

Workshop 1

Tuesday 5 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Wednesday 6 - Friday 8 July: Display

P1-8: Microwave-assisted solvothermal synthesis of Al, Ga or In doped zinc oxide plasmonic nanoparticles dedicated to IR and optoelectronic applications (V)

*Da Silva A. *1,2, Vancaeyzeele C.1, Aubert P.-H.1, Vidal F.1, Dupont L.2*

1 LPPI, CY Cergy-Paris University, 5 mail Gay Lussac, 95310 Neuville-Sur-Oise, FR

2 Optics department, IMT Atlantique, Technopôle Brest-Iroise, 29238 Brest, FR

P1-9: Assessment of thermal annealing on structural, electrical, optical and surface topographical features of titania films for solar cells (V)

*Reema Agarwal1,2, *, Himanshu2, S.L. Patel2, C. Ameta1 and M.S. Dhaka2*

1 Department of Chemistry, Mohanlal Sukhadia University, Udaipur 313001, India

2 Department of Physics, Mohanlal Sukhadia University, Udaipur 313001, India

P1-10: 3D printed SiC doped Polylactic Acid (PLA) for triboelectric generators (V)

M. E. Moutzouri, G. Katsikis, A. Bardakas, A. Segkos, O. Thoda, G. Vekinis, C. Tsamis

NCSR "Demokritos", Institute of Nanoscience and Nanotechnology, 15310 Aghia Paraskevi, Athens, Greece

P1-11: Ideal Photodiode with doping-controlled transition metal dichalcogenide using / PN heterostructure (V)

Sung Hyun Kim, Woo Jong Yu

Department of Electrical and Computer Engineering, Sungkyunkwan University, South Korea

Workshop 2

Tuesday 5 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Wednesday 6 - Friday 8 July: Display

P2-28: A Precise Low Temperature Carbon Nanotubes Transfer Technique (V)

Chong Wei Tan1, Yu Xiang Lum1, Rongtao Jiang1, Coquet Philippe2, Beng Kang Tay1,2

1 Centre for Micro- and Nano-Electronics (CMNE), School of Electrical and Electronic Engineering Nanyang Technological University, 50 Nanyang Ave, Singapore 639798, Singapore

2 CNRS-NTU-THALES Research Alliances/UMI 3288, Research Techno Plaza, 50 Nanyang Ave, Border X Block, Level 6, Singapore 637553, Singapore

P2-29: Synthesis and characterisation of low-temperature sintering conductive inks (V)

