

Nanotech Tunisia 2015 Conference Program

Wednesday 22nd April 2015

Session I: Nanomaterials Fabrication, Characterization and Tools/ Properties

Session chairs:

Prof Adnane Abdelghani- Tunisia/ Prof Eduard Llobet - Spain

9.00-9.45	Anodic Growth and Use of Highly Aligned Refractory Metal Oxide Nanostructures A. Mozalev	Dr Alexander Mozalev , Brno University of Technology- Czech Republic
9.45-10.00	Functional ferrofluids based on levan coated magnetite nanoparticles V. Gaziyer, C. B. Cebeci, T. Morova, O. Ates, E. Toksoy Oner and S. Genc	Dr Seval Genc , Marmara University, Turkey
10.00-10.15	Manufacturing Polylactic Acid (PLA)/Nano Crystal Cellulose (NCC) by Solution Blending and Investigation of Improved Mechanical Properties. T-H. Lee , S-J Lee, J-W. Park and H-J. Kim	Mr Tae-Hyung Lee , Seoul National University- Republic of Korea
10.15-11.00	Coffee break + Poster Session I	
11.00-11.30	Multidimensional in-situ analysis of Boron/Ni composite nanowires in the new FEI Talos 200X TEM D. Delille	Dr Dominique Delille , FEI Company- Eindhoven-Netherlands
11.30-11.45	Analysis of the re-stacking structure of clay dispersed intumescent flame retardant composites J.-H. Lee , H. Kim, J.-W. Park, H.-J.Kim and J.-Y.Choi	Mr Jung-Hun Lee , Seoul National University- Republic of Korea
11.45-12.00	Synthesis and characterization of thermoelectric nanowires based on bismuth telluride M. Ben Khedim , D.Bourgault, L.Cagnon, V.Serradeil and T.Fournier,	Mrs Meriam Ben Khedim , STMicroelectronics Rousset- France
12.00-12.15	Microstructure and mechanical properties of Al ₂ O ₃ / SiO ₂ nanocomposite H. Bouhamed	Dr Hazem Bouhamed , Engineering School of Sfax (ENIS)- Tunisia
12.15-12.30	Dual mode Up/Down conversion emissions in ZnO:Er,Yb thin films R. Elleuch , R. Salhi, J.-L. Deschanvres and R. Maalej	Dr Ridha Elleuch , University of Sfax- Tunisia
12.30-14.00	Lunch break + Poster Session I	
Session Chairs:		
Dr Malika Ardhaoui- France/ Dr Imen Hafaid- Tunisia		
14.00-15.00	Carbon in Nano and Outer Space H.W. Kroto	Prof. Sir Harold W. Kroto (1996 Nobel Prize in Chemistry), Florida State University- USA
15.00-15.15	Submicron random pyramids on crystalline Si thin films fabricated by epi-PECVD R. Boukhicha , W. Chen, M. Foldyna and P. Roca Cabarrocas ¹	Dr Rym Boukhicha , LPICM, CNRS- Polytechnic School- France
15.15-15.30	Synthesis of Aluminum Nitride and Boron Nitride Thin Films by Classical Magnetron Sputtering and by High Power Impulse Magnetron Sputtering for the Thermal Management of High Temperature Devices M-A Soussou and M-A Djouadi	Dr Mohamed-Akram Soussou Gabes Faculty of Sciences, Tunisia
15.30-15.45	Tantalum nanotube arrays via porous-alumina-assisted electrodeposition from ionic liquid: electrical characterization H. Simunkova , L. Kalina, J. Bousek and A. Mozalev	Dr Helena Simunkova , Brno University of Technology- Czech Republic
15.45-16.00	Electrical, structural and optical properties of Mg-doped InP grown by MOVPE M. Ezzedini, I.Zeydi , S. Jiang, W. Guo, L. Sfaxi, S. El Kazzi and C. Merckling.	Ms Imen Zeydi , Faculty of Science Monastir- Tunisia
16.00-16.30	Coffee break + Poster Session I	

16.30-16.45	Optical properties of an exciton bound to an ionized impurity in ZnO/SiO ₂ quantum dots L. Dallali and S. Jaziri.	Dr Lobna Dallali , Bizerte Science Faculty- Tunisia .
16.45-17.00	Correlation between coating hardness and abrasion resistance of coated nanoscale structure surfaces S. Lakel , M. Ibrir and K. Almi	Prof Said Lakel , Biskra University- Algeria
17.00-17.15	Effect of the drying conditions on properties of nanocrystal-lite catalysts for n-hexane S. Raissi , M.K.. Younes and A. Ghorbel	Dr Sahar Raissi , Faculty of Sciences of Tunis- Tunisia
17.15-17.30	Sprayed volume effects on the growth of Cu ₂ ZnSnS ₄ thin films Z. Seboui , A. Gassoumi, Y. Cuminal and N. Kamoun Turki	Dr Zeineb Seboui , Tunis Science Faculty, Tunisia .
17.30-17.45	Correlation between structural and optical properties of nanostructured CuIn ₅ S ₈ thin films grown by glancing angle deposition A. Sinaoui , F. Chaffar-Akkari, B. Gallas, D. Demaille and M. Kanzari 1	Ms Azza Sinaoui , Tunis National Engineering School- Tunisia
17.45-18.00	Temperature and cross-linking degree effects on the swelling of poly(Acrylamide/1,6-Hexanedioldiacrylate) : Optimization by composite experimental designs S. Hamri , B. Dali-Youcef, K. Boudraâ, T. Bouchaour, K. Bachari and D. Lerari	Dr Salah Hamri , Center for Scientific and Technical Research in Physical and Chemical Analyses (CRAPC)- Algeria

Thursday 23rd April 2015
Session II: Nanotech in Life Sciences and Medicine

Session chairs:
Prof Larbi Sfaxi- Tunisia/ Dr Alexander Mozalev- Czech Republic

9.00-9.45	Multi-Walled Carbon Nanotubes-incorporated Biopolymers as Extraction Tools for Selected Drugs in Aqueous Matrices M. Marsin Sanagi , W. Nazihah, W.Ibrahim, N.S.M. Hanapi and W; A.W.Ibrahim	Prof Mohd Marsin Sanagi , Universiti Teknologi Malaysia- Malaysia
9.45-10.00	Tailoring the Magnetization Distribution in Ferromagnetic Nanowires and Nanotubes for (Bio) Applications K. Zuzek Rozman , S. Trafela, D. Pecko, M.S. Arshad, N. Kostevsek, S. Sturm and S. Kobe	Dr Kristina Zuzek Rozman , Jozef Stefan Institute- Slovenia
10.00-10.15	Study and research in Germany and DAAD funding programmes B. Schindler-Kovats	Mrs Beate Schindler-Kovats , DAAD Office Tunis - Tunisia
10.15-11.00	Coffee break + Poster Session II	
11.00-11.15	Multimodal FePt/SiO ₂ /Au nanoparticles with a combined magneto-photothermal effect for nanomedical applications S. Šturm , N. Kostevšek, K.Ž.Rožman and S. Kobe	Dr Sašo Šturm , Jozef Stefan Institute- Slovenia
11.15-11.30	Synthesis and characterization of iron oxide nanoparticles for potential biomedical applications M. Dardouri and A. Dakhlaoui Omrani	Ms Maïssa Dardouri , CNRSM, Technologic Park of Borj Cedria- Tunisia
11.30-11.45	Proteins as an alternative to synthetic surfactants for stabilizing nanoemulsions in the pharmaceutical field. G. Mekhloufi , A. Ali, E. Bouyer, M. Chéron and F. Agnely	Dr Ghozlene Mekhloufi , Pharmacy School, Paris Sud University- France
11.45-12.00	Fabrication of Silver Nanoparticles using different Egyptian Lactobacillus sp. and their antibacterial and antifungal activities S.A. Abdellatif and E-S. Shabaan	Prof Sawsan A. Abdellatif , Genetic Engineering and Biotechnology Research Institute- Alexandria- Egypt .
12.30-14.00	Lunch break + Poster Session II	

Session III: Nano-Electronics

Session chairs:
Prof Adnane Abdelghani- Tunisia / Prof Taleb H. Ibrahim- United Arab Emirates

14.00-14.45	CVD growth of single crystalline metal oxide nanomaterials and their application to gas sensing S. Roso , F. E. Annanouch and E. Llobet	Dr Eduard Llobet , Minos-EMaS, Universitat Rovira i Virgili- Spain
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14.45-15.00	Porous anodic alumina covered by sputter-deposited WO ₃ for Laser Desorption Ionization (LDI) applications R. Calavia , D. Vilalta, P. Rafols, N. Ramirez, X. Correig, O. Yanes and E. Llobet	Mr Raul Calavia , Minos-EMaS, Universitat Rovira i Virgili- Spain
15.00-15.15	A Disposable Electrochemical Sensor based on Protein G for High-Density Lipoprotein (HDL) Detection H. Chammem , L. Mora, I. Hafaid, A. Garcia, O. Meilhac and A. Abdelghani	Ms Hanen Chammem , National Institute of Applied Science and Technology- Tunisia .
15.15-15.30	Development of an impedimetric immunosensor for human serum albumin detection N. Bohli , H. Chammam, L. Morra, Olivier Meilhac and A. Abdelghani	Dr Nadra Bohli , National Institute of Applied Science and Technology- Tunisia
15.30-15.45	Gas sensors based on WO ₃ nanoneedles decorated with Pt and Au nanoparticles A. Thamri, H. Baccar , E. Llobet and A. Abdelghani	Dr Hamdi Baccar , National Institute of Applied Science and Technology- Tunisia .
15.45-16.00	Ecotoxic evaluation of cobalt and titanium silicon oxide nanomaterials in terrestrial ecosystem S. Bouguerra , A. Gavina, M. Ksibi, M.G. Rasteiro, T. Rocha-Santos and R. Pereira.	Dr Sirine Bouguerra , Engineering School of Sfax- Tunisia
16.00-16.30	Coffee break + Poster Session II	
16.30-16.45	Analytical Efficient Model of the Tunneling Current in Ambipolar Schottky Barrier Carbon nanotube Field Effect Transistor W. Ben Ayed, M. Najari and H. Samet	Dr Montasar Najari , Gabes Faculty of Sciences- Tunisia
16.45-17.00	Flame retardant nanocomposite materials utilizing intumescent system and nano clay J.-W. Park , H. Kim, J.-H. Lee, H.-J. Kim, M.-J. Kwon and J.-Y. Choi	Mr Ji-Won Park , Seoul National University- Republic of Korea
17:00-17:15	Nanosized Iron Oxide for Fabrication of Carbon Structures via Pulsed Laser Ablation Deposition Method R. Irmawati , S.L. Liew, Y. Noorhana, A.H. Shaari	Dr Irmawati Ramli , Universiti Putra Malaysia, Malaysia

Friday 24th April 2015
Session IV: Nanotech for Energy and Environment

Session chairs:
Prof Larbi Sfaxi- Tunisia/ Dr Hamdi Baccar -Tunisia.

9.00-9.45	Magnetically Responsive Biological Waste Materials for Environmental Technology I. Safarik , E. Baldikova, Z. Maderova, K. Pospiskova and M. Safarikova	Prof Ivo Safarik , Institute of Nanobiology and Structural Biology- Czech Republic
9.45-10.00	Photoelectrochemical Water Splitting on Tungsten Oxide Nanorod Arrays via Anodizing Al/W Metal Layers M. Bendova , A. W. Hassel and A. Mozalev	Dr Maria Bendova , Brno University of Technology- Czech Republic
10:00-10:15	Increment of Solar Cell Efficiency by Selected Anti-Reflection Coating K. Omar , K.A. Salaman and Z. Hassan	Dr Khalid Omar , University of Nizwa- Sultanate of Oman
10.15-11.00	Coffee break	
11:00-11:30	Magnetic Nano-Structured Coatings for Corrosion Resistance T.H. Ibrahim and K.M. Abed	Prof Taleb H. Ibrahim American University of Sharjah- United Arab Emirates
11:30-11:45	Thermodynamic modeling and design of a solar lithium bromide-water absorption chiller C. Hamdi and A Farhat	Mr Chaker Hamdi , National Engineering School of Tunis- Tunisia
11:45-12:00	Drinking water micro-pollutants evaluation in Tunisia, case of: Pb, Hg, Cd, F W. Guissouma and J. Tarhouni,	Mrs Wiem Guissouma , National Institute of Agronomy of Tunis, Department- Tunisia
12:00-14.00	Lunch break	

Posters Session I
Nanomaterials Fabrication, Characterization and Tools
Nanotech in Life Sciences and Medicine
Wednesday 22nd April 2015

N.	Title	Author/Affiliation/Country
1	Structural, microstructural and thermal stability of FeSiB na-nopowders alloys prepared by mechanical alloying M. Ibrir , S. Alleg, S.LAKEL, Saadi BERRI, N.E. Fenineche and J.J. Suñol	Dr Ibrir Miloud , Msila University - Algeria
2	Cupric oxide nanomaterials: Hydrothermal synthesis and electrochemical properties F. Janene , H. Dhaouadi and F. Touati	Ms Fatma Janene , Tunis Science Faculty - Tunisia
3	Nucleic Acid Induced Assembly of Gold Nanoparticles R. Gary , G. Carbone, G. Petriashvili and R. Barberi	Dr Ramla Gary , universita della calabria - Italy
4	Formation of nanocrystalline B2-structured (Fe,Ni)Al in mechanically alloyed Fe ₅₀ Al ₃₀ Ni ₂₀ (%.wt) powder C. Nakib , A. Otmani, A.Djekoun and J.M. Grenèche	Ms Chafika Nakib , Skikda University - Algeria
5	Theoretical prediction of the optical properties of Zn _{1-x} BexO Alloys based optoelectronic devices S. Lakel , F. Elhamra, M. Ibrir, K. Almi and F. Okbi	Prof Said Lakel , Biskra University - Algeria
6	Acute hepatotoxicity of zinc oxide nanoparticles in Wistar rats H.Ben Miled, Z.Ben Barka, Y.Baratli, M. Tlili, H.Abdelmelek, M. Sakly, K. Ben Rhouma and O. Tebourbi	Dr Olfa Tebourbi , Science faculty of Bizerte - Tunisia
7	Synthesis, characterization and optical properties of ZnO nanostructures via solvo-hydrothermal process A. Moulahi and F. Sediri	Mr Ali Moulahi , IPEIT, University of Tunis 2 - Tunisia .
8	Correlation between structural and optical properties of SiO ₂ /(Ni:TiO ₂) Bragg reflectors processed by dip-coating sol-gel method: The effect of annealing duration and Ni content H. Sedrati and R. Bensaha	Dr Hichem Sedrati , University of Skikda - Algeria
9	Age Modulates Fe ₃ O ₄ Nanoparticles Liver Toxicity Y. Baratli , M. Tlili, H. Ben Miled, Z. Ben Barka, L. Ben Taher, H. Abdelmelek, O. Tebourbi and B. Geny	Mrs Yosra Baratli , Science faculty of Bizerte - Tunisia

Posters session II

Nano-Electronics/ Nanotech for Energy and Environment

Thursday 23rd April 2015

N.	Title	Author/Affiliation/Country
1	The application of electrochemical impedance spectroscopy to study of enzyme kinetics Z. Fohlerová , M. Jílek, M. Pospíšilová and J. Hubálek	Dr Zdenka Fohlerová , Brno University of Technology- Czech Republic
2	Optimization of the electromagnetic wave propagation in a tri-layer electrode ZnO/Ag/ZnO for solar cells application D. Hatem , MS. Belkaid and M. Mesrouk	Mrs Djedjiga Hatem , Mouloud Mammeri University- Algeria
3	Use Hydrogen in the Steel Industry M. Kahalerras , M. T. Abedghars,	Mr Mounir Kahalerras , URASM /CSC-Annaba- Algeria
4	Single and binary adsorption system of lead and zinc ions from aqueous solution, by use of ammonium activated clays: kinetics and thermodynamics study. A. Gharsalli , M. Bagane and S. Ammar	Mr Amor Gharsalli , National Engineering School of Gabes- Tunisia .
5	3-D Design, Electro-Thermal Simulations of Metal Oxide Gas Sensor Based on a High Temperature and Low Power Consumption Micro- Heater Structure and Geometrical Optimization of Spiral Platinum Micro-heaters using COMSOL A. A. Abdeslam , F. Kerrou and K. Aguir	Mr Aimer Amer Abdesslam , Constantine 1 University- Algeria
6	Effect of cavity length of quantum well laser K. Aouni and F. Kerrou	Ms Khadoudja Aouni / Mr Aimer Amer Abdesslam , Constantine 1 University- Algeria
7	White organic light-emitting diode using Rubrene A. Sidi Said , M.Belkaid, R. Antony, S.Oussalah and D.Hatem	Mrs Djedjiga Hatem , Mouloud Mammeri University- Algeria
8	Laser-assisted photocatalysed degradation of pollutants using semi-conductors in electronic contact with gold nanoparticles Z. Chehadi , J. Toufaily, J-S. Girardon, M. Capron, F. Dumeignil, T. Hamieh, R. Bachelot and S. Jradi	Ms.Zeinab Chehadi , University of technology of Troyes- France
9	The study of functionalization rule in the biosensing approaches H. Ben Fredj , M.B.Mejri, A.Abdelghani	Dr Haykel Ben Fredj , INSAT - Tunisia
10	Surface Potential Decay and Potential Return of Corona Charged Biomedical Polymer: Simulation and Experimental Hitoum Nabil , S. Sahli, Z. Ziari, A. Bellel	Mr HITOUM Nabil Constantine 1 University, Algeria