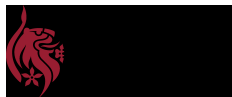




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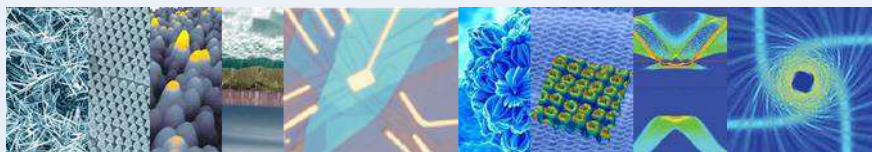
NATIONAL INSTITUTE OF RESEARCH &  
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# ICPAM-9

## 9<sup>th</sup> International Conference on Physics of Advanced Materials

20 – 23 September 2012, Iasi, Romania

### Conference Programme



#### Organizers

Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania

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11 Carol I Boulevard, 700506 Iasi, Romania  
Tel: +40-232-201165; Fax: +40-232-201150  
E-mail: [icpam@uaic.ro](mailto:icpam@uaic.ro)

# 9<sup>th</sup> International Conference on Physics of Advanced Materials

20 - 23 September 2012, Iasi, Romania

**CONFERENCE PROGRAMME**



# Organizers

**Faculty of Physics, Alexandru Ioan Cuza University**

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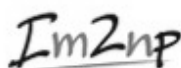


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Hawthorn Building, The Gateway, Leicester LE1 9BH, United Kingdom

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**Institute of Macromolecular Chemistry Petru Poni**

Aleea Grigore Ghica Voda, nr. 41A, 700487 Iasi, Romania

<http://www.icmpp.ro/>



**Institute of Macromolecular Chemistry  
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**National Institute of Research & Development for Technical Physics**

47 Mangeron Boulevard, RO-700050 Iasi, Romania

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**Wednesday, 19.09.2012**

16 <sup>00</sup> -18 <sup>00</sup>	VENUE REGISTRATION - Lost Footsteps Hall, Alexandru Ioan Cuza University of Iasi
18 <sup>00</sup> -20 <sup>00</sup>	WELCOME PARTY - Lost Footsteps Hall, Alexandru Ioan Cuza University of Iasi

**Thursday, 20.09.2012**

8 <sup>00</sup> -9 <sup>00</sup>	<b>REGISTRATION</b> - Lost Footsteps Hall, Alexandru Ioan Cuza University of Iasi
9 <sup>00</sup> -9 <sup>30</sup>	<b>WELCOME ADDRESS</b> - Aula Magna "Mihai Eminescu"
<b>PLENARY SESSION: Aula Magna "Mihai Eminescu"- HALL 1</b> <b>Chair persons: Daniel Tampu, Cristian Focsa</b>	
9 <sup>30</sup> -10 <sup>10</sup>	<b>What electron paramagnetic resonance tells us about the spin dynamics in diluted magnetic semiconductors?</b> <u>L.M. Giurgiu</u> <sup>1</sup> , O. Raita <sup>1</sup> , A. Popa <sup>1</sup> , D. Toloman <sup>1</sup> <sup>1</sup> National Institute for R&D of Isotopic and Molecular Technologies, Cluj-Napoca, Romania
10 <sup>10</sup> -10 <sup>50</sup>	<b>Oligomers, layers and 3d supramolecular architecture in organopnicogen (M = Sb, Bi) chemistry</b> <u>Cristian Silvestru</u> <sup>1</sup> <sup>1</sup> Faculty of Chemistry and Chemical Engineering, Department of Chemistry, Babes-Bolyai University, Cluj-Napoca, Romania
10 <sup>50</sup> -11 <sup>30</sup>	<b>Plasma surface interaction in material science</b> <u>Gheorghe Popa</u> <sup>1</sup> <sup>1</sup> Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania
11 <sup>30</sup> -12 <sup>00</sup>	<b>COFEE BREAK</b>
<b>INVITED AND ORAL SESSIONS</b>	
<b>Hall 1 : T4 - Magnetic Materials and Spintronics</b> <b>Chair persons: Sebastiaan van Dijken, Iosif Deac</b>	
T4-I1 12 <sup>00</sup> -12 <sup>30</sup>	<b>Relevance of Fe atomic volumes for the magnetic properties of Fe-rich metallic glasses</b> <u>Imre Bakonyi</u> <sup>1</sup> <sup>1</sup> Wigner Research Centre for Physics, Hungarian Academy of Sciences, Budapest, Hungary
T4-I2 12 <sup>30</sup> -13 <sup>00</sup>	<b>Ferromagnetic compounds stabilized on Ge(001) and Si(001) by molecular beam epitaxy</b> Nicoleta Georgiana Apostol <sup>1</sup> , George Adrian Lungu <sup>1</sup> , Ruxandra Maria Costescu <sup>1</sup> , Marius Adrian Husanu <sup>1</sup> , Dana Georgeta Popescu <sup>1</sup> , Laura Elena Stoflea <sup>1</sup> , <u>Cristian-Mihail Teodorescu</u> <sup>1</sup> <sup>1</sup> Nanoscale Condensed Matter Physics, National Institute of Materials Physics, Magurele, Romania
T4-O1 13 <sup>00</sup> -13 <sup>20</sup>	<b>Magnetic and structural properties of nickel magnesium substituted lithium ferrites for microwave applications</b> <u>Caltun O.F.</u> <sup>1</sup> , Ramesh M. <sup>2</sup> , Rao G.S.N. <sup>2</sup> , Samatha K. <sup>2</sup> , Parvatheeswara Rao B. <sup>2</sup> <sup>1</sup> Dept. of Physics, A.I. Cuza University, Iasi, Romania <sup>2</sup> Dept. of Physics, Andhra University, Visakhapatnam, India

<b>Al. Miller - Hall 2: T9 - Polymer Materials and Composites</b> <b>Chair persons: Grazyna Adamus, Magdalena Aflori</b>	
T9-I1 12 <sup>00</sup> -12 <sup>30</sup>	<b>Polyhydrosilanes – a route to optoelectronics</b> Liviu Sacarascu <sup>1</sup> , Valeria Harabagiu <sup>1</sup> , <sup>1</sup> Romanian Academy, "Petru Poni" Institute of Macromolecular Chemistry, Romania
T9-I2 12 <sup>30</sup> -13 <sup>00</sup>	<b>Morphology maps of ice-templated hydrogels based on chitosan</b> Maria Valentina Dinu <sup>1</sup> , Martin Pradny <sup>2</sup> , Ecaterina Stela Dragan <sup>1</sup> , Jiri Michalek <sup>2</sup> <sup>1</sup> Functional Polymers Department, Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania <sup>2</sup> Polymer Gels, Institute of Macromolecular Chemistry, Prague, Czech Republic
<b>Ferdinand - Hall 3: T11 - Thin Films and Nanostructures for Modern Electronics</b> <b>Chair persons: Munizer Purica, Liviu Leontie</b>	
T11-I1 12 <sup>00</sup> -12 <sup>30</sup>	<b>Studies on the influence of doping and deposition conditions on the electrical transport mechanism of ZnO thin films</b> A. Yildiz <sup>1*</sup> , F. Iacomi <sup>2</sup> <sup>1</sup> Department of Energy Systems Engineering, Faculty of Engineering and Natural Sciences, Yıldırım Beyazıt University, Ankara, Turkey <sup>2</sup> Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania
T11-O1 12 <sup>30</sup> -12 <sup>50</sup>	<b>In situ X-ray photoelectron spectroscopy analysis of Au growth on PZT(001) surfaces</b> Nicoleta Georgiana Apostol <sup>1</sup> , Laura Elena Stoflea <sup>1</sup> , George Adrian Lungu <sup>1</sup> , Cristina Dragoi <sup>1</sup> , Lucian Trupina <sup>1</sup> , Lucian Pintilie <sup>1</sup> , Cristian-Mihail Teodorescu <sup>1</sup> <sup>1</sup> Nanoscale Condensed Matter Physics, National Institute of Materials Physics, Magurele, Romania
T11-O2 12 <sup>50</sup> -13 <sup>10</sup>	<b>Optically transparent n-channel thin film transistor based on wide band gap oxide semiconductors</b> Florin Comanescu <sup>1,2</sup> , Munizer Purica <sup>1</sup> , Elena Budeanu <sup>1</sup> , Felicia Iacomi <sup>3</sup> , Bogdana Mitu <sup>4</sup> , Catalin Parvulescu <sup>1</sup> , Paul Schiopu <sup>2</sup> <sup>1</sup> Micro/Nano Photonics Lab., National Institute for R&D in Microtechnologies, Bucharest, Romania <sup>2</sup> Faculty of Electronics, Telecommunications and Information Technology, Polytechnic University of Bucharest, Romania <sup>3</sup> Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania <sup>4</sup> Low Temperature Plasma Physics, National Institute for Laser, Plasma and Radiation Physics, Romania
13 <sup>20</sup> -14 <sup>50</sup>	<b>LUNCH: Cantina Restaurant “Titu Maiorescu”</b>
<b>Hall 1: T4 - Magnetic Materials and Spintronics</b> <b>Chair persons: Imre Bakonyi, Romulus Tetean</b>	
T4-I3 14 <sup>50</sup> -15 <sup>20</sup>	<b>Current-induced magnetoresistance in La<sub>1-x</sub>Ca<sub>x</sub>MnO<sub>3</sub>/BaTiO<sub>3</sub> composites</b> Iosif G. Deac <sup>1</sup> <sup>1</sup> Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania
T4-I4 15 <sup>20</sup> -15 <sup>50</sup>	<b>Electric-field control of magnetic domain wall motion and local magnetization dynamics in ferromagnetic-ferroelectric heterostructures</b> Sebastiaan van Dijken <sup>1</sup> <sup>1</sup> NanoSpin, Department of Applied Physics, Aalto University School of Science, Aalto, Finland
T4-I5 15 <sup>50</sup> -16 <sup>20</sup>	<b>Coherent spin and charge transport in single crystal magnetic tunnel junctions</b> Coriolan Tiusan <sup>1,2</sup> <sup>1</sup> Centre National de la Recherche Scientifique, Institut Jean Lamour/ Université de Lorraine, Nancy, France <sup>2</sup> Department of Physics, Technical University Cluj-Napoca, Cluj-Napoca, Romania
T4-O2 16 <sup>20</sup> -16 <sup>40</sup>	<b>Doping evolution of the pairing state in Fe<sub>1.02</sub>Te<sub>1-x</sub>Se<sub>x</sub> superconductors as determined from penetration depth measurements</b> Andrei Diaconu <sup>1</sup> , Jin Hu <sup>2</sup> , Zhiqiang Mao <sup>2</sup> , Leonard Spinu <sup>1</sup> <sup>1</sup> Department of Physics, University of New Orleans, New Orleans, USA <sup>2</sup> Department of Physics and Engineering Physics, Tulane University, New Orleans, USA



