

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania



**ROMANIAN ACADEMY**

**“CORIOLAN DRĂGULESCU” INSTITUTE OF CHEMISTRY**

24 Mihai Viteazu Av., RO-300223 Timisoara, ROMANIA

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

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

***online event***

**webpage: [www.ntcr-2021.ro](http://www.ntcr-2021.ro)**

**2021**

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## **DAY 1**

### **CHAIRMAN – Session 1**

**Dr. Otilia COSTISOR**

**Director of “Coriolan Dragulescu” Institute of Chemistry, Timisoara**



## Invited Speakers

### Prof. Dr. EVA MARIE HEY-HAWKINS

**Summary REDOX-SWITCHABLE CATALYSTS**

Multi-State Switching

$$\text{ClAu} \begin{matrix} \text{PPh}_2 \\ \text{Fe} \\ \text{E} \\ \text{Ph}_2\text{P} \\ \text{AuCl} \end{matrix} \begin{matrix} \text{Fe} \\ \text{E} \\ \text{Ph}_2 \\ \text{ClAu} \end{matrix}$$

E = C-H, C-F, N

Ring-closing cycloisomerisation

$$\text{Ph-NH-C}\equiv\text{C} \xrightarrow[\text{CH}_2\text{Cl}_2]{\text{Au}^{\text{I}} \text{catalyst}} \text{Ph-N=C-C}=\text{C}$$

**Multi-State Switching in our Labs**

$$\text{Ph-NH-C}\equiv\text{C} \xrightarrow[\text{CH}_2\text{Cl}_2]{\text{Au}^{\text{I}} \text{catalyst}} \text{Ph-N=C-C}=\text{C}$$

Oxidant:  $\text{TEF} = \text{Al}(\text{O}(\text{CF}_3)_2)_3$

Reductant:  $\text{Fe}^{\text{II}}$

A. Straube, E. Hey-Hawkins *et al.*

## MASSIMO LA DEDA



### LUMINESCENT SELF-ASSEMBLED MONOLAYER ON GOLD NANOPARTICLES: TUNING OF EMISSION ACCORDING TO THE SURFACE CURVATURE

**Optical Properties of Nanoparticles**

- **Composition:** the plasmonic resonance band position depends on the chemical composition
- **Size:** nanoparticle size determines the band position
- **Shape:** the shape pilots the resonance energy
- **Environment:** the metal/dielectric interface tunes the band wavelength

## Prof.Dr.GORAN UNGAR

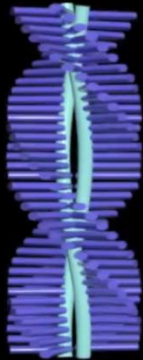
Zoom Webinar | You are viewing Goran UNGAR's screen | View Options

Alina Bora | Otilia COSTISOR | Goran UNGAR | Massimo LA DEDA | Mihai BALAS | Anca SILVESTRU

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

Ya-xin Li<sup>1,2</sup>, Yi-nan Xue<sup>1</sup>, Yan Wang<sup>1</sup>, Goran Ungar<sup>1,2</sup>, Xiao-hong Cheng<sup>3</sup>, Rui-bin Zhang<sup>2</sup>, Xiang-bing Zeng<sup>2</sup>, Liliana Cseh<sup>4</sup>, Hong-fei Gao<sup>3</sup>, Feng Liu<sup>1</sup>, Kutlwano Gabana<sup>2</sup> and Gillian A. Gehring<sup>2</sup>

1 Xi'an Jiao-tong University, Xi'an, China  
2 University of Sheffield, Sheffield, UK  
3 Key Laboratory of Medicinal Chemistry from Natural Resources, Kunming, China  
4 Romanian Academy, Coriolan Dragulescu Institute of Chemistry, Timisoara, Romania



西安交通大学 | The University Of Sheffield | ACADEMIA ROMANA DE STIINTE

Unmute | Start Video | Participants (63) | Q&A | Chat | Share Screen | Raise Hand | Record | Leave

Liliana CSEH | Alina Bora | Otilia COSTISOR | Goran UNGAR | Massimo LA DEDA | Giuseppe DI MAIO

# Acknowledgements

Ya-xin Li,  
Yi-nan Xue, Yan Wang, Feng Liu,  
Rui-bin Zhang, Xiang-bing Zeng,  
Xiaohong Cheng, Hong-fei Gao,  
Liliana Cseh,  
Kutlwano Gabana, Gillian A. Gehring

Funding:  
111 Program of China  
EPSRC  
NSFC.



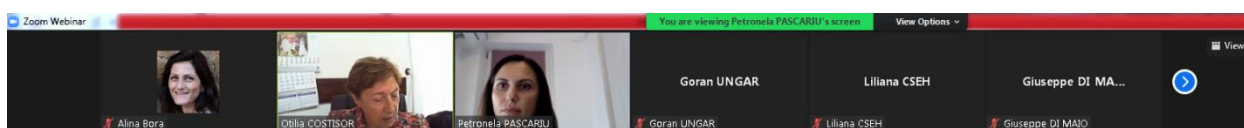
西安交通大学 | XI'AN JIAOTONG UNIVERSITY

Unmute | Start Video | Participants (68) | Q&A | Chat | Share Screen | Raise Hand | Record | Leave



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## Dr. PETRONELA PASCARIU



Institute of Macromolecular  
Chemistry Romania

New Trends and Strategies in the Chemistry of Advanced Materials with  
Relevance in Biological Systems, Technique and Environmental Protection,  
ONLINE EVENT, October 7-8, 2021, Timișoara, România

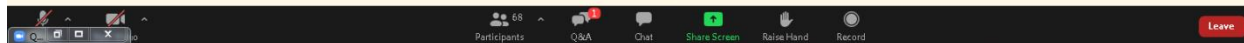
### *Electrospun Cu doped TiO<sub>2</sub> nanofiber composites with high photocatalytic activity*

Petronela Pascariu\*, Mihaela Homocianu

*"Petru Poni" Institute of Macromolecular Chemistry of Romanian Academy, Iași*

[\\*dorneanu.petronela@icmpp.ro](mailto:dorneanu.petronela@icmpp.ro); [pascariu\\_petronela@yahoo.com](mailto:pascariu_petronela@yahoo.com);

October 7-8, 2021, Timișoara, România



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## **CHAIRMAN – Sesion 2**

**Prof.Dr. Francisc PETER**

**Polytechnica University of Timisoara**



New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

**IONEL SARACHIE**  
**(ABL&E – JASCO Romania SRL)**



A screenshot of a Zoom Webinar interface. The main content is a presentation slide with a green and blue background featuring a molecular structure. The slide text reads: "JASCO spectroscopic instruments for Supramolecular Chemistry Research", "Presented by Ionel Sarachie ABL&amp;E-JASCO România", and "NTCR-2021". The JASCO logo is at the bottom right. The Zoom interface includes a top bar with "Zoom Webinar" and "You are viewing Ionel SARACHIE's screen", a participant gallery with names like Alina Bora, Otilia COSTISOR, Mirabbos HOJAMBERDIEV, Nicoleta PLESU, Petronela PASCARBU, and Liliana CSEH, and a bottom toolbar with icons for Participants, Q&amp;A, Chat, Share Screen, Raise Hand, Record, and a Leave button.



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## Acad. CRISTIAN SILVESTRU

A screenshot of a Zoom meeting. The top bar shows several participants: Alina Bora, Otilia COSTISOR, Ionel SARACHIE, Liliana CSEH, Cristian Neanu, and Cristian Silvestru. The main content is a presentation slide with a light blue background. At the top of the slide are three logos: the University of Babeş-Bolyai (UBB) Cluj-Napoca, the Supramolecular Organic and Organometallic Chemistry Centre (SO-MCC), and the Faculty of Chemistry and Chemical Engineering (Facultatea de Chimie și Inginerie Chimică) at UBB. The slide text reads:

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

**Alexandru SAVA, Gabriel DUNEȘ, Alpar PÖLLNITZ and  
Cristian SILVESTRU**

**Facultatea de Chimie și Inginerie Chimică  
Universitatea Babeş-Bolyai  
Cluj-Napoca, ROMANIA**

*New Trends and Strategies in the Chemistry of Advanced Materials  
Timisoara, 7-8 octombrie 2021*

The Zoom interface at the bottom shows 63 participants, a chat window, and a 'Leave' button.

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## Prof.dr. GARY HIX



Zoom Webinar

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Alina Bora

Cristian Silvestru

Francisc PETER

Gary HIX

Otilia COSTISOR

Cristian Neanu

UNIVERSITY OF WOLVERHAMPTON

# Luminescent MOFs and Metal Phosphonate Materials

Professor Gary Hix  
University of Wolverhampton, UK

7/10/21

Participants: 61

Q&A

Chat

Share Screen

Raise Hand

Record

Leave

The image shows a Zoom Webinar interface. At the top, there are several video thumbnails of participants: Alina Bora, Cristian Silvestru, Francisc PETER, Gary HIX, Otilia COSTISOR, and Cristian Neanu. Below the thumbnails is a large presentation slide. The slide features the University of Wolverhampton logo and the title "Luminescent MOFs and Metal Phosphonate Materials" in large white text. Below the title, it says "Professor Gary Hix" and "University of Wolverhampton, UK". The date "7/10/21" is displayed in the bottom right corner of the slide. At the bottom of the Zoom window, there is a control bar with icons for Participants (61), Q&A, Chat, Share Screen, Raise Hand, Record, and a red "Leave" button.

