

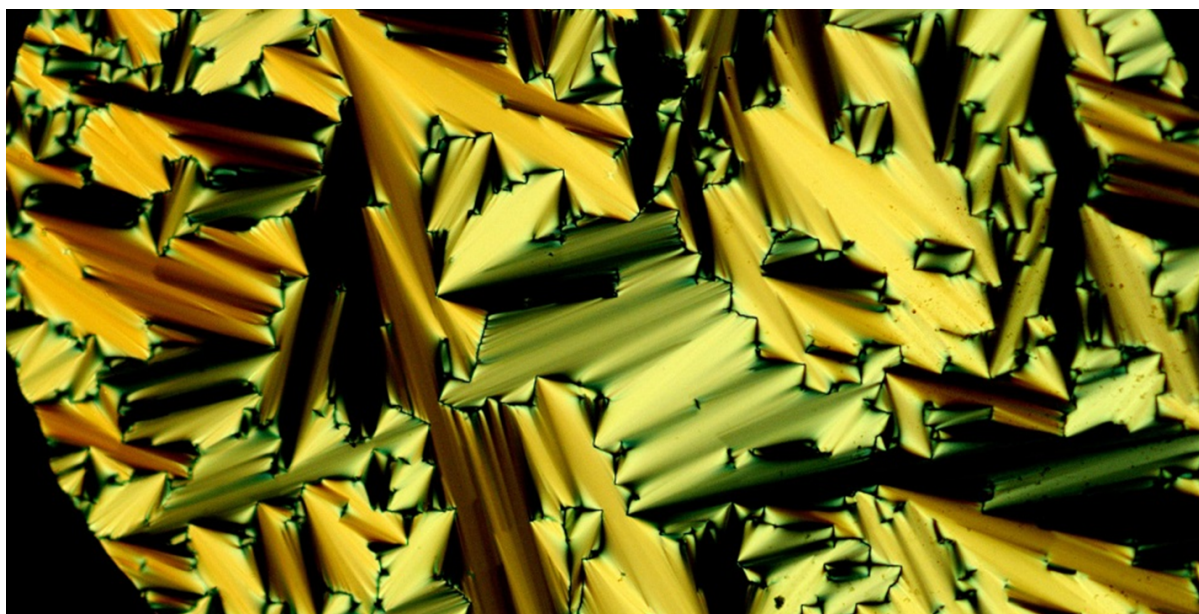


**National University of Science
and Technology
POLITEHNICA Bucharest
Department of Physics**



**ACADEMY OF ROMANIAN
SCIENTISTS
Section of Physical Sciences**

THE 8th INTERNATIONAL COLLOQUIUM “PHYSICS OF MATERIALS” (PM-8)



**NOVEMBER 14-15, 2024
BUCHAREST, ROMANIA**

PROGRAM

THURSDAY, November, 14

8:45: Test connection

9:00 - 9:10: OPENING:

Wellcome -International Colloquium "Physics of Materials" – PM 8

9:10 - 10:40: Session 1 - Invited communications

Chairs: Doru Delion

Doina Mănăilă-Maximean

1. 9.10-9:40 I.1. Statistical method for studying near and far electromagnetic fields of a 2d array of spherical particles

V.A. Loiko, A.A. Miskevich, N.A. Loiko

Institute of Physics, National Academy of Sciences of Belarus, Minsk, Belarus

E-mail: loiko@ifanbel.bas-net.by

2. 9:40-10:10 I.2. Apatitic materials for increasing the quality of life

Irina Fierăscu^{1,2}, Radu Claudiu Fierăscu^{1,3}, Anda Maria Baroi^{1,2}, Roxana Ioana Matei (Brazdis)^{1,3}, Toma Fistos^{1,3}, Irina Elena Chican¹, Ioana Silvia Hosu¹, Lia Mara Dițu^{1,4}

¹National Institute for Research & Development in Chemistry and Petrochemistry - ICECHIM Bucharest, Romania

²University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania

³National University of Science and Technology POLITEHNICA Bucharest, Romania

⁴University of Bucharest, Romania

Email: fierascu.radu@icechim.ro

3. 10:10-10:40 I.3. Mixtures of ionic liquids – Structure, organisation and properties