T4-O3 16 <sup>40</sup> -17 <sup>00</sup>	<p><b>Electrical field induced spin state switching and colossal conductivity change in spin crossover materials.</b></p> <p><u>Aurelian Rotaru</u><sup>1,1</sup>, Costel Lefter<sup>1,2</sup>, Julien Dugay<sup>2</sup>, Reasmeay Tan<sup>2</sup>, Il'ya Gural'skiy<sup>3,4</sup>, Gábor Molnár<sup>3</sup>, Lionel Salmon<sup>3</sup></p> <p><sup>1</sup>Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University, Suceava, Romania  <sup>2</sup>LPCNO, CNRS &amp; University of Toulouse, Toulouse, France  <sup>3</sup>LCC, CNRS &amp; University of Toulouse, Toulouse, France  <sup>4</sup>Department of Chemistry, National Taras Shevchenko University, Kiev, Ukraine</p>
T4-O4 17 <sup>00</sup> -17 <sup>20</sup>	<p><b>Magnetic And Structural Properties Of Fe<sub>65</sub>Co<sub>35</sub> Alloys Obtained By Melting, High-Energy Milling And Heat Treatment</b></p> <p>Alexandru V. Trifu<sup>1</sup>, <u>Albert F. Takacs</u><sup>1</sup>, Eugen Dorolti<sup>1</sup>, Ionel Chicinas<sup>2</sup>, Olivier Isnard<sup>3</sup>, Viorel Pop<sup>1</sup></p> <p><sup>1</sup>Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania  <sup>2</sup>Materials Science and Technology Dept., Technical University of Cluj-Napoca, Cluj-Napoca, Romania  <sup>3</sup>Institut Néel, CNRS, Université Joseph Fourier, Grenoble, France</p>
<p><b>Hall 2: T9 - Polymer Materials and Composites</b></p> <p><b>Chair persons: Martin Pradny, Niculae Olaru</b></p>	
T9-O2 14 <sup>50</sup> -15 <sup>10</sup>	<p><b>Studies on the structure, electrical and magnetic properties of iron oxide/polysiloxane composites</b></p> <p>Yildiz<sup>1</sup>, R. Bosanceanu<sup>2</sup>, M. Cazacu<sup>3</sup>, D. Tampu<sup>3</sup>, F. Iacomi<sup>2</sup></p> <p><sup>1</sup> Department of Energy Systems Engineering, Faculty of Engineering and Natural Sciences, Yıldırım Beyazıt University, Ankara, Turkey  <sup>2</sup>Faculty of Physics, Alexandru Ioan Cuza University, of Iasi, Romania  <sup>3</sup>Institute of Macromolecular Chemistry „Petru Poni”, Iasi, Romania</p>
T9-O3 15 <sup>10</sup> -15 <sup>30</sup>	<p><b>Details concerning the use of epoxy soybean oil to obtain magnetic nanofluids</b></p> <p>Elena Alina Tăculescu<sup>1,2</sup>, Ladislau Vékás<sup>2</sup>, Fanică Mustață<sup>3</sup>, Oana Maria Marinică<sup>4,5</sup>, Maria Camelia Daia<sup>2</sup>, <u>Nicolae Crainic</u><sup>4</sup></p> <p><sup>1</sup>“Politehnica” University of Timisoara, Faculty of Industrial Chemistry and Environmental Engineering, Timisoara, Romania  <sup>2</sup>Romanian Academy-Timisoara Branch, Center for Fundamental and Advanced Technical Research, Timisoara, Romania  <sup>3</sup>Institute of Macromolecular Chemistry „Petru Poni”, Iasi, Romania  <sup>4</sup>“Politehnica” University of Timisoara, Research Center for Engineering of Systems with Complex Fluids, Timisoara, Romania  <sup>5</sup>West University of Timisoara, Faculty of Physics, Timisoara, Romania</p>
T9-O4 15 <sup>30</sup> -15 <sup>50</sup>	<p><b>Silsesquioxane-based hybrid nanocomposites with hierarchical structures for monumental stone conservation</b></p> <p>Bogdana Simionescu<sup>1,2</sup>, <u>Magdalena Aflori</u><sup>1</sup>, Irina Bordianu<sup>1</sup>, Liviu Sacarescu<sup>1</sup>, Florica Doroftei<sup>1</sup>, Mihaela Olaru<sup>1</sup></p> <p><sup>1</sup>Physical Characterization of Polymers, Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania  <sup>2</sup>Synthesis Laboratory, "Costin D. Nenitescu" Centre of Organic Chemistry, Bucharest, Romania</p>
T9-O5 15 <sup>50</sup> -16 <sup>10</sup>	<p><b>Thin film polymer photonics: Spin cast distributed Bragg reflectors</b></p> <p><u>James Bailey</u><sup>1</sup>, James S. Sharp<sup>1</sup></p> <p><sup>1</sup>Physics and Astronomy, The University of Nottingham, Nottingham, United Kingdom</p>
T9-O6 16 <sup>10</sup> -16 <sup>30</sup>	<p><b>Use of Differential Scanning Calorimetry (DSC) as thermoanalytical technique to investigate degradation of insulation used in electrical cables</b></p> <p>Păun Costel<sup>1</sup>, Monica Bostacă<sup>1</sup>, Iosif Lingvaj<sup>2</sup>, Doina Elena Gavrilă<sup>1</sup></p> <p><sup>1</sup>Dept. of Physics, University Politehnica Bucharest, Bucharest, Romania  <sup>2</sup>ICPE-CA, ICPE-CA, Bucharest, Romania</p>
T9-O7 16 <sup>30</sup> -16 <sup>50</sup>	<p><b>Prediction of mechanical properties of polymer concrete with tyre rubber using neural networks</b></p> <p><u>Rodica-Mariana Diaconescu</u><sup>1</sup>, Marinela Barbuta<sup>2</sup>, Maria Harja<sup>1</sup></p> <p><sup>1</sup>Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Iasi, Romania  <sup>2</sup>Faculty of Civil Engineering and Services, Gheorghe Asachi Technical University of Iasi, Iasi, Romania</p>

T9-O8 16 <sup>50</sup> -17 <sup>10</sup>	<b>Study of polyamideimides-hydrosilicates nanocomposites by using AFM combined with other investigation methods</b> <u>Daniel Timpu</u> <sup>1</sup> , Galina Gubanova <sup>2</sup> , S.V. Kononova <sup>2</sup> , <sup>1</sup> "Petru Poni" Institute of Macromolecular Chemistry, Romanian Academy, Iasi, Romania <sup>2</sup> Laboratory of polymeric morphology, Institute of Macromolecular Compounds, Russian Academy of Science, St. Petersburg, Russia
	<b>Hall 3: T1 - Biomaterials and Healthcare Applications</b> <b>Chair persons: Valeria Harabagiu, Branislav Hadzima</b>
T1-I1 14 <sup>50</sup> -15 <sup>20</sup>	<b>Advanced structural studies of bio(co)polyesters at the molecular level by mass spectrometry</b> <u>Grazyna Adamus</u> <sup>1</sup> , Marek Kowalczyk <sup>1</sup> <sup>1</sup> Polish Academy of Sciences, Centre of Polymer and Carbon Materials, 41-819 Zabrze, Poland
T1-I2 15 <sup>20</sup> -15 <sup>50</sup>	<b>Trace-level quantitation by isotopic dilution GC/MS methods</b> <u>Monica Culea</u> <sup>1</sup> <sup>1</sup> Faculty of Physics, "Babeş-Bolyai" University, Cluj-Napoca, Romania
T1-I3 14 <sup>50</sup> -16 <sup>20</sup>	<b>Studies of proton transfer dynamics in biological systems</b> <u>Janez Mavri</u> <sup>1,2</sup> <sup>1</sup> Laboratory for Biocomputing and Bioinformatics, National Institute of Chemistry, Ljubljana, Slovenia <sup>2</sup> EN-FIST Centre of Excellence, Ljubljana, Slovenia
T1-I4 16 <sup>20</sup> -16 <sup>50</sup>	<b>Optimization of the analgesic pharmacodynamic effects using polymeric-drug nanoparticulate systems</b> <u>Liliana Tartău</u> <sup>1</sup> , Viorel Melnig <sup>2</sup> <sup>1</sup> "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Romania <sup>2</sup> "Alexandru Ioan Cuza" University, Blvd. Carol I, 11 A, 700506, Iasi, Romania
T1-O1 16 <sup>50</sup> -17 <sup>10</sup>	<b>Silver nanoparticles healing mechanism on tissues: an adult stem cell stimulation mechanism ?</b> <u>Bogdan Alexandru Hagi</u> <sup>1</sup> , Narcisa VRINCEANU <sup>2,3</sup> <sup>1</sup> Department of Physical Education, "Al.I.Cuza" University of Iasi, IASI, România <sup>2</sup> Department of Materials Chemistry, "Al.I.Cuza" University of Iasi, IASI, România <sup>3</sup> Department of Industrial Machines and Equipments, "L.Blaa" University of Sibiu, Sibiu, România
T1-O2 17 <sup>10</sup> -17 <sup>30</sup>	<b>Cyclodextrin complexes for increasing drug molecule efficiency</b> Anton Airinei <sup>1</sup> , Nicusor Fifere <sup>1</sup> , Claudia Nadejde <sup>2</sup> , <u>Dorina-Emilia Creanga</u> <sup>2</sup> <sup>1</sup> Physics, "P. Poni" Institute of Macromolecular Chemistry, Iasi, Romania <sup>2</sup> Physics, "Al. I. Cuza" University, Iasi, Romania
17 <sup>30</sup> -19 <sup>00</sup>	<b>Coffee break and POSTER SESSION: Lost Footsteps Hall</b>
20 <sup>00</sup>	<b>COCKTAIL: Restaurant "La Castel"</b>

**Friday, 21.09.2012**

<b>PLENARY SESSION: Aula Magna “Mihai Eminescu” – HALL 1</b> <b>Chair persons: Marc de Micheli, Leonard Spinu</b>	
9 <sup>00</sup> -9 <sup>40</sup>	<b>Growth and self-organisation of semiconductor nanostructures</b> <u>Isabelle Berbezier</u> <sup>1</sup> , <sup>1</sup> IM2NP, CNRS - AMU, Marseille, France
9 <sup>40</sup> -10 <sup>20</sup>	<b>Advances on Photocatalytic materials for indoor depollution processes</b> <u>G. Kiriakidis</u> <sup>1,2</sup> , V. Binas <sup>1</sup> <sup>1</sup> Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology (FORTH), P.O. Box 1527, Vasilika Vouton 71110, Heraklion, Crete, Greece <sup>2</sup> University of Crete, Physics Department 71003 Heraklion, Crete, Greece
10 <sup>20</sup> -10 <sup>50</sup>	<b>COFFEE BREAK</b>
<b>INVITED AND ORAL SESSIONS</b>	
<b>Hall 1: T2 - Functional Materials. Processing and Characterization</b> <b>T3 - Thin Films and Nanostructures for Modern Electronics</b> <b>Chair persons: Ovidiu Pana, Coriolan Tiusan</b>	
T3-I1 10 <sup>50</sup> -11 <sup>20</sup>	<b>Processing and characterization of advanced materials by laser ablation techniques</b> <u>O.G. Pompilian</u> <sup>1</sup> , <u>G. Dascalu</u> <sup>2</sup> , <u>S. Gurlui</u> <sup>2</sup> , <u>C. Focsa</u> <sup>1</sup> <sup>1</sup> Laboratoire de Physique des Lasers, Atomes et Molécules, Université Lille 1 Sciences & Technologies, France <sup>2</sup> Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania
T2-O1 11 <sup>20</sup> -11 <sup>40</sup>	<b>Hydroxylation of atomic force microscopy probes by H<sub>2</sub>O plasma treatment</b> <u>Lucel Sirghi</u> <sup>1</sup> , <u>Aurelia Apetrei</u> <sup>1</sup> , <u>Marius Dobromir</u> <sup>1</sup> <sup>1</sup> Department of Physics, "Al. I. Cuza" University, Iasi, ROMANIA
T2-O2 11 <sup>40</sup> -12 <sup>00</sup>	<b>New approach on the role of a polymer matrix in the strong texturation of zno nanopowders</b> <u>Narcisa VRINCEANU</u> <sup>1,2</sup> , <u>Florin BRINZA</u> <sup>1</sup> , <u>Aurel PUI</u> <sup>1</sup> , <u>Eveline POPOVICI</u> <sup>1</sup> , <u>Diana COMAN</u> <sup>2</sup> <sup>1</sup> Materials Chemistry, "Al.I.Cuza" University of Iasi, IASI, România <sup>2</sup> Department of Industrial Machines and Equipments, "L.Blaga" Univesrity of Sibiu, Sibiu, România <sup>3</sup> Department of Industrial Engineering, "Gh.Asachi" University of Iasi, IASI, România
<b>Hall 2 (Al. Miller): T8 - Nanostructures and Low Dimensional Systems</b> <b>Chair persons: Isabelle Berbezier, Victor Barsan</b>	
T8-I1 10 <sup>50</sup> -11 <sup>20</sup>	<b>Static and Dynamic Interactions in 2D and 3D Magnetic Nanowires Arrays</b> <u>Leonard Spinu</u> <sup>1</sup> <sup>1</sup> Department of Physics and AMRI, University of New Orleans, New Orleans, USA

