Tentative Program

15th International Conference and Exhibition on

Materials Science and Engineering

November 07-08, 2018 | Atlanta, USA



Interactive Sessions

Keynote Lectures

Plenary Lectures

Workshops

Exhibitors

B2B Meetings

For available speaker slots

materialsscience@materialsconferences.org

Program at a Glance

15th International Conference and Exhibition on

Materials Science and Engineering

November 07-08, 2018 Atlanta, USA

Program at a Glance

Day 1

Morning Sessions	Reception/Registration	08.00-09.00	
		Time	General Session
	Least of 3 Keynote/Plenary Talks	09.00-09.15	Inaugural Address
		09.15-09.45	Keynote/Plenary Talk 1
		09.45-10.15	Keynote/Plenary Talk 2
		10.15-10.45	Keynote/Plenary Talk 3
	Panel Discussions/Group Photo		
	Coffee/Tea Break 10.45-11.00 (Networking)		
	11.00-12.40	5 Speakers (20 Mins Each)	
Evening Sessions	Lunch Break 12.40-13.30		
	13.30-15.30	6 Speakers (20 Mins Each)	
	Coffee/Tea Break 15.30-15.45 (Networking)		
	15.45-17.25	5 Speakers (20 Mins Each)	

20Speakers for Day 1

Day 2

Morning Sessions		Time	Session 1	Session 2
	09.00-10.40		5 Speakers (20 Mins Each)	5 Speakers (20 Mins Each)
	Coffee/Tea Break 10.40-10.55 (Networking)			
	10.55-12.35		5 Speakers (20 Mins Each)	5 Speakers (20 Mins Each)
Evening Sessions	Lunch Break 12.35-13.25			
	13.25-15.05		**5 Speakers (20 Mins Each)**	**5 Speakers (20 Mins Each)**
	Poster Sessions			
	Coffee/Tea Break 15.05-15.20 (Networking)			
	15.20-17.00		**5 Speakers (20 Mins Each)**	**5 Speakers (20 Mins Each)**

20Speakers on Day 2

NOTE: Program Shedule is subject to change with final allotment of the speaker slots

For more Details Contact:
Anton Aiden
anton.aiden00@gmail.com, materialsscience@materialsconferences.org
Tel: +1-702-508-5200 Ext 8014

Conference Highlights

- Materials Science & Engineering
- Nanotechnology in Materials Science
- Batteries and Energy Materials
- Mining, Metallurgy and Materials Science
- Emerging technologies in materials science
- Biomaterials and Tissue Engineering
- Structural Materials and Characterization
- Polymer Science and Technology
- Electrical, Optical and Magnetic Materials
- Materials Chemistry and Physics
- Computational Materials Science

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Glimpses of Previous Conferences











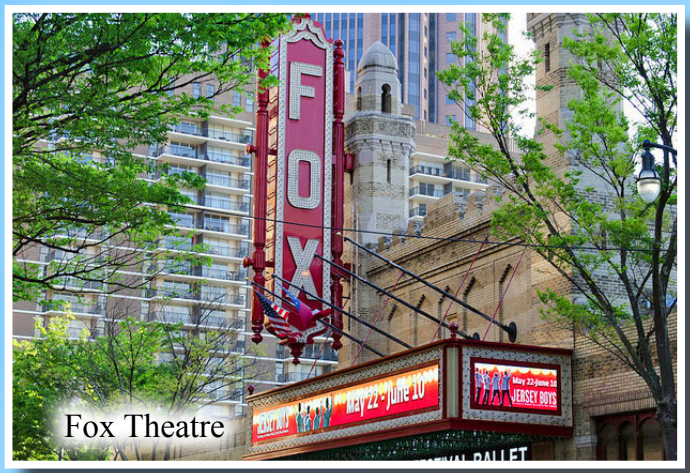


Plan your Trip to Atlanta


Atlanta Botanical Garden


Centennial Olympic Park


Fernbank Museum



Fox Theatre


Georgia Aquarium



World of Cocacola

About Atlanta

Atlanta was founded in 1837 as the end of the Western & Atlantic railroad line (it was first named Marthasville in honour of the then-governor's daughter, nicknamed Terminus for its rail location, and then changed soon after to Atlanta, the feminine of Atlantic -- as in the railroad). Today the fast-growing city remains a transportation hub, not just for the country but also for the world: Hartsfield Atlanta International Airport is one of the nation's busiest in daily passenger flights. Direct flights to Europe, South America, and Asia have made metro Atlanta easily accessible to the more than 1,000 international businesses that operate here and the more than 50 countries that have representation in the city through consulates, trade offices, and chambers of commerce. The city has emerged as a banking centre and is the world headquarters for 13 Fortune 500 companies.

Atlanta is the capital city of the Southeast, a city of the future with strong ties to its past. The old in new Atlanta is the soul of the city, the heritage that enhances the quality of life in a contemporary city. In the turbulent 60s, Atlanta was "the city too busy to hate." And today, in the 21st century, Atlanta is the "city not too busy to care." With 5.7 million residents in the metro and outlying areas, the so-called capital of the South continues to experience explosive growth thanks to domestic transplants and international immigrants alike. Beyond the big-ticket downtown attractions you'll find a constellation of superlative restaurants, a palpable Hollywood influence, and iconic African American history. That last point can't be overstated: any nationwide African American intellectual, political and artistic movement you can mention has either had its genesis in Atlanta, or found a centre of gravity here.

Without natural boundaries to control development, it's fair to say Atlanta is more of a region than a city. Yet for all its sprawl and suburbanization, there is a lovely urban core here, covered with trees and elegant homes. Distinct neighbourhoods are like friendly small towns. The economy is robust, the population is young and creative, and the socials scene is refreshingly diverse.



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Scientific Program

(Updated)

14th International Conference and Exhibition on

MATERIALS SCIENCE AND ENGINEERING

November 13-15, 2017 Las Vegas, USA



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47 Churchfield Road, London, UK, W3 6AY, Toll Free: +1-800-014-8923

Day 1 November 13, 2017

08:00-9:00 Registrations

Conference Hall: The Five Spot Room

conferenceseries.com 09:00-09:30 **Opening Ceremony**

Keynote Forum

09:30-10:00 **Title: Surface stress in nano-structural formation**
Hidehito Asaoka, Japan Atomic Energy Agency, Japan

10:00-10:30 **Title: Design of metamaterials using transformation physics**
Ramesh K Agarwal, Washington University in St. Louis, USA

Networking & Refreshment Break: 10:30-10:45 @ Pre-Function Space

10:45-11:15 **Title: Functional structures & devices by additive manufacturing**
Jun Ding, National University of Singapore, Singapore

11:15-11:45 **Title: Mitigation of major product defects in aluminum extrusion**
Sayyad Zahid Qamar, Sultan Qaboos University, Oman

Group Photo & Panel Discussion 11:45-12:00 @ The Five Spot Room

Sessions:
Materials Science & Engineering | Nanotechnology in Materials Science | Batteries and Energy Materials | Mining, Metallurgy and Materials Science | Surface Science and Engineering | Electrical, Optical and Magnetic Materials | Materials Chemistry and Physics

Session Chair: Jun Ding, National University of Singapore, Singapore

12:00-12:25 **Title: High-magnetization oxide spinel ferrite films**
Jun Ding, National University of Singapore, Singapore

12:25-12:50 **Title: Impact of the residual flux reduction on the internal corrosion behavior for the automotive brazed heater cores**
Philippe Da Silva, Valeo THS, France

12:50-13:15 **Title: Influence of boehmite nanoparticle on the curing kinetics and rheology of an epoxy matrix for liquid composite molding process**
Dilmurat Abliz, Clausthal University of Technology, Germany

Lunch Break 13:15-14:15 @ Renaissance III

14:15-14:40 **Title: Accelerated corrosion test for exhaust gas recirculation exchangers**
Vincent Renault, Valeo THS, France

14:40-15:05 **Title: Cleaner production practices for resource optimisation**
Sampath Kumar M C, B M S College of Engineering Bangalore, India

15:05-15:30 **Title: The determining role of brazing clad in aluminium material fatigue behavior for automotive exchanger applications**
Anne-Gaëlle Villemiane, Valeo THS, France

15:30-15:55 **Title: Hydrothermally grown nanoflowered WO_3 thin films on etched ITO for electrochromic studies**
Anamika V Kadam, D Y Patil College of Engineering and Technology, India

Networking & Refreshment Break 15:55-16:10 @ Pre-Function Space

16:10-16:35 **Title: Spinorbitronics at interfaces for THz emission**
Henri Jaffrès, Unité Mixte de Physique CNRS-Thales, France

16:35-17:00	**Title: Crystal growth of Si based on the Na-Si binary phase diagram** **Haruhiko Morito,** Tohoku University, Japan

Panel Discussions 17:00-17:15

Day 1 Concludes...