Naomi Elstone¹, Paul D. Lane², Joshua Lai¹, Karina Shimizu³, Bruno Demé⁴,

Matthew L. Costen², Kenneth G. McKendrick², Jose N. Canongia Lopes³,

John M. Slattery¹, Duncan W. Bruce¹

¹Department of Chemistry, University of York, Heslington, YORK YO10 5DD, UK;

²Institute of Chemical Sciences, School of Engineering and Physical Sciences, Heriot Watt University, Edinburgh EH14 4AS, UK;

³Centro de Química Estrutural, Institute of Molecular Sciences, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049 001 Lisboa, Portugal;

⁴Institut Laue-Langevin, 38000 Grenoble, France

E-mail: duncan.bruce@york.ac.uk

10:40 - 11:00 Coffee Break

11:00 - 12:20: Session 2 - Invited and Oral communications

Chairs: Magdalena Ciurea

Doru Delion

4. 11:00-11:30 I.4. Optical applications of liquid crystals

Pedro L. Almeida

ISEL - Polytechnic University of Lisbon, Mechanical Engineering Department, Rua Conselheiro Emídio Navarro, 1, 1959-007 Lisboa, Portugal

Email: pedro.almeida@isel.pt

5. 11:30-11:50 **I.5. Thiourea-based liquid crystals: metallomesogens, gel formation and luminescence**
V. Cîrcu¹, M. Iliș¹, D. Mănăilă-Maximean², M. Micutz¹
¹University of Bucharest, Bucharest, Romania
²National University of Science and Technology POLITEHNICA Bucharest, Bucharest, Romania
Email: viorel.circu@chimie.unibuc.ro
6. 11:50-12:05 **O.1. Synthesis and characterization of acrylic polymers**
Ghizlene Fatima Zohra Hakem¹, Christelle Delaite², Anne Sophie Schuller², Amina Bouriche¹, Lamia Bedjaoui-Alachaher¹.
¹Laboratory of Research on Macromolecules (LRM), Faculty of Sciences, University of Abou Bekr Belkaid, 13000, Tlemcen, Algeria
²Laboratory of Photochemistry and Macromolecular Engineering (LPIM), National School of Chemistry – University of Haute Alsace, France
E-mail: hakemghizlene3@gmail.com
7. 12:05-12:20 **O.2. Viscoelastic and drug-release characteristics of some non-covalently crosslinked polymer hydrogels loaded with Doxycycline immersed in PBS environment**
T. Staicu¹, M. Iliș², V. Cîrcu², M. Micutz¹
¹Department of Analytical and Physical Chemistry, University of Bucharest, 4-12 Regina Elisabeta Blvd, Bucharest 030018, Romania
²Department of Inorganic and Organic Chemistry, Biochemistry and Catalysis, University of Bucharest, 4-12 Regina Elisabeta Blvd, Bucharest 030018, Romania
Email: micutz@gw-chimie.math.unibuc.ro

12:20-13:00 LUNCH

13:00-14:45: Session 3 - Invited and Oral communications

**Chairs: Radu Fierăscu
Viorel Cîrcu
Mona Mihailescu**

8. 13:00-13:20 **I.6. Use of nanofluids in flat plate collectors**
C. Stanciu, D. Stanciu
National University of Science and Technology POLITEHNICA Bucharest, Romania
Email: camelia.stanciu@upb.ro
9. 13:20-13:45 **I.7. Short wave infrared sensitive SiGe nanocrystals with charge storage properties**
M.L. Ciurea^{1,4}, M.T. Sultan^{2,3}, I. Stavarache¹, C. Palade¹, A.M. Lepadatu¹, A. Slav¹, I. Dascalescu¹, O. Cojocaru¹, V.S. Teodorescu¹, H.G. Svavarsson², T. Stoica¹,
¹National Institute of Materials Physics, 077125 Magurele, Romania
²Reykjavik University, Menntavegur 1, 102 Reykjavik, Iceland
³Science Institute, University of Iceland, Dunhaga 3, IS-107 Reykjavik, Iceland
⁴Academy of Romanian Scientists, 3 Ilfov Str., 050094 Bucharest, Romania
Email: ciurea@infim.ro
10. 13:45-14:00 **O.3. Blue InGaN lasers under generation of picosecond pulses**
V. Dobrovolschi, S. Rusu, V. Tronciu
Department of Physics, Technical University of Moldova, Republic of Moldova
Email: veronica.dobrovolschi@fiz.utm.md