H. Ghiasi1, A. Copley1, M. Naebe2, G. Taghavi Pourian Azar1

1Future Transport and Cities, Coventry University, Coventry, United Kingdom

2Institute for Frontier Materials (IFM), Deakin University, Geelong, Australia

- P2-30: Synthesis laser wavelength influence in CdSe Nanoparticles processed by liquid laser fragmentation (V)**
P. Maldonado-Altamirano^{1}, L. Martínez-Ara², M. Á. Hernández-Pérez³, J Santoyo-Salazar², J. R. Aguilar-Hernández¹, J. Ortiz-López¹, M. López-López²*
¹ Escuela Superior de Física y Matemáticas (ESFM), Instituto Politécnico Nacional, Av. IPN s/n, CDMX, México
² Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV), CDMX, México
³ Escuela Superior de Ingeniería Química e Industrias Extractivas (ESIQIE), Instituto Politécnico Nacional, México
- P2-31: Investigation of porous hot-wire MoS₂ thin films for H₂ and CO sensing (V)** *G. Papadimitropoulos^{1,2}*
¹ Institute of Nanoscience and Nanotechnology, NCSR “Demokritos”, 153 10 Aghia Paraskevi, Attiki, Greece
² University of West Attica, Faculty of Engineering, Department of Electrical and Electronics Engineering, Aegaleo, Greece
- P2-32: Impact of residence time in spray synthesis of nanopowders prepared from selected organosilicon precursors (V)** *H. Osip, P.Szymczak, J.F. Janik, C.Czosnek*
 AGH University of Science and Technology, Faculty of Energy and Fuels; Mickiewicza 30, 30-059 Krakow, Poland
- P2-33: Preparation and characterization of novel NiIn₂S₄/Uio-66 photocatalysts for the efficient degradation of antibiotics in water (V)** *G. Balkourani¹, C. Molochas¹, S. Kontou¹, Anhu Wang², Huagen Lian², Fu Chen², Xinlong Tian³, Shengyu Jing², P. Tsiakaras^{1*}*
¹ Laboratory of Alternative Energy Conversion Systems, Department of Mechanical Engineering, School of Engineering, University of Thessaly, Greece
² China University of Mining and Technology, Xuzhou, 221008, China
³ State Key Laboratory of Marine Resource Utilization in South China Sea, Hainan University China
- P2-34: A double layered SiO₂/ZrO₂ hybrid sol–gel & plasma sprayed coating for orthopedic implant applications (V)** *E. Roussi¹, I. Kitsou¹, M. Papageorgiou¹, J. Patrikalos², I. Georgiopoulou², C. Andreouli², A. Tsetsekou¹*
¹ School of Mining and Metallurgical Engineering, National Technical University of Athens, 157 80 Zografos, Athens, Greece
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Workshop 3

Wednesday 6 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Tuesday 5 - Friday 8 July: Display

- P3-15: Bismuth-doped hydroxyapatite as radio-opaque biomaterial (V)** G. Ciobanu, M. Harja
Faculty of Chemical Engineering and Environmental Protection "Cristofor Simionescu", „Gheorghe Asachi” Technical University of Iași, 73 D. Mangeron Bvd., Iași, 700050, Romania
- P3-16: Styrylpyridinium derivatives – self-assembling and biological properties (V)** K.Pajuste¹, R. Putralis^{1,2}, M.Rucins¹, L.Krasnova¹, N.Pikun¹, I. Mandrika¹, A. Zajakina³, A.Sobolev¹, A.Plotniece^{1,2}
1Latvian Institute of Organic Synthesis, Aizkraukles str. 21, Riga, LV-1006, Latvia
2Riga Stradiņš University, Dzirciema str. 16, Riga, LV-1007, Latvia
3Latvian Biomedical Research and Study Centre, LV-1067 Riga, Latvia
- P3-17: Novel fluorescent mitochondrial-targeting liposomal drug-delivery system of Ga(III)-naringenin complex for anticancer applications (V)**
E. Halevas^{1,3}, B. Mavroidi¹, A. Hatzidimitriou³, M. Pelecanou¹, G. Litsardakis²
1 Institute of Biosciences & Applications, National Centre for Scientific Research "Demokritos", Greece
2 Electrical & Computer Engineering, Polytechnic School, Aristotle University of Thessaloniki, Greece
3 Department of Chemistry, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece
- P3-18: Design and antitumor activity of a new vanadium-based compound (V)**
M. Turtoi¹, M. Anghelache¹, M. Deleanu¹, G. Voicu¹, F. Safciuc¹, A.A. Patrascu², D-L. Popescu², M. Calin¹
1Biopathology and Therapy of Inflammation, Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy, 8 B.P. Hașdeu, 050568-Bucharest, Romania
2Department of Inorganic Chemistry, University of Bucharest, 23 Dumbrava Roșie, 020464-Bucharest, Romania
- P3-19: Nanoelectrospray ion mobility mass spectrometry for the analysis of chondroitin/dermatan sulfate oligosaccharides (V)**
Raluca Ica^{1,2}, Mirela Sarbu¹, Edie M. Sharon³, David E. Clemmer³ and Alina D. Zamfir^{1,4}
1 Department of Condensed Matter, National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Romania
2 Faculty of Physics, West University of Timisoara, Timisoara, Romania
3 Department of Chemistry, The College of Arts & Science, Indiana University, Bloomington, Indiana, USA
4 Department of Technical and Natural Sciences, "Aurel Vlaicu" University of Arad, Arad, Romania

P3-20: Implementation of advanced mass spectrometry methods based on nanoelectrospray for glycolipidome analysis in neurological diseases (V) *Raluca Ica^{1,2}, Cristian V.A. Munteanu³, Svjetlana Kalanj-Bognar⁴, Alina D. Zamfir^{1,5}*

1Department of Condensed Matter, National Institute for Research and Development in Electrochemistry and Condensed Matter, 300224, Timisoara, Romania

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3Institute of Biochemistry of the Romanian Academy, Bucharest, Romania

4Department for Chemistry and Biochemistry & Croatian Institute for Brain Research, School of Medicine, Zagreb University, Croatia

5 "Aurel Vlaicu" University of Arad, Arad, Romania

P3-21: Nanoelectrospray ionization ion mobility mass spectrometry for biomarker discovery in malignant brain tumors (V) *M. Sarbu¹, Ž. Vukelić², D.E Clemmer³, A.D. Zamfir^{1,4}*

1Department of Condensed Matter, National Institute for Research and Development in Electrochemistry and Condensed Matter, Timisoara, Romania

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P3-22: Polymeric blends enriched with gentamycin as barriers for guided tissue regeneration (V)

*Anna M. Tryba ^{*1}, Małgorzata Krok-Borkowicz ¹, Katarzyna Reczyńska-Kolman ¹, Gabriela Markowicz ¹, Natalia Piergies ², Monika Brzychczy-Włoch³, Czesława Paluszkiwicz ² and Elżbieta Pamuła ¹*

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3Department of Molecular Medical Microbiology, Faculty of Medicine, Jagiellonian University Medical College, ul. Czysa 18, 31-121 Kraków, Poland

P3-23: Liposomes with specific microRNA – test of stability and transendothelial diffusion using in-vitro model of lung tissue (V) *J. Skopalik¹, A. Novobilský², J. Prucha¹, T. Horák², T. Parák¹*

1 - Masaryk University, Faculty of Pharmacy, Brno - CZ / CTU Prague, Faculty of Biomed. Engineering, CZ

2- Dept. of Pharmacology and Toxicology, VUVeL v.v.i, Brno, Czech Republic; skopajos(at)fbmi.cvut.cz

Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs

Monday 4 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Tuesday 5 - Thursday 7 July: Display

OLEDs, OTFTs and Sensors

PI1-25: Flexible, fully textile-based force sensors for wearable applications (V)

A. K. Stavrakis, M. Simić, G.M. Stojanović

Faculty of Technical Sciences, University of Novi Sad Trg Dositeja Obradovica 6, 21000, Novi Sad, Serbia

PI1-26: Ink-jet printing of n-acenes: from TIPS-pentacene to pentaceno-hexacene (V)

M.Y. Aliouat¹, F. Mesnilgrete¹, R. Monflier¹, A. Gourdon², A. Jančarič³, and I. Séguy¹

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² CEMES-CNRS, 29 Rue J. Marvig, 31055 Toulouse France

³ CRPP, UMR CNRS 5031, Université de Bordeaux, 33600 Pessac, France

PI1-27: The study on Patterning and Overlay defects caused by laser (V) Bum Suk Kim^{1,2}, Jae Wook Jeon²

¹ Department of Semiconductor and display Engineering, Sungkyunkwan University, Suwon, 16419, Republic of Korea

² Memory Photo Technology team, Samsung Electronics, Hwaseong, 18448, Republic of Korea

PI1-28: ZnO ALD thin film FET's ultra high on/off ratio by using assembly molecule buffer layer (V)

Tae hyeon Kimr, Woo jong Yu

Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon 16419, South Korea

Biosensors & Bioelectronics (common with NN22)

Wednesday 6 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Tuesday 5, Thursday 7 July: Display

P4-10: Cost-effective Synthesis of Graphene (and its derivatives) Materials for Non Enzymatic Glucose Electrochemical Sensors: A Review (V) G. Balkourani¹, C. Molochas¹, A. Brouzgou², P. Tsiakaras^{1*}

¹ Laboratory of Alternative Energy Conversion Systems, Department of Mechanical Engineering, School of Engineering, University of Thessaly, 1 Sekeri Str., Pedion Areos, 38834, Volos, Greece

² Department of Energy Systems, Faculty of Technology, University of Thessaly, Geopolis, 41500 Larissa, Greece

Graphene and Related Materials (common with NN22)*Wednesday 6 July (13:00-14:30 & 16:30-17:00): Presentation & Display**Tuesday 5, Thursday 7 July: Display***P5-14: Heterojunction Biosensor of MoS₂ and Graphene with Increased On/Off Controllability via Modification of Schottky Barrier (V)** *Yeahyun Kim, Woojong Yu**Department of Electrical and Computer Engineering, Sungkyunkwan University, 2066 Westbound Janan-gu, Suwon-si, South Korea***P5-15: Optical-to-Voltage Spike Conversion based on Graphene/Silicon Photodetector (V)***Sungbum Park¹, Woojong Yu¹**¹Department of Electrical and Computer Engineering, Sungkyunkwan University 2066 Westbound Janan-gu, Suwon-si, South Korea***P5-16: Non-volatile memory and synaptic devices using interlayer intercalation of ions into 2D material (V)***Gayoung Cho¹, Woojong Yu^{1*}**Electrical and Electronic Computer Engineering, Sungkyunkwan University Suwon 16419, Korea***P5-17: 2D van der Waals heterostructure with MoS₂/WSe₂ on Al₂O₃ insulator making photosensor (V)***Seok won Choi, Woo jong Yu¹**Department of Electrical and Computer Engineering, Sungkyunkwan University, 2066 Westbound Janan-gu, Suwon-si, South Korea***P5-18: Water droplet detection above an on the surface by microcrystalline graphene layer (V)***Algimantas Lukša ¹, Vladimir Astachov ¹, Saulius Balakauskas ¹, Virginijus Bukauskas ¹, Mindaugas Kamarauskas ¹, Artūras Suchodolskis ³, Marius Treideris ¹, Martynas Talaikis ², Arūnas Šetkus ¹**¹ Department of Physical Technologies, State research institute Center for Physical Sciences and Technology (FTMC), Vilnius, Lithuania**² Department of Organic Chemistry, State research institute Center for Physical Sciences and Technology (FTMC), Vilnius, Lithuania**³ Department of Optoelectronic, State research institute Center for Physical Sciences and Technology (FTMC), Vilnius, Lithuania Saulėtekio ave. 3, Vilnius, Lithuania*

I3D22 POSTERS

Wednesday 6 July (13:00-14:30 & 16:30-17:00): Presentation & Display

Tuesday 5 - Thursday 7: Display

I3DP-6: A portable real-time fiber density measurement system for electrospinning setups (V)

A. Evangelidis, G. Dobrescu, C. Ciobotaru, M. Enculescu
National Institute of Materials Physics, Măgurele, Romania

I3DP-7: 3D printing of Zirconia ceramics for dental applications (V)

E. Garmpi^{1,4}, I. Kitsou¹, P. Angelopoulou¹, E. Kalithinou¹, O. Alexiadou¹, P. Gkomoza¹, E. Roussi¹, S. Koltsakidis², D. Tzetzis², E. Mavropoulis³, C. Andreouli⁴, A. Tsetsekou¹
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⁴ MIRTEC S.A., 76 km Athens-Lamia national Road, 32009 Schimatari, Greece

I3DP-8: Development of nanocrystalline yttria stabilized zirconia feedstock for 3D-printing in dental applications (V)

I. Kitsou¹, P. Angelopoulou¹, E. Kalithinou¹, O. Alexiadou¹, E. Roussi¹, P. Gkomoza¹, E. Garmpi^{1,4}, S. Koltsakidis², D. Tzetzis², E. Mavropoulis³, C. Andreouli⁴, A. Tsetsekou¹
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