Reception Pool Deck 6:00PM-7:00PM

Day 2 November 14, 2017

Conference Hall: The Five Spot Room

Keynote Forum

08:15-09:30	**Registrations**
09:30-09:45	**Introduction**

Plenary Speech

09:45-10:45	**Title: Wave scattering by many small impedance particles and creating materials with a desired refraction coeffcient** **Alexander G Ramm,** Kansas State University, USA

Networking & Refreshment Break 10:45-11:05 @ Pre-Function Space

Young Researcher Forum @ The Five Spot Room

Sessions:
Materials Science & Engineering | Nanotechnology in Materials Science | Surface Science and Engineering

Session Chair: Sampath Kumar M C, B M S College of Engineering Bangalore, India

11:05-11:25	**Title: Flexible organic field effect transistors with enhanced electrical properties** **Davoud Dastan,** Cornell University, USA
11:25-11:45	**Title: Microstructural characterization of Mg-SiC nanocomposites produced by powder metallurgy techniques** **Daniela Penther,** Technische Universität Berlin, Germany
11:45-12:05	**Title: Fabrication of surfaces modified with carboxymethylthio ligands towards chelate-assisted trace-level extraction of copper** **John O Adongo,** Humboldt-Universität zu Berlin, Germany
12:05-12:25	**Title: Thermal-Structural and elemental analysis of Cu-Fe-O system coupled with available thermodynamic modeling** **Juliano Schorne Pinto,** Université de Toulouse, France
12:25-12:45	**Title: The improved photoelectrochemical properties using α-hematite -molybdenum disulfide nanostructured material** **Hussein Alrobei,** University of South Florida, USA

Panel Discussion & Best Presentation Award distribution 12:45-12:50 @ The Five Spot Room

Lunch Break 12:50-13:45 @ Renaissance III

Poster Presentations @ Pre-Function Space

10 minutes for each presentation (13:45-17:30)

MSE 01	**Title: Online monitoring of the filling behavior of highly-filled polymeric materials during the injection molding process** **Tamara Florian,** Clausthal University of Technology, Germany
MSE 02	**Title: Angiogenesis depression effect; A cure for glioblastoma multiforme through oral administration by lactoferrin-glycyrrhizin conjugate, as HMGB1 antagonist** **Hae Jin Kim,** Hanyang University, South Korea

MSE 03	**Title: Colorimetric contact lens type sensor consisting of cerium oxide nanoparticles and glucose oxidase for tear glucose detection** **Sijin Park,** Hanyang University, South Korea
MSE 04	**Title: Periodic nanostructures obtained by spinodal decomposition at low temperature on $Co_{1.7}Fe_{1.3}O_4$ thin films prepared by radio frequency sputtering** **Antoine Barnabe,** CIRIMAT – Université de Toulouse III Paul Sabatier, France
MSE 05	**Title: Effects of doping ratio of cobalt and iron on the structure and optical properties of ferroelectric bismuth titanates** **Chung Wung Bark,** Gachon University, Republic of Korea
MSE 06	**Title: Characterization and analysis of phosphor condition with electrode of perovskite solar cells** **Hyung Wook Choi,** Gachon University, Republic of Korea
MSE 07	**Title: Preparation of oxide semiconductors thin films for the transparent electrode by helicon-wave excited plasma sputtering method** **Takumi Namba,** Tokyo University of Science, Japan
MSE 08	**Title: Characterizations of ZnO nanorods and ZnO/ZnS core/shell nanorods on copper grids** **Yu-Shan Lee,** National Chi Nan University, Republic of China
MSE 09	**Title: Fatty acid-based electrospun fiber for temperature-controlled drug release** **Ji Hyeon Choi,** Kyungpook National University, Republic of Korea
MSE 10	**Title: NIR light-triggered, localized anti-cancer drug delivery using poly(ε-caprolactone) (PCL) fibers incorporated with indocyanine green and phase-changeable fatty acid** **Ju Hyang Park,** Kyungpook National University, Republic of Korea
MSE 11	**Title: Chitosan-coated magnetic nanoparticles modified with folate use for doxorubicin released** **Yu-Chen Fa,** National Sun Yat-sen University, Taiwan
MSE 12	**Title: Age heat treatments of the $CoCrFeNiTi_{0.3}$ high-entropy alloy** **Tao-Tsung Shun,** Feng Chia University, Taiwan
MSE 13	**Title: Thermal, mechanical properties of modified poly (lactic-acid) / poly (butylene-adipate-co-terephthalate) blends** **Gi Hong Kim,** Kyungpook National University, Republic of Korea
MSE 14	**Title: Fabrication of poly(ε-caprolactone) (PCL) particles with non-spherical geometries via selective dewetting and deposition of the polymer** **Jin Ho Son,** Kyungpook National University, Republic of Korea
MSE 15	**Title: Innovative superhydrophobic nano coatings for durable applications** **Daniela Rusu,** LPIM - Université de Haute-Alsace, France
MSE 16	**Title: Random poly(ε-Caprolactone-L-Alanine) by direct melt copolymerization** **Christelle Delaite,** LPIM - Université de Haute-Alsace, France
MSE 17	**Title: Thermal and humid influence on the interfacial aging of polyurethane coated polyketone fabrics** **Jee-Woo Yang,** Chungnam National University, South Korea

Best Poster Presentation @ Pre-Function Space

Networking & Refreshment Break from16:30 @ Pre-Function Space

Day 2 Concludes....

Day 3 November 15, 2017

Conference Hall: The Five Spot Room

Sessions:
Materials Science & Engineering | Nanotechnology in Materials Science | Batteries and Energy Materials | Mining, Metallurgy and Materials Science | Surface Science and Engineering | Electrical, Optical and Magnetic Materials | Materials Chemistry and Physics

Session Chair: Antoine Barnabe, CIRIMAT – Université de Toulouse III Paul Sabatier, France

10:00-10:25	**Title: p-type TCO thin films of Delafossite $CuCrO_2$:Mg by rf sputtering with conventional thermal and ultra-rapid laser annealings** **Antoine Barnabe,** CIRIMAT – Université de Toulouse III Paul Sabatier, France
10:25-10:50	**Title: Single element transition metal nitride protective sputtering coatings with versatile structural features** **Fan-Bean Wu,** National United University, Taiwan

Networking & Refreshment Break 10:50-11:10 @ Pre-Function Space

11:10-11:35	**Title: New DGEBA-based epoxy resins toughened with liquid silicones** **Daniela Rusu,** LPIM - Université de Haute-Alsace, France
11:35-12:00	**Title: Hydrogen storage characteristics of nanostructured $La_{0.75}Ce_{0.25}Ni_5$ alloy grinded by sonication process** **Shrok Allami,** Ministry of Science and Technology, Iraq
12:00-12:25	**Title: Rational design of novel Cu-containing catalysts for effective CO_2 conversion** **Qiang Sun,** Peking University, China
12:25-12:50	**Title: Effect of TMAl pretreatment of sapphire substrate on the properties of MOCVD grown AlN epilayers** **Talal M Al Tahtamouni,** Qatar University, Qatar
12:50-13:15	**Title: Injectable antimicrobial collagen/nanohydroxyapatite hydrogel scaffolds for bone regenerative applications** **Ahmed Abd El-Fattah,** Alexandria University, Egypt
13:15-13:40	**Title: Self-assembled pectin-conjugated multi-arm-polyethylene glycol nanoparticles loading dihydroartemisinin for anticancer combination therapy** **Yanxue Liu,** Beijing Forestry University, P R China

Panel Discussions and Award Ceremony 13:40-13:50 @ The Five Spot Room

Lunch Break 13:50 onwards @ Renaissance III

Day 3 Concludes....

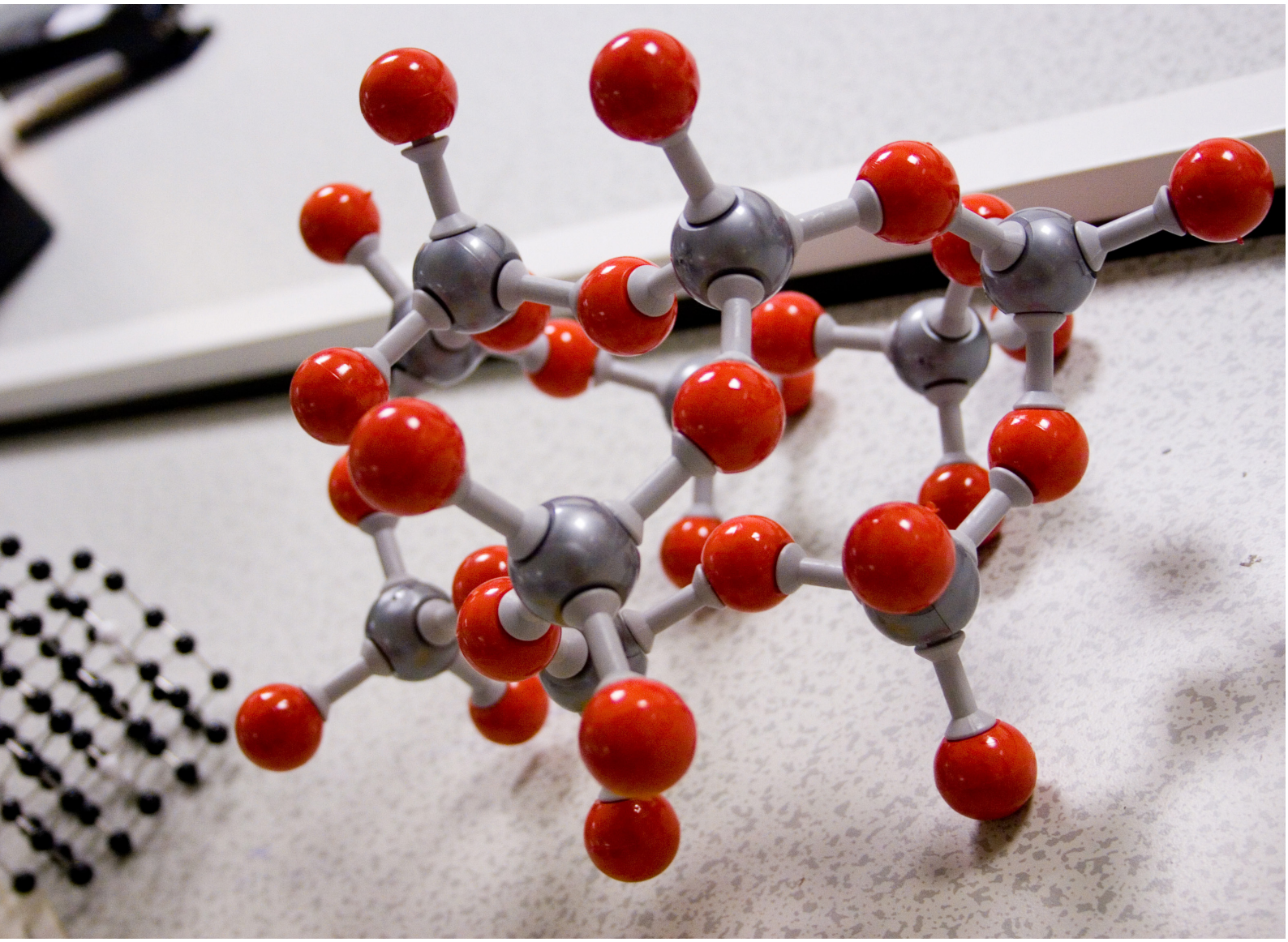
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976th Conference