- 11. 14:00-14:15 O.4. Modeling and numerical simulation of the evolution of road infrastructure degradation**
D. Craciunescu, C. Racanel
 Technical University of Civil Engineering Bucharest, Romania
 Email: dan.craciunescu@phd.utcb.ro
- 12. 14:15-14:30 O.5. Two layer magnetic plasmonic nanoparticles synthesis and characterization**
H. Ardeleanu, D. Creanga, D. Pricop
 University Alexandru Ioan Cuza, Iasi, Romania
 Email: ardeleanu_helmina@yahoo.com
- 13. 14:30-14:45 O.6. I. Hyperspectral images for digital detection of codelivery nanoparticles incorporated in malignant cells**
Ionela N. Irimescu¹, Nicolae Tarba², Roxana C. Popescu³, Simona Ionita⁴, Mihaela Deaconu⁵, Cosmin C. Mustaciosu⁶, Eugen Scarlat⁷, Ana Maria Pleava⁵, Daniela Berger⁸, Diana I. Savu⁶, Mona Mihailescu^{7,9}
¹Applied Sciences Doctoral School, National University of Science and Technology POLITEHNICA Bucharest, Medist Imaging & Point of Care, Romania
²Computer Sciences Doctoral School, Physics Department, National University of Science and Technology POLITEHNICA Bucharest, Romania
³Depart. of Bioeng. and Biotech., Faculty of Med. Eng., National University of Science and Technology POLITEHNICA Bucharest, Romania
⁴Chemical Engineering Doctoral School, National University of Science and Technology POLITEHNICA Bucharest, Romania
⁵CAMPUS Research Institute, National University of Science and Technology POLITEHNICA Bucharest, Romania
⁶"Horia Hulubei" National Institute for Research and Development in Physics and Nuclear Engineering, Department of Life and Environmental Sciences, Magurele, Romania
⁷Physics Department, National University of Science and Technology POLITEHNICA Bucharest, Romania
⁸Depart. of Inorganic Chem, Physical Chemistry & Electrochem, National University of Science and Technology POLITEHNICA Bucharest, Romania
⁹Fundam. Sci. Appl. in Eng. Res. Cent., National University of Science and Technology POLITEHNICA Bucharest, Romania
 Email: ionela.irimescu@stud.fsa.upb.ro

14:45-15:00: Coffee Break

15:00 -17:00: POSTER Session

**Chairs: Marin Micutz
 Camelia Stanciu**

The authors will be connected online in the order of the posters (The poster should be sent one week in advance preferable) for five minutes and the interested scientists might also contact the authors directly.