T9-I1 11 <sup>20</sup> -11 <sup>40</sup>	<p><b>Sophisticated evolved gas analysis for the characterization of polymers by means of STA-FT-IR and STA-GC-MS</b></p> <p><u>Markus Meyer</u><sup>1</sup>  <sup>1</sup>NETZSCH-Gerätebau GmbH, Selb, Bavaria, Germany</p>
T8-O2 11 <sup>40</sup> -12 <sup>00</sup>	<p><b>The influence of the magnetically induced phase condensation on the static magnetization of aqueous magnetic colloids</b></p> <p><u>Oana Marinica</u><sup>1,2</sup>, <u>Camelia Daia</u><sup>3</sup>, <u>Vlad Socoliuc</u><sup>3</sup>  <sup>1</sup>Research Center for Engineering of Systems with Complex Fluids, "Politehnica" University of Timisoara, Timisoara, Romania  <sup>2</sup>Faculty of Physics, West University of Timisoara, Timisoara, Romania  <sup>3</sup>Center for Fundamental and Advanced Technical Research, Romanian Academy - Timisoara Branch, Timisoara, Romania</p>
12 <sup>00</sup> -13 <sup>30</sup>	<b>LUNCH: Cantina Restaurant "Titu Maiorescu"</b>
	<b>Hall 1: T2 - Functional Materials. Processing and Characterization</b> <b>Chair persons: Alfonso Nastro, Felicia Iacomi</b>
T2-I2 13 <sup>30</sup> -14 <sup>00</sup>	<p><b>Magnetocaloric effect in 3d transition metals based intermetallic and oxidic compounds</b></p> <p><u>Romulus Tetean</u><sup>1</sup>  <sup>1</sup>Faculty of Physics, Babes-Bolyai University, Cluj Napoca, Romania</p>
T2-O3 14 <sup>00</sup> -14 <sup>20</sup>	<p><b>Research regarding influence of plasma treatment of a bamboo knitted fabric onto surface attributes</b></p> <p><u>Mirela Iorgoaea</u> (Guignard<sup>1</sup>, Stephanie Giraud<sup>3</sup>, Christine CAMPAGNE<sup>2,3</sup>, <u>Narcisa VRINCEANU</u><sup>4,5</sup>, <u>Luminita CIOBANU</u><sup>1</sup>, <u>Daniela FARIMA</u><sup>1</sup>, <u>Gianina Broasca (Asavei)</u><sup>1</sup>  <sup>1</sup>Departament of Industrial Engineering, "Gh.Asachi" University of Iasi, IASI, România  <sup>2</sup>Textile Department, University of Lille, Lille, France  <sup>3</sup>GEMTEX Laboratory, Ecole Nationale Supérieure des Arts et Industrie Textiles'' (ENSAIT), Roubaix, France  <sup>4</sup>Faculty of Chemistry, "Al.I.Cuza" University of Iasi, IASI, România  <sup>5</sup>Departament of Industrial Machines and Equipments, "L.Blaga" Univesrity of Sibiu, Sibiu, România</p>
T2-O4 14 <sup>20</sup> -14 <sup>40</sup>	<p><b>Quantization of pre-edge peaks in near-edge X-ray absorption fine structure spectroscopy of transition metal oxides</b></p> <p><u>Nicoleta Georgiana Apostol</u><sup>1</sup>, <u>Dan Macovei</u><sup>1</sup>, <u>Cristian-Mihail Teodorescu</u><sup>1</sup>  <sup>1</sup>Nanoscale Condensed Matter Physics, National Institute of Materials Physics, Magurele, Romania</p>
T2-O5 14 <sup>40</sup> -15 <sup>00</sup>	<p><b>New insights on nanoscale interface reactions in magnetoelectric composites</b></p> <p><u>Lavinia-Petronela Curecheriu</u><sup>1</sup>, <u>Liliana Mitoseriu</u><sup>1</sup>, <u>Maria Teresa Buscaglia</u><sup>2</sup>, <u>Vincenzo Buscaglia</u><sup>2</sup>  <sup>1</sup>Physics, Alexandru Ioan Cuza University, Iasi, Romania  <sup>2</sup>Electroceramics, Institute of Energetics and Interphases (IENI)-CNR, Genova, Italy</p>
T2-O6 15 <sup>00</sup> -15 <sup>20</sup>	<p><b>Accelerators For Advanced Applied Research Installed At IFIN-HH Magurele-Romania</b></p> <p><u>Dan Gabriel Ghita</u><sup>1</sup>  <sup>1</sup>Nuclear Physics Department, Horia Hulubei National Institute for R&amp;D in Physics and Nuclear Engineering (IFIN-HH), Magurele, Romania</p>
	<b>Hall 2: T8 - Nanostructures and Low Dimensional Systems</b> <b>T3 - Thin Films and Nanostructures for Modern Electronics</b> <b>Chair persons: George Kiriakidis, Sorin Tascu</b>
T8-I3 13 <sup>30</sup> -14 <sup>00</sup>	<p><b>Quantum wires in lithium niobate : first realizations and characterizations</b></p> <p><u>Oleksandr Stepanenko</u><sup>1</sup>, <u>Emmanuel Quillier</u><sup>1</sup>, <u>Hervé Tronche</u><sup>1</sup>, <u>Pascal Baldi</u><sup>1</sup>, <u>Pierre Aschiéri</u><sup>1</sup>, <u>Marc De Micheli</u><sup>1</sup>  <sup>1</sup>LPMC, Université de Nice Sophia Antipolis, Nice Cedex2, France</p>

T8-I4 14 <sup>00</sup> -14 <sup>30</sup>	<b>Core-shell magnetic nanoparticles with targeted properties</b> Ovidiu Pana <sup>1</sup> , Maria Loredana Soran <sup>1</sup> , Cristian Leostean <sup>1</sup> , Maria Stefan <sup>1</sup> , Simona Gutoiu <sup>1</sup> , Sergiu Macavei <sup>1</sup> , Rodica Turcu <sup>1</sup> <sup>1</sup> Phys. of Nanostructured Systems, Natl. Inst for R&D of Isotopic and Molec. Technol., Cluj-Napoca, Romania
T8-O3 14 <sup>30</sup> -14 <sup>50</sup>	<b>Analytic Study of Fermions in Graphene; Heun Functions and Beyond</b> Marina-Aura Dariescu <sup>1</sup> , Ovidiu Buhucianu <sup>1</sup> , Ciprian Dariescu <sup>1</sup> <sup>1</sup> Theoretical Physics, Al. I. Cuza” University, Iasi, Romania
T8-O4 14 <sup>50</sup> -15 <sup>10</sup>	<b>New results in the theory of metallic ultra-thin films</b> Victor Barsan <sup>1</sup> <sup>1</sup> Theoretical Physics, Center for Nuclear Physics, National Institute of Physics and Nuclear Engineering, Magurele , Bucharest, Romania
T3-O1 15 <sup>10</sup> -15 <sup>30</sup>	<b>Collagen immobilization on polyethylene terephthalate surface after helium plasma treatment</b> Magdalena Aflori <sup>1</sup> , Mioara Drobotă <sup>1</sup> , Dan Gh. Dimitriu <sup>2</sup> , Irina Titorencu <sup>1,3</sup> , Valeria Harabagiu <sup>1</sup> <sup>1</sup> Physical Characterization of Polymers, Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania <sup>2</sup> Faculty of Physics, “Alexandru Ioan Cuza” University, Iasi, Romania <sup>3</sup> Biopathology and Pharmacology of Inflammation, The Institute of Cellular Biology and Pathology, Bucharest, Romania
15 <sup>30</sup> -17 <sup>00</sup>	<b>COFEE BREAK + POSTER SESSION 2:</b> Lost Footsteps Hall
17 <sup>00</sup> -18 <sup>00</sup>	<b>Round Table - Hall 1</b> <b>Trends, Challenges and Frontiers in Physics of Advanced Materials</b>
20 <sup>00</sup>	<b>DINNER PARTY: Grand Hotel Traian Restaurant</b>

**Saturday, 22.09.2012**

<b>PLENARY SESSION: Aula Magna “Mihai Eminescu”</b> Chair persons: Nicoleta Lupu, Marco Abbarchi	
9 <sup>00</sup> -9 <sup>40</sup>	<b>Low temperature growth of silicon nano-structures for electronic applications</b> <u>Shashi Paul</u> <sup>1</sup> , <sup>1</sup> Emerging Technologies Research Centre, De Montfort University, The Gateway Leicester LE1 9BH, United Kingdom
9 <sup>40</sup> -10 <sup>20</sup>	<b>Multiferroic tunnel junctions</b> <u>Marin Alexe</u> <sup>1</sup> <sup>1</sup> Max Planck Institute of Microstructure Physics, Weinberg 2, 06120 Halle, Germany
10 <sup>20</sup> -10 <sup>50</sup>	<b>COFFEE BREAK</b>
<b>INVITED AND ORAL SESSIONS</b>	
<b>Hall 1: T7 - Metamaterials. Applications</b> <b>T12 - Trends in Condensed Matter and Field Theory</b> Chair persons: Radu Daniel, Ann Zingan	
T7-I1 10 <sup>50</sup> -11 <sup>20</sup>	<b>Electromagnetic metamaterials</b> <u>Raimond Grimberg</u> <sup>1</sup> <sup>1</sup> , National Institute of Research & Development for Technical Physics, Iasi, Romania
T12-O1 11 <sup>20</sup> -11 <sup>40</sup>	<b>Theory of stimulated Raman atomic-molecular conversion in Bose condensate</b> Ann Zingan <sup>1,1</sup> <sup>1</sup> Physics and Mathematics, Dniester State University, Tiraspol, Moldova
T12-O2 11 <sup>40</sup> -12 <sup>00</sup>	<b>Tailoring dc-tunability properties by local field engineering in ferroelectric structures</b> <u>Leontin Padurariu</u> <sup>1</sup> , <u>Lavinia-Petronela Curecheriu</u> <sup>1</sup> , <u>Liliana Mitoseriu</u> <sup>1</sup> <sup>1</sup> Physics, Alexandru Ioan Cuza University, Iasi, Romania
T12-O3 12 <sup>00</sup> -12 <sup>20</sup>	<b>The Schrödinger-Poisson heuristic limit of the Klein-Gordon-Maxwell-System and its S-Eigenmode solution for a spherically trapped particle</b> Ciprian Dariescu <sup>1</sup> , Marina-Aura Dariescu <sup>1</sup> , <u>Ciprian Cretu</u> <sup>1</sup> <sup>1</sup> Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania
T12-O4 12 <sup>20</sup> -12 <sup>40</sup>	<b>Solvatochromic effects in electronic absorption spectra of N-Ylids</b> <u>Dana-Ortansa Dorohoi</u> <sup>1</sup> , <u>Mihaela Maria Oprea</u> <sup>1</sup> , <u>Valentina Closca</u> <sup>1</sup> <sup>1</sup> Alexandru Ioan Cuza University, Faculty of Physics, Iasi, Romania

**Hall 2: T6 - Materials for Energy and Environment  
T8 - Nanostructures and Low Dimensional Systems  
Chair persons: Shizutoshi Ando, V. Ciupina**

T6-I1 10 <sup>50</sup> -11 <sup>20</sup>	<p><b>Application of some carbon based nanostructures in divertors coatings from fusion reactor</b></p> <p>V. Ciupina<sup>1,3</sup>, I. Morjan<sup>2</sup>, R. R. Vladoiu<sup>1</sup>, C. P. Lungu<sup>2</sup>, C. Porosnicu<sup>2</sup>, I. Jepu<sup>2</sup>, G. Prodan<sup>1,4</sup>, I. M. Stanescu<sup>1</sup>, A. Mandes<sup>1</sup></p> <p><sup>1</sup>Ovidius University of Constanta, Constanta, Romania  <sup>2</sup>National Institute for Laser Plasma and Radiation Physics, Magurele, 077125, Romania  <sup>3</sup>Academy of Romanian Scientists, Bucuresti, Romania  <sup>4</sup>Institute for Nanotechnology and Alternative Energy Sources, Constanta, Romania  <sup>5</sup>CERONAV, Constanta, Romania</p>
T6-I2 11 <sup>20</sup> -11 <sup>50</sup>	<p><b>Development of solar cell materials for Si-free thin film solar cells by preparation techniques for the mass production with low cost</b></p> <p>Shizutoshi Ando<sup>1</sup></p> <p><sup>1</sup>Faculty of Engineering, Tokyo University of Science, Tokyo, Japan</p>
T6-O1 11 <sup>50</sup> -12 <sup>10</sup>	<p><b>Pulsed Laser Ablation Modified Nafion/TiO2 Membranes for Proton Exchange Membrane Fuel Cells</b></p> <p>Daniela Ebrasu<sup>1</sup>, Mihai Varlam<sup>1</sup>, Ioan Stefanescu<sup>1</sup>, Ashok Vaseashta<sup>3</sup>, Gabriela Dorcioman<sup>2</sup>, Emanuel Axente<sup>2</sup>, Ion N. Mihailescu<sup>2</sup></p> <p><sup>1</sup>National Center for Hydrogen and Energy, National Research and Development Institute for Cryogenics and Isotopic Technologies - ICSI Rm. Valcea, ROMANIA,  <sup>2</sup>Lasers Department, National Institute for Lasers, Plasma and Radiations Physics, Magurele, Ilfov, ROMANIA  <sup>3</sup>U.S. Department of State, Washington, DC USA, Institute for Advanced Sciences Convergence and International Clean Water Institute, NUARI, 13873 Park Center Rd. Suite 500, Herndon VA USA</p>
T6-O2 12 <sup>10</sup> -12 <sup>30</sup>	<p><b>Removal of methylene blue from aqueous solutions with magnetic iron oxide nanopowder</b></p> <p>Oana Paska<sup>1</sup>, Cornelia Pacurariu<sup>1</sup>, Robert Ianos<sup>1</sup></p> <p><sup>1</sup>Faculty of Industrial Chemistry and Environmental Engineering, "Politehnica" University of Timisoara, Timisoara, Romania</p>
T8-I2 12 <sup>30</sup> -13 <sup>00</sup>	<p><b>Droplet epitaxial GaAs quantum dots as single photon sources on silicon</b></p> <p>Marco Abbarchi<sup>1,2</sup></p> <p><sup>1</sup>Quantum Dot Research Center, National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan  <sup>2</sup>Physics Department and European Laboratory for Nonlinear Spectroscopy, Universita di Firenze, Sesto Fiorentino (Firenze), Italy</p>
13 <sup>00</sup> -14 <sup>30</sup>	LUNCH: Cantina Restaurant "Titu Maiorescu"
14 <sup>30</sup> -15 <sup>00</sup>	Closing remarks: Aula Mihai Eminescu
15 <sup>00</sup>	Departure excursions