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## Outline

- What are MOFs/Metal Phosphonates?
- MOFs / Metal Phosphonates
  - Phosphonate / MOF structure
  - Transition metal phosphonates
  - Lanthanide phosphonates
  - MOF/NP materials
- Conclusions



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## Dr. LOREDANA RICCIARDI



Zoom Webinar

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Alina Bora

Francisc PETER

Loredana RICCIARDI

Aurelia VISA

Gary HIX

Aurelia VISA

Gary HIX

Otilia COSTISOR

National Research Council of Italy

**CNR NANOTEC**  
INSTITUTE OF NANOTECHNOLOGY

**Glioblastoma Treatment with Photo-Nanotherapeutics:  
the Synergistic Combination**  
**[Ir(ppy)<sub>2</sub>(en)]OOCCH<sub>3</sub> Complex/Gold Nanoparticles**

Dr. Loredana Ricciardi

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

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr.ROSARIOM.P. COLODERO



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Alina Bora Francis PETER Rosario M.P. COLODRERO Nicoleta PLESU Loredana RICCI... Gary HIX

UNIVERSITY OF WOLVERHAMPTON KNOWLEDGE • INNOVATION • ENTERPRISE

UNIVERSIDAD DE MÁLAGA

# COORDINATION POLYMERS AS BIOMEDICAL PLATFORMS

[Rosario M. P. Colodrero](#), Aurelio Cabeza, G.B. Hix  
Dpto Química Inorgánica, Cristalografía y Mineralogía.  
Universidad de Málaga

[colodrero@uma.es](mailto:colodrero@uma.es)

*13<sup>th</sup> New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection*  
7<sup>th</sup> - 8<sup>th</sup> October 2021, Timișoara, România



New trends and strategies in the chemistry of advanced materials with relevance in biological systems,  
technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## **CHAIRMAN - Sesion 3**

**Dr. Liliana CSEH**

**“Coriolan Dragulescu” Institute of Chemistry, Timisoara**



## Dr. Dan G. PANTOS



### SMALL MOLECULE G-QUADRUPLEX BINDERS: A SUPRAMOLECULAR PROBLEM AND SOLUTION?

**Introduction - G-quadruplexes**

- Hogsteen H-bond pattern
- flat  $\pi$ -deficient surface
- cation binding sites
- anionic loops


**Chiral!**

**a G-tetrad**


Antiparallel  
● Monovalent cation  
5' 3' 3'  
5' 3'  
Parallel  
(3 + 1) Hybrid

4P1D, bimolecular h-Telo with Coptisine


Image created using Mol\* doi:10.2210/pdb4P1D/pdb, Mol\* (D. Sehnal, A.S. Rose, J. Kovca, S.K. Burley, S. Velankar (2018) Mol\* doi:10.2312/molva.20181103), RCSB PDB. 5




Alina Bora




Liliana CSEH




Dan G. PANTOS




Elisabeta SZERB



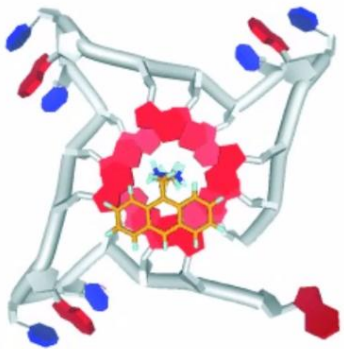
Evamarie HEY-HAWKINS

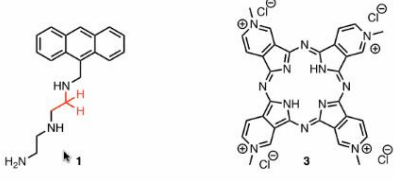


Otilia COSTISOR



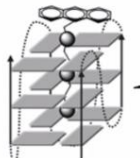
### ► G-quadruplex binders





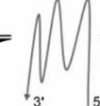
1: NCCNC1=CC=C2C=CC=C12  
 3: [Cl-]N1C=NC2=C1N=CN2C3=CC=C4C=CC=C3N4[Cl-]

a) ● = ammonium center of 1 ● = 3



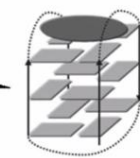
Parallel conformation

$\rightleftharpoons$

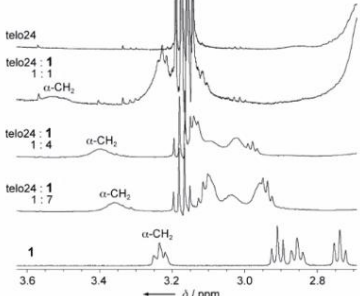


Single-stranded DNA

$\rightleftharpoons$



Antiparallel conformation



telo24  
telo24 : 1  
1 : 1  
 $\alpha$ -CH<sub>2</sub>

telo24 : 1  
1 : 4  
 $\alpha$ -CH<sub>2</sub>

telo24 : 1  
1 : 7  
 $\alpha$ -CH<sub>2</sub>

1  
 $\alpha$ -CH<sub>2</sub>

3.6    3.4    3.2    3.0    2.8  
←  $\delta$  / ppm

ACIE 2007, 46, 5405

7

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## Prof. Dana COPOLOVICI



Alina Bora Liliana CSEH Dana M. COPOLOVICI Dan G. PANTOS Ramona CURPAN Otilia COSTISOR

Dana Copolovici - New Trends-Tm - 2021.pptx - PowerPoint

FILE HOME INSERT DESIGN TRANSITIONS ANIMATIONS SLIDE SHOW REVIEW VIEW EndNote X7

Sign in

### SILVER NANOPARTICLES PRODUCTS FOR POTENTIAL BIOLOGICAL APPLICATIONS

Cristian MOISA<sup>1</sup>, Andreea I. LUPITU<sup>1</sup>, Adriana CSAKVARI<sup>2</sup>, Dana RADU<sup>1</sup>,  
Dorina CHAMBRE<sup>1</sup>, Lucian COPOLOVICI<sup>1</sup>, Dana Maria COPOLOVICI<sup>1\*</sup>

<sup>1</sup> "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, Elena Dragoi St, Nr. 2, 310330 Arad, Romania

<sup>2</sup> Biomedical Sciences Doctoral School, University of Oradea, University St., Nr. 1, 410087, Oradea, Romania

E-mail: dana.copolovici@uav.ro

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**CHAIRMAN - Sesion 4**

**Dr. Elisabeta SZERB**

**“Coriolan Dragulescu” Institute of Chemistry, Timisoara**



## GIUSEPPE DI MAIO



Zoom Webinar

Elisabeta SZERB Giuseppe DI MAIO Liliana CSEH Otilia COSTISOR Massimo LA DEDA FRANCIS PETER

UNIVERSITÀ DELLA CALABRIA

### PREPARATION AND CHARACTERIZATION OF GOLD NANOCUBES TWO-DIMENSIONAL MONOLAYERS

GIUSEPPE DI MAIO, ANGELA CANDREVA, FRANCESCO PARISI, FRANCESCA SCARPELLI, NICOLAS GODBERT, IOLINDA AIELLO AND MASSIMO LA DEDA

*Giuseppe Di Maio, PhD student  
Department of Chemistry and Chemical Technologies, University of Calabria  
87036, Rende (CS), Italy  
giuseppe.dimaio@unical.it*

MAT-IN-LAB

Alina Bora Elisabeta SZERB Giuseppe DI MAIO Otilia COSTISOR Massimo LA DEDA Toma GALAON

### Characterization:

**Morphological: SEM**

Two SEM images showing the morphology of the AuNC monolayer. The top image is a low-magnification view showing a dense layer of small particles. The bottom image is a high-magnification view showing individual gold nanocubes. Technical data for the bottom image: HV: 15.0 kV, WD: 12.3 mm, Mag: 100000X, Det: SEI, ETD: 2.70 um, 1.0um, NC: 1.

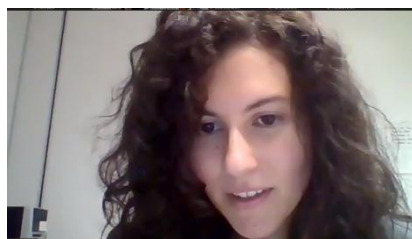
**Optical: UV-Vis Spectroscopy**

UV-Vis Spectroscopy plot showing Normalized Extinction versus Wavelength (nm) for the AuNC monolayer. The plot shows a broad surface plasmon resonance (SPR) peak centered around 700-800 nm. Technical data for the plot: AuNC monolayer.

Wavelength (nm)	Normalized Extinction
400	0.5
500	0.4
600	0.8
700	1.0
800	0.9
900	0.8
1000	0.7
1100	0.6
1200	0.4

4

## ANGELA CANDREVA



Giuseppe DI MA... Otilia COSTISOR Toma GALAON

Alina Bora Elisabeta SZERB Angela CANDREVA Giuseppe DI MAIO Otilia COSTISOR Toma GALAON

*Synthesis and Characterization of Hyper Branched Nanoparticles with Magnetic and Plasmonic properties*

$Fe_3O_4$   $Fe_3O_4$   $Fe_3O_4$

*Angela Candreva*

A Zoom meeting interface showing a presentation slide. The slide title is "Synthesis and Characterization of Hyper Branched Nanoparticles with Magnetic and Plasmonic properties". Below the title are three orange circles, each containing the chemical formula  $Fe_3O_4$ . The name "Angela Candreva" is written at the bottom right of the slide. The Zoom interface shows several participants in a row at the top.