No.	Title	Authors	Email
P1 S1	Synthesis of ternary compounds (Max-phases) in low-voltage pulsed discharge plasma	V. Mihailov ¹ , S. Ivashcu ¹ <u>N. Kazak</u> ^{1*} , E. Ovchinnikov ² and A. Ianachevici ¹ ¹ Institute of Applied Physics, Moldova State University, Moldova ² Grodno State University named after Yanki Kupaly, Belarus	valentin.mihailov@gmail.com natalia.kazak@ifa.usm.md sergiu.ivascu@gmail.com ianakevici@yahoo.com ovchin_1967@mail.ru
P2 S1	Synthesis and Characterization of olive oil capped nickel sulphide: influence of treatment temperature and precursor source on optical and photocatalytic properties	<u>Jocelyn N. Kuate</u> ^{1,2,3} , Paboudam G. Awawou ¹ , Sunder N. Dhuri ³ , Peter T. Ndifon ^{1*} , Viorel Circu ^{2*} ¹ University of Yaounde I, Yaounde, Cameroon ² University of Bucharest, Bucharest, Roumania ³ University of Goa, Taleigao Plateau, India	Jocelynjomkam@gmail.com viorel.circu@chimie.unibuc.ro
P3 S1	Investigating the behavior and properties of photopolymerizable copolymers based on acrylates	<u>Djazia BENDEDDOUCHE</u> ^{1*} , Christelle DELAITE ² , Anne Sophie SCHULLER ² , Ulrich MASCHKE ³ , Lamia BEDJAOUI-ALACHAHER ¹ ¹ Laboratoire de Recherche sur les Macromolécules (LRM), Université de Tlemcen 13000, Algérie ² Laboratoire de Photochimie et d'Ingénierie Macromoléculaires (LPIM), Université de Haute-Alsace 68100, Mulhouse, France ³ Unité Matériaux Et Transformations (UMET), Université de Lille 59000, Lille, France *djazia.bendeddouche@univ-tlemcen.dz	
P4 S2	Aero-GaN and ZnO Microtetrapods Functionalized with Metal Nanodots for Photocatalytic Degradation of Tetracycline	<u>V. Ciobanu</u> ^{1,2*} , T. Galatnova ¹ , P. Urbanek ³ , T. Braniste ^{1,2} , F. Doroftei ¹ , M. Masar ³ , P. Suly ³ , V. Ursaki ^{1,2} , B. Hanulikova ³ , T. Sopik ³ , V. Sedlarik ³ , I. Kuritka ³ and I. Tiginyanu ^{1,2} ¹ Centre of Advanced Research in Bionanoconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania, ² National Centre for Materials Study and Testing, Technical University of Moldova, Chisinau, Moldova ³ Centre of Polymer Systems, Tomas Bata University in Zlin, tr. Tomase Bati 5678, CZ 760 01 Zlin, Czech Republic	vladimir.ciobanu@cnstm.utm.md tudor.braniste@cnstm.utm.md tighineanu.ion@icmpp.ro tatiana.galatnova@cnstm.utm.md
P5 S2	Morphology Investigation of Gold Membranes Deposited by Electrochemical and Sputtering Techniques	Elena I. Monaico* *National Center for Materials Study and Testing, Technical University of Moldova, Chisinau, Republic of Moldova	elena.monaico@cnstm.utm.md
P6 S2	Remote-Controlled Temperature Setup Designed for ZnO Nanostructures Fabrication	<u>C. Creciunel</u> [*] , V. Ciobanu and E.V. Monaico [*] *National Center for Materials Study and Testing, Technical University of Moldova	creciunel.catalin@mib.utm.md vladimir.ciobanu@cnstm.utm.md eduard.monaico@cnstm.utm.md

P7 S2	Electrochemical Impedance Spectroscopy for Non-Enzymatic Glucose Detection Using ZnO Nanowire Arrays: Substrate Impact Analysis	Simon Busuioc*, Eduard V. Monaico* *National Center for Materials Study and Testing, Technical University of Moldova, Chisinau, Republic of Moldova	simon.busuioc@cnstm.utm.md eduard.monaico@cnstm.utm.md
P8 S3	Impact of Thermal Treatment Temperature on Copper Oxide Formation from Copper Films	A. Mamoico*, and E.V. Monaico* *National Center for Materials Study and Testing, Technical University of Moldova, Republic of Moldova	mamoico.alin@mib.utm.md; eduard.monaico@cnstm.utm.md
P9 S2	Tunable Reflection and Absorption in the Mid-Infrared Using Metal-Dielectric Microstrip Nanoantennas	A. Grigore ¹ , O. Dănilă ² , A. Bărar ³ , D. Mănăilă-Maximean ⁴ ¹ Faculty of Electronics, Telecommunications and Information Technology, 1-3 Iuliu Maniu Boulevard, 061071 Bucharest, Romania ² Physics Department, 'Politehnica' University of Bucharest, 313 Splaiul Independentei, 060042 Bucharest, Romania; ³ Electronic Technology and Reliability Department, 'Politehnica' University of Bucharest, 313 Splaiul Independentei, 060042 Bucharest, Romania; ⁴ Physics Department, 'Politehnica' University of Bucharest, 313 Splaiul Independentei, 060042 Bucharest, Romania;	alexandra.grigore00@stud.mec.upb.ro octavian.danila@upb.ro ana.barar@upb.ro doina.manaila@upb.ro
P10 S2	Deep Learning-Driven Predictive Modeling for Metasurface Behavior	A. ILIE ^{1*} , O. DĂNILĂ ² , and D. MĂNĂILĂ-MAXIMEAN ^{2,3} ¹ National University of Science and Technology Politehnica Bucharest, Romania ² Academy of Romanian Scientists, Romania	alexandra.ilie0407@stud.fils.upb.ro
P11 S3	Theoretical study of the effect of active layer thickness on the performance of perovskite solar cells	A. Bărar ^{1*} , O. Dănilă ¹ , D. Mănăilă-Maximean ¹ ¹ National University of Science and Technology POLITEHNICA of Bucharest, Bucharest, Romania	ana.barar@upb.ro octavian.danila@upb.ro doina.manaila@upb.ro
P12 S3	Maximizing Solar Photovoltaic Energy Efficiency: MPPT Techniques Investigation	A-M. Badea ¹ , D. Manaila-Maximean ^{1,2} , D. Craciunescu ^{1*} , and L. Fara ^{1,2} ¹ National University of Science and Technology "Politehnica", Bucharest, Romania ² Academy of Romanian Scientists, Bucharest, Romania	ana_maria.badea1210@stud.fsa.upb.ro doina.manaila@upb.ro dan.craciunescu@renerg.pub.ro lfara@renerg.pub.ro
P13 S4	First-principles Characterization of the Structural and Electronic Properties of MgF ₂ Crystal Doped with Divalent Nickel	N.M. Avram ^{1,2*} , E-L. Andreici Eftimie ¹ , and M.G. Brik ^{2,3} ¹ West University of Timisoara, Timisoara, Romania ² Academy of Romanian Scientists, Bucharest, Romania ³ Institute of Physics, University of Tartu, Tartu, Estonia	nicolae.avram@e-uvt.ro andreicilaura@yahoo.com