## POSTER SESSIONS

### Poster Session 1

Thursday, 20.09.2012, 17<sup>30</sup> Lost Footsteps Hall

- P 1. T1 Preparation of Chitosan and Gelatin Based Microcapsules by Ionic and Covalent Crosslinking in O/W/O Emulsion**  
Mihaela Nicoleta Holban<sup>1</sup>, Catalina Anisoara Peptu<sup>2</sup>, Anca Niculina Jatariu (Cadinoiu)<sup>2</sup>, Marcel Popa<sup>2</sup>, Valeriu Sunel<sup>1</sup>  
<sup>1</sup>Faculty of Chemistry, AL.I.CUZA University, Iasi, Romania  
<sup>2</sup>Faculty of Chemical Engineering and Environmental Protection, Gheorghe Asachi Technical University of Iasi, Iasi, Romania
- P 2. T1 Effects of colloidal suspensions on normal and tumor cell lines**  
Elena Alina Tăculescu<sup>1,2</sup>, Florina Maria Bojin<sup>3</sup>, Robert Ianoș<sup>1</sup>, Virgil Păunescu<sup>3</sup>, Cornelia Păcurariu<sup>1</sup>  
<sup>1</sup>“Politehnica” University of Timisoara, Faculty of Industrial Chemistry and Env. Engineering,  
<sup>2</sup>Romanian Academy – Timisoara Branch, Center for Fundamental and Advanced Technical Research  
<sup>3</sup>“Victor Babes” University of Medicine and Pharmacy Timisoara
- P 3. T1 Psyllium/polyvinyl alcohol matrix composite for morin as dietary supplement**  
Marcela-Corina Rosu<sup>1</sup>, Lidia Rednic<sup>1</sup>, Ioan Bratu<sup>1</sup>  
<sup>1</sup>Physics of Nanostructured Systems, National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania
- P 4. T1 Electrochemical characteristics of calcium-phosphatized AZ31 Magnesium alloy in 0.9% NaCl.**  
Branislav Hadzima<sup>1</sup>, Filip Pastorek<sup>1</sup>, Dagmar Faktorová<sup>2</sup>  
<sup>1</sup>Department of Materials Engineering, University of Žilina, Žilina, Slovak Republic  
<sup>2</sup>Department of measurement and applied electrical engineering, University of Žilina, Slovak Republic
- P 5. T1 Synthesis and characterization of HAp-ZnFe nanocomposites**  
A.M. Cantaragiu<sup>1</sup>, C. Gheorghies<sup>1</sup>, V.T. Romila (Gruia)<sup>1</sup>, L.P. Georgescu<sup>1</sup>  
<sup>1</sup>Chemistry, Physics and Environment, “Dunarea de Jos” University, Galati, Romania
- P 6. T1 Determination of compact bone mineral volume fraction using Bruggeman EMA model**  
Ioana Veronica Ciuchi<sup>1</sup>, Cristina Stefania Olariu<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 7. T1 A new approach to the comparison of microwave methods used at dielectric constant measurement**  
Dagmar Faktorová<sup>1</sup>, Branislav Hadzima<sup>2</sup>, Adriana Savin<sup>3</sup>, Raimond Grimberg<sup>3</sup>  
<sup>1</sup>Department of Measurement and Applied Electrical Engineering, University of Žilina, Slovak Republic  
<sup>2</sup>Department of Materials Engineering, University of Žilina, Žilina, Slovak Republic  
<sup>3</sup>Nondestructive Testing Department, National Institute of R&D for Technical Physics, Iasi, Romania



- P 8. T1 3D-modeling of temperature gradients in a 3-body Dömen-type calorimeter for absorbed dose measurements**  
Cristina-Elena Ionita<sup>1</sup>, Daniel Radu<sup>1</sup>, Iordana Astefanoaei<sup>1</sup>  
<sup>1</sup>Solid State and Theoretical Physics, "Al.I.Cuza" University, Iasi, Romania
- P 9. T1 Application of spectroscopic techniques for studying the effects of non-thermal plasma on biomacromolecules**  
Roxana Jijie<sup>1</sup>, Ionut Topala<sup>1</sup>, Valentin Pohoata<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 10. T1 Electromagnetic biosensor for glucose concentration measurement**  
Dumitru-Daniel Herea<sup>1</sup>, Horia Chiriac<sup>1</sup>, Nicoleta Lupu<sup>1</sup>  
<sup>1</sup>MDM, National Institute of R&D for Technical Physics, Iasi, Romania
- P 11. T1 In vitro study regarding the cytotoxicity of some TiNbZr alloys**  
L. Dragan<sup>1</sup>, C.E. Cotrutz<sup>2</sup>, S. Strugaru<sup>2</sup>, P. Avram<sup>1</sup>, G.L. Pintilei<sup>1</sup>, C. Munteanu<sup>1</sup>  
<sup>1</sup>Faculty of Mechanical Engineering, Gheorghe Asachi Technical University, Iasi, Romania  
<sup>2</sup>Faculty of Medicine, "Gr. T. Popa" University of Medicine and Pharmacy, Iasi, Romania
- P 12. T1 Biocompatibility evaluation for some new Ti-Nb-Zr-Ta alloys**  
L. Dragan<sup>1</sup>, C. Axinte<sup>1</sup>, S.C. Strugaru<sup>1</sup>, C. Munteanu<sup>1</sup>, B. Istrate<sup>1</sup>, G.N. Basescu<sup>1</sup>  
<sup>1</sup>Faculty of Mechanical Engineering, Gheorghe Asachi Technical University, Iasi, Romania
- P 13. T1 On-Plate SERS detection in TLC separation**  
Kristian Herman<sup>1</sup>, Nicoleta E. Mircescu<sup>1</sup>, Vasile Chis<sup>1</sup>, Nicolae Leopold<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania
- P 14. T1 Obtaining of advanced functionalized ecotextiles dyed with natural colorants extracted from bilberry fruit**  
Diana COMAN<sup>1</sup>, Simona Oancea<sup>2</sup>, Narcisa VRINCEANU<sup>1,3</sup>  
<sup>1</sup>Department of Industrial Machines and Equipments, "L.Bлага" University of Sibiu, Sibiu, România  
<sup>2</sup>Department of Agricultural Sciences, Environment and Food Industry, "L.Bлага" University of Sibiu, Sibiu, România  
<sup>3</sup>Department of Materials Chemistry, "Al.I.Cuza" University of Iasi, Iasi, România
- P 15. T1 WIRIS on the a MOODLE platform, a powerful instrument for the online processing of experimental data**  
George Vaju<sup>1</sup>, Mihai Vaju<sup>2</sup>  
<sup>1</sup>education, Technical College Grigore Moisil, Bistrita, Romania  
<sup>2</sup>education, Technical University of Cluj Napoca, Bistrita, Bistrita, BN
- P 16. T1 Wine clarification by mean of highly ordered silica mesoporous materials**  
Violeta Niculescu<sup>1</sup>, Andreea Iordache<sup>1</sup>, Roxana Ionete<sup>1</sup>, Nadia Paun<sup>1</sup>, Viorica Parvulescu<sup>2</sup>, Monica Culea<sup>3</sup>  
<sup>1</sup>Research-Development, National R & D Institute for Cryogenics and Isotopic Technologies- ICIT Rm. Valcea, Ramnicu Valcea, Romania  
<sup>2</sup>Surface Chemistry and Catalysis, "Ilie Murgulescu" Institute of Physical Chemistry, Romanian Academy, Bucuresti, Romania  
<sup>3</sup>Physics Faculty, Babes-Bolyai University, Cluj-Napoca, Romania
- P 17. T1 A novel method for the production of calcium phosphate biomaterials**  
Alfonso Nastro<sup>1</sup>, Francesco Lamonaca<sup>2</sup>, Domenico Grimaldi<sup>2</sup>  
<sup>1</sup>Department of Territorial Planning, University of Calabria, Arcavacata di Rende, Italy  
<sup>2</sup>Department of Electronic System and Computer Science, University of Calabria, Arcavacata di Rende, Italy
- P 18. T1 Dual Detection Biosensor Based On Porous Silicon Substrate**  
Monica Simion<sup>1</sup>, Mihaela Kusko<sup>1</sup>, Iuliana Mihalache<sup>1</sup>, Adina Bragaru<sup>1</sup>  
<sup>1</sup>Laboratory of Nanobiotechnology, National Institute for Research and Development in Microtechnologies (IMT), Bucharest, Romania

- P 19. T1 Synthesis And Characterization Of Polymer-Coated Magnetic Nanoparticles For Biomedical Applications**  
Alfonso NASTRO<sup>1</sup>, Gigel NEDELICU<sup>2</sup>, Luigi FILIPPELLI<sup>3</sup>, Cesare OLIVIERO ROSSI<sup>3</sup>, Felicia IACOMI<sup>2</sup>  
<sup>1</sup> Dipartimento di Pianificazione Territoriale, University of Calabria, Cosenza Rende, Italy  
<sup>2</sup> Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>3</sup> Dipartimento di Chimica, University of Calabria, Cosenza Rende, Italy
- P 20. T2 Some correlations between structural, morphological and optical properties of ZnO thin films obtained by thermally oxidized metallic zinc films**  
Dragos Ioan Rusu<sup>1</sup>, George Rusu<sup>1</sup>, Dumitru Luca<sup>1</sup>  
<sup>1</sup> Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 21. T2 Ageing of low field dielectric constant in Ce-doped BaTiO<sub>3</sub> based solid solution**  
Alexandra Maria Neagu<sup>1</sup>, Geanina Apachitei<sup>1</sup>, Lavinia Petronela Curecheriu<sup>1</sup>  
<sup>1</sup> Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania
- P 22. T2 Combined approach to study of Sn doped BaTiO<sub>3</sub> ceramics**  
Nadejda Horchidan<sup>1</sup>, Adelina C. Ianculescu<sup>2</sup>, Mihai V. Pop<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup> Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup> Department of Oxide Materials Science & Eng, Polytechnics University Bucharest, Bucharest, Romania
- P 23. T2 Ferroelectric and dielectric properties of ferrite-ferroelectric ceramic composites**  
Alexandra Maria Neagu<sup>1</sup>, Cristina Elena Ciomaga<sup>1</sup>, Mihai Valentin Pop<sup>1</sup>, Sorin Tascu<sup>2</sup>, Carmen Galassi<sup>3</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup> Physics, "Al. I. Cuza" University of Iasi, Iasi, Romania  
<sup>2</sup> Physics, "Al. I. Cuza" University of Iasi, Res. Ctr. Adv. Mat. & Technol., Iasi, Romania  
<sup>3</sup> CNR, CNR -ISTEC, Faenza, Italy
- P 24. T2 Patterning and characterization of polyester fabrics surface**  
Gianina Broasca<sup>1</sup>, Daniela Farima<sup>1</sup>, Narcisa Vrinceanu<sup>2,3</sup>, Alexandra Nistor<sup>4</sup>, Christine Campagne<sup>5</sup>, Mihai Ciocoiu<sup>1</sup>  
<sup>1</sup> Department of Industrial Engineering, "Gheorghe Asachi" Technical University of Iasi, Iasi, România  
<sup>2</sup> Department of Materials Chemistry, "Al.I.Cuza" University of Iasi, Iasi, România  
<sup>3</sup> Department of Industrial Machines and Equipments, "L.Blaga" University of Sibiu, Sibiu, Romania  
<sup>4</sup> Department of Biochemistry, "P.Poni" Institute of Macromolecular Chemistry, Iasi, România  
<sup>5</sup> GEMTEX, „Ecole Nationale Supérieure des Arts et Industrie Textiles” (ENSAIT), Roubaix, France
- P 25. T2 EMA and FEM modeling of dielectric properties of anisotropic porous PZT ceramics**  
Cristina Stefania Olariu<sup>1</sup>, Leontin Padurariu<sup>1</sup>, Carmen Galassi<sup>2</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup> Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup> Institute of Ceramics Science and Technology, ISTEC-CNR, Faenza, Italy
- P 26. T2 Structural properties of Cr substituted cobalt ferrite nanoparticles**  
Caltun O.F.<sup>1</sup>, Rao G.S.N.<sup>2</sup>, Subba Rao P.S.V.<sup>3</sup>, Parvatheeswara Rao B.<sup>3</sup>  
<sup>1</sup> Dept. of Physics, A.I. Cuza University, Iasi, Romania  
<sup>2</sup> Dept. of Physics, Dr. V. S. Krishna Govt. Degree College, Visakhapatnam, India  
<sup>3</sup> Dept. of Physics, Andhra University, Visakhapatnam, India
- P 27. T2 Preparation by hydrothermal synthesis and photocatalytic properties of Bi<sub>2</sub>Fe<sub>4</sub>O<sub>9</sub> particles**  
Felicia Gheorghiu<sup>1</sup>, Maria Teresa Buscaglia<sup>2</sup>, Vincenzo Buscaglia<sup>2</sup>, Cristina G. Pastravanu<sup>3</sup>, Eveline Popovici<sup>3</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup> Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup> Dipart. di Ingegneria Chimica e di Processo, In. for Energetics & Interphases-CNR, Genoa, 49, Italy  
<sup>3</sup> Department of Materials Chemistry, Alexandru Ioan Cuza University, Iasi, Romania

