĂ, Anca BELEAN, Sergiu SHOVA, Valentin BADEA, Liliana CSEH</p>
30.	<p>CHEMICAL SPACE ANALYSIS OF PROTEIN KINASE CYSTEINOME Luminita CRISAN, Liliana PACUREANU</p>
31.	<p>EXPLORING THE MOLECULAR BINDING MECHANISMS OF CLINICALLY-RELEVANT SELECTIVE ESTROGEN RECEPTOR MODULATORS THROUGH MOLECULAR DYNAMICS SIMULATIONS Ramona CURPĂN, Liliana HALIP, Ana BOROTA, Philipp MAXIMOV, Craig V. JORDAN</p>
32.	<p>FINGERPRINTING G-PROTEIN COUPLED RECEPTORS SUPERFAMILY Liliana HALIP, Ramona CURPAN, Ana BOROTA, Alina BORA, Sorin</p>

	AVRAM
33.	MANUKA HONEY AND ITS FLAVONOID COMPONENTS - AN AFFORDABLE THERAPEUTIC OPTION TO FIGHT SARS-COV-2 INFECTIONS: IN SILICO EVALUATION Alina BORA, Liliana HALIP, Sorin AVRAM, Luminita CRISAN
34.	BATCH AND CONTINUOUS FLOW AROMA ESTER SYNTHESIS BY SOL-GEL ENTRAPPED CANDIDA ANTARCTICA LIPASE B Ivana MILOȘ, Mădălina GHEORGHE, Corina VASILESCU, Francisc PETÉR, Cristina PAUL
35.	SYNTHESIS AND CHARACTERIZATION OF NEW RACEMIC SECONDARY ALCOHOL WITH 5-BENZYL-4-(4-METHYLPHENYL)-3-SULFANYL-1,2,4-TRIAZOLE STRUCTURE Ion BURCĂ, Vladislav-Silvestru VALICSEK, Valentin BADEA, Vasile-Nicolae
36.	A NEW LANDSCAPE FOR DRUG REPURPOSING Sorin AVRAM, Ramona CURPĂN, Liliana HALIP, Alina BORA

Closing Conference