P14 S4	Influence of Exfoliation on the Photoluminescence Properties of Layered Gallium Selenide Single Crystals	<u>E. Cristea</u> ^{1*} , V.V. Zalamai ² and E.V. Monaico ² ¹ Department of Telecommunications and Electronic Systems, Faculty of Electronics and Telecommunications, Technical University of Moldova, Chisinau, Republic of Moldova ² National Center for Materials Study and Testing, Technical University of Moldova, Chisinau, Republic of Moldova	ecaterina.cristea@srco.utm.md andrei.tiron@scec.utm.md victor.zalamai@cnstm.utm.md eduard.monaico@cnstm.utm.md
P15 S4	Optical and Structural Analysis of Thulium-Doped CaF ₂ Crystals: Segregation Coefficients of Tm ³⁺ and Tm ²⁺ Ions	<u>C.Schörnig</u> ^{1*} , M.Ştef ¹ , P Veber ¹ , D. Vizman ^{1,2} , M. Poienar ² and G.Buşe ² ¹ Faculty of Physics, West University of Timisoara 300223, Timisoara, Romania ² ICAM, West University of Timisoara 300223, Timisoara, Romania	carla.schornig76@e-uvt.ro
P16 S4	Hybrid materials based on liquid crystals doped with double cyclopalladated complexes	<u>Daiana G. Mitrea</u> ¹ , Monica Iliş ¹ , Doina Mănăilă-Maximean ² and Viorel Cîrcu ^{1*} ¹ Department of Inorganic and Organic Chemistry, Biochemistry and Catalysis, University of Bucharest, Bucharest, Romania ² Department of Physics, National University of Science and Technology Politehnica Bucharest, Bucharest, Romania	daiana.mitrea@drd.unibuc.ro viorel.circu@chimie.unibuc.ro
P17 S4	Liquid crystalline and gel properties of luminescent palladium(II) complexes with benzoylthiourea ligands	<u>Theodora A. Ilincă</u> ¹ , Monica Iliş ¹ , Marin Micuţ ² , and Viorel Cîrcu ^{1*} ¹ University of Bucharest, Department of Inorganic and Organic Chemistry, Biochemistry and Catalysis, Bucharest, Romania ² University of Bucharest, Department of Analytical and Physical Chemistry, Bucharest, Romania	viorel.circu@chimie.unibuc.ro
P18 S4	Thermo Responsive Surfaces Design Using Cholesteric Liquid Crystals	<u>Cosmin A. Alexe</u> ^{1,2*} , C. Gaidău ² , Monica V. Iliş ¹ , V. Cîrcu ¹ ¹ University of Bucharest, Faculty of Chemistry, Bucharest, Romania ² National Research and Development Institute for Textiles and Leather (INCDTP) – Bucharest, Romania	cosminandrei.alexu@yahoo.com
P19 S5	Enhanced Spin Asymmetry in SrTiO ₃ (011) and SrTiO ₃ (001): Insights from Spin-Resolved Photoelectron Spectroscopy	L.E. Borcan ^{1,2,*} , D.G. Popescu ¹ , A.C. Iancu ^{1,2} , C.M. Teodorescu ¹ , M.A. Husanu ^{1,*} ¹ National Institute of Materials Physics, Atomîştilor 405A, 077125 Măgurele, Ilfov, Romania ² University of Bucharest, Faculty of Physics, Atomîştilor 405, 077125 Măgurele, Ilfov, Romania	larisa.borcan@infim.ro, ahusanu@infim.ro
P20 S5	Temperature-Dependent CO Adsorption on BaTiO ₃ (001): Mechanisms, Surface Stability, and Potential for Gas Sequestration	A.C. Iancu ^{1,2,*} , C.M. Teodorescu ¹ , D.G. Popescu ^{1,*} ¹ National Institute of Materials Physics, Atomîştilor 405A, 077125 Măgurele, Ilfov, Romania ² University of Bucharest, Faculty of Physics, Atomîştilor 405, 077125 Măgurele, Ilfov, Romania	alexandru.iancu@infim.ro dana.popescu@infim.ro

P21 S5	Photo degradation of organic compound driven by pristine and Pt-modified TiO ₂	A. Ilie ^{1*} , C. Anastasescu ¹ , L. Predoana ¹ , J. Pandele ¹ , A. Rusu ¹ , S. Preda ¹ , D. Culita ¹ , I. Balint ¹ and M. Zaharescu ¹ ¹ "Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy, 060021 Bucharest, 202 Spl. Independentei, 6th district, Romania	asandulescu@icf.ro
P22 S5	Morphology and dynamics of the plasma plume during laser processing for the detection of Structural defects	Robert RADU ^{1*} , Sabin MIHAI ^{2,3} , Diana CHIOIBASU ² , Andrei C. POPESCU ² , Cristina STAN ¹¹ Faculty of Applied Sciences, National University of Science and Technology Politehnica Bucharest, 060042 Bucharest, ² Center for Advanced Laser Technologies (CETAL), National Institute for Laser, Plasma and Radiation Physics (INFLPR), Ilfov, 077125 Magurele, Romania ³ Faculty of Industrial Engineering and Robotics, National University of Science and Technology Politehnica Bucharest, 060042 Bucharest, Romania	radurobert@yahoo.com
P23 S5	Removal of Eosin (Y) dye from wastewater using polyacrylamide hydrogel adsorbents: equilibrium analysis and application of adsorption isotherm models	Chouikhi Manel Safia ¹ , Salah HAMRI ^{1,2} , Zakia HADJOU BELAID ¹ , Fayçal DERGAL ² , Djahida LERARI ² ¹ Macromolecular Research Laboratory (LRM), Department of Physics, Faculty of Sciences, University of Abou Bekr Belkaid, PB 119,13000 Tlemcen, Algeria ² Center for Scientific and Technical Research in Physico-chemical Analyzes (CRAPC), PB384, Bou-Ismaïl, RP Tipaza 42004, Algeria	manelsafia.chouikhi@univ-tlemcen.dz
P24 S6	A More Detailed Mathematical Simulation of the Swelling Step of a Pulsatory Liposome	D. R. Radnef-Constantin ^{1*} , D. Popescu ² , and V. I. R. Niculescu ³ ¹ Institutul Astronomic al Academiei Romane, Bucharest, Romania ² "Gheorghe Mihoc-Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics, Department of Mathematical Modelling in Life Sciences, Calea 13 Septembrie 13, Bucharest, Romania ³ National Institute for Lasers, Plasma and Radiation Physics, Atomistilor 409, Magurele, Ilfov, Romania	ghe12constantin@yahoo.com dghpopescu@gmail.com filo_niculescu@yahoo.com
P25 S6	Long-Term Monitoring of Black Carbon in Măgurele, Romania: A Source Apportionment Approach with the AE33 Aethalometer	A. V. Dandocsi ^{1,2*} , J. Vasilescu ¹ , L. Belegante ¹ and C. Stan ² ¹ National Institute of Research and Development for Optoelectronics INOE 2000, Magurele, Romania ² National University of Science and Technology POLITEHNICA Bucharest, Romania	andrei.dandocsi@inoe.ro