- P 28. T2 New single-phase multiferroic: Ba<sub>12</sub>Fe<sub>28</sub>Ti<sub>15</sub>O<sub>84</sub> self assembled perovskite-spinel multilayer structure**  
Alexandra Maria Neagu<sup>1</sup>, Lavinia Petronela Curecheriu<sup>1</sup>, Geanina Apachitei<sup>1</sup>, Giovanna Canu<sup>2</sup>, Catalin Harnagea<sup>3</sup>, Liliana Mitoseriu<sup>1</sup>, Vincenzo Buscaglia<sup>1</sup>  
<sup>1</sup>Physics, "Al. I. Cuza" University, Iasi, Romania  
<sup>2</sup>Electroceramics, Institute of Energetics and Interphases (IEND)-CNR, Genoa, Italy  
<sup>3</sup>INRS-Energie, Matériaux et Télécommunications, University of Québec, Québec, Canada
- P 29. T2 Implementation of FORC measurements for ferroelectric ceramics: circuit design and numerical analysis**  
Mihai Valentin Pop<sup>1</sup>, Laurentiu Stoleriu<sup>1</sup>, Nadejda Horchidan<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 30. T2 FORC analysis, polarization reversal and sub-switching properties of morphotropic phase boundary PZT ceramics**  
Mihai Valentin Pop<sup>1</sup>, Laurentiu Stoleriu<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>, Carmen Galassi<sup>2</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Institute of Science & Technology for Ceramics, ISTEC-CNR, Faenza, Italy
- P 31. T2 Investigation of the ferroelectric-relaxor crossover in Ce-doped BaTiO<sub>3</sub> ceramics by impedance spectroscopy**  
Zina Violeta Mocanu<sup>1</sup>, Lavinia Petronela Curecheriu<sup>1</sup>, Cristina Elena Ciomaga<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 32. T2 Investigation of electrical properties of Mg<sub>x</sub>Ni<sub>1-x</sub>Fe<sub>2</sub>O<sub>4</sub> spinel ceramics and applications**  
Zina Violeta Mocanu<sup>1</sup>, Mirela Airimioaei<sup>2,3</sup>, Cristina Elena Ciomaga<sup>1</sup>, Florin Tudorache<sup>1</sup>, Lavinia Petronela Curecheriu<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Department of Chemistry, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>3</sup>Dept. Chemistry & Process Engineering, University of Genoa, Genoa, Italy
- P 33. T2 Rapidly Quenched Magnetic Shape Memory Alloys with Super-elastic Properties**  
Firuta Borza<sup>1</sup>, Adrian L. Paraschiv<sup>2</sup>, Leandru Ghe. Bujoreanu<sup>2</sup>, Nicoleta Lupu<sup>1</sup>  
<sup>1</sup>Magnetic Materials and Devices, National Institute of R&Dt for Technical Physics - IFT Iasi, România  
<sup>2</sup>Faculty of Materials Science and Engineering, "Ghe. Asachi" Technical University of Iasi, România
- P 34. T2 Modified lanthanum manganite nano-perovskites for catalyst applications**  
Nicolae Rezlescu<sup>1</sup>, Elena Rezlescu<sup>1</sup>, Corneliu Doroftei<sup>2,1</sup>, Paul Dorin Popa<sup>1</sup>, Maria Ignat<sup>3</sup>  
<sup>1</sup>Physics, National Institute of Research and Development for Technical Physics, Iasi, Romania  
<sup>2</sup>Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania  
<sup>3</sup>Faculty of Chemistry, "Al. I. Cuza" University, Iasi, Romania
- P 35. T2 On tungsten thin films properties and their relation with transport process of the sputtered atoms in a DC high power pulse magnetron discharge**  
Vasile Tiron<sup>1</sup>, Valentin Pohoata<sup>1</sup>, Gheorghe Popa<sup>1</sup>, Catalin Vitelaru<sup>2</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Advanced Surface Processing and Analysis by Vacuum Technologies, National Institute for Optoelectronics, Magurele, Romania
- P 36. T2 Intermolecular interactions of some carboethoxy-anilido-methylids in solutions**  
Valentina Cloșca<sup>1</sup>, Mihaela-Liliana Ivan<sup>1</sup>, Dana-Ortansa Dorohoi<sup>1</sup>  
<sup>1</sup>Alexandru Ioan Cuza University, Faculty of Physics, Iasi, Romania
- P 37. T2 Synthesis and characterization of functional Ni-doped ZnO thin films**  
Alicia Petronela Rambu<sup>1</sup>, Laura Ursu<sup>2</sup>, George G. Rusu<sup>1</sup>, Nicoleta Iftimie<sup>3</sup>, Felicia Iacomi<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, România  
<sup>2</sup>Petru Poni Institute of Macromolecular Chemistry, Iasi, România  
<sup>3</sup>National Institute of Research and Development for Technical Physics, Iasi, România

- P 38. T2 CaALDH as matrix for admixtures in concrete**  
Maria Gaburici<sup>1</sup>, Horia Chiriac<sup>1</sup>, Nicoleta Lupu<sup>1</sup>  
<sup>1</sup>MDM, National Institute of R&D for Technical Physics, Iasi, Romania
- P 39. T2 Magnetorheological fluids based on polymer coated iron particles**  
George Stoian<sup>1</sup>, Horia Chiriac<sup>1</sup>  
<sup>1</sup>Magnetic Devices and Materials, National Institute of R&D for Technical Physics, Iasi, Romania
- P 40. T2 The Meyer-Neldel Rule in TiO<sub>2</sub> Films with Different Fe Content**  
Daniel Florea<sup>1</sup>, Dumitru Luca<sup>1</sup>, Catalin Adomnitei<sup>1</sup>, Cristian Mihail Teodorescu<sup>2</sup>, Diana Mardare<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania  
<sup>2</sup>Institute of Materials Physics, Institute of Materials Physics, Magurele, Romania
- P 41. T2 The structural transformation of the ceramic layer ZrO<sub>2</sub>/20%Y<sub>2</sub>O<sub>3</sub>, obtained by thermal spraying after heat treatment**  
Laura Geanina Pintilei<sup>1</sup>, Florin Branza<sup>2</sup>, Gica Narcis Basescu<sup>1</sup>, Sorin Claudiu Iacob Strugariu<sup>1</sup>, Bogdan Istrate<sup>1</sup>, Corneliu Munteanu<sup>1</sup>  
<sup>1</sup>Faculty of Mechanical Engineering, "Gheorghe Asachi" Technical University of Iasi, Romania  
<sup>2</sup>Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 42. T2 Behavior to high speeds heating-cooling of ceramic multilayer multifunctional structures based on the zirconie partial stabilized with yttria**  
Laura Geanina Pintilei<sup>1</sup>, Victor Manoliu<sup>2</sup>, Gheorghe Ionescu<sup>2</sup>, Gica Narcis Basescu<sup>1</sup>, Sorin Claudiu Iacob Strugariu<sup>1</sup>, Corneliu Munteanu<sup>1</sup>  
<sup>1</sup>Faculty of Mechanical Engineering, "Gheorghe Asachi" Technical University of Iasi, Romania  
<sup>2</sup>Materials laboratory, National Institute for Aerospace Research, Bucuresti, Romania
- P 43. T2 Functional characterization of Ni<sub>1-x</sub>Co<sub>x</sub>O thin films deposited by spin-coating**  
G. Calin<sup>1</sup>, C. Doroftei<sup>1</sup>, M. Irimia<sup>1</sup>, F. Iacomi<sup>1</sup>  
<sup>1</sup>Faculty of physics, "Alexandru Ioan Cuza" University of Iasi, Iasi, Romania
- P 44. T2 The Influence of Different Cr Content on the Properties of TiO<sub>2</sub> Thin Films**  
Daniel Florea<sup>1</sup>, Catalin Adomnitei<sup>1</sup>, Nicoleta Ciornei<sup>2</sup>, Dumitru Luca<sup>1</sup>, Alina Manole<sup>1</sup>, Marius Dobromir<sup>1</sup>, Mihaela Girtan<sup>3</sup>, Diana Mardare<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania  
<sup>2</sup>Faculty of Chemistry, "Alexandru Ioan Cuza" University, Iasi, Romania  
<sup>3</sup>Photonics Laboratory, Angers University, Angers, France
- P 45. T2 Theoretical and spectral study of some vitamins**  
C.M. Scoban<sup>1</sup>, L.M Ivan<sup>1</sup>, D. Dorohoi<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 46. T2 Function graded materials obtained by gas carburizing method**  
Marius Catalin Criveanu<sup>1,2</sup>, Marco Actis Grande<sup>2</sup>, Oana Gingu<sup>1</sup>  
<sup>1</sup>IMST, University of Craiova, Craiova, Romania  
<sup>2</sup>Dipartimento Scienza Applicata e Tecnologia, Politecnico di Torino, Torino / Alessandria, Italia
- P 47. T2 Optical and Photoluminescence characteristics of polycrystalline Zinc Oxide thin films at 78 K and 293 K**  
Dragos Rusu<sup>1</sup>, Igor Evtodiev<sup>2</sup>, Iuliana Caraman<sup>1</sup>, Dumitru Luca<sup>3</sup>, George Rusu<sup>3</sup>  
<sup>1</sup>, „V. Alecsandri” University of Bacau, Bacau, Romania  
<sup>2</sup>, Moldova State University, Chisinau, Republic of Moldova  
<sup>3</sup>Faculty of Physics, „Al. I. Cuza” University, Iasi, Romania
- P 48. T2 Studies on the structural changes induced by annealing and gamma irradiation in iron rich mineral clays**  
C. Tabacaru<sup>1</sup>, V. Nica<sup>1</sup>, M. Dobromir<sup>1</sup>, M. Chipara<sup>2</sup>, F. Iacomi<sup>1</sup>,  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Romania  
<sup>2</sup>University of Texas Pan American, Edinburg, TX 78541, USA