Scientific Program

9th World Congress on

Materials Science and Engineering

June 12-14, 2017 Rome, Italy



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Day 1 June 12, 2017

08:00-08:30 Registrations

Olimpica 1

conferenceseries.com 08:30-09:00 **Opening Ceremony**

Keynote Forum

	Introduction
09:00-09:30	**New ways of vision: Protein structures in translational medicine and business development - My experience** **Robert Huber,** Nobel Laureate, Chemistry 1988
09:30-09:55	**Nanogenerators for self-powered systems and piezotronics for artificial intelligence** **Zhong Lin Wang,** Georgia Institute of Technology, USA

Sessions: Materials Science and Engineering | Metals, Metallurgy and Materials

Session Chair: Nekane Guarrotxena, Spanish National Research Council (CSIC), Spain
Session Co-Chair: Augusto Di Gianfrancesco, Consultant, Rome Area, Italy

	Session Introduction
09:55-10:15	**Title: Building up smart optical "organic-inorganic" nanosystems** **Nekane Guarrotxena,** Spanish National Research Council (CSIC), Spain
10:15-10:35	**Title: Materials for advanced ultra-super critical power plants** **Augusto Di Gianfrancesco,** Consultant, Rome Area, Italy
	Networking & Refreshments Break 10:35-10:50 @ Foyer
10:50-11:10	**Title: Helical light induced chiral surface relief in azo-polymer thin film** **Takashige Omatsu,** Chiba University, Japan
11:10-11:30	**Title: Multi-scale deformation analysis in a thermoplastic polyurethane** **Alexander M Korsunsky,** University of Oxford, UK
11:30-11:50	**Title: Proposed link between the periodic table and the standard model** **John Roberts,** University of Liverpool, UK
11:50-12:10	**Title: Fine-controlled subano-metal particles in a dendrimer reactor** **Kimihisa Yamamoto,** Tokyo Institute of Technology, Japan
12:10-12:30	**Title: Structure and dynamics of polymer materials at the single molecule scale studied by novel fluorescence microscopy techniques** **Hiroyuki Aoki,** Japan Atomic Energy Agency, Japan
12:30-12:50	**Title: Development of highly stretchable conductive fiber and fiber-based electronic sensors for textile electronics** **Taeyoon Lee,** Yonsei University, Republic of Korea
	Lunch Break 12:50-13:30 @ Hotel Restaurant
13:30-13:50	**Title: Finite-element analysis of velocity mode transition of crack propagation in rubber materials** **Atsushi Kubo,** University of Tokyo, Japan
13:50-14:10	**Title: Light driven directional mass transport of azo-benzene containing materials for complex tri-dimensional structures on surfaces** **Stefano L. Oscurato,** University of Naples Federico II, Italy
14:10-14:25	**Title: Enhancing the photocatalytic activity for pollutant degradation and H_2 evolution by modifying ZrO_2 with nanoclusters of $BiVO_3$, Ag_3PO_4, $SrTiO_3$ and WO_3: A first-principles study** **Francis Opoku,** University of Johannesburg, South Africa

Sessions: Nanomaterials	
Session Chair: Hikaru Kobayashi, Osaka University, Japan **Session Co-Chair: Marzia Quaglio**, Italian Institute of Technology, Italy	
	Session Introduction
14:25-14:45	**Title: Si nanopowder for internal hydrogen generation materials** **Hikaru Kobayashi**, Osaka University, Japan
14:45-15:05	**Title: N-doped carbon-based nanofibers as oxygen reduction reaction catalysts** **Marzia Quaglio**, Italian Institute of Technology, Italy
15:05-15:25	**Title: Controlled synthesis of vertical and planar graphenes using plasma-enhanced chemical vapor deposition** **Mineo Hiramatsu**, Meijo University, Japan
15:25-15:45	**Title: Rational clustering and fractionation of "SERS hot-spot" plasmonic nanoparticles** **Nekane Guarrotxena**, Spanish National Research Council (CSIC), Spain
	Networking & Refreshments Break 15:45-16:00 @ Foyer
16:00-16:20	**Title: The nanophotonic behaviors of wideband diluted magnetic semiconductor nanostructures** **Bing Suo**, Beijing institute of Technology, China
16:20-16:40	**Title: Fabrication of nanoporous graphene membranes for nanofiltration applications** **Marco Laurenti**, Politecnico di Torino, Italy
16:40-17:00	**Title: Noble metal nanostructures** **Sarmiza Elena Stanca**, Leibniz Institute of Photonic Technology, Germany
17:00-17:20	**Title: Fabrication and characterization of carbon nanotube–recycled polyethylene terephthalate nanocomposites** **Ravindra Reddy Chowreddy**, Norner AS, Norway
17:20-17:40	**Title: Adatom's Berry phase as a classification toolkit and responsible for enhanced lifetimes of degenerated ground states** **Marta Prada**, University of Hamburg, Germany
17:40-18:00	**Title: Nanostructured Mn_xO_y as catalyst for oxygen reduction reaction** **Angelica Chiodoni**, Italian Institute of Technology, Italy
	Panel Discussion

Day 2 June 13, 2017

Olimpica 1

Keynote Forum

09:00-09:25	**An approximate semi-classical method that uses real valued trajectories for time dependent tunneling calculations** **Michael F. Herman**, Tulane University, USA
09:25-09:50	**Implementation of new magnesium sheets into application from laboratory to service** **Karl Ulrich Kainer**, Helmholtz-Zentrum Geesthacht, Germany
09:50-10:15	**Towards the growth of 3D forests of carbon nanotubes: Selective height control using reservoirs and overlayers** **Gilbert Daniel Nessim**, Bar Ilan University, Israel

Sessions: Nanomaterials | Mechanics, Characterization Techniques and Equipments
Session Chair: Kyuman Cho, Sogang University, South Korea **Session Co-Chair: Olga Barrera**, University of Oxford, UK

	Session Introduction
10:15-10:35	**Title: Photoelectron spectra of GexSb20Se80-x Glasses** **Li Wang,** Beijing University of Technology, China
10:35-10:55	**Title: Nanocellulose based flexible, environment-friendly nonvolatile resistive switching memory** **Kazuki Nagashima, IMCE Kyushu University, Japan**
	Networking & Refreshments Break 10:55-11:20 @ Foyer
11:20-11:40	**Title: 2D material fluid nanocomposites for reconfigurable integrated optoelectronics and Si photonics** **Anna Baldycheva,** University of Exeter, UK
11:40-12:00	**Title: Supporting titanium on silica, graphene, epoxy graphene and carbon nanotubes: A first-principles study** **Penny Govender,** University of Johannesburg, South Africa
12:00-12:20	**Title: Nanostructure Layered Double Hydroxides (LDH): synthesis, characterization and possible applications** **Maria Richetta,** University of Rome "Tor Vergata", Italy
12:20-12:40	**Title: Nanocrystalline cellulose from abaca fibers** **Anniver Ryan P. Lapuz,** Forest Products Research and Development Institute, Philippines
12:40-13:00	**Title: A high resolution, multi-purpose scanning I/Q-interferometer scheme for material diagnostics** **Kyuman Cho,** Sogang University, South Korea
13:00-13:20	**Title: Coupling diffusion and mechanics modeling for hydrogen embrittlement (HE)** **Olga Barrera,** University of Oxford, UK
	Lunch Break 13:20-14:00 @ Hotel Restaurant
14:00-14:20	**Title: Effects of plasticity and pressure on the morphology and propagation of blisters: formation of croissant and donut-like buckles** **Jérôme Colin,** University of Poitiers, France
14:20-14:40	**Title: Rational design of organic electrode materials: New advances and tools** **Christine Frayret,** Université de Picardie Jules Verne, France
14:40-15:00	**Title: Computational investigation of the kneading process of bread dough** **Natalie German,** Technical University of Munich, Germany
15:00-15:20	**Title: Materials characterization by X ray diffraction techniques** **Aitor Larrañaga Varga,** University of the Basque Country, Spain
15:20-15:40	**Title: Internal stress and friction measurements during MoS_2-nickel electrodeposition** **Ebru Saraloglu Güler,** Baskent University, Turkey
15:40-16:00	**Title: In-situ measurement for ablation geometry during impinging of plume with laser triangulation method** **Juhwan Lim,** Agency for Defense Development, South Korea
	Networking & Refreshments Break 16:00-16:25 @ Foyer
16:25-16:45	**Title: Chemically bonded aramid-MWCNTs nano-composites: Morphology and thermal-mechanical properties** **Zahoor Ahmad,** Kuwait University, Kuwait
16:45-17:00	**Title: The fate, behaviour and effect of WO_3 nanoparticles on the functionality of an aerobic treatment unit** **Sandile Simelane,** University of Johannesburg, South Africa
17:00-17:15	**Title: Flexible synthesis of anatase TiO_2 nanocrystallines for dye-sensitized solar cells applied at regular sunlight and room light conditions** **Yu-Ling Guo,** National Cheng Kung University, Taiwan