P26 S6	Amyloid beta improved surfaces for development of biomedical applications	Sara Nistor ¹ , Mihaela Beregoi ² , Corina Ciobotaru ² , Monica Enculescu ² , Liviu Nedelcu ² , Cristina Busuioc ³ , Adrian Enache ² ¹ Faculty of Medical Engineering, National University of Science and Technology Politehnica of Bucharest, 060042 Bucharest, Romania ² National Institute of Materials Physics, Atomistilor Str.405A, 077125 Magurele, Romania ³ Faculty of Chemical Engineering and Biotechnologies, National University of Science and Tehnology Politehnica of Bucharest, 060042 Bucharest, Romania	
P27 S6	Rutin loaded Human Serum Albumin nanoparticles for intracellular targeted drug delivery	G. Chilom ^{1*} , Sorina Iftimie ¹ , E. Balan ¹ , T. Enache ² , M. Enculescu, and D. Oprea ^{1, 2} ¹ University of Bucharest, Romania ² National Institute of Materials Physics, Magurele, Romania	office@g.unibuc.ro secretariat@infim.ro
P28 S6	Effect of Annealing and Plasticization on the Crystallinity, Thermal and Dynamic Mechanical Properties of Poly(lactic acid)	<u>L. Benkraled</u> ^{1*} , A. Zennaki ¹ and A. Berrayah ¹ ¹ Laboratoire de Recherche sur les Macromolécules (LRM), University of Tlemcen, Algeria	linabenkraled@gmail.com
P29 S6	Bionanocomposite films with antioxidant activity for safe food preservation	<u>Sarra Benaissa</u> ^{1*} , Kamal Benmansour ² ¹ Laboratory of Macromolecules LRM / Abou Bekr Belkaid, Tlemcen, Algeria ² Laboratory of Macromolecules LRM/ Abou Bekr Belkaid, Tlemcen, Algeria	sarahbena439@gmail.com kamaldz@yahoo.fr
P30 S7	Reinforcement of Polymethyl Methacrylate (PMMA) with Modified MgAl Layered Double Hydroxides: A Study of Optical and Thermal Properties	<u>W. Haffaf</u> ^{1*} , M. Hamouni ¹ , and Z. Abdelsadek ² ¹ University Abubekr Belkaid, Faculty of Science, Macromolecules Research Laboratory (MRL), Tlemcen, Algeria. ² Institute of Electrical and Electronics Engineering, University of M'hamed-Bougara, Independence Avenue, 35000, Boumerdès, Algeria	wissemhaffafdz@gmail.com
P31 S7	Modeling of Phase Diagrams of Polysiloxane/Nematic Liquid Crystal Systems. Study of the Effect of Molecular Weight	<u>Yamina Bouayed-Kazi Aouel</u> ¹ , Amina Bouriche ¹ , Ulrich Maschke ² Lamia Bedjaoui-Alachaher ¹ ¹ Research Laboratory on Macromolecules (LRM), Faculty of Sciences, Aboubakr Belkaid University, 13000 Tlemcen, Algeria ² Materials and Transformations Unit-UMET(CNRS UMR No. 8207). Building C6, University of Lille 1- Sciences and Technologies, 59655 Villeneuve d'Ascq Cedex, France.	y_kazi2002@hotmail.fr l_bedjaoui@yahoo.fr

FRIDAY, November 15

9:45: Test connection: The presenting authors are asked to connect at 9:45 a.m. to check the transmission and respect the allotted time slot. Thank you for your attention.