- 49. T2 Influence of shot peening and anodizing on fatigue endurance of en-aw-6082 aluminium alloy in gigacycle regime**  
 Viktor Škorík<sup>1</sup>, Branislav Hadzima<sup>1</sup>, František Nový<sup>1</sup>,  
<sup>1</sup>Department of Materials Engineering, Faculty of Mechanical Engineering, University of Žilina, Žilina, Slovak Republic
- P 50. T3 Low pressure inverter plasma system for surface engineering experiments**  
 Cristian Daniel Tudoran<sup>1</sup>  
<sup>1</sup>Department of Molecular and Biomolecular Physics, National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania
- P 51. T3 Plasma parameters of argon and argon/molecular gas mixture plasmas produced in microwave discharge**  
 Remus-Sorin Dobreă<sup>1</sup>, Ilarion Mihailă<sup>1</sup>, Gheorghe Popa<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania
- P 52. T3 Surface modification of polymers in relation to the spatial distribution of reactive oxygen species**  
 Gabriela Borcia<sup>1</sup>, Radu Cazan<sup>1</sup>, Catalin Borcia<sup>1</sup>  
<sup>1</sup>Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 53. T3 Silicon plasma processing for front surface textured solar cells**  
 R. Rebigan<sup>1</sup>, A. Avram<sup>1</sup>, F. Craciunoiu<sup>1</sup>, R. Tomescu<sup>1</sup>, M. Popescu<sup>1</sup>, D. Cristea<sup>1</sup>, M. Purica<sup>1</sup>, P. Schiopu<sup>2</sup>  
<sup>1</sup>..., National Institute of Microtechnologies Bucharest – IMT, Bucharest, Romania  
<sup>2</sup>Fac. of Electronics, Telecommunications and Information Technology, Politehnica University of Bucharest, Romania
- P 54. T4 The influence of the additions and processing conditions on the magnetic properties and c-axis orientation of NdFeB thin films**  
 Maria Urse<sup>1</sup>, Marian Grigoras<sup>1</sup>, Nicoleta Lupu<sup>1</sup>, Horia Chiriac<sup>1</sup>, Firuta Borza<sup>1</sup>  
<sup>1</sup>Magnetic Materials and Devices, National Institute of R & D for Technical Physics, Iasi, Romania
- P 55. T4 Spin filtering in graphene nanoribbons with Mn-doped boron nitride inclusions**  
 George Alexandru Nemnes<sup>1</sup>, Stefan Antohe<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Materials and Devices for Electronics and Optoelectronics" Research Center, University of Bucharest, Magurele, Romania
- P 56. T4 Flux concentrators with improved efficiency of the field detection limit for magnetoresistive sensors**  
 Nicolae-Cristian Rotarescu<sup>1</sup>, Horia Chiriac<sup>1</sup>, Nicoleta Lupu<sup>1</sup>, Andrei Jitariu<sup>1</sup>  
<sup>1</sup>MDM, National Institute of R&D for Technical Physics, Iasi, Romania
- P 57. T4 High frequencies absorption properties of multilayered CoFe-based GCAW**  
 Gabriel Ababei<sup>1</sup>, Horia Chiriac<sup>1</sup>  
<sup>1</sup>Magnetic Material, National Institute of R&D for Technical Physics, Iasi, Romania
- P 58. T4 Time dependent thermal stresses due to rapid cooling in a magnetic core - shell particle**  
 Iordana Astefanoaei<sup>1</sup>, Ioan Dumitru<sup>1</sup>, Alexandru Stancu<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 59. T4 Micromagnetic evaluation of thin film size on the critical curve of a synthetic antiferromagnetic**  
 Ciprian Pinzaru<sup>1</sup>, Laurentiu Stoleriu<sup>1</sup>, Alexandru Stancu<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania

- P 60. T4 Treatment temperature influence on the structure, electrical and magnetic properties of BaFe<sub>12</sub>O<sub>19</sub> hexaferrite**  
Florin Tudorache<sup>1,2</sup>, Iulian Petrila<sup>2</sup>, Paul Dorin Popa<sup>3</sup>, Sorin Tascu<sup>2</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Research Center on Advanced Materials and Technologies, Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>3</sup>Department of Physics, National Institute of R&D for Technical Physics-IFT Iasi, Iasi, Romania
- P 61. T4 Magnetic analysis of fired clays used for pottery**  
Tiberiu Adrian Salaoru<sup>1</sup>, Florica Matau<sup>1</sup>, Ovidiu Chiscan<sup>1</sup>, Sorin Tascu<sup>2</sup>, I. Vladoiu<sup>3</sup>, Alexandru Stancu<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Center for Applied Research in Physics and Advanced Technologies (CARPATH), Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Faculty of Physics, Research Center on Advanced Material and Technology, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>3</sup>Cislau School, Buzau, Romania
- P 62. T4 Structural and functional investigations of hematite thin films grown by spin – coating**  
Gh. Zoderiu<sup>1</sup>, R. Bosinceanu<sup>1</sup>, E. Vasile<sup>2</sup>, I. Deac<sup>3</sup>, G. Constantinescu<sup>4</sup>, C. Doroftei<sup>1</sup>, F. Iacomi<sup>1</sup>  
<sup>1</sup>Alexandru Ioan Cuza University of Iasi, Romania  
<sup>2</sup>METAV CD SA, Bucharest, Romania  
<sup>3</sup>Babes Bolyai University, Cluj-Napoca, Romania  
<sup>4</sup>Jacobs University, Bremen, Germany
- P 63. T1 The distribution study in vital organs of silver nanoparticles ingested by rats**  
Luiza Budeanu<sup>1</sup>, Liliana Tartau<sup>2</sup>, Viorel Melnig<sup>1</sup>  
<sup>1</sup>“Alexandru Ioan Cuza” University, Blvd. Carol I, 11 A, 700506, Iasi, Romania  
<sup>2</sup>“Gr. T. Popa” University of Medicine and Pharmacy Faculty of Medicine Pharmacology-Algesiology Department, Universitatii Street No. 16, 700115, Iasi, Romania
- P 64. T1 Optical activity enhancement of gold nanoparticles by exposure in light**  
Daniela Pricop, Viorel Melnig  
Faculty of Physics, “Al. I. Cuza” University, 11A, Carol I Blvd., 700506, Iasi, Romania

## Poster Session 2

Friday, 21.09.2012, 15<sup>30</sup>

Lost Footsteps Hall

- P 65. T6 Applying the RVM method to study degradation of high power transformer insulation**  
C. Ilies<sup>1</sup>, D.E. Gavrilă<sup>1</sup>  
<sup>1</sup>University Politehnica Bucharest, Bucharest, Romania
- P 66. T6 Investigation of anthocyanins adsorption from wine on SBA-15 using a HPLC method**  
Camelia Elena Luchian<sup>1</sup>, Valeriu V. Cotea<sup>1</sup>, Marius Niculaua<sup>2</sup>, Antoanela Patras<sup>1</sup>, Nicolae Bilba<sup>3</sup>  
<sup>1</sup>Horticulture, University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania  
<sup>2</sup>Research Centre for Oenology, Romanian Academy, Iasi, Romania  
<sup>3</sup>Chemistry Department, "Al. I. Cuza" University, Iasi, Romania
- P 67. T6 DFT comparative study of organic dyes for TiO<sub>2</sub> dye-sensitized solar cells**  
Corneliu I. Oprea<sup>1</sup>, Anca Dumbrava<sup>2</sup>, Boris F. Minaev<sup>3</sup>, Petre Panait<sup>1</sup>, Fanica Cimpoesu<sup>4</sup>, Mihai A. Girtu<sup>1</sup>  
<sup>1</sup>Department of Physics and Electronics, Ovidius University of Constanta, Constanta, Romania  
<sup>2</sup>Department of Chemistry and Chemical Engineering, Ovidius University of Constanta, Romania  
<sup>3</sup>Department of Chemistry, Bogdan Khmelnitsky National University, Cherkassy, Ukraine  
<sup>4</sup>Department of Theoretical Chemistry, Institute of Physical Chemistry, Bucharest, Romania
- P 68. T6 Fabrication of bulk heterojunction organic solar cells using different small organic molecules as electron acceptors.**  
Iulia Salaoru<sup>1</sup>, Shashi Paul<sup>1</sup>, Zainab Alhashim<sup>1</sup>  
<sup>1</sup>EMTERC, Faculty of Technology, DeMontfort University, Leicester, UK
- P 69. T6 Investigation of atmospheric pollution by LIDAR and other spectroscopic techniques**  
Ovidiu-Gelu Tudose<sup>1,2</sup>, Dana-Ortansa Dorohoi<sup>1</sup>, Ioan Balin<sup>1,2</sup>  
<sup>1</sup>Faculty of Physics, Optics and Spectroscopy Department, Al.I.Cuza University of Iasi, Romania  
<sup>2</sup>Research and Development Department, SC EnviroScopY SRL, Iasi, Romania
- P 70. T6 Selective shielding multilayered material for high frequency radiation**  
Gabriel Ababei<sup>1</sup>, Valeriu David<sup>2</sup>, Vlad Dafinescu<sup>2</sup>, Ionut Nica<sup>2</sup>, Horia Chiriac<sup>1</sup>, Alexandra Pica<sup>3</sup>  
<sup>1</sup>Magnetic Material, National Institute of R&D for Technical Physics, Iasi, Romania  
<sup>2</sup>Faculty of Electrical Engineering, "Gh. Asachi" Technical University of Iasi, Iasi, Iasi  
<sup>3</sup>Research Institute for Advanced Coatings, Bucharest, Romania
- P 71. T6 Hydrophilic Properties of the Nb-Doped TiO<sub>2</sub> Thin Films Deposited by Spray Pyrolysis**  
Catalin Adomnitei<sup>1</sup>, Daniel Florea<sup>1</sup>, Ion Sandu<sup>2</sup>, Mihaela Girtan<sup>3</sup>, Dumitru Luca<sup>1</sup>, Valentin Nica<sup>1</sup>, Diana Mardare<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University, Iasi, Romania  
<sup>2</sup>ARHEOINVEST Interdisciplinary Platform, "Alexandru Ioan Cuza" University, Iasi, Romania  
<sup>3</sup>Photonics Laboratory, Angers University, Angers, France

- P 72. T6 Promising active materials for lithium-ion batteries**  
 Ilona Senyk<sup>1</sup>, Ievgeniia Chaikovska<sup>2</sup>, Volodymyr Khomenko<sup>1</sup>, Viacheslav Barsukov<sup>1</sup>  
<sup>1</sup>Department of Electrochemical Power Engineering & Chemistry, Kiev National University of Technologies and Design, Kiev, Ukraine  
<sup>2</sup>Chemical Engineering, Research and Educational Center, Kiev, Ukraine
- P 73. T6 Development and optimization of composite non-noble catalysts for oxygen reduction**  
Kostiantyn Lykhnyskyi<sup>1</sup>, Volodymyr Khomenko<sup>1</sup>, Viacheslav Barsukov<sup>1</sup>  
<sup>1</sup>Department of Electrochemical Power Engineering & Chemistry, Kiev National University of Technologies and Design, Kiev, Ukraine
- P 74. T6 Surface Wettability of Titania Thin Films with Increasing Ni Content**  
Catalin Adomnitei<sup>1</sup>, Daniel Florea<sup>1</sup>, Nicoleta Cornei<sup>2</sup>, Marius Dobromir<sup>1</sup>, Andrei Victor Sandu<sup>3</sup>, Valentin Nica<sup>1</sup>, Dumitru Luca<sup>1</sup> and Diana Mardare<sup>1</sup>  
<sup>1</sup>Faculty of Physics, “Alexandru Ioan Cuza” University, Iasi, Romania  
<sup>2</sup>Faculty of Chemistry, “Alexandru Ioan Cuza” University, Iasi, Romania  
<sup>3</sup>Faculty of Materials Science and Engineering, "Gheorghe Asachi" Technical Univ. of Iasi, Romania
- P 75. T6 Graphene – semiconducting polymer thin films for photovoltaic cells applications**  
 L. Monica Veca<sup>1</sup>, Munizer Purica<sup>1</sup>, Mihaela Kusko<sup>1</sup>, Ioan Stamatina<sup>2</sup>, Catalin Ceaus<sup>2</sup>  
<sup>1</sup>National Institute for R&D in Microtechnologies IMT-Bucharest, Bucharest, Romania  
<sup>2</sup>Faculty of Physics, University of Bucharest and 3Nano-SAE Research Center, Bucharest-Magurele, Romania
- P 76. T6 Nanoporous structured anodic TiO<sub>2</sub> as low reflective layer for silicon solar cells**  
E. Manea<sup>1</sup>, C. Parvulescu<sup>1</sup>, M. Purica<sup>1</sup>, F. Comanescu<sup>1</sup>, E. Budianu<sup>1</sup>  
<sup>1</sup>National Institute for R&D in Microtechnologies, IMT-Bucharest, Bucharest, Romania
- P 77. T6 Analysis and Interpretation of Lidar signals with Python**  
Mihail Nicolae Dănilă<sup>1</sup>, Silviu Gurlui<sup>1</sup>  
<sup>1</sup>Department of Physics, Atmosphere Optics, Spectroscopy and Lasers Laboratory, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 78. T6 Synthesis And Characterization Of Co-Substituted Ferrite Nanocomposites For Sensing Applications**  
 Valentin Nica<sup>1</sup>, Florin Tudorache<sup>1</sup>, Daniel Gherca<sup>2</sup>, Florin Brinza<sup>1</sup>, Aurel Pui<sup>2</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Department of Chemistry, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 79. T6 WO<sub>3</sub>/TiO<sub>2</sub> thin film bilayers for photocatalytics**  
V. Dăscăleanu<sup>2</sup>, D. Luca<sup>1</sup>, D. Macovei<sup>2</sup>, C. M. Teodorescu<sup>2</sup>  
<sup>1</sup>Faculty of Physics, “Alexandru Ioan Cuza” University, 11 Carol I Blvd. 700506 - Iasi, Romania  
<sup>2</sup>National Institute of Materials Physics, 105-bis Atomistilor St., Măgurele-077125, Romania
- P 80. T7 FDTD simulations of dielectric based metamaterials as absorbants for terahertz and infrared bolometers**  
Cristian Kusko<sup>1</sup>, Mihai Kusko<sup>1</sup>  
<sup>1</sup>Dept. of Microphotronics, National Institute for R&D in Microtechnologies, Voluntari, Romania
- P 81. T8 Effect of Peierls Phase Transition on the Phonons Spectrum in Quasi-One-Dimensional Organic Crystals**  
 Anolie Casian<sup>1</sup>, Viorel Dușciac<sup>2</sup>, Silvia Andronic<sup>1</sup>  
<sup>1</sup>Faculty of Computers, Informatics and Microelectronics, Technical University of Moldova, Chisinau, Republic of Moldova  
<sup>2</sup>Faculty of Physics and Engineering, State university of Moldova, Chisinau, Republic of Moldova



