

# Global Advanced Materials and Surfaces – GAMS 2015 Conference Program

**December 7, 2015**

**Session I: Advanced Materials Fabrication, Characterization and Tools / Properties**

**Al-Safa 1&2 Conference Room**

**Session Chairs: Prof Taleb Ibrahim - UAE / Prof Daniel Choi - UAE**

**08:00-09:30 Registration**

<b>09:30-10:15</b>	Recent Advances in Silica Aerogel Synthesis and Processing <b>K. Saoud</b>	Prof Khaled. Saoud, Virginia Commonwealth University in Qatar, Qatar.
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**10:15-10:45 Coffee Break / Posters Session**

<b>10:45-11:30</b>	Nanocrystals as Tunable Platforms for Chemical Reactions, Sensing and Imaging <b>H. Mattoussi</b>	Prof Hedi Mattoussi, Florida State University, USA
<b>11:30- 11:45</b>	Synthesis and Characterization of Hybrid Material based on Ionic Liquid and Amorphous Porous Silicon <b>M.R. Tchalala</b> and S .Chaieb	<b>Dr Mohamed R. Tchalala</b> , King Abdullah University of Science and Technology-Thuwal, Saudi Arabia
<b>11:45-12:00</b>	Effect of Repetitive Thermomechanical Processing on Grain Boundary Characteristics in alpha---phase brass <b>K.Al-Fadhlah</b>	<b>Dr. Khaled Al-Fadhlah</b> , Kuwait University, Kuwait
<b>12:00-12:15</b>	Ion Beam Induced Aluminum-doped Zinc Oxide-Bumps Aligning Liquid Crystals with the Tunable Surface Wettability for High Performance LCD <b>Y. Liu</b> and D-S. Seo	<b>Mr Yang Liu</b> , Yonsei University, Republic of Korea.

**12:30-14:00 Lunch Break / Posters Session**

**Session Chairs: Dr. Matteo Chiesa - UAE / Prof Khaled Saoud - Qatar**

<b>14:00-14:30</b>	Functionalized Polyelectrolytes as Versatile Building Blocks <b>L.C.P.M. de Smet</b>	Dr. Louis de Smet, Delft University of Technology, The Netherlands
<b>14:30-15:00</b>	Quantifying grain refinement of twin-roll-cast AZ31B by friction stir processing A. H. Ammouri, G. Ayoub, B. Mansoor and <b>R. F. Hamade</b>	<b>Prof Ramsey Hamade</b> , American University of Beirut, Lebanon
<b>15:00-15:15</b>	Electrospinning of silica-polymer composite fibres by solution electrospinning <b>L. Christiansen</b> and P. Fojan	<b>Mr Lasse Christiansen</b> , Aalborg University, Denmark
<b>15:15-15:30</b>	Magnetic Excitation in Chiral Graphene Model Yu.P.Rybakov, M.Iskandar and <b>A.B.Ahmed</b>	<b>Mr. Abdullahi Bappah Ahmed</b> , Gombe State University, Russian Federation
<b>15:30-15:45</b>	Modification of metallic surfaces by duplex treatments involving severe shot peening, pulsed electron beams and nitriding <b>Y. Samih</b> , T. Grosdidier, S. Z. Hao and C. Dong	<b>Dr. Youssef Samih</b> , Lorraine University, France
<b>15:45-16:00</b>	Fabrication of Metal/Metal oxide/Reduced graphene oxide nanocomposites for anode in Li-ion batteries <b>H. Abuhimd</b>	<b>Dr Hatem Abuhimd</b> , King Abdulaziz City for Science and Technology, Saudi Arabia

**16:00-16:30 Coffee Break / Posters Session**

<b>16:30-17:00</b>	Modern Ab-Initio Calculations Based on Thomas-Fermi-Dirac Theory in High-Temperatures and High-Pressures Environment <b>S. Seriy</b> and U. Kabaldin	Dr. Sergey Seriy, Komsomolsk-on-Amur State Technical University, Russian Federation
<b>17:00-17:15</b>	The Canonical Method of Nonholonomic Constraints <b>K.I. Nawafleh</b>	<b>Prof Khaled I. Nawafleh</b> , Mu'tah University, Jordan
<b>17:15- 17:30</b>	The effect of Starch Modification on Biodegradation of Nanocomposite Films reinforced with Lignin and Nanofiber extracted from Bamboo <b>A. Tawakaltu</b> , E.C. Evans and O. Prince	<b>Mrs. Tawakaltu Abdul Rasheed-Adeleke</b> , Federal University of Technology Minna, Nigeria

**December 8, 2015**

**Session II: Advanced Materials/ surfaces for Energy and Environment**

**Al-Safa 1&2 Conference Room**

**Session Chairs: Prof Khaled Saoud - Qatar / Prof Taleb Ibrahim - UAE**

<b>09:00-9:45</b>	Novel nanofabrication for constructing 3-dimensional composite structure with carbon-based nanomaterials for energy applications <b>D. Choi</b>	<b>Prof Daniel Choi</b> , Masdar Institute, <b>UAE</b>
<b>09:45-10:30</b>	Artificial Leaves for solar hydrogen <b>E. Sudhölter</b>	<b>Prof. Ernst J.R. Sudhölter</b> , Delft University of Technology, <b>The Netherlands</b>
<b>10:30-11:00 Coffee Break / Posters Session</b>		
<b>11:00-11:30</b>	Durability Improvement of Solid Oxide Fuel Cells M.Z. Khan, <b>R-H. Song</b> , S-B. Lee, J-W. Lee, T-H. Lim and S-J Park	<b>Prof Rak-Hyun Song</b> , Korea Institute of Energy Research, <b>Republic of Korea</b>
<b>11:30-11:45</b>	Assessment of microstructural, thermal, electrical and optical properties of Fe-Cu metastable compound <b>A.H. Alami</b> , J. Abed, M. Almheiri and A. Alket	<b>Dr. Abdul Hai Alami</b> , University of Sharjah, <b>United Arab Emirates</b>
<b>11:45-12:00</b>	Application of the exact muffin-tin orbitals method to the Bain path of metals: the overlapping potential sphere wells and the hard spheres <b>N. Al-Zoubi</b>	<b>Dr Noura Al-Zoubi</b> , Tafila Technical University, <b>Jordan</b>
<b>12:00-12:15</b>	Polytriazole-co-Polyoxadiazole Copolymers as a New Class of Membrane Material for Osmotically Driven Processes <b>P. H.H. Duong</b> , S. Chisca, P. Y.Hong, H. Cheng, S. P. Nunes, and T. S. Chung	<b>Dr. Duong Phuoc</b> , King Abdullah University of Science and Technology, <b>Saudi Arabia</b>
<b>12:15-12:30</b>	Silicon Nanoparticles for Room-Temperature Catalytic Dehydrogenation of Secondary Alcohols into Ketones and Hydrogen <b>J. El-Demellawi</b> , Christopher R. Holt, Edy Abou-Hamad, Zeyad A. Al-Talla, Youssef Saih and Sahraoui Chaieb	<b>Mr. Jehad El-Demellawi</b> , King Abdullah University of Science and Technology, <b>Saudi Arabia</b>
<b>12:30-14:00 Lunch Break / Posters Session</b>		
<b>Session chairs: Prof Daniel Choi, UAE</b>		
<b>14:00-14:45</b>	Green Corrosion Inhibitors for Metals <b>T.Ibrahim</b>	<b>Prof Taleb Ibrahim</b> , American University of Sharjah, <b>UAE</b>
<b>14:45-15:15</b>	Hybrid Pectin-Based Biosorbents for Zinc Removal <b>A. Jakóbk-Kolon</b> , J. Bok-Badura, K. Karoń and K. Mitko	<b>Dr. Agata Jakóbk-Kolon</b> , Silesian University of Technology, <b>Poland</b>
<b>15:15-15:30</b>	The use of optical fibers for environmental decontamination <b>S. Teixeira</b> , S. Y. Ryu, V. Sencadas, S. Lanceros-Méndez, K. Kühn, M. Hoffmann and G. Cuniberti	<b>Ms. Sara Teixeira</b> , Technische Universität Dresden, <b>Germany</b>
<b>15:30-15:45</b>	C5H11NO2S Effect on Concrete Steel-Reinforcement Corrosion in Industrial/Microbial Simulating Environment <b>J.O. Okeniyi</b> , A.O. Abioye, Z.C. Adikpewun, A.A. Otesanya, D.M. Eleshin, O.O. Gabriel and O. Adeoye	<b>Dr. Joshua Okeniyi</b> , Covenant University Ota, <b>Nigeria</b>
<b>15:45-16:00</b>	Biochemical Characterization of Cymbopogon citratus: Prospects on Environmentally-Friendly Corrosion-Protection of Concrete Steel-Reinforcement in Aggressive Environment J.O. Okeniyi, <b>E.T. Okeniyi</b> , O.O. Ogunlana, F.T. Owoeye and E.O. Ogunlana	<b>Mrs. Elizabeth Okeniyi</b> , Covenant University Ota, <b>Nigeria</b>
<b>16:00-16:30 Coffee Break / Posters Session</b>		
<b>16:30-16:45</b>	Performance of Cassia Fistula Leaf-extract on Stainless Steel Corrosion in 0.5 M HCl <b>O.A. Omotosho</b> , J.O. Okeniyi, A.S. Ogiye, O.B. Ajibola and C.A. Loto	<b>Mr O.A. Omotosho</b> , Covenant University Ota, <b>Nigeria</b>
<b>16:45-17:00</b>	The Efficiency of Al <sub>2</sub> O <sub>3</sub> -water Nanofluid on a Flat-Plate Solar Collector <b>N. Budak</b> , H.L. Yucel, C. Yildiz and S.Tekalp	<b>Ms. Nese Budak</b> , Batman University- <b>Turkey</b> .
<b>17:00-17:15</b>	Nano Technology Application in Stablizing Expansive Soil: Irbid Clay <b>A. A. Sharo</b> and A.S. Alawneh	<b>Dr Abdulla A. Sharo</b> , Jordan University of Science and Technology- <b>Jordan</b>

**December 9, 2015**

**Session III: Advanced Materials / surfaces for biomedical / Life Science**

**Al-Safa 1&2 Conference Room**

**Session chairs: Prof Khaled Saoud - Qatar**

<b>009:00-9:45</b>	State-of-the-Art in Powder Metallurgy Materials with Atomic/Nano scale Microstructures <b>K. Kondoh</b>	<b>Prof Katsuyoshi Kondoh</b> , Professor, Osaka University, <b>Japan</b>
<b>09:45-10:15</b>	Immuno-nanotheronostics approach to detect and eliminate cancer cells <b>Ahmad Fawzi Hussain</b> , Harald Rune Krüger, Dirk Bauerschlag, Nicolai Maass, Marcelo Calderón and Stefan Barth	<b>Dr. Ahmad Hussain</b> , University Hospital Aachen, <b>Germany</b> .
<b>10:15-10:45 Coffee Break</b>		
<b>10:45-11:00</b>	Naproxen and Ibuprofen Molecular Liquids — A high yield supercritical CO <sub>2</sub> process platform <b>S.K. Sharma</b> , Abiy D Woldetsadik, Mazin Magzoub and R. Jagannathan	<b>Dr Sudhir Sharma</b> , New York University Abu Dhabi, <b>United Arab Emirates</b>
<b>11:00-11:15</b>	Mussel inspired nanointerface for an efficient biomolecular delivery into cells <b>B.G Naira</b> and Y.Ito	<b>Dr. Baiju Govindan Nair</b> , RIKEN Centre for Emergent Matter Science- Saitama, <b>Japan</b>
<b>11:15-11:30</b>	Synthesis, Charectrerization and applications of Iron oxide Nanoparticles in Cosmetics <b>Seema R Pathak</b> , M Nidhin, <b>V Monika</b> and K J Sreeram	<b>Dr Monika Vats</b> , Amity University, <b>India</b>
<b>11:30-11:45</b>	Preparation and characterization of cross-linked $\beta$ -cyclodextrin-grafted chitosan nanoparticles coated with hyaluronic acid <b>A. Ben Mihoub</b> , Y. Bal and B. Saidat	<b>Ms Amina Ben Mihoub</b> , University Amar Telidji of Laghouat, <b>Algeria</b> .
<b>12:00-12:30 Awards and Closing Ceremony</b>		
<b>12:30-14:00 Lunch</b>		

**Posters Session**  
**December 7 and 8, 2015**

N.	Title	Author/Affiliation/Country
1	Molecular dynamics simulation of functionalized graphene – a study of the mechanical properties of graphene and the interaction between graphene and epoxy <b>Liliana Sofia Melro</b> , Ryszard Pyrz and Lars Rosgaard Jensen	<b>Ms Liliana Melro</b> , Department of Mechanical and Manufacturing Engineering, Aalborg University, <b>Denmark</b>
2	Characterization of an EDTA-based Gemini Surfactant at the Air-Liquid Interface <b>H. Younesi Araghi</b> , J. Rehman, B. Dessert and M.F. Paige	<b>Dr Hessamaddin Younesi Araghi</b> , University of Saskatchewan, <b>Canada</b>
3	Temperature Dependence Control of Birefringence of Zero-Birefringence Polymers for LCDs <b>M. Shikanai</b> , A. Tagaya and Y. Koike	<b>Ms. Mio Shikanai</b> , Keio University-Kanagawa, <b>Japan</b>
4	A method for determination of metals contained in carbon nanotubes <b>J. Bok-Badura</b> , A. Jakóbk-Kolon, M. Turek, K. Karoń and A. Łamacz	<b>Mrs. Joanna Bok-Badura</b> , Silesian University of Technology, <b>Poland</b>
5	The effects of temperature and pH on swelling of stimuli-sensitive hydrogels <b>C.-G. Sanporean</b> , A.D. Drozdov and J. de C. Christiansen	<b>Dr. Catalina-Gabriela Sanporean</b> , Department of Mechanical and Manufacturing Engineering, Aalborg University, <b>Denmark</b>
6	Experimental Studies for the Impact of SiO <sub>2</sub> Particle onto a Planar Surface at Different Temperatures <b>M. Dong</b> , L. Bai, J. Xie and S. Li	<b>Dr Ming Dong</b> , Dalian University of Technology, <b>China</b>
7	WO <sub>3</sub> -Nanowire@Graphene Nanocomposite for Efficient Visible Light Induced Photodegradation and Photocapacitance Performance <b>M.E.Khan</b> , M.M. Khan and M. Hwan Cho	<b>Mr. Mohammad Ehtisham Khan</b> , Yeungnam University- Gyeongsan, <b>Republic of Korea</b>
8	Modeling anticorrosive and adsorption mechanism of Rhizophora mangle L leaf-extract admixture in steel-reinforced concrete immersed in saline/marine simulating-environment J.O. Okeniyi, C.A. Loto, A.P.I. Popoola and <b>O.A. Omotosho</b>	<b>Mr. Olugbenga Omotosho</b> , Covenant University Ota, <b>Nigeria</b>
9	Modeling of the optical fiber using the VHDL-AMS language <b>F.Baouche</b> , F. Hobar and Y. Hervé	<b>Dr. Baouche Fatima Zohra</b> , Khemis Miliana University, <b>Algeria</b>
10	Zinc Sorption on Modified Waste PMMA <b>A. Milewski</b> , D. Zdybał and A. Jakóbk-Kolon	<b>Mr. Andrzej Milewski</b> , Silesian University of Technology, <b>Poland</b>
11	Removal of textile dyes by composite based on chitosan <b>S.Kara Slimane</b> and A.Benosman	<b>Dr. Sofia Kara Slimane</b> , University Abou Bekr Belkaid-Tlemcen, <b>Algeria</b> .
12	Electrical transport properties of an isolated single walled carbon nanotube aligned on an ST-cut quartz substrate <b>E. S. Sadki</b>	<b>Dr. El-Hadi Sadki</b> , United Arab Emirates University- Ain, <b>United Arab Emirates</b>
13	Study of Interaction between the Molecule 2-Mercaptobenzimidazole and Metal Atom Substrate for Self-Assembled Monolayers <b>O. Mahmoudi</b> , T. Bordjiba and M.-A. Affoune	<b>Ms Ourida Mahmoudi</b> , 08th May 1945 University-Guelma, <b>Algeria</b>
14	Effects of Alkali Metal Doping on the Graphene/Ni(111) Surface <b>J. W. Park</b> and M. H. Kang	<b>Dr. Jaewhan Park</b> , Pohang University of Science and Technology, <b>Korea</b>