10:00-11:40: Session 4 - Invited and Oral communications

**Chairs: Viorel Cîrcu
Ana Bărar**

14. 10:00-10:30 I.8. On architectural integration of coloured building systems based on photovoltaics (BIPV)

Laurentiu Fara^{1,2}, Ana Maria Badea¹, Dan Crăciunescu¹, Alexandru Diaconu¹, Silvian Fara¹

¹Department of Physics, Faculty of Applied Sciences, National University of Science and Technology POLITEHNICA Bucharest, 060042 Bucharest, Romania

²Academy of Romanian Scientists, 050044 Bucharest, Romania

Email: lfara@renerg.pub.ro

15. 10:30-10:50 I.9. Research on comparison and simulations of various thin-film solar cell types
A. Drăgulescu

Electronic Technology and Reliability Department, National University of Science and Technology POLITEHNICA Bucharest, 1-3 Iuliu Maniu Blvd., Bucharest, Romania, RO-060032

Email: dragulinescu@yahoo.com

16. 10:50-11:10 I.10. Infrared spectroscopy supports the molecular dynamics obtained for oxide nanopowders by dielectric spectroscopy

L. Frunza¹, I. Zgura¹, C.P. Ganea¹, D Manaila-Maximean^{2,3}

¹National Institute of Materials Physics, 405A Atomistilor Street, 077125 Magurele, Romania

²Department of Physics, National University of Science and Technology POLITEHNICA Bucharest, 313 Spl. Independentei, 060042 Bucharest

³Academy of Romanian Scientists, 3 Ilfov str., 050044 Bucharest, Romania

Email: lfrunza@infim.ro

17. 11:10-11:40 I.11. Electrochemical engineering of semiconductor porous templates and nanowire arrays: control of the shape and growth direction

Eduard V. Monaico

National Center for Materials Study and Testing, Technical University of Moldova, Bd. Stefan cel Mare 168, Chisinau, Republic of Moldova

Email: eduard.monaico@cnstm.utm.md

GROUP PHOTO

12:00-13:00: Session 5 - Oral communications

**Chairs: Andrei Drăgulescu
Octavian Dănilă**

18. 12:00-12:15 O.7. Study of swelling behaviour of an acrylic hybride material

A. Zehouani, L. Bedjaoui-Alachaher

Laboratory of Research on Macromolecules (LRM), Faculty of Sciences, University of Abou, Bekr Belkaid 13000, Tlemcen, Algeria

E-mail : aymen_zehouani@yahoo.com

19. 12:15-12:30 **O.8. Influence of Mg in Ni-based takovite catalysts and its derivatives on catalytic activity over two reactivity cycles of dry methane reforming**
Zoulikha Abdelsadek^{1,2}, Patrick J. Masset³
¹Institute of Electrical and Electronics Engineering, University of M'hamed-Bougara, Independence Avenue, 35000, Boumerdès, Algeria
²Laboratory of Sciences of Materials and Chemical Processes (LSMPC), USTHB, B.P. 32 El-Alia, 16111 Bab-Ezzouar, Algeria
³Technallium Engineering & Consulting, Fliederweg 6, D-92449 Steinberg am See, Germany
Email: zoulisabrin@yahoo.fr, z.abdelsadek@univ-boumerdes.dz
20. 12:30-12:45 **O.9. Luminescent heteroleptic dinuclear copper(I) complexes with phosphine and N-benzoyl thiourea ligands**
Cosmin A. Tudor, Monica V. Iliș and Viorel Cîrcu
University of Bucharest, Faculty of Chemistry, Romania
Email: cosmin.tudor@s.unibuc.ro
21. 12:45-13:00 **O.10. Study of liquid crystals based on ionic copper(I) complexes with benzoyl thiourea ligands using BF₄⁻ and PF₆⁻ as counterions**
Muhammed Alkali, Viorel Cîrcu, Monica Iliș
Department of Inorganic and Organic Chemistry, Biochemistry and Catalysis, University of Bucharest, Boulevard Regina Elisabeta Nr. 4-12, 030018 Bucharest, Romania
Email: muhammed.alkali@s.unibuc.ro

Synthetic Program

THURSDAY, November 14

8:45:	Test connection
9:00-9:10:	OPENING
9:10-10:40:	Session 1 - Invited communications
10:40-11:00:	Coffee Break
11:00-12:20:	Session 2 - Invited and Oral communications
12:20-13:00:	LUNCH
13:00-14:45:	Session 3 - Invited and Oral communications
14:45-15:00:	Coffee Break
15:00-17:00:	POSTER Session

FRIDAY, November 15

9:45:	Test connection
10:00-11:40:	Session 4 - Invited and Oral communications
11:40-12:00:	GROUP PHOTO
12:00-13:00:	Session 5 - Oral communications