- P 82. T8 Structure of Titania Aerogels by Reverse Monte Carlo Modeling**  
Emil Indrea<sup>1</sup>, Teofil - Dănuț Silipaș<sup>1</sup>, Ramona - Crina Suciuc<sup>1</sup>, Marcela - Corina Roșu<sup>1</sup>, Cristian Daniel Tudoran<sup>1</sup>  
<sup>1</sup>Physics of multifunctional nanostructured systems, National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj - Napoca, Romania
- P 83. T8 Photoluminescence of Gallium Monosulfide Lamellas Intercalated with Cd**  
Iuliana Caraman<sup>1</sup>, Elmira Vatavu<sup>2</sup>, Liviu Leontie<sup>3</sup>, Silvia Evtodiev<sup>2</sup>, Oxana Racovet<sup>1</sup>  
<sup>1</sup>Faculty of Engineering, Vasile Alecsandri University of Bacau, Bacau, Romania  
<sup>2</sup>The Laboratory of Scientific Research Photonics and Metrology Physics, State University of Moldova, Chisinau, Republic of Moldova  
<sup>3</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 84. T8 Photoelectric Effects in Heterojunctions Based on Lamellar III–VI Semiconductors and Metal Oxides**  
Igor Evtodiev<sup>1</sup>, Mihail Caraman<sup>1</sup>, Gabriel Lazar<sup>2</sup>  
<sup>1</sup>The Laboratory of Scientific Research Photonics and Metrology Physics, State University of Moldova, Chisinau, Republic of Moldova  
<sup>2</sup>Faculty of Engineering, Vasile Alecsandri University of Bacau, Bacau, Romania
- P 85. T8 Impurity levels in ε-GaSe crystals intercalated with Cd from vapor phase**  
Liliana Dmitroglou<sup>1</sup>, Silvia Evtodiev<sup>1</sup>, Efimia Luchian<sup>1</sup>, Iuliana Caraman<sup>2</sup>, Marius Stamate<sup>2</sup>, Liviu Leontie<sup>3</sup>  
<sup>1</sup>The Laboratory of Scientific Research Photonics and Metrology Physics, State University of Moldova, Chisinau, Republic of Moldova  
<sup>2</sup>Faculty of Engineering, Vasile Alecsandri University of Bacau, Bacau, Romania  
<sup>3</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 86. T8 Optical properties of gallium tellurides (GaTe and Ga<sub>2</sub>Te<sub>3</sub>) in thin films prepared by vacuum thermal evaporation**  
Liviu Leontie<sup>1</sup>, Nicolae Spalatu<sup>2</sup>, Mihail Caraman<sup>2</sup>, Oxana Racovet<sup>2</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>The Laboratory of Scientific Research Photonics and Metrology Physics, State University of Moldova, Chisinau, Republic of Moldova
- P 87. T8 Fabrication of a periodic array of noble metal nanowires, partially embedded into an alumina template**  
Sorina Garabagiu<sup>1</sup>  
<sup>1</sup>Nanostructured Physics Systems, National Institute for R&D of Isotopic and Molecular Technologies, Cluj-Napoca, Romania
- P 88. T8 Structural modifications induced by the presence of the tetramethyldisiloxane moiety in Schiff base-Cu(II) complexes**  
Alina Soroceanu<sup>1</sup>, Alexandra Nistor<sup>1</sup>, Maria Cazacu<sup>1</sup>  
<sup>1</sup>Inorganic Polimers, Institute of Macromolecular Chemistry "Petru Poni", Iasi, Romania
- P 89. T8 Preparation and investigation of potentiality of Co<sub>x</sub>Fe<sub>1-x</sub>Fe<sub>2</sub>O<sub>4</sub> for hyperthermia applications**  
Anamaria Doaga<sup>1</sup>, Alina Mihaela Cojocariu<sup>1</sup>, Walid Amin<sup>2</sup>, Florian Heib<sup>2</sup>, Philip Bender<sup>3</sup>, Rolf Hempelmann<sup>2</sup>, Ovidiu Florin Caltun<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Physical Chemistry, Universität des Saarlandes, Saarbrücken, Germany  
<sup>3</sup>Experimental Physics, Universität des Saarlandes, Saarbrücken, Germany
- P 90. T8 Optimisation of uniform zinc oxide nanowire growth conditions**  
Nare Gabrielyan<sup>1</sup>, Shashi Paul<sup>1</sup>  
<sup>1</sup>EmergingTechnologies Research Centre, De Montfort University, Leicester, UK

- P 91. T8 Synthesis and functionalization of magnetic nanoparticles with possible application in drug delivery systems**  
Alina Mihaela Cojocariu<sup>1</sup>, Anamaria Doaga<sup>1</sup>, Walid Amin<sup>2</sup>, Eva Marie Prinz<sup>2</sup>, Philip Bender<sup>3</sup>, Rolf Hempelmann<sup>2</sup>, Ovidiu Florin Caltun<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Physical Chemistry, Universität des Saarlandes, Saarbrücken, Germany  
<sup>3</sup>Experimental Physics, Universität des Saarlandes, Saarbrücken, Germany
- P 92. T8 Collision Induced Dissociation and Crossed Beam Scattering Studies of Oxygen Rich Iron Oxide Clusters**  
Claudia Miheșan<sup>1,2</sup>, Michalis Velegrakis<sup>1</sup>  
<sup>1</sup>Institute of Electronic Structure and Laser, Foundation for Research and Technology - Hellas, Heraklion, Greece  
<sup>2</sup>Centre of Advanced Research in Nanobioconjugates and Biopolymers, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
- P 93. T8 Flow rate influence on the nanoparticle distribution in microfluidic devices under dielectrophoresis**  
Mihai Lungu<sup>1</sup>, Adrian Neculae<sup>1</sup>, Raluca Giugiulan<sup>1</sup>, Madalin Bunoiu<sup>1</sup>, Antoaneta Lungu<sup>2</sup>  
<sup>1</sup>Physics, West University, Timisoara, Romania  
<sup>2</sup>Chemistry, Forestry High School, Timisoara, Romania
- P 94. T8 Laser ablation of aluminum targets for nanoparticles generation**  
Ileana Apostol<sup>1</sup>, Dan Apostol<sup>1</sup>, Mihaela Bojan<sup>1</sup>, Victor Damian<sup>1</sup>, Iuliana Iordache<sup>1</sup>, Cristian Udrea<sup>1</sup>, S Manoiu<sup>1</sup>  
<sup>1</sup>INFLPR, Magurele, Romania
- P 95. T8 Synthesis and Structural Characterization of AAO/Cobalt Nanocomposite**  
G. Calin<sup>1</sup>, G. Zoderiu<sup>1</sup>, E. Vasile<sup>2</sup>, R. Trusca<sup>2</sup>, F. Iacomi<sup>1</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University of Iasi, 11 Carol I Blvd. Iasi, Romania  
<sup>2</sup>SC METAV-Research and Development SA, 31C A Roseti Street, Bucharest 2, Romania
- P 96. T8 Nanostructured hybrid materials based on cellulose acetate and zinc oxide**  
G. Calin<sup>1</sup>, I. Stoica<sup>2</sup>, L. Olaru<sup>2</sup>, F. Iacomi<sup>1</sup>, N. Olaru<sup>2</sup>  
<sup>1</sup>Faculty of Physics, "Alexandru Ioan Cuza" University of Iasi, Iasi, 700487, Romania  
<sup>2</sup>"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
- P 97. T8 Magnetic and structural behaviour of R<sub>2</sub>Fe<sub>14</sub>B/ $\alpha$ -Fe (R=Nd, Nd+Dy) magnetic nanocomposite**  
Simona Gutoiu<sup>1,2</sup>, Eugen Dorolti<sup>2</sup>, Olivier Isnard<sup>3</sup>, Ionel Chicinas<sup>4</sup>, Ioan-Ovidiu Pana<sup>1</sup>, Viorel Pop<sup>2</sup>  
<sup>1</sup>Physics of Nanostructured Systems, National Institute for R&D of Isotopic and Molecular Tehnology, Cluj-Napoca, Romania  
<sup>2</sup>Departamentul de Fizica Starii Condensate si a Tehnologiilor Avansate, Babes-Bolyai University, Cluj-Napoca, Romania  
<sup>3</sup>, Institut Néel, CNRS, Joseph Fourier University, France, Grenoble  
<sup>4</sup> Materials Sciences and Technology Dept, Technical University of Cluj-Napoca, Cluj-Napoca, Romania
- P 98. T8 Areas of EBL dots for Surface Enhanced Raman Spectroscopy**  
Teodora Ignat<sup>1</sup>, Adrian Dinescu<sup>1</sup>, Mihaela Kusko<sup>1</sup>, Florea Craciunoiu<sup>1</sup>, Monica Simion<sup>1</sup>, Adina Bragaru<sup>1</sup>, Iuliana Mihalache<sup>1</sup>  
<sup>1</sup>Laboratory of Nanotechnology, IMT-Bucharest, Bucharest, Romania
- P 99. T8 Core-Shell Platinum Based Manganite Magnetic Nanoparticles And Functionalized Composites**  
Sergiu Macavei<sup>1</sup>, Ovidiu Pana<sup>1</sup>, Loredana Soran<sup>1</sup>, Maria Stefan<sup>1</sup>, Cristian Leostean<sup>1</sup>, Simona Gutoiu<sup>1</sup>, C Bele<sup>2</sup>, C Matea<sup>2</sup>  
<sup>1</sup>LSFA, National Institute for R&D of Isotopic and Molecular Technologies, Cluj-Napoca, Romania  
<sup>2</sup>Biochimie, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

- P 100. T8 Investigation of emission properties of Er<sup>3+</sup> and Yb<sup>3+</sup> co-doped nanolangasite obtained by a sol-gel method**  
Ana-Maria Voiculescu<sup>1</sup>, Serban Georgescu<sup>1</sup>, Octavian Toma<sup>1</sup>, Cristina Matei<sup>1</sup>, Silviu Nastase<sup>2</sup>, Daniela Berger<sup>2</sup>, Cristian Matei<sup>2</sup>  
<sup>1</sup>Laboratory of Solid-State Quantum Electronics, National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania  
<sup>2</sup>Faculty of Applied Chemistry and Materials Science, University “Politehnica” of Bucharest, Bucharest, Romania
- P 101. T9 Hydrogel of double porosity based on 2-hydroxyethyl methacrylate for tissue engineering**  
Martin Pradny<sup>1</sup>, Miroslava Duskova<sup>1</sup>, Karel Dusek<sup>1</sup>, Miroslav Slouf<sup>1</sup>, Jiri Michalek<sup>1</sup>  
<sup>1</sup>Department of synthetic hydrogels, Institute of Macromolecular Chemistry, Prague, Czech Republic
- P 102. T9 Microwave Measurements of the dielectric properties of PZT – EPR composite**  
Vasilica Pascariu<sup>1,2</sup>, Ovidiu Avadanei<sup>2</sup>, Paolo Nanni<sup>1</sup>, Liliana Mitoseriu<sup>2</sup>  
<sup>1</sup>Dept. Chem. & Proc. Eng., Univ. of Genoa, P-le Kennedy no. 1, I-16129 Genoa, Italy, Dept. Chem. & Proc. Eng, Genoa, Italy  
<sup>2</sup>Dept. Of Physics, Al.I.Cuza Univ., Iasi, Romania
- P 103. T9 DC-conductivity and dielectric permittivity of chitosan-based membranes**  
Ana Cazacu<sup>1,2</sup>, Alexandra Maria Neagu<sup>1</sup>, Lavinia Curecheriu<sup>1</sup>, Liliana Mitoseriu<sup>1</sup>, Viorel Melnig<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Department of Physics, University of Genoa, Genoa, Italy
- P 104. T9 Spectroelectrochemical properties of the single-walled carbon nanotubes functionalized with the copolymer poly( 3,4-ethylenedioxi thiophene-co-pyrene)**  
Mihaela Baibarac<sup>1</sup>, Ioan Baltog<sup>1</sup>, Timucin Velula<sup>1</sup>, Malvina Scocioreanu (Stroe)<sup>1</sup>, Jean Yves Mevellec<sup>2</sup>, Serge Lefrant<sup>2</sup>  
<sup>1</sup>National Institute of Materials Physics, Bucharest, Romania  
<sup>2</sup>Physics of materials and nanostructures, Institut des Matériaux “Jean Rouxel”, Nantes, France
- P 105. T9 Polymer fibres by spin-coating machine**  
Shashi Paul<sup>1</sup>, Iulia Salaoru<sup>1</sup>, Alanod Alshareef<sup>1</sup>  
<sup>1</sup>EMTERC, Faculty of Technology, DeMontfort University, Leicester , United Kingdom
- P 106. T9 Hybridization effects on effective mechanical, dynamical and thermal properties of carbon & glass fiber reinforced polymeric composites**  
Dana Motoc Luca<sup>1,1</sup>  
<sup>1</sup>Material Science, Transilvania University of Brasov, Brasov, Romania
- P 107. T9 Nondestructive assessment of polymeric composite’s dynamical properties by laser ultrasonics**  
Dana Luca Motoc<sup>1</sup>, Gheorghe Bejinaru Mihoc<sup>2</sup>  
<sup>1</sup>Material Science, Transilvania University of Brasov, Brasov, Romania  
<sup>2</sup>Product Design and Mechatronics, Transilvania University of Brasov, Brasov, Romania
- P 108. T10 Electronic structure of cysteine dimmers adsorbed on gold: a DFT study**  
Luiza Buimaga-Iarinca<sup>1</sup>, Adrian Calborean<sup>1,2</sup>, Cristian Morari<sup>1</sup>, Alexandru Turcu  
<sup>1</sup>Department of Molecular and Biomolecular Physics, INCDTIM, Cluj-Napoca, Romania  
<sup>2</sup>Department of Biomedical Physics, Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania
- P 109. T10 Growth characteristics of the LbL deposited multilayer nanostructures**  
Adina Bragaru<sup>1</sup>, Mihaela Kusko<sup>1</sup>, Monica Simion<sup>1</sup>, Teodora Ignat<sup>1</sup>, Mihai Danila<sup>1</sup>  
<sup>1</sup>Laboratory of Nanobiotechnology, National Institute for Research and Development in Microtechnologies, Bucharest, Romania