17:15-17:30	**Title: Single particle spectroscopic studies on two-photon photoluminescence of plasmon coupled gold nanotriangle dimers** **Monalisa Garai,** National University of Singapore, Singapore
17:30-17:45	**Title: Fiber networks modified with graphene for durable and versatile flexible electronics** **Pietro Cataldi,** Italian Institute of Technology, Italy
17:45-18:00	**Title: Mechanical and thermal properties of propylene glycol extended and paper waste sludge modified polyurethane foams** **Agne Kairytė,** Vilnius Gediminas Technical University, Lithuania
Break-out Session Day 2 @ Olimpica 3	
Sessions: Biomaterials and Medical Devices | Polymer Science and Technology | Ceramics and Composite Materials	
Session Chair: Bing Lu, Wanhua Chemical Group Co. Ltd., China **Session Co-Chair: Loubat Cédric,** Specific Polymers, France	
	Session Introduction
11:20-11:40	**Title: New development and applications of polyurethane materials** **Bing Lu,** Wanhua Chemical Group Co. Ltd., China
11:40-12:00	**Title: Specific Polymers – Alkoxysilane and phosphonic acid functional groups to improve compatibility between inorganic surfaces and polymers** **Loubat Cédric,** Specific Polymers, France
12:00-12:20	**Title: Improving separation of polymers by size-exclusion and liquid chromatography on the background of the theoretical model** **Miloš Netopilík,** Academy of Sciences of the Czech Republic, Czech Republic
12:20-12:40	**Title: Sticky degradable bioelastomers** **Richard Vendamme,** Flemish Institute for Technological research, Belgium
	Special Session on:
12:40-13:20	**Title: Physics versus non-physical ISO/NIST standards in nano, micro and the numerous macro-techniques are detrimental for daily life: what can be done?** **Gerd Kaupp,** University of Oldenburg, German
	Lunch Break 13:20-14:00 @ Hotel Restaurant
14:00-14:20	**Title: Fabrication of Co-Cr alloys for biomedical applications by implementing rapid solidification** **Julio Juarez Islas,** Instituto de Investigaciones en Materiales, Mexico
14:20-14:40	**Title: An enzymatic-based process for the extraction of fibers from diss stems with for composites reinforcement** **Antonio Zuorro,** Sapienza" University of Rome, Italy
14:40-15:00	**Title: Flexible and soft bioelectronics for the biotic/abiotic interface** **Damia Mawad,** University of New South Wales, Australia
15:00-15:20	**Title: Strategies for enhancing interfacial adhesion between chicken feather filler and thermoplastic matrices in biocompositess** **Jorge Macanás de Benito,** UniversitatPolitècnica de Catalunya, Spain
15:20-15:40	**Title: Geometry and size dependent structural reversibility of sub-micrometer polymer structures** **Hong Yee Low,** Singapore University of Technology and Design, Singapore
15:40-16:00	**Title: Perlite metal syntactic foam (PMSF) in impact engineering** **Thomas Fiedler,** University of Newcastle, Australia
	Networking & Refreshments Break 16:00-16:25 @ Foyer
16:25-16:45	**Title: Synthesis and characterization of titanium carbide nanofibers using a modified carbothermal reduction process** **Kanchan Mondal,** Southern Illinois University, USA

16:45-17:05	**Title: Highly dispersed zinc based sorbents for hot gas desulphurization: Synthesis and application** **David Lokhat,** University of KwaZulu-Natal, South Africa
17:05-17:25	**Title: Melt infiltration casting of alumina, silicon carbide and boron carbide reinforced aluminium matrix composites** **Ali Kalkanli,** Middle East Technical Univeristy, Turkey
17:25-17:40	**Title: Biomaterial surface modification to control inflammation: Effect of nanotopography and surface chemistry on protein adsorption and cell response** **Rahul Madathiparambil Visalakshan,** University of South Australia, Australia
17:40-17:55	**Title: High performance rubber concrete** **Samaneh Pourmohammadimojaveri,** Western Sydney University, Australia
17:55-18:10	**Title: Investigation of the microstructure and oxidation properties of NbB2-SiC-GNP composites** **Burak Cagri Ocak,** Istanbul Technical University, Turkey

Poster Presentations (Session 1) 10:55-11:20 @ Foyer

MSE01	**Title: Optoelectronic studies on hybrid perovskites films for solar cells applications** **Mauricio Solis de la Fuente,** Lawrence Berkeley National Laboratory, USA
MSE02	**Title: Valorization of feather wastes as useful and environmental friendly materials** **Marta Casadesús,** Universitat Politècnica de Catalunya, Spain
MSE03	**Title: Manufacturing of gasket sheet using paper manufacturing process without organic solvent** **Yoonjong Yoo,** Korea Institute of Energy Research, Republic of Korea
MSE04	**Title: Visible light driven photo-active nano Ag-TiO_2 for coating applications** **Jia Liang Cheng, Temasek Polytechnic, Singapore**
MSE05	**Title: Preparation of leucite from analcime by ion exchange process: An experimental study** **Qianqian Chang,** China University of Geosciences, China
MSE06	**Title: Preparation and luminescent properties of orange reddish emitting phosphor $KCaBi(PO_4)_2:Sm^{3+}$** **Mi Ruiyu,** China University of Geosciences, China
MSE07	**Title: Synthesis of nano-analcime with potassic hornblende syenite by direct alkali-hydrothermal treatment** **Yuxiang Qi,** China University of Geosciences, China
MSE08	**Title: Angle-insensitive multicolor display device based on phase change materials** **Hongkai Ji,** University of Science and Technology, China
MSE09	**Title: Gate-tunable Schottky junction solar cells with light transparent and electric-field permeable graphene mesh on n-Si** **Won Il Park,** Hanyang University, South Korea
MSE10	**Title: Characterization and stability of TiO_2 nanoparticles in industrial dye stuff effluent** **Langelihle Nsikayezwe Dlamini,** University of Johannesburg, South Africa

Poster Presentations (Session 2) 16:00-16:25 @ Foyer

MSE11	**Title: Effect of binder on adsorption of cesium on silica gel containing embedded phosphotungstic acid** **Aleksey Vasiliev,** East Tennessee State University, USA
MSE12	**Title: A highly efficient photoanode for enhancing degradation of the azo dye and electricity generation of dual-photoelectrode photocatalytic fuel cell** **He Yun,** City University of Hong Kong, China

MSE13	**Title: Preparation of zeolite for slow-release fertilizer using K-feldspar powder** **Jiangyan Yuan,** China University of Geosciences, China
MSE14	**Title: Raman microspectroscopy in dental research** **Tomasz Buchwald,** Poznan University of Technology, Poland
MSE15	**Title: Inverse gas chromatography - A novel method for the examination of bond strength between tooth hard tissues and restorative materials** **Zuzanna Okulus,** Poznan University of Technology, Poland
MSE16	**Title: Study on deposition rate and microstructure of niobium coating prepared by CVD from niobium pentafluoride** **Mingmin Zheng,** State Power Investment Corporation Science and Technology Research Institute, China
MSE17	**Title: Effect of reduced graphene oxide on the mechanical, thermal and electrical properties of epoxy** **Ahmed Alzahrany,** University of Sheffield, United Kingdom
MSE18	**Title: Solar cell: Photochemical cells based on dye sensitization of titanium dioxide and with indium tin oxide as a conductor** **Ari A Mohammed,** University of Zakho, Iraq
MSE19	**Title: Preparation and properties of protective coating on inner surface of nickel-based alloy tube** **Yanhong Liu,** State Power Investment Corporation Science and Technology Research Institute, China
MSE20	**Title: Specific Polymers – Alkoxysilane and phosphonic acid functional groups to improve compatibility between inorganic surfaces and polymers** **Loubat Cédric,** Specific Polymers, France
MSE21	**Title: Response of S-phase to rapid annealing** **Yana Liang,** University of Birmingham, UK
	Panel Discussion

Day 3 June 14, 2017

Olimpica 1

Sessions: Electronic, Optical and Magnetic Materials

Session Chair: Henri Jaffres, Unité Mixte de Physique CNRS, France
Session Co-Chair: Alessandra Vitale, Politecnico di Torino, Italy

	Session Introduction
09:00-09:20	**Title: Electrical spin injection and detection in molybdenum disulfide multilayer channel** **Henri Jaffres,** Unité Mixte de Physique CNRS, France
09:20-09:40	**Title: Microscopic background in metal-insulator criterion for doped Mott-Hubbard materials** **Vladimir A Gavrichkov,** Kirensky Institute of Physics, Russia
09:40-10:00	**Title: An electromagnetic-thermal model for heating patterns prediction of microwave treated palm to contrast the Red Palm Weevil** **Rita Massa,** University Naples Federico II, Italy
10:00-10:20	**Title: Study on chemical reaction under microwave irradiation** **Satoshi Fujii,** Tokyo Institute of Technology, Japan
10:20-10:40	**Title: $L1_0$-FePt based systems for ultra high-density magnetic recording** **Gaspare Varvaro,** ISM-CNR, Italy
10:40-11:00	**Title: Photoluminescent crystalline magnetic materials based on trivalent lanthanide ions and polycyanidometallates** **Szymon Chorazy,** Jagiellonian University, Poland
	Networking & Refreshments Break 11:00-11:15 @ Foyer
11:15-11:35	**Title: Rare-metal-free supermagnet $L1_0$-type FeNi ordered alloy** **Masato Kotsugi,** Tokyo University of Science, Japan

11:35-11:55	**Title: Rare-metal-free high-performance Ga-Sn-O thin film transistor** **Tokiyoshi Matsuda,** Ryukoku University, Japan
11:55-12:15	**Title: Ferroelectricity and magnetism in the organic charge transfer salts k-$(ET)_2X$** **Luca Fausto Tocchio,** Politecnico di Torino, Italy
12:15-12:35	**Title: Materials by design for thermodynamically stable electrides** **Mina Yoon,** University of Tennessee, USA
12:35-12:50	**Title: Intrinsic charge transport in stanene: Role of buckling and electron-phonon coupling** **Yuma Nakamura,** Tsinghua University, China
	Lunch Break 12:50-13:30 @ Hotel Restaurant
	Sessions: Emerging Smart Materials | Materials for Energy and Environmental Sustainability
	Session Chair: Tsvetanka Zheleva, US Army Research Lab, USA **Session Co-Chair: Antonina Pirrotta,** University of Palermo, Italy
	Session Introduction
13:30-13:50	**Title: Materials research in energy and power for defense** **Tsvetanka Zheleva,** US Army Research Lab, USA
13:50-14:10	**Title: A new perspective for analyzing experimental tests on biomaterials** **Antonina Pirrotta,** University of Palermo, Italy
14:10-14:30	**Title: Solar cells efficiency enhancement by plasmons generation** **Alexander Axelevitch,** Holon Institute of Technology, Israel
14:30-14:50	**Title: Sustainable solutions for industrial waste minimization: Environmental and material applications** **Shivani Bhardwaj Mishra,** University of South Africa, South Africa
14:50-15:10	**Title: Quasiparticle approach to study the kinetics of self-assembly in complex material** **Helena Zapolsky,** University of Normandy, France
15:10-15:30	**Title: Screen printable molecular copper ink for printed electronics** **Bhavana Deore,** National Research Council, Canada
	Networking & Refreshments Break 15:30-15:45 @ Foyer
15:45-16:05	**Title: Relation between nanoscale structures and transport phenomena in materials of polymer electrolyte fuel cell** **Takashi Tokumasu,** Tohoku University, Japan
16:05-16:25	**Title: Siloxane photopolymers for PCR microfluidics** **Alessandra Vitale,** Politecnico di Torino, Italy
16:25-16:45	**Title: The quantum Hall effect, the theta angle, instantons and all that** **Adrianus M M Pruisken,** University of Amsterdam, Netherlands
16:45-17:05	**Title: CO_2 adsorption equilibria on calcium exchanged bentonite modified by mono-, di- and triethanolamines** **Ali Elkhalifah,** Al-Neelain University, Sudan
17:05-17:25	**Title: Structural features and functions of ZIF crystals made via a reaction diffusion process at room temperature** **Mohamad Hmadeh,** American University of Beirut, Lebanon
17:25-17:40	**Title: Influence of grain size on super elasticity and actuation properties of Cu-Al-Mn shape memory alloys** **Nazim Babacan,** Ghazi University, Turkey
	Panel Discussion
	Award Ceremony

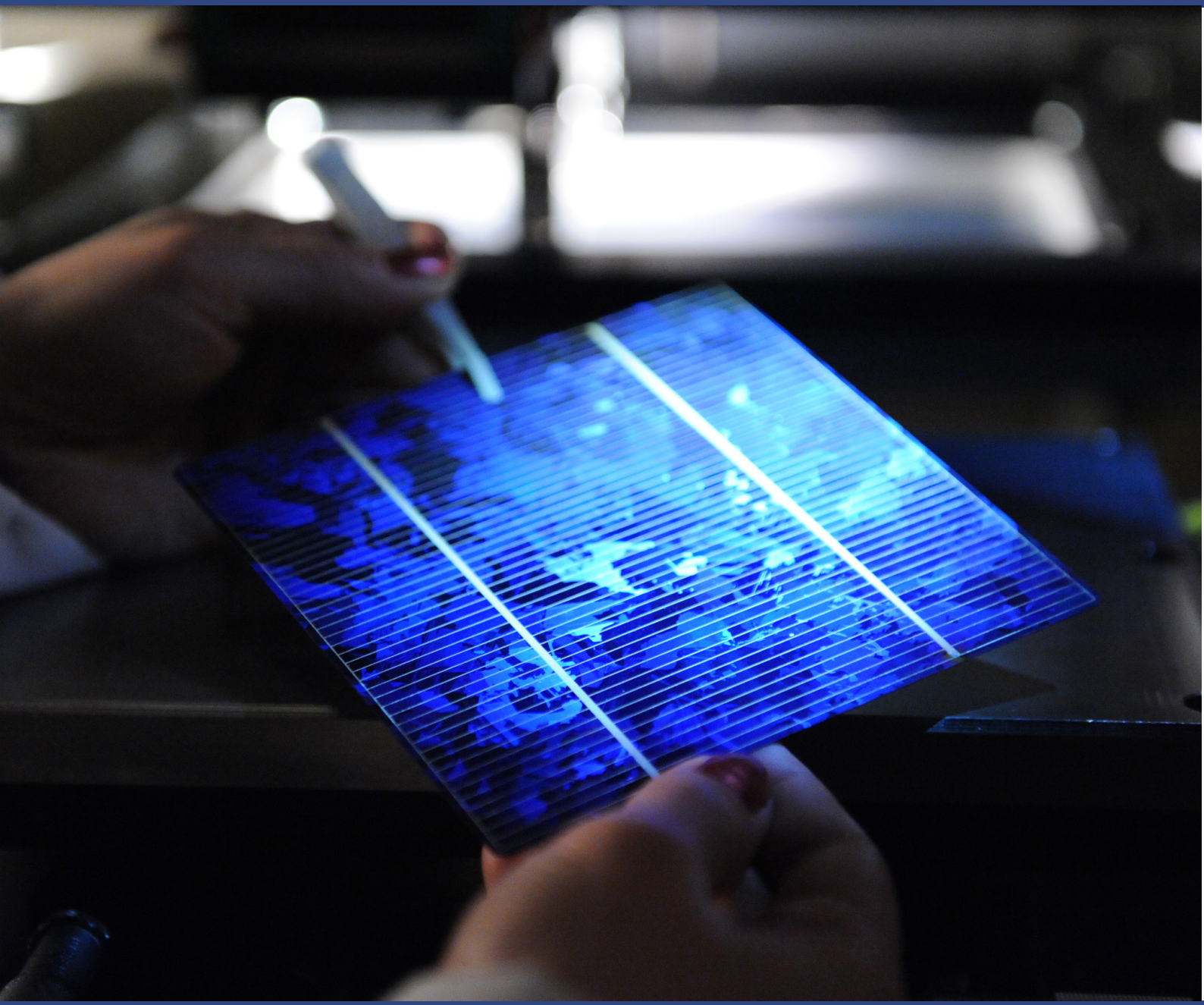
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Day 1 | February 20, 2017 | Monday

07:00-08:00 Registrations

Sylt 3

conferenceseries.com 08:00-08:25 **Opening Ceremony**

Keynote Forum

Introduction

08:25-08:50 **Title: Investigating materials formation with liquid-phase TEM**
Jim De Yoreo, University of Washington, USA

08:50-09:15 **Title: ISO-standards 14577 violate the first energy law: Can we further live with that?**
Gerd Kaupp, University of Oldenburg, Germany

09:15-09:40 **Title: New concept of bioresorbable polymer-based ceramic hybrids for cardiovascular stent applications**
Xiang Zhang, University of Cambridge, UK

09:40-10:05 **Title: Graphene flake and graphene quantum dot-receptor sensor for detecting nerve agents**
Hyoyoung lee, Sungkyunkwan University, Republic of Korea

Coffee Break 10:05-10:20 @ Sylt Foyer

Sessions:
Materials Science and Engineering | Materials in Industry

Session Chair: Hyoyoung lee, Sungkyunkwan University, Republic of Korea
Session Co-Chair: Nekane Guarrotxena, Spanish National Research Council, Spain

Session Introduction

10:20-10:40 **Title: Smart functional nanoscale-hybrid materials: Surface modification and applications**
Nekane Guarrotxena, Spanish National Research Council, Spain

10:40-11:00 **Title: Ductile behavior of hard MoBC and WBC nanolaminated coatings**
Petr Vasina, Masaryk University, Czech Republic

11:00-11:20 **Title: Dynamics of single ions and molecules at the surface of solids in solution**
Kislon Voitchovsky, Durham University, UK

11:20-11:40 **Title: Design and evaluation of new ligands with highly extractability and selectivity for palladium from secondary raw material**
Emad Mowafy, University of Hail , Saudi Arabia

11:40-12:00 **Title: Evaluating mechanical properties of complex material structures from a new combination of calotte grinding and indentation tests**
Nick Bierwisch, Saxonian Institute of Surface Mechanics, Germany

12:00-12:20 **Title: Optimizing electrical conductivity and optical transparency of IZO thin film deposited by radio frequency (RF) magnetron sputtering**
Lei Zhang, Winston Salem State University, USA

12:20-12:40 **Title: Fabrication, optical and thermal properties of glass and crystalline rare-earth aluminates**
Vijaya Kumar, University of Mysore, India

12:40-13:00 **Title: Effect of process parameters and post heat treatment in the development of microalloyed HSLA tubes for torsional applications**
Thendralarasu Udhayakumar, Tube Investments of India Ltd, India

Lunch Break 13:00-13:30 @ Restaurant Rienacker

13:30-13:50 **Title: Effect of process parameters and post heat treatment in the development of microalloyed HSLA tubes for torsional applications**
Elakkiya Mani, Tube Investments of India Ltd, India

13:50-14:05	**Title: Graphite based minimum quantity dry lubrication at drilling CFRP** **Robert Beckenlechner,** University of Stuttgart, Germany
14:05-14:20	**Title: Insights into linear supramolecular polymer formation via TPE and BODIPY containing host-guest interaction** **Chinmayananda Gouda,** National Chiao Tung University, Taiwan

Sessions:
Nanomaterials | Biomaterials and Healthcare

Session Chair: Nikolay Ledentsov, VI Systems GmbH, Germany
Session Co-Chair: Yongmei Zheng, Beihang University, China

	Session Introduction
14:20-14:40	**Title: Recent progress in epitaxial quantum dots for lasers and light emitting diodes** **Nikolay Ledentsov,** VI Systems GmbH, Germany
14:40-15:00	**Title: Functional metal-ceramic nanocomposites based on tubule clay** **Yuri Lvov,** Louisiana Tech University, USA
15:00-15:20	**Title: Characterization of nanosuspension using pulsed field gradient nuclear magnetic resonance** **Haruhisa Kato,** National Institute of Advanced Industral Science and Technology, Japan
	Coffee Break 15:20-15:35 @ Sylt Foyer
15:35-15:55	**Title: Engineering optical Raman active nanoassemblies for nanosensor purposes** **Nekane Guarrotxena,** Spanish National Research Council, Spain
15:55-16:15	**Title: Mechanical and topographical characterization of biomaterials, cells and tissues by enhanced atomic force microscopy** **Jörg Barner,** JPK Instruments AG, Germany
16:15-16:35	**Title: Soft thermal nanoimprint lithography** **Mark Schvartzman,** Ben-Gurion University of the Negev, Israel
16:35-16:55	**Title: Bioinspired gradient surfaces with controlling of dynamic wettability** **Yongmei Zheng,** Beihang University, China
16:55-17:15	**Title: EHDA technology utilizing different bio-structure** **Rita Haj Ahmad,** De Montfort University, UK
17:15-17:35	**Title: Electrochemical and biosynthesis of Nano-Photocatalytic materials and its applications in photovoltaic, anti-bacterial, anti-cancer and in preparation of polymer composites** **Sannaiah Ananda,** University of Mysore, India
17:35-17:55	**Title: Synthesis and characterization of single-crystal bismuth telluride nanowires** **Ming Yau Chern,** National Taiwan University, Taiwan
17:55-18:15	**Title: Iriartea deltoidea & Socratea exhorriza: Sustainable production alternatives for integrated Biosystems, first stage - bioconstruction.** **Lina Fernanda Mojica Sánchez,** CIAM-UNIMETA, Colombia
18:15-18:30	**Title: On-demand release of paclitaxel and 5-flourouracil using thermoresponsive poly(NIPAAm-co-HMAAm)/polyurethane partnered with alternating magnetic field induced hyperthermia on non-vascular nitinol stent** **Ludwig Erik Aguilar,** Chonbuk National University, South Korea
18:30-18:45	**Title: Reversible and irreversible self-folding behavior of water responsive poly (vinyl alcohol) films** **Amrita Rath,** Indian Institute of Technology Madras, India
18:45-19:00	**Title: Doxorubicin conjugated Fe_3O_4-GQD nanoparticle for magnetically targeted and ph responsive drug delivery vehicle: a two way targeted approach** **Ankan Dutta Chowdhury,** National Chiao Tung University, Taiwan
	Panel Discussion

Sylt 3

Keynote Forum

08:00-08:25 **Title: Hybrid photovoltaic-piezoelectric flexible device for energy harvesting from nature**
Elias Siores, University of Bolton, UK

08:25-08:50 **Title: The decomposition of the solution during the formation of eutectic composites**
Alex guskov, Institute of Solid State Physics of RAS, Russia

08:50-09:15 **Title: Designing topological states by pressure, strain and functionalization**
Udo Schwingenschloegl, King Abdullah University of Science & Technology,Saudi Arabia

09:15-09:40 **Title: Graphene/h-BN heterostructures based field effect transistors employing chemical vapor deposition grown h-BN as a dielectric layer**
Dae Joon Kang, Sungkyunkwan University, Republic of Korea

Sessions:
Materials Chemistry | Materials Physics | Energy Materials

Session Chair: Claude Delmas, University of Bordeaux, France
Session Co-Chair: Zhiqiang Gao, National University of Singapore, Singapore

Session Introduction

09:40-10:00 **Title: Solid state electrochemistry: A tool for synthesis and characterization of solids**
Claude Delmas, University of Bordeaux, France

10:00-10:20 **Title: Chemical effects on metals friction at the nanometer scale**
Arnaud Caron, KoreaTech, Republic of Korea

10:20-10:40 **Title: Graphene oxide supported layered double hydroxide hybrids: Synthesis and applications**
Mohamed Mokhtar Mohamed Mostafa, King Abdulaziz University, Saudi Arabia

Coffee Break 10:40-10:55 @ Sylt Foyer

10:55-11:15 **Title: Approaches to reduce material consumptions in photovoltaics**
Martha Ch. Lux-Steiner, Helmholtz-Zentrum Berlin, Germany

11:15-11:35 **Title: Imaging electrons motion in semiconductor materials**
Michael K L Man, Okinawa Institute of Science and Technology Graduate University, Japan

11:35-11:55 **Title: Neutron scattering investigations of hydrogen storage in porous materials**
Margarita Russina, Helmholtz Centre Berlin for Material and Energy Research, Germany

11:55-12:15 **Title: Development of novel organic radical batteries**
Shinichi Nakatsuji, University of Hyogo, Japan

12:15-12:35 **Title: A dual-carbon phase modified and nanostructured nickel sulfide anode for sodium-ion batteries**
Zhiqiang Gao, National University of Singapore, Singapore

12:35-12:55 **Title: Hierarchical conducting polymers micro/nanostructures and their electrochemical energy conversion**
Ying Zhu, Beihang University, China

12:55-13:10 **Title: Environmental benign graphene quantum dots embedded halloysite nanotubes as high performance supercapacitor electrode material**
Akhilesh Babu Ganganboina, National Tsing Hua University, Taiwan

Lunch Break 13:10-13:40 @ Restaurant Rienacker

Sessions:

Metallurgy and Materials Science | Advanced Materials and Devices | Characterization and Testing of Materials

Session Chair: Mikhail Lebyodkin, CNRS, France
Session Co-Chair: Mihaela Albu, Graz Centre of Electron Microscopy, Austria

	Session Introduction
13:40-14:00	**Title: Development of solar grade silicon refining via metallurgical route: Thermodynamic properties of silicon based alloys** **Kazuki Morita,** The University of Tokyo, Japan
14:00-14:20	**Title:Controlling microstructure via thermal science analysis during resistance spot welding** **Peng-Sheng Wei,** National Sun Yat-Sen University, Taiwan
14:20-14:40	**Title: Light-induced superconductivity in an organic mott insulator induced by light-driven carrier doping** **Masayuki Suda,** Institute for Molecular Science, Japan
14:40-15:00	**Title: Large tunnel magnetocapacitance in magnetic tunnel junctions** **Hideo Kaiju,** Hokkaido University, Japan
15:00-15:20	**Title: Crack-closing of superelastic NiTi SMA short fibers in mortar beams** **Eunsoo Choi,** Hongik University, Korea
15:20-15:40	**Title: Correlated versus random behavior of dislocations in jerky flow of Al-Mg alloys** **Mikhail Lebyodkin,** CNRS, France
15:40-16:00	**Title: The development of smart materials for medical applications using laser scanning micrometry** **Daniel Melling,** University of Dundee, UK
16:00-16:20	**Title: Quantum contact mechanics for holistic material optimization** **Norbert Schwarzer,** Saxonian Institute of Surface Mechanics, Germany
	Coffe Break 16:20-16:35 @ Sylt Foyer
16:35-16:55	**Title: Magnetic characterization of the phase transformations during synthesis of the $FeWO_4$ nanoparticles using WS_2 nanotubess** **Gregory Leitus,** Weizmann Institue of Science, Israel
16:55-17:15	**Title: Advanced alloys and steels microstructure characterization by analytical high resolution scanning transmission electron microscopy** **Mihaela Albu,** Graz Centre of Electron Microscopy, Austria
17:15-17:35	**Title: Evaluation of liquid tin corrosion on austenitic steels as well as nickel-based alloys and first tests on possible protective surface layers at high temperature** **Thomas Emmerich,** Karlsruher Institute of Technology, Germany
	Workshop
17:35-18:35	**Title: Correlative and *in-situ* Materials Characterization** **Said Mansour,** Hamad Bin Khalifa University, Qatar **Mathias O. Mosig,** Protochips, USA **Philipp Wachsmuth,** JEOL, Germany
	Session Introduction
18:35-18:55	**Title: Optimization of sustainable cutting conditions in turning carbon steel by CNC turning machine** **Haider M. Mohammad Albu-Swelim,** University of Basrah, Iraq
18:55-19:15	**Title: Enhancement the mechanical properties of aluminum casting alloys (A356) by adding nanorods structures from zinc oxide** **Zaid S Qassim,** University of Basrah, Iraq

19:15-19:35	**Title: Prediction of hardness, yield strength, and tensile strength for single roll melt spinning of 5083 Al-alloy ribbons** **Ahmad Kadhim Jassim Al-Dawod,** University of Basrah, Iraq
19:35-19:55	**Title: Comprehensive study of chemical synthesis and dielectric parameters of holmium substituted yttrium iron garnets (HoxY3-xFe5O12, x=0.1, 0.3, 0.6, 0.9, 1.2, 1.5) prepared by conventional ceramic method** **Kausar Javed Khan,** Lahore College for Women University, Pakistan
19:55-20:10	**Title: Water content dependent mechanical properties of biopolymer thin films: A molecular dynamics study** **Santhosh Mathesan,** IIT Madras, India

Poster Presentations on Day 2 (February 21, 2017) 16:20-16:35 @ Sylt Foyer

MSC-01	**Title: Predictive wear modelling - The ultimate simulation tool for optimum tribo coatings** **Nick Bierwisch,** Saxonian Institute of Surface Mechanics, Germany
MSC-02	**Title: Synthesis and characterization of conductive polymer hydrogels and the investigation of their application as biosensor hybrid for catechol detection** **Ezer Castillo,** Adelphi University, USA
MSC-03	**Title:Dynamic response of a modified water tank exposed to concentrated solar energy** **Mohammed H. Alhamdo,** University of AlMustansirya, Iraq
MSC-04	**Title: Experimental study of the thermal behavior of heated natural composite material** **Qasim Saleh Mahdi,** AL-Mustansiryah University, Iraq
MSC-05	**Title: Engineering of multi-functional composite nano-particles to address anti-microbial resistance using EHDA particle technology** **Suleman Ramzan,** De Montfort University, UK
MSC-06	**Title: Rare earth Chalcogels NaLnSnS4 (Ln= Y, Gd, Tb) for Selective Adsorption of Volatile Hydrocarbons and Gases** **Fatimah Edhaim,** King Abdullah University of Science & Technology, SA
MSC-07	**Title: On the friction and wear on-set of fcc metals by atomic force microscopy** **Hui-Eun Ko,** KoreaTech, Republic of Korea

Panel Discussions

End Of Day 2

Closing Ceremony

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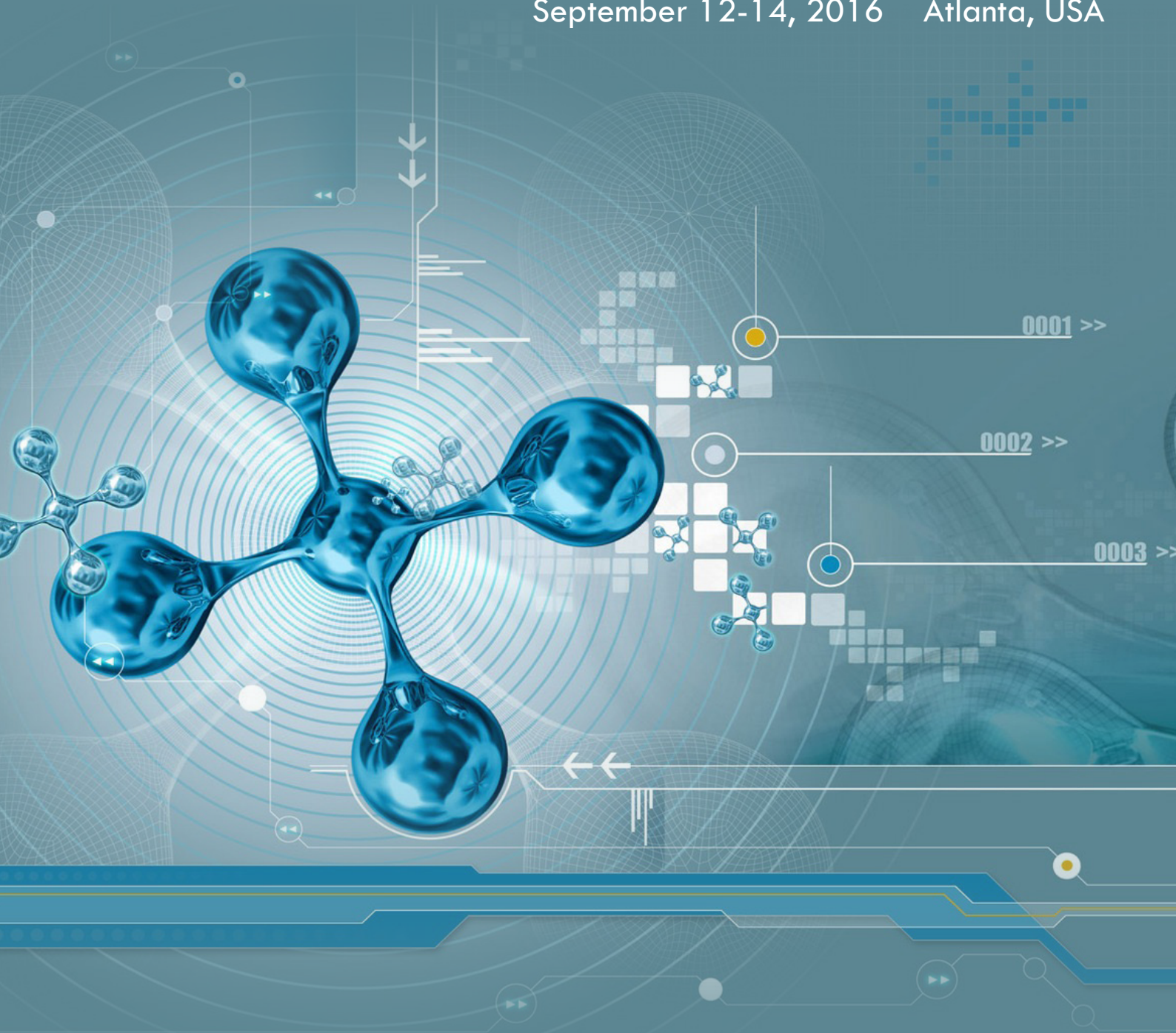
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Day 1 September 12, 2016

08:00-09:00 Registrations

Chattahooche-A

conferenceseries.com 09:00-09:25 **Opening Ceremony**

Keynote Forum

09:25-09:30 **Introduction**

09:30-09:55 **Title: Small things offer big promise**
Carlo Montemagno, University of Alberta, Canada

09:55-10:20 **Title: Materials and processing opportunities and challenges for transformation of global electricity infrastructure**
Rajendra Singh, Clemson University, USA

10:20-10:45 **Title: Heat resistant engineering materials for industrial application**
Zofia Niemczura, Arcelormittal Global R&D, USA

Group Photo @ Chattahooche-A

Networking & Refreshments Break: 10:45-11:00 @ Foyer

11:00-11:25 **Title: A multi-layered composite ensuring harmless to the human body and implant longevity of hip prosthesis in orthopedics**
Masaru Matsuo, Dalian University of Technology, China

Sessions:
Materials Science and Engineering | Computational Materials Science | Polymer Technology

Session Chair: Matthew E Edwards, Alabama A&M University, USA
Session Chair: Michael F Herman, Tulane University, USA

Session Introduction

11:25-11:45 **Title: Electrical conduction mechanism of volume and surface resistivities of multi-walled carbon nanotubes doped polyvinyl alcohol (PVA) and the pyroelectric behavior of polyvinylidene difluoride (PVDF) thin films**
Matthew E Edwards, Alabama A&M University, USA

11:45-12:05 **Title: An approximate semiclassical method that uses real valued trajectories for time dependent tunneling calculations**
Michael F Herman, Tulane University, USA

12:05-12:25 **Title: Tuning electrical conductivity with photoirradiation and electric field in organic crystals and ionic solids**
Nobuhiro Ohta, National Chiao Tung University, Taiwan

12:25-12:45 **Title: Fine-controlled subano-metal particles in a dendrimer reactor**
Kimihisa Yamamoto, Tokyo Institute of Technology, Japan

12:45-13:05 **Title: Study of the adsorption of simple molecules on metal oxides by ab initio calculations. Application to the detection of gas**
Caroline Lambert-Mauriat, Aix Marseille Université, France

13:05-13:25 **Title: *In situ* investigations of particle-mediated crystal growth**
Dongsheng Li, Pacific Northwest National Laboratory, USA

Lunch Break 13:25-14:05 @ Foyer

14:05-14:25 **Title: Terahertz laser sources based on difference frequency generation of infrared nonlinear optical materials $SnGa_4Q_7$ (Q = S, Se)**
Wen-Dan Cheng, Chinese Academy of Sciences, China

14:25-14:45	**Title: Microstructure and mechanical properties of a low C medium Mn heavy plate steel** **Lin-Xiu Du**, Northeastern University, China
14:45-15:05	**Title: Microstructure and mechanical property of vacuum rolled Ni-based alloy/pipeline steel clad plate** **Guang-ming XIE**, Northeastern University, China

Panel Discussion 15:05-15:10

Memento Presentation to Organizing Committee Members

Session Chair: Jun Ding, National University of Singapore, Singapore
Session Chair: Hideo Miura, Tohoku University, Japan

Session Introduction

15:10-15:30	**Title: Spinel ferrite films with enhanced magnetization and large magneto-resistance** **Jun Ding**, National University of Singapore, Singapore
15:30-15:50	**Title: Degradation of crystallinity and properties of advanced functional materials caused by anisotropic local diffusion of component atoms under severe operating conditions** **Hideo Miura**, Tohoku University, Japan
15:50-16:10	**Title: A high-entropy alloy with ultrahigh ductility breaks strength-ductility paradox** **Yonghao Zhao**, Nanjing University of Science and Technology, China
16:10-16:30	**Title: Research on the optimization mechanism of loading path for hydroforming process** **Zong-an LUO**, Northeastern University, China

Networking & Refreshments Break: 16:30-16:45 @ Foyer

16:45-17:05	**Title: Process research on the stainless steel / low alloy steel clad plate prepared by vacuum hot rolling** **Feng Ying-ying**, Northeastern University, China

Young Research Forum

17:05-17:20	**Title: On sample structure for fabricating micro-material by electromigration** **Yasuhiro Kimura**, Tohoku University, Japan
17:20-17:35	**Title: Tailoring surface charge to antifouling applications** **Guo Shanshan**, National University of Singapore, Singapore

Panel Discussions 17:35-18:00

Day 2 September 13, 2016

Chattahooche-A

Keynote Forum

08:55-09:00	**Introduction**
09:00-09:25	**Title: Recent progress in acoustic metamaterials membranes for low frequency sound attenuation** **Ramesh K Agarwal**, Washington University in St. Louis, USA
09:25-09:50	**Title: Nanostructured functional organic materials synthesized by a laser irradiation method for applications of molecular devices and high-sensitive sensors** **Masahiro Goto**, National Institute for Materials Science, Japan

Sessions:
Nanotechnology in Materials Science | Energy Materials | Emerging Areas of Materials Science and Nanotechnology

Session Chair: Rajendra Bordia, Clemson University, USA
Session Chair: Masumi Saka, Tohoku University, Japan

Session Introduction

09:50-10:10	**Title: Analysis and simulation guided processing of hierarchical porous and multi-layered ceramics for energy applications** **Rajendra Bordia**, Clemson University, USA
10:10-10:30	**Title: Effect of passivation on suppression or utilization of atomic migration phenomena in metallic thin-film materials** **Masumi Saka**, Tohoku University, Japan

Networking & Refreshments Break: 10:30-10:45 @ Foyer

10:45-11:05	**Title: Fabrication of aluminum matrix composites with nano-sized reinforcements via friction stir processing** **Zong-yi Ma**, Chinese Academy of Sciences, China
11:05-11:25	**Title: Synthesis and preparation of nanocomposites of metal oxide and metal sulphide by electrochemical, hydrothermal and biological method: Its application for polymer nanocomposites, antibacterial, photo-voltaic and as photocatalyst** **Sannaiah Ananda**, University of Mysore, India
11:25-11:45	**Title: Energy storage material** **Subramanian Selladurai**, Anna University, India
11:45-12:05	**Title: Micro-beam laser ablation/mass spectrometry for materials depth-profiling and elemental surface distribution studies – Polymers, waxes, asphaltenes, steels** **Avin Pillay**, The Petroleum Institute, UAE
12:05-12:25	**Title: Synthesis of carbon hollow spheres by a modified hydrothermal carbonization method** **Mingli Qin**, University of Science and Technology Beijing, P.R. China
12:25-12:45	**Title: Transmission electron microscopy – A versatile tool to study the microstructure of HT-PEMFC** **Christina Scheu**, Max-Planck-Institute, Germany
12:45-13:05	**Title: Hollow polydopamine nanoparticles loaded ionic liquid and doxorubicin for combined chemotherapy and microwave thermal therapy of cancer** **Tianlong Liu**, Chinese Academy of Sciences, P. R. China
Panel Discussions 13:05-13:10	
Memento Presentation to Organizing Committee Members	
Lunch Break 13:10-13:55 @ Foyer	
Session Chair: Avin Pillay, The Petroleum Institute, UAE **Session Chair: Zong-yi Ma**, Chinese Academy of Sciences, China	
Session Introduction	
13:55-14:15	**Title: Large pulsed electron beam surface treatment of woven carbon fiber/ZnO nanorod/polyester resin composites** **Hyung Wook Park**, Ulsan National Institute of Science and Technology, Rep. of Korea
14:15-14:35	**Title: The design, synthesis and application of microwave susceptible agents for tumor microwave thermotherapy based on confinement mechanism** **Xianwei Meng**, Chinese Academy of Sciences, China
14:35-14:55	**Title: Synthesis and characterization of hybrid nanoparticles for biomedical and environmental remediation applications** **Soubantika Palchoudhury**, University of Tennessee, USA
14:55-15:15	**Title: Luminescent periodic microstructures for medical applications** **Kenta Miura**, Gunma University, Japan
15:15-15:35	**Title: Alumina-based nanocomposites using graphite nanoplatelets as reinforcement** **Syed Nasimul Alam**, National Institute of Technology Rourkela, India
15:35-15:55	**Title: $BiVO_4$ and WO_3 nanophotocatalysts: Water-splitting and environmental applications** **G. T. Chandrappa**, Bangalore University, India
15:55-16:15	**Title: Null current hysteresis for acetylacetonate based perovskite solar cells as electron extraction layer** **Abd. Rashid bin Mohd Yusoff**, Kyung Hee University, South Korea
Networking & Refreshments Break: 16:15-16:30 @ Foyer	
16:30-16:50	**Title: Nitrogen doping into ZnO branched nanowire by plasma treatment and its effect on photo electrochemical performance** **Shrok Allami**, Ministry of Science and Technology, Iraq
Young Research Forum	
16:50-17:05	**Title: Polymeric nanocomposites gate dielectric for organic thin film transistors** **Davoud Dastan**, Savitribai Phule Pune University, India

17:05-17:20	**Title: Engineered metal oxide nanoparticles, nano-bio interaction and toxicology** **Avnika S Anand,** Defence Research and Development Organization, India
17:20-17:35	**Title: Density functional theory calculations for the electronic, magnetic, and chemical bonding properties of geometrically frustrated spinel $CdCr_2O_4$** **Najmeh Bolandhemat,** Universiti Putra Malaysia, Malaysia

Panel Discussions 17:35-17:40

Poster Presentations: 17:30-18:15 @ Foyer

MSE-01	**Title: A study of natural radioactivity in the welding workshops waste** **Zain M Al-Amoudi,** King Abdulaziz University, Saudi Arabia
MSE-02	**Title: Synthesis of polymer composites thin films of Cr_2O_3 nanoparticles and study of its optical and electrical properties** **Venkatesha B M,** University of Mysore, India
MSE-03	**Title: Solid state decarburization of high carbon ferrochromium** **Amit Bhalla,** University of Witwatersrand, South Africa
MSE-04	**Title: Synthesis of vanadium oxide/carbon nanotubes for anodes for lithium-ion batteries** **Baorui Jia,** University of Science and Technology Beijing, P R China
MSE-05	**Title: Analysis of valonia oak (*Quercus aegylops*) acorn tannin and wood adhesives application** **Fatmah Bahabri,** King Abdulaziz University, Saudi Arabia
MSE-06	**Title: Rate-dependent hardening model for HCP metals with effect of deformation twinning and dynamic recrystallization** **Jonghun Yoon,** Hanyang University, South Korea
MSE-07	**Title: Effect of gamma irradiation on the structural and color properties of CR 6-2 polycarbonate** **Mymona Abutalib,** King Abdulaziz University, Saudi Arabia
MSE-08	**Title: Corrosion inhibition effects of Tungstate and Nitrite ions on sputter-deposited nanocystalline W–42Cr–5Ni Alloy in 0.5 M NaCl solution** **Durga Bhakta Pokharel,** Tribhuvan University, Nepal
MSE-09	**Title: Vanadium nitride nanoparticles encapsulated in carbon sheets for stable high energy lithium ion anodes** **Haoyang Wu,** University of Science and Technology Beijing, China
MSE-10	**Title: An intelligent electronic control unit to limit vehicle speed** **Srivas M C,** B M S College of Engineering, India

Best Poster Award Presentation

Day 3 September 14, 2016

Chattahooche-A

Keynote Forum

08:55-09:00	**Introduction**
09:00-09:25	**Title: Generating efficient and tunable white light using electronically coupled nanocrystal and molecular building blocks** **Pavle V Radovanovic,** University of Waterloo, Canada
09:25-09:50	**Title: The scientific adventure of packing: From space saving to material design** **Ho-Kei Chan,** Harbin Institute of Technology, Shenzhen, China

Sessions:
Mining, Metallurgy and Materials Science | Surface Science and Engineering | Biomaterials and Tissue Engineering | Materials Chemistry and Physics | Electrical, Optical and Magnetic Materials

Session Chair: Padmaja Guggilla, Alabama A&M University, USA
Session Chair: Nezar H Khdary, King Abdulaziz City for Science and Technology, Saudi Arabia

	Session Introduction
09:50-10:10	**Title: Effects of ionic irradiation on PMN-PT ferroelectric materials for space applications** **Padmaja Guggilla,** Alabama A&M University, USA
10:10-10:30	**Title: Super high surface area mesoporous carbon for arsenic removal from ground water** **Nezar H Khdary,** King Abdulaziz City for Science and Technology, Saudi Arabia
	Networking & Refreshments 10:30-10:45 @ Foyer
10:45-11:05	**Title: Effect of tempering time on strength and toughness of a ultra-low C medium Mn steel** **Hong-Yan Wu,** Northeastern University, China
11:05-11:25	**Title: Soft nanomaterials of POSS-based copolymer for stone arts conservation** **Ling He,** Xian Jiaotong University, China
11:25-11:45	**Title: Dielectric study of hydrogen sulphate ($AHSO_4$ and $BHSO_4$ A= Sodium, B= Potassium) crystals** **Azha Periasamy,** Bharathiar University, India
11:45-12:05	**Title: Generato retaining ring steel(Mn18Cr18N) prepared by powder metallurgy** **Shubin Ren,** University of Science and Technology Beijing, China
12:05-12:25	**Title: Biocompatibility and human osteoblast response to template-assisted electrohydrodynamic atomized interlocked ceramic patterns on curved 3D metallic substrates for medical implants** **Anouska Nithyanandan,** University College London, United Kingdom
	Panel Discussions 12:25-12:35
	Memento Presentation to Organizing Committee Members
	Lunch Break 12:35-13:35 @ Foyer
	Session Chair: Sampath Kumar M C, B.M.S. College of Engineering, India **Session Chair: Veena Prasad,** Centre for Nano and Soft Matter Sciences, India
	Session Introduction
13:35-13:55	**Title: Application of cleaner development mechanisms** **Sampath Kumar M C,** B.M.S. College of Engineering, India
13:55-14:15	**Title: Azo substituted achiral bent-core liquid crystals: photo-induced studies in B_7 and B_2 mesophases** **Veena Prasad,** Centre for Nano and Soft Matter Sciences, India
14:15-14:35	**Title: Mechanically deformable and programmable nanoscale surface textures with tunable wetting and mechanical properties** **Wei Li Lee,** Massachusetts Institute of Technology, USA
14:35-14:55	**Title: The study of fatigue property of S500LF wheel spoke steel** **Cai-Ru GAO,** Northeastern University, China
14:55-15:15	**Title: A low-C 5-Mn ultra-heavy plate steel with high microstructural homogeneity and excellent strength - toughness combination** **Jun Hu,** Northeastern University, China
15:15-15:35	**Title: Characterization of plasma sprayed CNT reinforced alumina coatings on ASME-SA213-T91 boiler tube steel** **Buta Singh Sidhu,** IKG Punjab Technical University, India
15:35-15:55	**Title: Parametric investigations into manufacturing of magnetic abrasives by sintering process** **Balkar Singh,** IKG-Punjab Technical University, India
	Young Research Forum
15:55-16:10	**Title: Fracture toughness of austenitic stainless steel welds for ultra-high vacuum and cryogenic applications** **Ignacio Aviles Santillana,** CERN, Switzerland
16:10-16:20	**Title: Synthesis and luminescence properties of pyrophosphate phosphors doped with rare earth** **Wafa Hami,** Cadi Ayyad University, Morocco
	Panel Discussions 16:20-16:25
	Special Appreciation Awards
	Refreshments 16:30 onwards @ Foyer