Giuseppe DI MA... Otilia COSTISOR Toma GALAON

Alina Bora Elisabeta SZERB Angela CANDREVA Giuseppe DI MAIO Otilia COSTISOR Toma GALAON

*Hydroxylamine concentration determines the final nanoparticles shape*

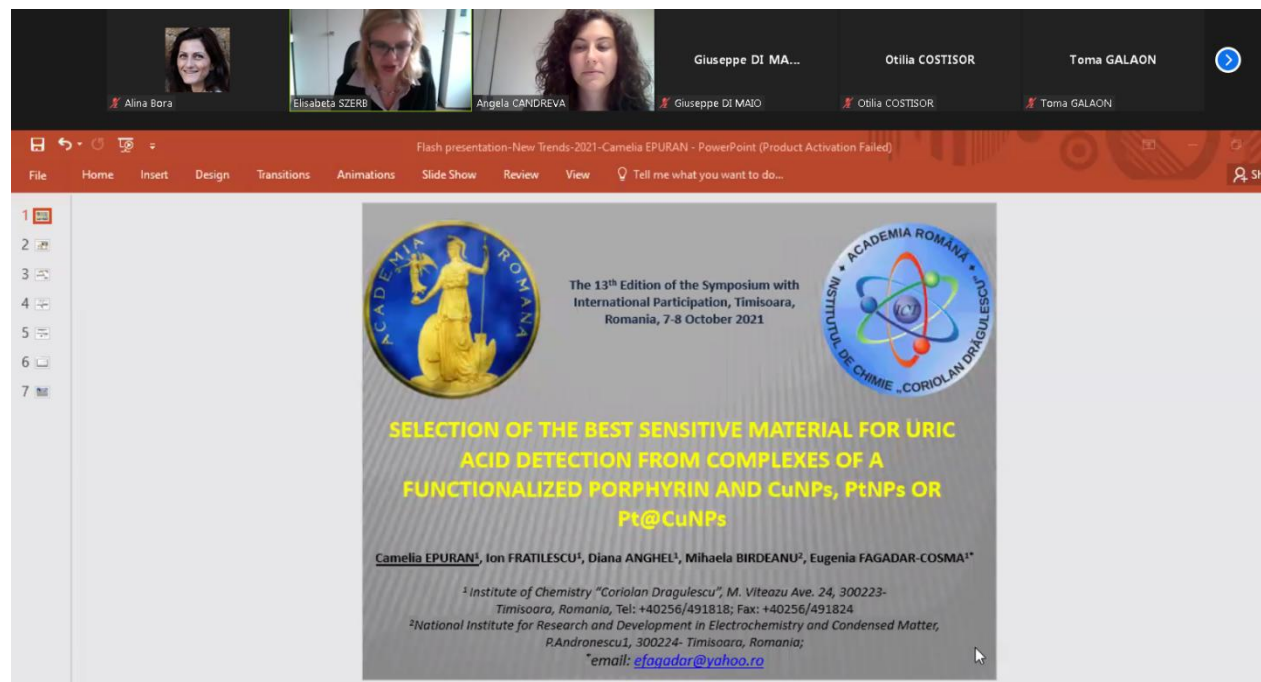
A B C

*Growing amount of hydroxylamine*

3

A Zoom meeting interface showing a presentation slide. The slide title is "Hydroxylamine concentration determines the final nanoparticles shape". Below the title are three images labeled A, B, and C, showing the morphology of nanoparticles. Image A shows a small, dark, irregular cluster. Image B shows a larger, more complex, star-like structure. Image C shows a smaller, more defined star-like structure. Below the images is a large arrow pointing to the right, containing the text "Growing amount of hydroxylamine". The number "3" is visible in the bottom right corner of the slide.


## Drd. CAMELIA EPURAN



Flash presentation-New Trends-2021-Camelia EPURAN - PowerPoint (Product Activation Failed)

File Home Insert Design Transitions Animations Slide Show Review View Tell me what you want to do...

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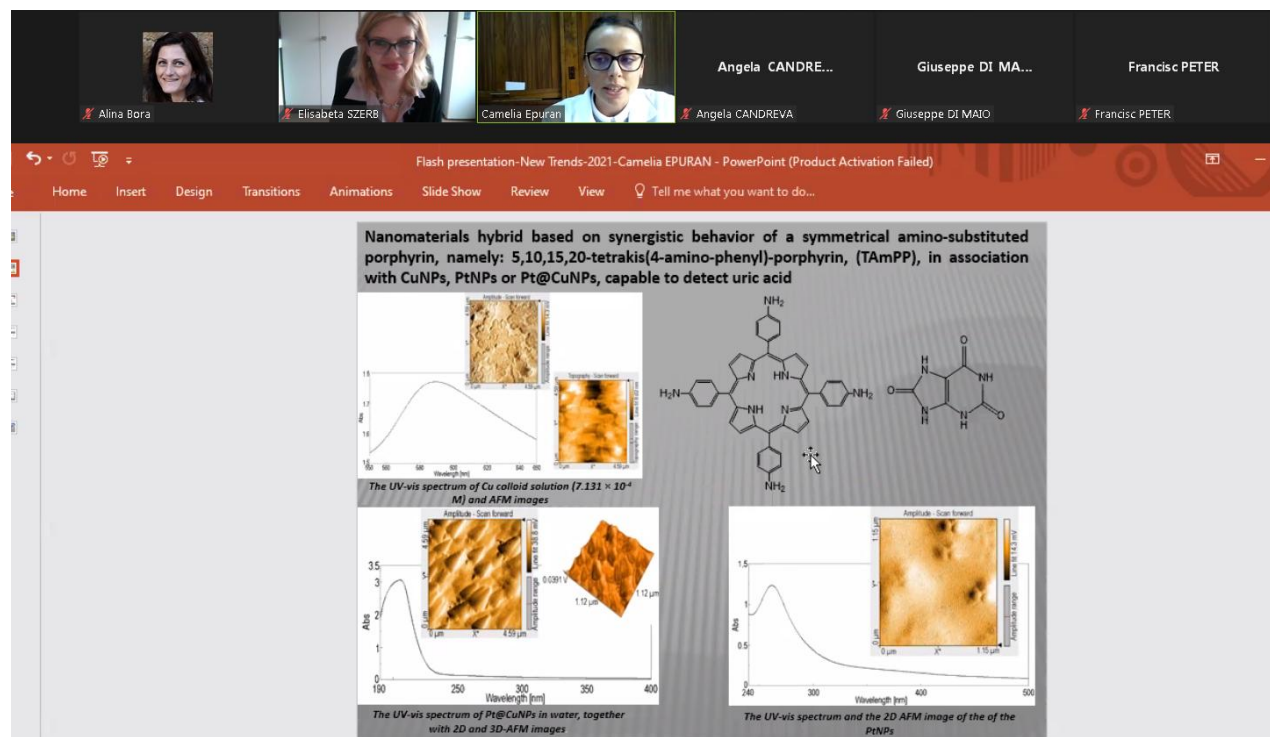
 

The 13<sup>th</sup> Edition of the Symposium with International Participation, Timisoara, Romania, 7-8 October 2021

**SELECTION OF THE BEST SENSITIVE MATERIAL FOR URIC ACID DETECTION FROM COMPLEXES OF A FUNCTIONALIZED PORPHYRIN AND CuNPs, PtNPs OR Pt@CuNPs**

Camelia EPURAN<sup>1</sup>, Ion FRATILESCU<sup>1</sup>, Diana ANGHEL<sup>1</sup>, Mihaela BIRDEANU<sup>2</sup>, Eugenia FAGADAR-COSMA<sup>1\*</sup>

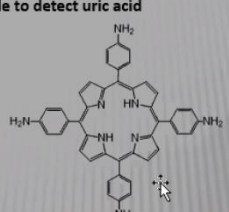
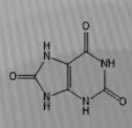
<sup>1</sup>Institute of Chemistry "Coriolan Dragulescu", M. Viteazu Ave. 24, 300223-Timisoara, Romania; Tel: +40256/491818; Fax: +40256/491824  
<sup>2</sup>National Institute for Research and Development in Electrochemistry and Condensed Matter, P.Andronescu1, 300224-Timisoara, Romania;  
\*email: [efagadar@yahoo.ro](mailto:efagadar@yahoo.ro)

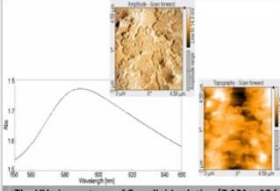


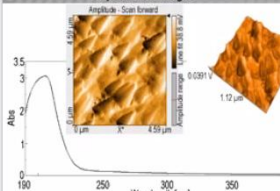
Flash presentation-New Trends-2021-Camelia EPURAN - PowerPoint (Product Activation Failed)

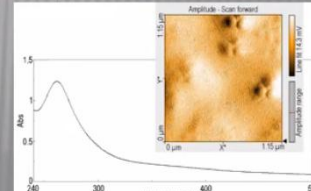
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**Nanomaterials hybrid based on synergistic behavior of a symmetrical amino-substituted porphyrin, namely: 5,10,15,20-tetrakis(4-amino-phenyl)-porphyrin, (TAmPP), in association with CuNPs, PtNPs or Pt@CuNPs, capable to detect uric acid**

  
The UV-vis spectrum of Cu colloid solution ( $7.131 \times 10^{-4}$  M) and AFM images

  
The UV-vis spectrum of Pt@CuNPs in water, together with 2D and 3D-AFM images

  
The UV-vis spectrum and the 2D AFM image of the PtNPs

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## **DAY 2**

### **CHAIRMAN – Sesion 1**

**Dr. Aurelia PASCARIU**

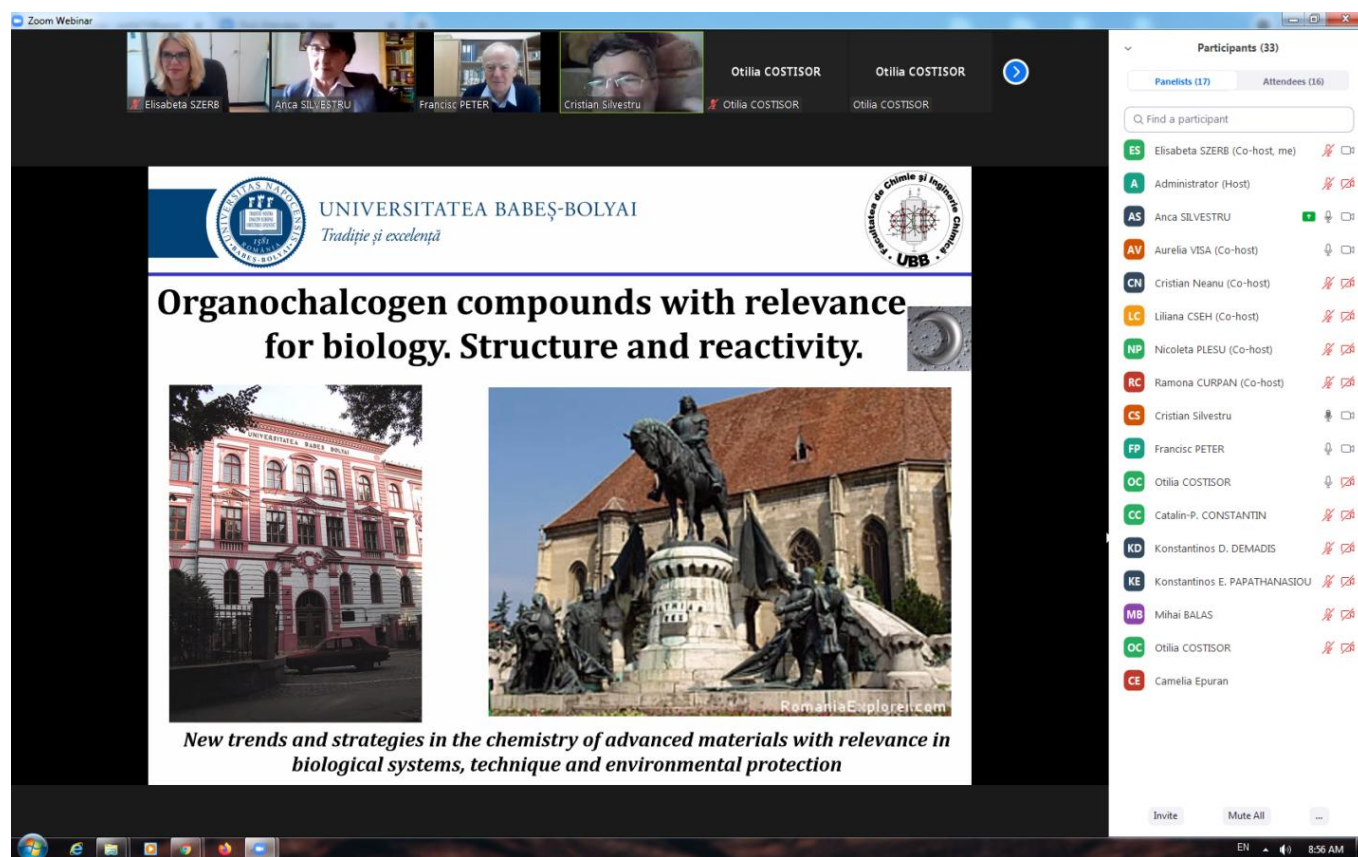
**“Coriolan Dragulescu” Institute of Chemistry, Timisoara**





New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Prof.Dr. Anca SILVESTRU



The screenshot shows a Zoom Webinar interface. At the top, there are several small video thumbnails of participants: Elisabeta SZERB, Anca SILVESTRU, Francis PETER, Cristian Silvestru, and two instances of Otilia COSTISOR. Below the thumbnails is a presentation slide from the University of Babeş-Bolyai (UBB). The slide features the university's logo and name, along with the text: "Organochalcogen compounds with relevance for biology. Structure and reactivity." Below the text are two images: a red brick building and a large equestrian statue. At the bottom of the slide, it reads: "New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection". On the right side of the Zoom window, there is a "Participants (33)" list with 17 panelists and 16 attendees. The list includes names like Elisabeta SZERB, Administrator (Host), Anca SILVESTRU, Aurelia VISA, Cristian Neanu, Liliiana CSEH, Nicoleta PLESU, Ramona CURPAN, Cristian Silvestru, Francis PETER, Otilia COSTISOR, Catalin-P. CONSTANTIN, Konstantinos D. DEMADIS, Konstantinos E. PAPANATHANASIOU, Mihai BALAS, Otilia COSTISOR, and Camelia Epuran. At the bottom of the Zoom window, there are "Invite" and "Mute All" buttons, and a system tray showing the time as 8:56 AM.

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Prof. Kostas D. DEMADIS



Alina Bora Anca SILVESTRU Liliana CSEH Francis PETER

Aurelia VISA Konstantinos D. DEMADIS Anca SILVESTRU Liliana CSEH Francis PETER

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

**Fighting osteoporosis: Controlled release drug delivery systems based on coordination polymers**

**Maria Vassaki, Kostas Papathanasiou, and Kostas D. Demadis\***

Department of Chemistry  
University of Crete  
Heraklion, Greece  
demadis@uoc.gr  
<http://www.chemistry.uoc.gr/demadis>

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr. Catalin P. CONSTANTIN

Nicoleta PLESU  
Alina Bora  
Aurelia VISA  
Catalin-P. CONSTANTIN  
Konstantinos D....  
Cristian Silvestru

Nicoleta PLESU  
Alina Bora  
Aurelia VISA  
Catalin-P. CONSTANTIN  
Konstantinos D. DEMADIS  
Cristian Silvestru

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

ONLINE EVENT, October 7-8, 2021, Timisoara, Romania

**EFFECT OF DIANHYDRIDE SEGMENT STRUCTURE  
ON THE ELECTROCHROMIC PROPERTIES OF  
NOVEL TRIPHENYLAMINE-BASED POLYIMIDES**

**Catalin-Paul Constantin<sup>1</sup>, Andra-Elena Bejan<sup>1</sup>, Mariana-Dana Damaceanu<sup>1</sup>**

<sup>1</sup> “Petru Poni” Institute of Macromolecular Chemistry of Romanian Academy, Iași  
[constantin.catalin@icmpp.ro](mailto:constantin.catalin@icmpp.ro)

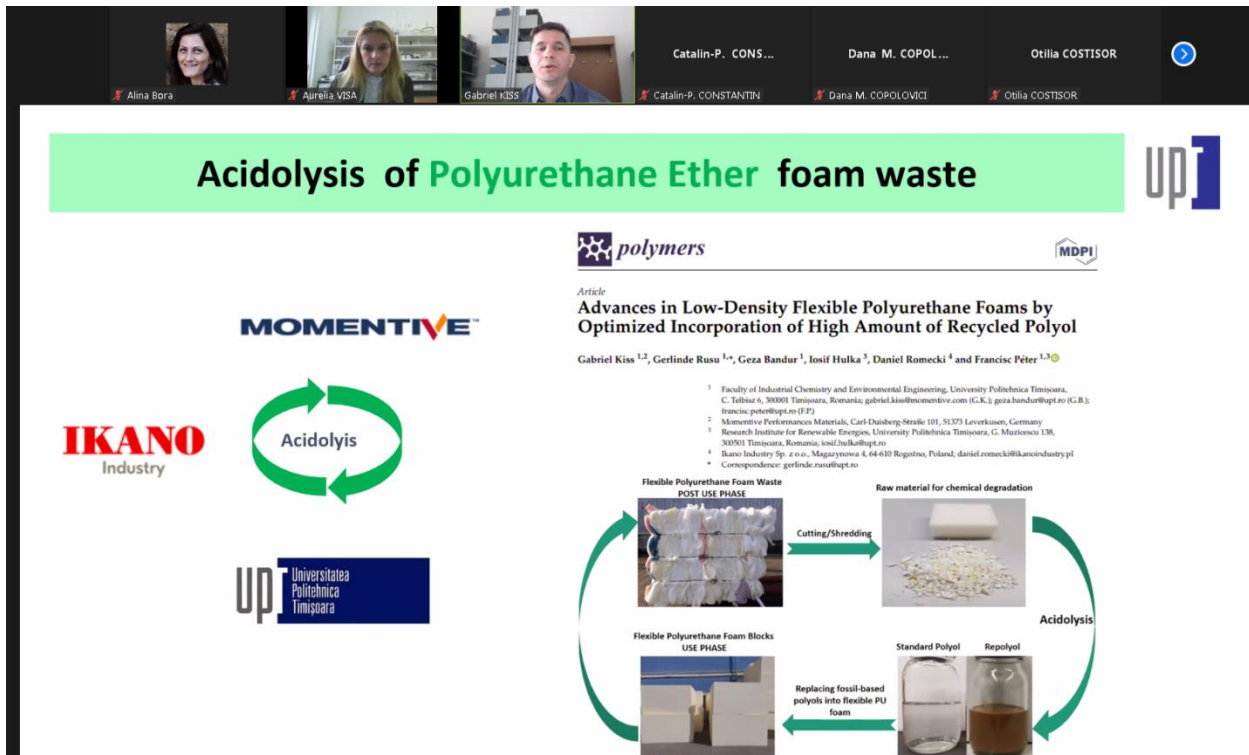
**October 2021**

ACADEMIA ROMANA  
PETRU PONI

## Dr. Gabriel KISS



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



**Acidolysis of Polyurethane Ether foam waste**

**MOMENTIVE™**

**IKANO Industry**

**UP T Universitatea Politehnica Timisoara**

**polymers**

**MDPI**

*Article*  
**Advances in Low-Density Flexible Polyurethane Foams by Optimized Incorporation of High Amount of Recycled Polyol**

Gabriel Kiss <sup>1,2</sup>, Gerlinde Rusu <sup>1,\*</sup>, Geza Bandur <sup>1</sup>, Iosif Hulka <sup>3</sup>, Daniel Romecki <sup>4</sup> and Francis Péter <sup>1,3</sup>

<sup>1</sup> Faculty of Industrial Chemistry and Environmental Engineering, University Politehnica Timisoara, C. Teflez 6, 300081 Timisoara, Romania; gabriel.kiss@momentive.com (G.K.); geza.bandur@upt.ro (G.B.); francisc.peter@upt.ro (F.P.)  
<sup>2</sup> Momentive Performance Materials, Carl-Duisberg-Strasse 101, 51375 Leverkusen, Germany  
<sup>3</sup> Research Institute for Renewable Energies, University Politehnica Timisoara, G. Muzicescu 138, 300081 Timisoara, Romania; iosif.hulka@upt.ro  
<sup>4</sup> Ikano Industry Sp. z o.o., Magaryanova 4, 64-650 Rogozno, Poland; daniel.romecki@ikanoindustry.pl  
\* Correspondence: gerlinde.rusu@upt.ro

**Flexible Polyurethane Foam Waste POST USE PHASE**

**Raw material for chemical degradation**

**Acidolysis**

**Standard Polyol Repolyol**

**Replacing fossil-based polyols into flexible PU foam**

**Flexible Polyurethane Foam Blocks USE PHASE**

The diagram illustrates a circular process for recycling polyurethane foam. It starts with 'Flexible Polyurethane Foam Waste POST USE PHASE' (represented by a stack of white foam blocks). This waste undergoes 'Cutting/Shredding' to become 'Raw material for chemical degradation' (represented by a pile of small foam particles). This raw material then undergoes 'Acidolysis' to produce 'Standard Polyol' and 'Repolyol' (represented by two glass beakers containing liquids). These polyols are used to 'Replace fossil-based polyols into flexible PU foam', which are then used as 'Flexible Polyurethane Foam Blocks USE PHASE' (represented by a stack of white foam blocks). The process is supported by logos for MOMENTIVE, IKANO Industry, and UP T Universitatea Politehnica Timisoara. The presentation also features logos for 'polymers' and 'MDPI'.



New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr. Mihai BALAS



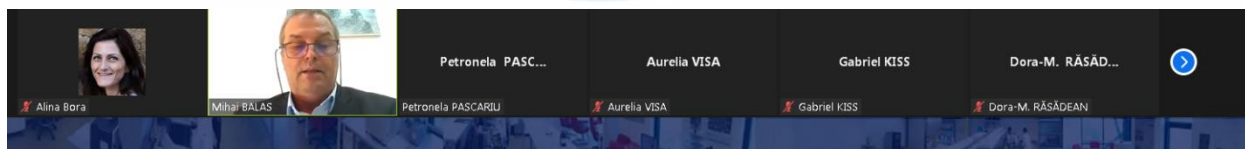
**RONEXPRIM** 30 1991  
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The 13<sup>th</sup> Edition of the Symposium

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

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



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New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## **CHAIRMAN – Sesion 2**

**Dr. Ramona CURPAN**

**“Coriolan Dragulescu” Institute of Chemistry, Timisoara**



## Dr. Alessandra CRISPINI

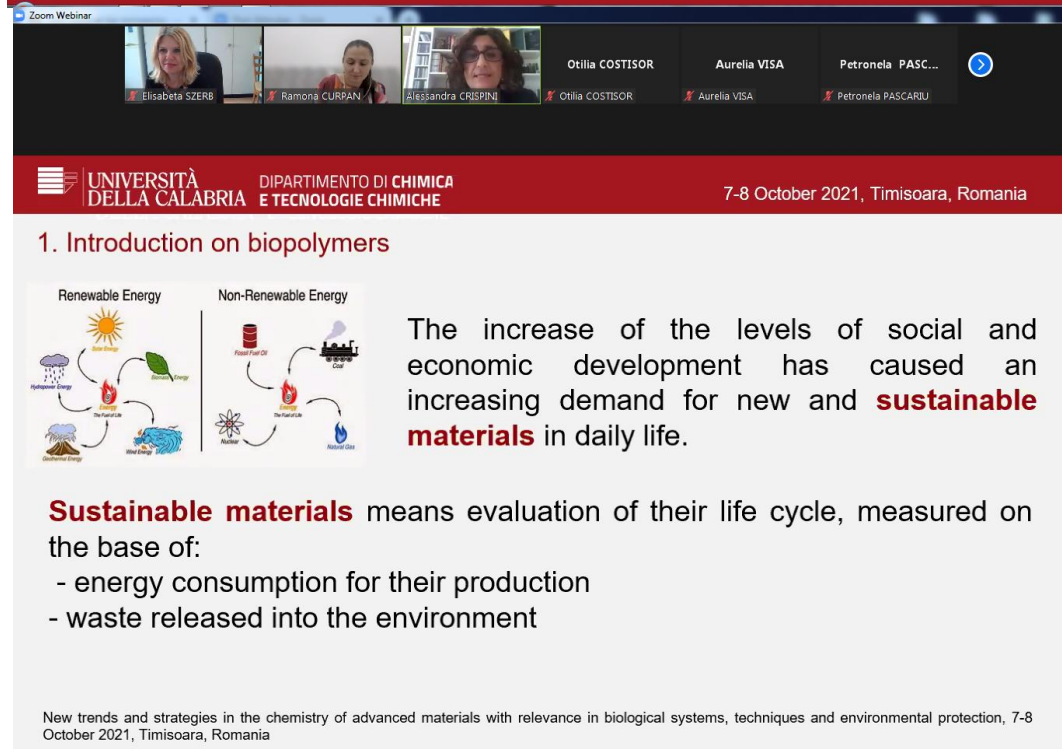


UNIVERSITÀ DELLA CALABRIA DIPARTIMENTO DI CHIMICA E TECNOLOGIE CHIMICHE 7-8 October 2021, Timisoara, Romania

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

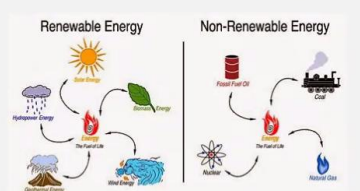
Prof. Alessandra CRISPINI

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, techniques and environmental protection, 7-8 October 2021, Timisoara, Romania



UNIVERSITÀ DELLA CALABRIA DIPARTIMENTO DI CHIMICA E TECNOLOGIE CHIMICHE 7-8 October 2021, Timisoara, Romania

### 1. Introduction on biopolymers



The diagram illustrates two energy pathways. On the left, 'Renewable Energy' shows a cycle where solar energy is converted to biomass, which is then used for bioenergy, and wind energy is converted to wind energy. On the right, 'Non-Renewable Energy' shows a cycle where fossil fuels and nuclear energy are used to produce energy, which is then used to produce fossil fuels and nuclear energy.

The increase of the levels of social and economic development has caused an increasing demand for new and **sustainable materials** in daily life.

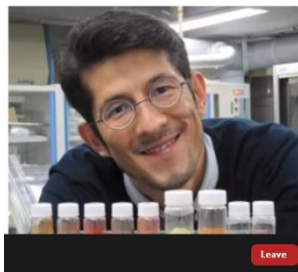
**Sustainable materials** means evaluation of their life cycle, measured on the base of:

- energy consumption for their production
- waste released into the environment

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, techniques and environmental protection, 7-8 October 2021, Timisoara, Romania

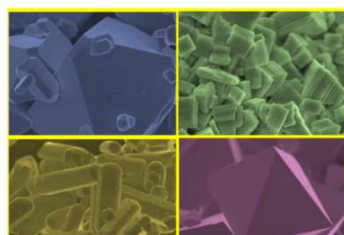
New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr. Mirabbos HOJAMBERDEV



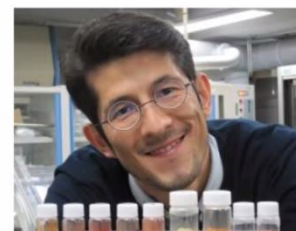
A screenshot of a Zoom meeting interface. At the top, there are three video thumbnails for Alina Bora, Ramona CURPAN, and Mirabbos HOJAMBERDEV. Below them are names of other participants: Alessandra CRISPINI, Elisabeta SZERB, and Otilia COSTISOR. The main banner contains logos for the organizing institutions: the Romanian Chemical Society (SChR) Filiala Timisoara, the Timisoara branch of the Romanian Chemical Society, and Technische Universität Berlin. The event title is "New Trends and Strategies in the Chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection" and the dates are "October 7-8, 2021, Timisoara, Romania".

# BISMUTH-BASED LAYERED PHOTOCATALYTIC MATERIALS FOR ENVIRONMENTAL REMEDIATION



DR. MIRABBOS HOJAMBERDEV

*Technische Universität Berlin  
Institut für Chemie  
Germany*



A screenshot of the Zoom meeting interface showing various controls at the bottom: Mute, Start Video, Participants (63), Q&amp;A, Chat, Share Screen, Raise Hand, Record, and a Leave button.

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr. Snezana USKOKOVIĆ-MARKOVIĆ

A screenshot of a Zoom meeting slide. The slide has a purple background and contains the following text and images:

Institutul de Chimie "Coriolan Drăgulescu", Timișoara  
The 13<sup>th</sup> Edition of the Symposium with  
International Participation

Oct 07-08, 2021



**ARE COMPOSITES THE BEST DIRECTION FOR  
DEVELOPING NEW APPLICATIONS OF  
TUNGSTOPHOSPHATES?**

**Snežana Uskoković-Marković**

Department of Analytical Chemistry, Faculty of Pharmacy,  
University of Belgrade, Serbia

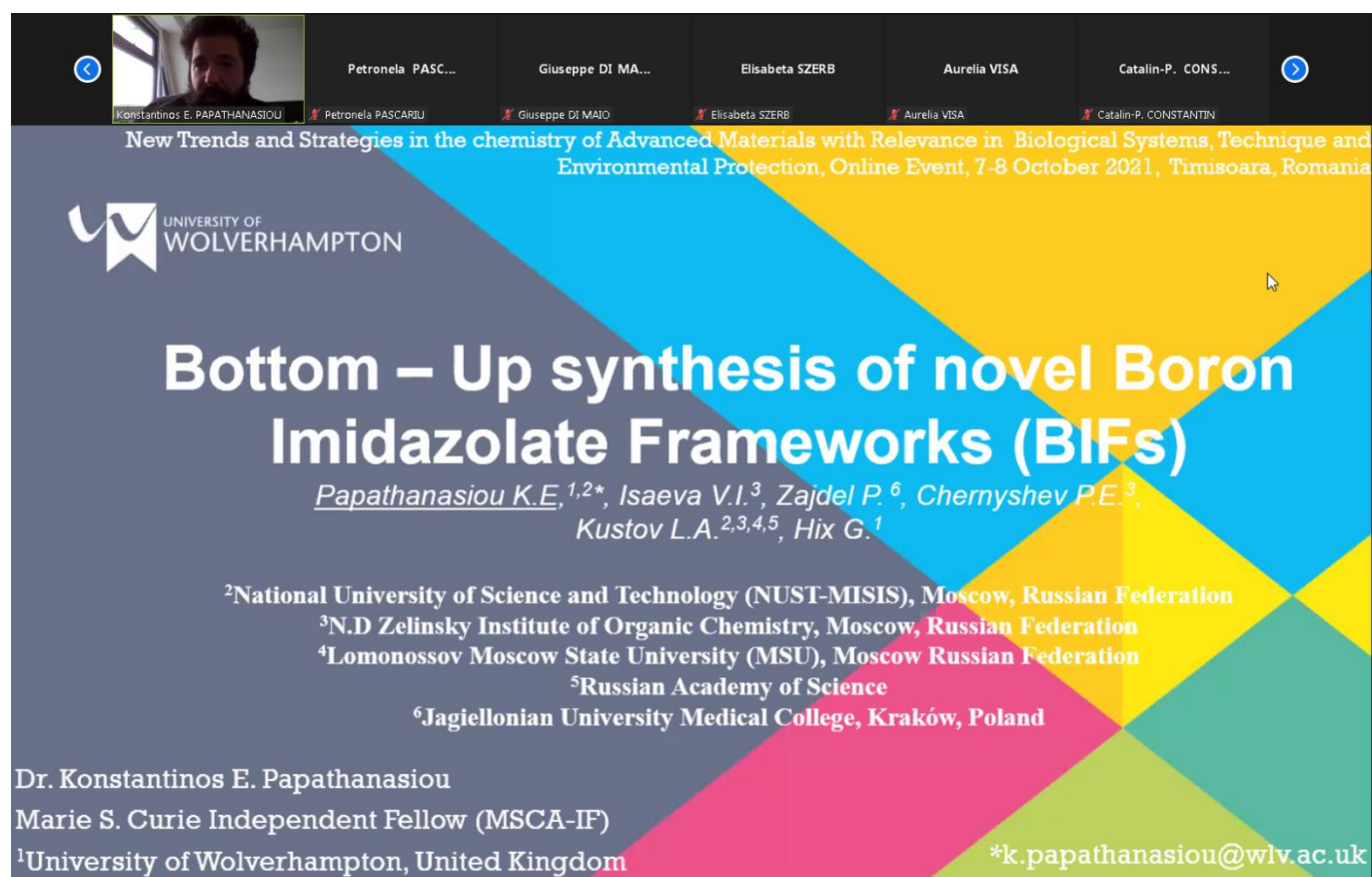
[snezaum@pharmacy.bg.ac.rs](mailto:snezaum@pharmacy.bg.ac.rs)



The slide also features a header with the text "Institutul de Chimie 'Coriolan Drăgulescu', Timișoara" and "The 13<sup>th</sup> Edition of the Symposium with International Participation" on the left, and "Oct 07-08, 2021" on the right. The main title is "ARE COMPOSITES THE BEST DIRECTION FOR DEVELOPING NEW APPLICATIONS OF TUNGSTOPHOSPHATES?". Below the title is the speaker's name "Snežana Uskoković-Marković" and her affiliation "Department of Analytical Chemistry, Faculty of Pharmacy, University of Belgrade, Serbia". At the bottom, her email address "snezaum@pharmacy.bg.ac.rs" is provided. There are three logos: the Institutul de Chimie "Coriolan Drăgulescu" logo in the top right, the University of Belgrade logo in the bottom left, and the Faculty of Pharmacy logo in the bottom right. The slide is part of a Zoom meeting, with a header showing several participants: Alina Bora, Ramona CURPAN, Snežana USKOKOVIĆ-MARKOVIĆ, Mirabbos HOJAMBERDIEV, Alessandra CRISPINI, and Otilia COSTISOR.

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## Dr. Konstantinos E. PAPATHANASIOU



Zoom meeting interface showing participants: Konstantinos E. PAPATHANASIOU, Petronela PASCARIU, Giuseppe DI MAIO, Elisabeta SZERB, Aurelia VISA, Catalin-P. CONSTANTIN.

New Trends and Strategies in the chemistry of Advanced Materials with Relevance in Biological Systems, Technique and Environmental Protection, Online Event, 7-8 October 2021, Timisoara, Romania

UNIVERSITY OF WOLVERHAMPTON

# Bottom – Up synthesis of novel Boron Imidazolate Frameworks (BIFs)

*Papathanasiou K.E.<sup>1,2\*</sup>, Isaeva V.I.<sup>3</sup>, Zajdel P.<sup>6</sup>, Chernyshev P.E.<sup>3</sup>, Kustov L.A.<sup>2,3,4,5</sup>, Hix G.<sup>1</sup>*

<sup>2</sup>National University of Science and Technology (NUST-MISIS), Moscow, Russian Federation  
<sup>3</sup>N.D Zelinsky Institute of Organic Chemistry, Moscow, Russian Federation  
<sup>4</sup>Lomonosov Moscow State University (MSU), Moscow Russian Federation  
<sup>5</sup>Russian Academy of Science  
<sup>6</sup>Jagiellonian University Medical College, Kraków, Poland

Dr. Konstantinos E. Papathanasiou  
Marie S. Curie Independent Fellow (MSCA-IF)  
<sup>1</sup>University of Wolverhampton, United Kingdom

\*k.papathanasiou@wlv.ac.uk



New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

## **CHAIRMAN – Sesion 3**

**Dr. Nicoleta PLESU**

**“Coriolan Dragulescu” Institute of Chemistry, Timisoara**



## Dr. Mariana D. DAMACEANU

Alina Bora Nicoleta PLESU Evamarie HEY-HAWKINS Otilia COSTISOR Mariana-D. DAMACEANU Dan G. PANTOȘ

**EPP**  
ELECTROACTIVE POLYMERS  
AND PLASMOCHEMISTRY

**PETRU PONI**

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

Mariana-Dana Damaceanu, Catalin-Paul Constantin  
"Petru Poni" Institute of Macromolecular Chemistry, IASI - ROMANIA  
[damaceanu@icmpp.ro](mailto:damaceanu@icmpp.ro)

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

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

Alina Bora Nicoleta PLESU Evamarie HEY-HAWKINS Otilia COSTISOR Mariana-D. DAMACEANU Dan G. PANTOȘ

**EPP**  
ELECTROACTIVE POLYMERS  
AND PLASMOCHEMISTRY

**PETRU PONI**

### Conclusions

Phenoxazine-based polyazomethines with donor-acceptor topology were investigated

The absolute fluorescence quantum yield in solution reached up to 90.93%

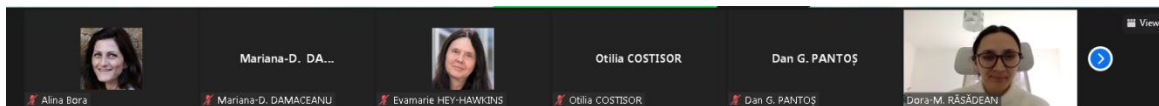
Dual intramolecular charge transfer fluorescence was obtained with these polymers

Blue, green, orange, or pink-white light emission was attained in different solvents

Both *p*- and *n*-type doping of synthesized polymers to conducting state is achievable

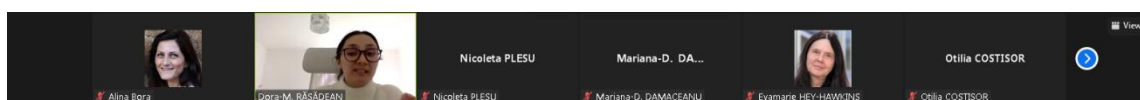
□ **potential applications:** OLEDs or other related fields

## Drd. Dora M. RASADEAN

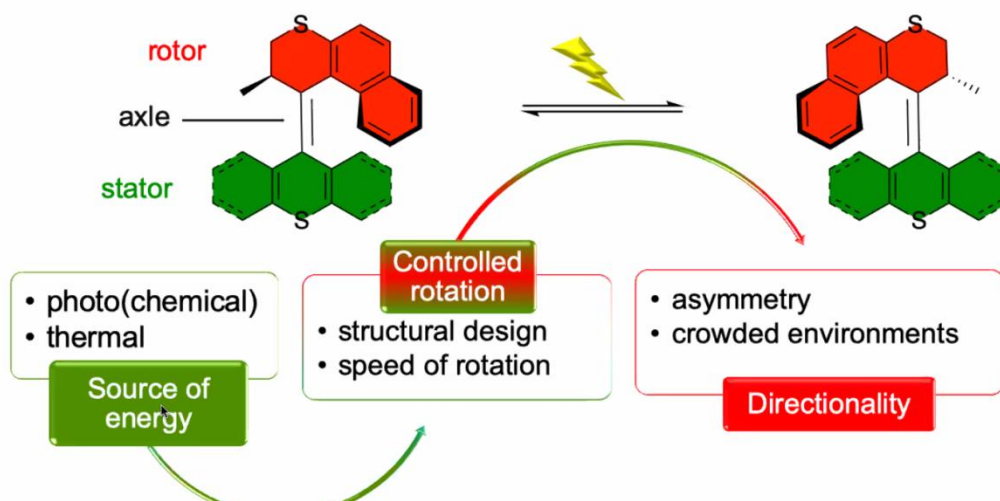


# Flavin-based molecular motors

Dora-M. Răsădean, Dr Christopher R. Pudney, Dr G. Dan Pantos  
dmr35@bath.ac.uk



### 1 Prerequisites for molecular motors

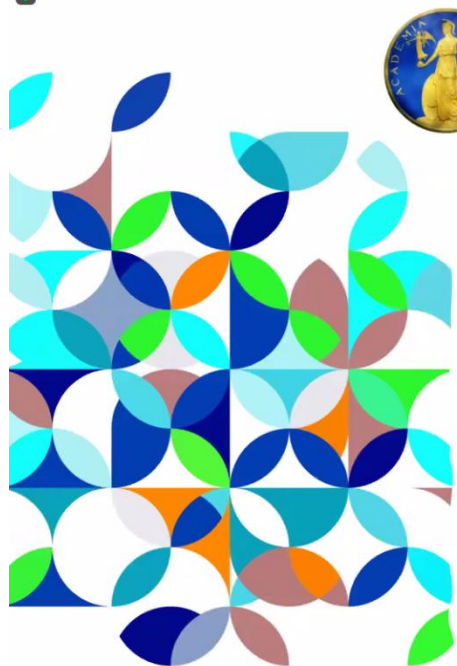
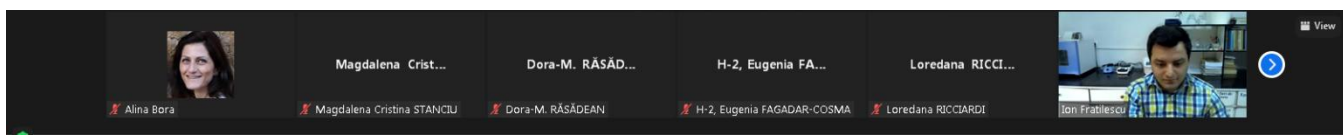




## DEXTRAN-BASED ANTIMICROBIAL POLYMERS

Magdalena Cristina STANCIU, Marieta NICHIFOR

### Drd. Ion FRATILESCU



## HYBRID SILICA MATERIALS CONTAINING PLATINUM, IMPREGNATED WITH PORPHYRINS AND/OR PLATINUM NANOPARTICLES FOR FUCHSINE B COLOR REMOVAL FROM WASTEWATERS

Ion Fratilesco<sup>1</sup>, Zoltán Dudás<sup>2</sup>, Mihaela Birdeanu<sup>3</sup>,  
Camelia Epuran<sup>1</sup>, Diana Anghel<sup>1</sup>, Ionela Fringu<sup>1</sup>, Anca Lascu<sup>1</sup>, Adél Len<sup>4</sup>, Eugenia Fagadar-Cosma<sup>1</sup>

<sup>1</sup>Institute of Chemistry "Coriolan Dragulescu", Mihai Viteazu Ave. 24, 300223 Timisoara, Romania

<sup>2</sup>Neutron Spectroscopy Department, Centre for Energy Research, Konkoly-Thege Street 29-33, 1121 Budapest, Hungary

<sup>3</sup>Neutron Institute for Research and Development in Electrochemistry and Catalysis, B. Anghel Street 1

<sup>4</sup>Neutron Institute for Research and Development in Electrochemistry and Catalysis, B. Anghel Street 1



New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

Zoom Webinar interface showing a grid of 15 participants and a list of 63 participants on the right. The grid includes participants such as Aurelia VISA, Elisabeta SZERB, Nicoleta PLESU, Otilia COSTISOR, Liliana CSEH, Ramona CURPAN, Rosario M.P. COLODRERO, Alina Bora, Mirabbos HOJAMBERDEV, Mihai BALAS, Giuseppe DI MAIO, Gary HIX, Cristian Neanu, Dan G. PANTOS, Massimo LA DEDA, Petronela PASCARIU, Administrator, Magdalena Cristina STANCIU, Ion Fratilesco, Camelia Epuran, Konstantinos E. PAPANATHANASIOU, and Dana M. COPOLOVICI. The right-hand panel shows a list of 63 participants, including Elisabeta SZERB (Co-host, me), Administrator (Host), Aurelia VISA (Co-host), Francis PETER (Co-host), Cristian Neanu (Co-host), Liliana CSEH (Co-host), Nicoleta PLESU (Co-host), Ramona CURPAN (Co-host), Gary HIX, Alina Bora, Angela CANDREVA, Camelia Epuran, Dan G. PANTOS, Dana M. COPOLOVICI, Giuseppe DI MAIO, Konstantinos E. PAPANATHANASIOU, Loredana RICCIARDI, Magdalena Cristina STANCIU, Massimo LA DEDA, and Mihai BALAS.

Zoom Webinar interface showing a grid of 15 participants and a list of 58 participants on the right. The grid includes participants such as Nicoleta PLESU, Elisabeta SZERB, Petronela PASCARIU, Aurelia VISA, Ramona CURPAN, Konstantinos E. PAPANATHANASIOU, Mirabbos HOJAMBERDEV, Alessandra CRISPINI, Otilia COSTISOR, Catalin-P. CONSTANTIN, Administrator, Cristian Neanu, Gary HIX, Dan G. PANTOS, Dora-M. RASADEAN, Evamarie HEY-HAWKINS, Ion Fratilesco, H-2, Eugenia FAGADAR-COSMA, Francis PETER, Giuseppe DI MAIO, Alina Bora, Camelia Epuran, Rosario M.P. COLODRERO, Gabriel KISS, and Massimo LA DEDA. The right-hand panel shows a list of 58 participants, including Elisabeta SZERB (Co-host, me), Administrator (Host), Nicoleta PLESU (Co-host), Alina Bora (Co-host), Cristian Neanu (Co-host), Ramona CURPAN (Co-host), Otilia COSTISOR, Alessandra CRISPINI, Angela CANDREVA, Aurelia VISA, Camelia Epuran, Catalin-P. CONSTANTIN, Dan G. PANTOS, Dana M. COPOLOVICI, Dora-M. RASADEAN, Evamarie HEY-HAWKINS, Francis PETER, Gabriel KISS, Gary HIX, and Giuseppe DI MAIO.



New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

**Participants (57)**  
 Panelists (27) Attendees (30)

Find a participant

- HE H-2, Eugenia FAGADAR-COSMA
- AC Alessandra CRISPINI
- AV Aurelia VISA
- CE Camelia Epuran
- CC Catalin-P. CONSTANTIN
- DG Dan G. PANTOȘ
- DM Dana M. COPOLOVICI
- Evamarie HEY-HAWKINS

**Chat**

our experience, alkali metals in our photocatalysts are released into aqueous solution during the photocatalytic reaction for extended period. Can you please comment on the stability of that solid acid during or after the reaction? Thank you in advance!

[Ildiko Buta to Everyone](#)  
 Very interesting presentation, Dora Rasadean! Congratulations!

Who can see your messages?  
 To: Alessand... (Direct Message) Type message here...

3:17 PM

**Participants (56)**  
 Panelists (30) Attendees (26)

Find a participant

- ES Elisabeta SZERB (Co-host, me)
- A Administrator (Host)
- Alina Bora (Co-host)
- NP Nicoleta PLESU (Co-host)
- CN Cristian Neanu (Co-host)
- RC Ramona CURPAN (Co-host)
- OC Otilia COSTISOR
- Evamarie HEY-HAWKINS

**Chat**

Congratulations!

Dora-M. RĂSĂDEAN to Hosts and panelists  
 @Ildiko, thanks a lot!

@ Thanks, Dan!

Francisc PETER to Me (Direct Message)  
 Felicitari pentru organizare!

Dana M. COPOLOVICI to Everyone  
 Thank you very much for your very interesting event. Health to everybody!

Who can see your messages?  
 To: Francisc... (Direct Message) Type message here...

3:49 PM

New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection, October 7-8, 2021, Timisoara, Romania

This screenshot shows a Zoom Webinar in progress with 48 participants. The main window displays a grid of 25 video thumbnails. The participants listed in the grid include: Nicoleta PLESU, Elisabeta SZERB, Petronela PASCARU, Aurelia VISA, Konstantinos E. PAPANATHANASIOU, Mirabbos HOJAMBERDIEV, Alessandra CRISPINI, Otilia COSTISOR, Catalin-P. CONSTANTIN, Administrator, Cristian Neanu, Gary HIX, Dora-M. RASADEAN, Evamarie HEY-HAWKINS, Ion Fratilesco, H-2, Eugenia FAGADAR-COSMA, Francis PETER, Alina Bora, Loredana RICCIARDI, Loredana RICCIA, and Angela CANDREVA. The chat window on the right shows messages from participants, including congratulations and thank-you notes. The Zoom control bar at the bottom includes options for Mute, Stop Video, Participants (48), Q&A, Chat, Share Screen, Raise Hand, Record, and Leave. The system tray shows the time as 3:49 PM.

This screenshot shows the same Zoom Webinar with 56 participants. The grid now contains 30 video thumbnails. The participants listed include: Nicoleta PLESU, Elisabeta SZERB, Petronela PASCARU, Aurelia VISA, Ramona CURPAN, Konstantinos E. PAPANATHANASIOU, Mirabbos HOJAMBERDIEV, Alessandra CRISPINI, Otilia COSTISOR, Catalin-P. CONSTANTIN, Administrator, Cristian Neanu, Gary HIX, Dan G. PANTOS, Dora-M. RASADEAN, Evamarie HEY-HAWKINS, Ion Fratilesco, H-2, Eugenia FAGADAR-COSMA, Francis PETER, Alina Bora, Loredana RICCIARDI, Giuseppe DI MAIO, Camelia Epuran, Rosario M.P. COLODRERO, and Gabriel KISS. The chat window on the right continues with messages of appreciation. The Zoom control bar at the bottom shows 56 participants and the time as 3:49 PM.

## POSTERS SESION

1.	<b>PHOTOCATALYTIC COMPOSITE MEMBRANES FOR WATER TREATMENT: RESULTS, LIMITATIONS, AND NEW INSIGHTS</b> Radu Mihaela HOMOCIANU, Petronela PASCARIU
2.	<b>SILVER TUNGSTOPHOSPHATE/BETA ZEOLITE – A SOLUTION FOR PESTICIDE INDUCED OXIDATIVE STRESS</b> Dejana JANIĆIJEVIĆ, Anka JEVREMOVIĆ, Aleksandra JANOŠEVIĆ LEŽAIĆ, Bojana NEDIĆ VASILJEVIĆ, Snežana USKOKOVIĆ-MARKOVIĆ, Maja MILOJEVIĆ-RAKIĆ Danica BAJUK-BOGDANOVIĆ
3.	<b>IN VITRO CYTOTOXIC RESPONSE OF THE BEA ZEOLITE/ACETAMIPRID SYNERGISTIC ACTION</b> Anka JEVREMOVIĆ, Dragana ARSENIJEVIĆ, Aleksandar ARSENIJEVIĆ, Bojana NEDIĆ VASILJEVIĆ, Danica BAJUK-BOGDANOVIĆ, Maja MILOJEVIĆ-RAKIĆ
4.	<b>SYNTHESIS, CHARACTERIZATION AND CO<sub>2</sub> ADSORPTION-DESORPTION OF MCM-48 AND MCM-41 MOLECULAR SIEVE</b> Silvana BORGĂNESCU, Alexandru POPA, Paul BARVINSCHI, Orsina VERDES, Mariana SUBA
5.	<b>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</b> Vasile N. LOZOVAN, Victor Ch. KRAVTSOV, Marina S. FONARI
6.	<b>NOVEL vic-DIOXIME LIGANDS AND ITS ANTIMICROBIAL ACTIVITY</b> Dumitru URECHE
7.	<b>THE CYCLIC ADSORPTION-DESORPTION OF CO<sub>2</sub> ON KIT-6 AND NI/KIT-6 STUDIED BY TEMPERATURE-PROGRAMMED DESORPTION</b> Mariana SUBA, Alexandru POPA, Orsina VERDEȘ, Silvana BORGĂNESCU, Paul BARVINSCHI
8.	<b>EXPLORATION OF MAO-B INHIBITORS AS A POTENTIAL ANTI-DIABETIC DRUG</b> Daniela ISTRATE, Luminita CRISAN, Alina BORA
9.	<b>INSIGHTS INTO CRYSTAL STRUCTURE AND HIRSHFELD SURFACE ANALYSIS OF Cu(II) TRIETHANOLAMINE 4-NITROBENZOATE</b> Anastasia GOROBET, Manuela E. CRISAN, Paulina N. BOUROSH, Lilia CROITOR
10.	<b>A WEB TOOL TO COMPUTE THE DIFFRACTION PRECISION INDEX OF PROTEIN STRUCTURES</b> Cristian NEANU, Sorin AVRAM
11.	<b>PROSPECTIVE FLUORESCENT PLANT GROWTH REGULATORS AND THEIR RESPONSE IN PLANTS</b> Manuela CRISAN, Liliana HALIP, Radu SUMALAN, Lilia CROITOR, Anatolii SIMINEL, Paulina BOUROSH, Yurii CHUMAKOV, Massimo MAFFEI
12.	<b>DISCRETE AND POLYMERIC Mn(II) COORDINATION COMPOUNDS WITH DIHYDRAZONE SCHIFF BASES</b> Olga DANILESCU, Lilia CROITOR, Maria COCU, Paulina N. BOUROSH, Ion BULHAC, Victor Ch. KRAVTSOV, Oleg PETUHOV
13.	<b>HOMO- AND HETEROMETALLIC Zn(II) AND Cd(II) COORDINATION POLYMERS CAPABLE OF RETAINING</b>

	<p><b>GUEST MOLECULES</b> Olga DANILESCU, Paulina N. BOUROSH, Oleg PETUHOV, Olga V. KULIKOVA, Yurii M. CHUMAKOV, Ion BULHAC, Lilia CROITOR</p>
14.	<p><b>HIRSHFELD SURFACE ANALYSIS OF <math>\pi</math>-<math>\pi</math> STACKING INTERACTIONS IN THE CRYSTALS OF Cu(II) COMPLEXES WITH AROMATIC LIGANDS</b> Elena MELNIC, Yurii M. CHUMAKOV, Victor Ch. KRAVTSOV</p>
15.	<p><b>HETEROMETALLIC <math>\{Fe^{III}_4Na_2\}</math> PIVALATE CLUSTER – SYNTHESIS AND STRUCTURE CHARACTERISATION</b> Daniel PODGORNII, Svetlana G. BACA, Victor Ch. KRAVTSOV</p>
16.	<p><b>BIMETALLIC LIQUID CRYSTALLINE FUNCTIONAL MATERIALS</b> Evelyn POPA, Bianca-Nicoleta BADESCU, Alexandru VISAN, Sorin MARINESCU, Ildiko BUTA, Carmen CRETU, Elisabeta I. SZERB</p>
17.	<p><b>LINEAR TRINUCLEAR COBALT(II) ISOBUTYRATE WITH 1,10-PHENANTHROLINE</b> Ecaterina NIRCA, Victor Ch. KRAVTSOV, Svetlana G. BACA</p>
18.	<p><b>REMOVAL OF ACETYLSALICYLIC ACID FROM AQUEOUS SOLUTIONS USING POLYMERS CONTAINING AMINOPHOSPHINIC GROUPS</b> Radu ARDELEAN, Aurelia VISA, Adriana POPA, Manuela MIHETIU, Corneliu-Mircea DAVIDESCU</p>
19.	<p><b>POLYMERS OF VINYLPHOSPHONIC ACID WITH DIALKYLVINYL PHOSPHONATES AND THEIR ANTICORROSION PROPERTY</b> Lavinia MACARIE, Nicoleta PLESU, Gheorghe ILIA, Milica TARALUNGA-MIHALI, Adriana POPA</p>
20.	<p><b>ORDERED MESOPOROUS SILICA FUNCTIONALIZED WITH AMINOPROPYL GROUPS BY CO-CONDENSATION AND POST GRAFTING</b> Ana-Maria PUTZ, Oleksandr I. IVANKOV, Cătălin IANĂȘI, Marija MILANOVIĆ, Ivan STIJEPOVIĆ, László ALMÁSY</p>
21.	<p><b>CRYSTALLINE MULTI-COMPONENT COMPOUNDS INVOLVING HEXAAMINE COBALT(III) CATIONS AND THEIR EFFECTS AGAINST PLANT PATOGENIC BACTERIA</b> Mariana DARII, Ecaterina NIRCA, Victor Ch. KRAVTSOV, Paulina BOUROSH, Jürg HAUSER, Silvio DECURTINS, Shi-Xia LIU, Olga SULTANOVA, Svetlana G. BACA</p>
22.	<p><b>APPLICATION OF FULL FACTORIAL DESIGN FOR ADSORPTION OF METHYLENE BLUE DYE FROM AQUEOUS SOLUTION</b> Maria Andreea NISTOR, Simona Gabriela MUNTEAN, Liliana HALIP</p>
23.	<p><b>LACCASSES STABILIZATION BY COVALENT IMMOBILIZATION ONTO FUNCTIONALIZED MAGNETIC AND SEPABEADS SUPORTS</b> Ioan BÎTCAN, Andreea PETROVICI, Andrei ȘTEFAN, Anamaria TODEA, Iulia PĂUȘESCU, Francisc PÉTER</p>
24.	<p><b>ENZYMATIC APPROACH FOR THE SYNTHESIS OF <math>\epsilon</math>-CAPROLACTAM AND HYDROXY ACIDS POLYESTERAMIDES</b> Ioana-Cristina BENEĂ, Diana Maria DREAVĂ, Anamaria TODEA, Lajos NAGY, Sándor KÉKI, Francisc PÉTER</p>
25.	<p><b>POLYMERIC SORBENT FOR DYE RETAINING</b> Milica TARALUNGA-MIHALI, Nicoleta PLESU</p>
26.	<p><b>MODULATED SYNTHESIS OF Zr(IV) METAL-ORGANIC FRAMEWORK BASED ON A DICARBOXYLIC ACID (H<sub>2</sub>BDC)</b></p>



	Elena-Mirela PICIORUS, Alexandru POPA, Catalin IANASI, Elisabeta I. SZERB, Carmen CRETU
27.	<b>NATURAL PRODUCTS AS ANTI-HIV AGENTS: AN IN SILICO INSIGHT</b> Luminita CRISAN, Alina BORA
28.	<b>MONO- AND OLIGONUCLEAR COMPLEXES BASED ON A O-VANILLIN DERIVED SCHIFF-BASE LIGAND</b> Ildiko BUTA, Sergiu SHOVA, Sorina ILIES, Florica MANEA, Marius ANDRUH, Otilia COSTISOR
29.	<b>SYNTHESIS AND CHARACTERISATION OF 2-HYDROXYBENZYLIDENE DERIVATIVES</b> Livia DEVESELEANU-CORÎCI, Ana Maria PANĂ, Anca BELEAN, Sergiu SHOVA, Valentin BADEA, Liliana CSEH
30.	<b>CHEMICAL SPACE ANALYSIS OF PROTEIN KINASE CYSTEINOME</b> Luminita CRISAN, Liliana PACUREANU
31.	<b>EXPLORING THE MOLECULAR BINDING MECHANISMS OF CLINICALLY-RELEVANT SELECTIVE ESTROGEN RECEPTOR MODULATORS THROUGH MOLECULAR DYNAMICS SIMULATIONS</b> Ramona CURPĂN, Liliana HALIP, Ana BOROTA, Philipp MAXIMOV, Craig V. JORDAN
32.	<b>FINGERPRINTING G-PROTEIN COUPLED RECEPTORS SUPERFAMILY</b> Liliana HALIP, Ramona CURPAN, Ana BOROTA, Alina BORA, Sorin AVRAM
33.	<b>MANUKA HONEY AND ITS FLAVONOID COMPONENTS - AN AFFORDABLE THERAPEUTIC OPTION TO FIGHT SARS-COV-2 INFECTIONS: IN SILICO EVALUATION</b> Alina BORA, Liliana HALIP, Sorin AVRAM, Luminita CRISAN
34.	<b>BATCH AND CONTINUOUS FLOW AROMA ESTER SYNTHESIS BY SOL-GEL ENTRAPPED CANDIDA ANTARCTICA LIPASE B</b> Ivana MILOȘ, Mădălina GHEORGHE, Corina VASILESCU, Francisc PETÉR, Cristina PAUL
35.	<b>SYNTHESIS AND CHARACTERIZATION OF NEW RACEMIC SECONDARY ALCOHOL WITH 5-BENZYL-4-(4-METHYLPHENYL)-3-SULFANYL-1,2,4-TRIAZOLE STRUCTURE</b> Ion BURCĂ, Vladislav-Silvestru VALICSEK, Valentin BADEA, Vasile-Nicolae
36.	<b>A NEW LANDSCAPE FOR DRUG REPURPOSING</b> Sorin AVRAM, Ramona CURPĂN, Liliana HALIP, Alina BORA
37.	<b>PREPARATION AND CHARACTERIZATION OF GOLD NANOCUBES TWO-DIMENSIONAL MONOLAYERS.</b> Giuseppe DI MAIO*, Angela CANDREVA, Francesco PARISI, Francesca SCARPELLI, Nicolas GODBERT, Iolinda AIELLO & Massimo LA DEDA
38.	<b>SYNTHESIS AND CHARACTERIZATION OF HYPER BRANCHED NANOPARTICLES WITH MAGNETIC AND PLASMONIC PROPERTIES.</b> Angela CANDREVA*, Francesco Parisia, Rosa Bartucci, Rita Guzzi, Giuseppe Di Maio, Francesca Scarpelli, Iolinda Aiello, Nicolas Godbert and Massimo

**Closing conference**