- P 110. T11 Newly synthesized stable disubstituted 4-(4-pyridyl)pyridinium ylides in thin films with semiconductor properties**  
 Liviu Leontie<sup>1</sup>, Ramona Danac<sup>2</sup>, Mihaela Girtan<sup>3</sup>, Marius Prelipceanu<sup>4</sup>, Adrian Graur<sup>4</sup>, Aurelian Carlescu<sup>1</sup>, Gheorghe I. Rusu<sup>1</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Faculty of Chemistry, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>3</sup>Laboratoire LPhiA, Angers University, Angers, France  
<sup>4</sup>Faculty of Electrical Engineering and Computer Science, Stefan cel Mare Univ. of Suceava, Romania
- P 111. T11 Effect of substrate temperature on the structural and optical properties of tin oxide thin films**  
Nicolae Tigau<sup>1</sup>, Constantin Gheorghies<sup>1</sup>, Denys Cristina Vladu Radu<sup>1</sup>, Simona Condurache-Bota<sup>1</sup>  
<sup>1</sup>Faculty of Sciences and Environment, Dunarea de Jos University of Galati, Galati, Romania
- P 112. T11 FINEMET-type thin films deposited by HiPIMS: influence of growth and annealing conditions on the magnetic behaviour**  
Ioana-Laura Velicu<sup>1</sup>, Maciej Kowalczyk<sup>2</sup>, Maria Neagu<sup>1</sup>, Vasile Tiron<sup>1</sup>, Horia Chiriac<sup>3</sup>, Jaroslaw Ferenc<sup>2</sup>  
<sup>1</sup>Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania  
<sup>2</sup>Faculty of Materials Science and Engineering, Warsaw University of Technology, Warszawa, Poland  
<sup>3</sup>Physics, National Institute of Research & Development for Technical Physics, Iasi, Romania
- P 113. T11 Bistable Memory Devices using Silicon Nanostructures**  
 Konstantina Saranti<sup>1</sup>, Shashi Paul<sup>1</sup>  
<sup>1</sup>Emerging Technologies Research Centre, De Montfort University, Leicester, UK
- P 114. T11 Graphene growth by a pulsed laser deposition system**  
 Vasile Tiron<sup>1</sup>, Petru-Edward Nica<sup>2</sup>, Cristian Ursu<sup>3</sup>  
<sup>1</sup>Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania  
<sup>2</sup>Technical "Gh. Asachi" University, Technical "Gh. Asachi" University, Iasi, Romania  
<sup>3</sup>Petru Poni Institute of Macromolecular Chemistry, Iasi, Romania
- P 115. T11 Temperature dependence of the optical properties of Bi<sub>2</sub>O<sub>3</sub> based on the Kramers-Kronig transformation for polynomial segregated terms models**  
 Gabriel Murariu<sup>1</sup>, Simona Condurache-Bota<sup>1</sup>, Corneliu Doroftei<sup>2,3</sup>  
<sup>1</sup>Science Faculty, "Dunărea de Jos" University, Galati, Romania  
<sup>2</sup>Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania  
<sup>3</sup>Physics, National Institute of Research and Development for Technical Physics, Iasi, Romania
- P 116. T11 Optical and morphological proprieties of PVA foils containing Congo red dye: effect of concentration and degree of stretching**  
 Carmen Beatrice Zelinschi<sup>1</sup>, Iuliana Stoica<sup>2</sup>, Dana Ortansa Dorohoi<sup>1</sup>  
<sup>1</sup>Optic and Spectroscopy, "Al.I.Cuza" University, Faculty of Pshysics, Iasi, Romania  
<sup>2</sup>Polymer, "Petru Poni", Institute of Macromolecular Chemistry, Iasi, Romania
- P 117. T11 The influence of different substrates on the physical properties of ITO and SnO<sub>2</sub> thin films prepared by rf magnetron sputtering**  
Petronela Prepelita (married Garoi)<sup>1</sup>  
<sup>1</sup>Lasers, National Institute for Laser, Plasma and Radiation Physics, Magurele, Romania
- P 118. T11 Influence of the substrate on the structure, morphology and optical properties of antimony trioxide thin films**  
Simona Condurache-Bota<sup>1</sup>, Nicolae Tigau<sup>1</sup>, Raluca Gavrila<sup>2</sup>, Romana Drasovean<sup>1</sup>  
<sup>1</sup>Chemistry, Physics and Environment Department, Dunarea de Jos University, Galati, Romania  
<sup>2</sup>Microphysical Characterization Group, National Institute for Research and Development in Microtechnologies, Bucharest, Romania

- P 119. T11 Oxidized bismuth films analyzed by Transmission Electron Microscopy**  
 Simona Condurache-Bota<sup>1</sup>, Nicolae Tigau<sup>1</sup>, Constantin Gheorghies<sup>1</sup>, Gabriel Prodan<sup>2</sup>, Denys Cristina Vladu Radu<sup>1</sup>  
<sup>1</sup>Chemistry, Physics and Environment Department, Dunarea de Jos University, Galati, Romania  
<sup>2</sup>Physics, Chemistry, Electronics and Petroleum Technology Faculty, Ovidius University, Constanta, Romania
- P 120. T11 Sol aging and substrate dipping time dependence of the optical properties of sol-gel deposited cobalt oxide films**  
 Romana Drasovean<sup>1</sup>, Nicolae Tigau<sup>1</sup>, Simona Condurache-Bota<sup>1</sup>  
<sup>1</sup>Chemistry, Physics and Environment Department, Dunarea de Jos University, Galati, Romania
- P 121. T11 Electronic transport properties of thermally evaporated CdS films**  
Lucian Petcu<sup>1</sup>, Adina Petcu<sup>1</sup>, Petronela Rambu<sup>2</sup>, Cristian Baban<sup>2</sup>  
<sup>1</sup>Physics, Ovidius University, Constanta, Romania  
<sup>2</sup>Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 122. T11 Annealing effect on the structural and optical properties of CdSe films**  
 Adina Petcu<sup>1</sup>, Lucian Petcu<sup>1</sup>, Petronela Rambu<sup>2</sup>, George Rusu<sup>2</sup>, Cristian Baban<sup>2</sup>  
<sup>1</sup>Physics, Ovidius University, Constanta, Romania  
<sup>2</sup>Physics, Alexandru Ioan Cuza University, Iasi, Romania
- P 123. T11 Pulsed laser deposition of ZnO and Al:ZnO thin films and characterization**  
 Cristian Ursu<sup>1</sup>, Tudor Bogdan Coman<sup>2</sup>, Ovidiu Florin Caltun<sup>2</sup>  
<sup>1</sup>Polymer Materials Physics, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania  
<sup>2</sup>Faculty of Physics, "Al. I. Cuza" University, Iasi, Romania
- P 124. T11 Pixe and edxrf techniques applied in the study of Bi-Te-Se thermoelements**  
Ion Popescu V.<sup>1,3</sup>, Iulian Bancuta<sup>2</sup>, Claudia Stihl<sup>1</sup>, Cristiana Radulescu<sup>1</sup>, Calin Oros<sup>1</sup>, Roxana Bancuta<sup>2</sup>, Dan Gabriel Ghita<sup>3</sup>  
<sup>1</sup>Science, Valahia University of Targoviste, Targoviste, Romania  
<sup>2</sup>Multidisciplinary Institute for Science and Technology, Valahia University of Targoviste, Romania  
<sup>3</sup>Nuclear Physics, National Institute for Physics and Nuclear Engineering, Bucharest, Romania
- P 125. T11 Defect layers in one dimensional phononic material**  
 Cristina Pachi<sup>1</sup>, Bruno Morvan<sup>2,2</sup>, Jean Louis Izbicki<sup>2,2</sup>  
<sup>1</sup>L9, National Institute for R&D in Microtechnologies, Bucharest, Romania  
<sup>2</sup>Acoustic, Laboratoire d'Acoustique Ultrasonore et d'Electronique, Le Havre, France
- P 126. T11 Studies On The Influence Of Cobalt Content On Gas-Sensitive Electrical Conduction Of Ni<sub>1-x</sub>Co<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> Ferrite Thin Films**  
 Florin Tudorache<sup>1</sup>, Paul Dorin Popa<sup>2</sup>, Felicia Iacom<sup>1</sup>  
<sup>1</sup>Department of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Department of Physics, National Institute of R&D for Technical Physics-IFT Iasi, Iasi, Romania
- P 127. T11 Surface Acoustic Wave Sensors Based On Nanoporous Films For Hydrogen Detection**  
Cristian Viespe<sup>1</sup>, Constantin Grigoriu<sup>1</sup>  
<sup>1</sup>Laser Department, National Institute of Laser Plasma and Radiation Physics, Magurele, Romania
- P 128. T12 The limits of known universe and critical aspects of the Drake equation**  
Octavian Gurlui<sup>1</sup>  
<sup>1</sup>National, College „Costache Negruzzi“, Str. Toma Cozma nr. 4, Iasi, Romania
- P 129. T8 ZnO Interconnected Nanowire Networks Grown From Solution On Patterned Substrate For Integration Into Electronic Device**  
M. Purica<sup>1</sup>, A. Dinescu<sup>1</sup>, E. Budianu<sup>1</sup>, V. Musat<sup>2</sup>, M. Mazilu<sup>2</sup>  
<sup>1</sup>National Institute for R&D in Micro technologies, National Institute for R&D in Micro technologies, Bucharest, ROMANIA  
<sup>2</sup>Centre of Nanostructures and Functional Materials, Dunarea de Jos University, Galati, Romania

- P 130. T9**    **Impurity levels in  $\epsilon$ -GaSe single crystals doped with Eu**  
Iuliana Caraman<sup>1</sup>, Dumitru Untila<sup>2</sup>, Liviu Leontie<sup>3</sup>, Igor Evtodiev<sup>2</sup>, Oxana Racovet<sup>2</sup>  
<sup>1</sup>Faculty of Engineering, Vasile Alecsandri University of Bacau, Bacau, Romania  
<sup>2</sup>The Laboratory of Scientific Research Photonics and Metrology Physics, State University of Moldova, Chisinau, Republic of Moldova  
<sup>3</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
- P 131. T8**    **Magnetic and Dielectric Properties of Co-Zn Ferrite Nanoparticles**  
Tamara Slatineanu<sup>1</sup>, Alexandra Raluca Iordan<sup>1</sup>, Victor Oancea<sup>1</sup>, Mircea Nicolae Palamaru<sup>1</sup>, Ioan Dumitru<sup>2</sup>, Cristin Petrica Constantin<sup>2</sup>, Ovidiu Florin Caltun<sup>2</sup>  
<sup>1</sup>Faculty of Chemistry, Alexandru Ioan Cuza University of Iasi, Iasi, Romania  
<sup>2</sup>Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania