

<b>Monday November 16 Room Napa CD</b>		
8:10-8:25 AM	Opening Ceremony	
<b>Session: EMN General Workshop on Energy Chair: Qing Cao</b>		
8:25-8:50 AM	CD01: Towards IT-SOFC using PVD processes	<b>Alain Billard</b> Université de Technologie de Belfort-Montbéliard, France P01
8:50-9:15 AM	CD02: Solar Power Conversion Efficiency >30% Using Novel Optical and Plasmonic Structures	<b>Jeremy Munday</b> University of Maryland, USA P01
9:15-9:40 AM	CD03: Backside-illuminated CMOS photovoltaic devices for implantable biomedical applications	<b>Yung-Jr Hung</b> National Sun Yat-sen University Taiwan, China P02
9:40-10:05 AM	CD04: Mapping the functionality of solar cells with nanoscale spatial resolution	<b>Marina S. Leite</b> University of Maryland, USA P03
10:05-10:25 AM	Session Break	
<b>Session: CNTs, Graphene and 2D Materials I Chair: Alain Billard</b>		
10:25-10:50 AM	CD05: The Origins and Characteristics of the Threshold Voltage Variability of Quasi-Ballistic Single-Walled Carbon Nanotube Field-Effect Transistors	<b>Qing Cao</b> IBM T. J. Watson Research Center, USA P03
10:50-11:15 AM	CD06: Fabrication and Modeling of Carbon-Aluminum Composites Inspired By Nacre Structure	<b>Yishi Su</b> Shanghai Jiao Tong University, China P04
11:15-11:40 AM	CD07: Graphene based nanocomposites and their applications	<b>Junmin Xue</b> National University of Singapore, Singapore P05
11:40-12:05 PM	CD08: Advanced photovoltaic approaches to increase efficiency beyond the Shockley-Queisser Limit	<b>Gavin Conibeer</b> University of New South Wales, Australia P05
12:05-13:30 PM	Lunch Break	

<b>Monday November 16</b>		
<b>Room Napa B</b>		
<b>Session: CNTs, Graphene and 2D Materials II Chair: Di Zhang</b>		
13:30-13:55 PM	B01: Two-dimensional and one-dimensional organic ferroelectrics by design	<b>Axel Enders</b> University of Nebraska, USA P07
13:55-14:20 PM	B02: Tuning synthesis between carbon nano-tubes, carbon nano-onions and graphene	<b>Marius Enachescu</b> University POLITEHNICA of Bucharest, Romania P08
14:20-14:45 PM	B03: Advances in the Synthesis of Single Wall Carbon Nanotubes by the Water-Assisted CVD Method	<b>Don Futaba</b> National Institute of Advanced Industrial Science and Technology, Japan P08
14:45-15:10 PM	B04: Functional ultrathin films of single-walled carbon nanotubes	<b>Raj Kumar Gupta</b> Birla Institute of Technology & Science, Pilani, India P09
15:10-15:25 PM	Session Break	
<b>Session: Functional Materials I Chair: Axel Enders</b>		
15:25-15:50 PM	B05: Functional materials templated from nature species	<b>Di Zhang</b> Shanghai Jiao Tong University, China P10
15:50-16:15 PM	B06: Tuning and exploiting the semiconductor-to-metal phase transition characteristics of VO <sub>2</sub> thin films for energy-efficient infrared and terahertz devices	<b>Nicolas Emond</b> INRS-EMT, Canada P11
16:15-16:40 PM	B07: Sensor Response of SnO, Sn <sub>3</sub> O <sub>4</sub> and SnO <sub>2</sub> nanostructures	<b>Marcelo O. Orlandi</b> Universidade Estadual Paulista, Brazil P12
16:40-17:05 PM	B08: Novel metal-graphene composites for automotive, aircraft and energy application: method and properties	<b>Liudmila Yolshina</b> Russian Academy of Sciences, Moscow, Russia P13

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17:05-17:30 PM	B09: Fabrication of Porous Carbon with Small Mesopores for High Rate Electric Double Layer Capacitors	<b>Danmiao Kang</b> Shanghai Jiao Tong University, China P14
18:00 PM	Dinner Social	

<b>Tuesday November 17</b>		
<b>Room Napa A</b>		
<b>Session: EMN General Workshop on Nanotechnology</b>		<b>Chair: Chris Leighton</b>
8:00-8:25 AM	A01: Novel Spintronic Devices for Embedded Spin-based Memories and Non-volatile Computing	<b>Siegfried Selberherr</b> Technische Universität Wien, Austria P15
8:25-8:50 AM	A02: Improved magnetoelectric characteristics in Mn doped multiferroic ceramics	<b>Pratap Kollu</b> University of Cambridge, UK P16
8:50-9:15 AM	A03: Metallic nano-structures in lattice fabricated by interfering laser processing technique	<b>Yoshiki Nakata</b> Osaka University, Japan P17
9:15-9:40 AM	A04: Enhancing mechanisms of optical activity of chiral molecules adsorbed in metallic nanoparticles	<b>Cecilia Noguez</b> Universidad Nacional Autonoma de Mexico, Mexico P18
9:40-10:05 AM	A05: Light management technology by metamaterials for energy devices	<b>Wakana Kubo</b> Metamaterials Laboratory, Japan P18
10:05-10:25 AM	Session Break	
<b>Session: Functional Materials II</b>		<b>Chair: Siegfried Selberherr</b>
10:25-10:50 AM	A06: Electronic Transport in the High Room Temperature Mobility Oxide Semiconductor BaSnO <sub>3</sub>	<b>Chris Leighton</b> University of Minnesota, USA P19
10:50-11:15 AM	A07: Thermal spin injection and thermoelectric effects in nanoscale metallic non local spin valves	<b>Barry L. Zink</b> University of Denver, USA P20
11:15-11:40 AM	A08: Towards p-type transparent conductive oxides based on delafossite structure	<b>Frederic Sanchette</b> Université de Technologie de Troyes, France P21

11:40-12:05 PM	A09: Hybrid Structures Towards Non-Volatile Random Access Memory	<b>M. A. García-Ramírez</b> Research Centre for Innovation in Aerospace Engineering, Mexico P21
12:00 - 13:30 PM	Lunch Break	
<b>Session: CNTs, Graphene and 2D Materials III Chair: Nan Jiang</b>		
13:20-13:45 PM	A10: Novel Layered Materials for High Performance Flexible Supercapacitors	<b>Ram Gupta</b> Pittsburg State University, USA P23
13:45-14:10 PM	A11: Pushing the limits of sensing, detection, and actuation using nanomaterials	<b>Swastik Kar</b> Northeastern University, USA P23
14:10-14:35 PM	A12: Extended air-stability of organic light emitting diodes with MoS <sub>2</sub> and WS <sub>2</sub> synthesized by CVD method	<b>Soo young Kim</b> Chung Ang University, Korea P24
14:35-15:00 PM	A13: Atomic-scale investigation of graphene and other 2D materials	<b>Nathan Guisinger</b> Argonne National Laboratory, USA P25
<b>Session Break &amp; Poster Session</b>		
15:00-15:25 PM	P01: Pyrolysis of pre-treated macroalgae <i>Saccharina japonica</i> in bubbling fluidized-bed reactor	<b>Seung-Soo Kim</b> Kangwon National University, Korea P61
<b>Session: Nanophotonics and Plasmonics Chair: Ram Gupta</b>		
15:25-15:50 PM	A14: Optoelectronic properties of terahertz surface plasmon using metal waveguides	<b>Tae-In Jeon</b> Korea Maritime and Ocean University, Korea P25
15:50-16:15 PM	A15: New Directions in Ultrahigh Vacuum Tip-Enhanced Raman Spectroscopy with Molecular-Resolution Scanning Tunneling Microscopy	<b>Nan Jiang</b> University of Illinois at Chicago, USA P26
16:15-16:40 PM	A16: Shaping the two-photon-induced luminescence of gold nanoclusters and their applications	<b>Yi Xu</b> Jinan university, China P27

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16:40-17:05 PM	A17: Gate tunable conducting oxide plasmonics and metasurfaces	<b>Howard Lee</b> Baylor University and TexasA&M University, USA P27
17:05 PM	Dinner Social	

<b>Tuesday November 17</b>		
<b>Room C</b>		
<b>Session: Advanced Nanomaterials and Nanotechnologies for Biomedical Applications</b>		
<b>Chair: Shuhei Inoue</b>		
8:00-8:25 AM	C01: Plasmon Coupling in Two-Dimensional Assemblies of Silver Nanoparticles for Sensing Applications	<b>George Chumanov</b> Clemson University, USA P28
8:25-8:50 AM	C02: Biomedical applications of magnetic nanoparticles	<b>Ioanna Giouroudi</b> Vienna University of Technology, Austria P29
8:50-9:15 AM	C03: Fundamentals and Applications of Zinc Oxide Nanorods in Enhanced Optical Bioassays	<b>Jong-in Hahm</b> Georgetown University, USA P30
9.15-9:40 AM	C04: Synthesis Of Silver Nanoparticles From Plants And Their Applications	<b>Srinath Rao</b> Gulbarga University, India P31
9:40-10:05 AM	C05: Current status and prospect of translational medicine in nanotechnology	<b>Xingguo Mei</b> Institute of Pharmacology & Toxicology of amms, China P32
10:05-10:25 AM	Session Break	
<b>Session: EMN General Workshop on Materials Chair: George Chumanov</b>		
10:25-10:50 AM	C06: Synthesis and analysis of photochromic nano particles	<b>Shuhei Inoue</b> Hiroshima University, Japan P32
10:50-11:15 AM	C07: Magnetic Characterization of Nanomaterials: Issues and Measurement Methods	<b>Cindi Dennis</b> The National Institute of Standards and Technology, USA P33
11:15-11:40 AM	C08: Nanoporous ZIF materials for gas separations	<b>Jinsoo Kim</b> Kyung Hee University, Korea P34

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11:40-12:05 PM	C09: Looking for New Electrode Materials for Na and Li ion batteries: a good way to discover original redox mechanism	<b>Valérie Pralong</b> CNRS, France P35
12:05-12:20 PM	C10: Hydrodeoxygenation of 2-Furyl methyl ketone as a model compound in bio-oil of Saccharina Japonica using metal and metal phosphide catalysts	<b>Hoang Vu Ly</b> Kyung Hee University, Korea P35
12:20 - 13:10 PM	Lunch Break	

<b>Wednesday November 18</b>		
<b>Room A</b>		
<b>Session: Functional Materials III Chair: Vesselin N. Shanov</b>		
8:00-8:25 AM	A18: Nanocomposites Composed of Microporous Metal-Organic Frameworks and Nanoparticles of Metals and Metal Compounds: Synthesis and Applications	<b>Myunghyun Paik Suh</b> Hanyang University, Korea P36
8:25 -8:50 AM	A19: Voltage-controlled exchange bias in lithographically patterned heterostructures	<b>Christian Binek</b> University of Nebraska, USA P37
8:50-9:15 AM	A20: Effect of Functionalized Carbon Nanotubes on Liquid Crystals	<b>V. Manjuladevi</b> Birla Institute of Technology & Science, Pilani, India P38
9:15 -9:40 AM	A21: Synchrotron studies on the growth of complex oxides by molecular beam epitaxy	<b>Dillon D. Fong</b> Argonne National Laboratory, USA P39
9.40-10:05 AM	A22: Hydrogel Hybrids: Smart Material for waste water applications	<b>Shivani Bhardwaj Mishra</b> University of South Africa, South Africa P40
10:05-10:20 AM	Session Break	
<b>Session: CNTs, Graphene and 2D Materials IV Chair: Christian Binek</b>		
10:20-10:45 AM	A23: Three Dimensional Graphene: Synthesis, Characterization and Application	<b>Vesselin N. Shanov</b> University of Cincinnati, USA P40

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10:45-11:10 AM	A24: 2D Layered Semiconductor for Next Generation Nanoelectronics Applications	<b>Kah-Wee Ang</b> National University of Singapore, Singapore P41
11:10-11:35 AM	A25: Could 2D crystals become one day the ultimate coating	<b>Luca Camilli</b> Technical University of Denmark, Denmark P42
11:35-12:00 PM	A26: Carbon Nanotube Reinforced Aluminium Nanocomposites	<b>Sónia Simões</b> Faculdade de Engenharia da Universidade do Porto, Portugal P43
12:00-13:20 PM	Lunch Break	
<b>Session: Nanophotonics and Plasmonics II Chair: Bruno Palpant</b>		
13:30-13:55 PM	A27: Aluminium nanostructures for UV plasmonics	<b>Jérôme Plain</b> Université de technologie de Troyes, France P44
13:55-14:20 PM	A28: Bio-metamaterial: Black Ultrathin Gold Film Fabricated on Lotus Leaf	<b>Kotaro Kajikawa</b> Tokyo Institute of Technology, Japan P45
14:20-14:45 PM	A29: Classical plasmonics: Wave propagation control at subwavelength scale	<b>Victor Coello</b> CICESE-Monterrey, Mexico P46
14:45-15:10 PM	A30: Nonlinear surface plasmonics in magnetic Kretschmann multilayer	<b>Ilya Razdolski</b> Fritz-Haber-Institut of Max-Planck-Society, Germany P47
15:10-15:25 PM	<b>Session Break</b>	
<b>Session: Nanophotonics and Plasmonics III Chair: Jérôme Plain</b>		
15:25-15:50 PM	A31: Photo-induced ultrafast transient processes in plasmonic nanostructures	<b>Bruno Palpant</b> Université Paris-Saclay, France P48
15:50-16:15 PM	A32: Advanced Quantum Dot Devices - Enabling On-Chip Quantum Optics and Highly Indistinguishable Photons	<b>Tobias Heindel</b> Technische Universität Berlin, Germany P48
16:15-16:40 PM	A33: Direct bonding of magneto-optical garnet to silicon and its application to photonic devices	<b>Tetsuya Mizumoto</b> Tokyo Institute of Technology, Japan P50

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16:40-17:05 PM	A34: Electron interactions and vibrations of metallic clusters	<b>Fabrice Vallee</b> CNRS - Universite Lyon 1, France P51
17:05-17:20PM	A35: Achieving Ultrahigh Surface Plasmon Resonance Efficiency Through 3d Distributed Nanogaps Between The Interconnected Channels Of Gyroid-Structured Plamonic Materials	<b>Liping Wu</b> Shanghai Jiao Tong University, China P52
18:00 PM	Dinner Social	

<b>Wednesday November 18</b>		
<b>Room C</b>		
<b>Session: CNTs, Graphene and 2D Materials V Chair: Marco Rahm</b>		
13:30-13:55 PM	C11: Transfer-free fabrication of graphene thin films on insulating substrates	<b>Toshio Ogino</b> Yokohama National University, Japan P52
13:55-14:20 PM	C12: Photoluminescence properties of single layer phosphors from two-dimensional materials with resonant plasmon	<b>Bo-Hyun Kim</b> Korea Advanced Institute of Science and Technology, Korea P53
14:20-14:45 PM	C13: Ab-initio study of Raman spectra in semiconducting transition metal dichalcogenides and their heterostructures	<b>Jia-An Yan</b> Towson University, USA P54
14:45-15:10 PM	C14: Electrical properties and photoresponse on semiconductor transition metal dichalcogenides (TMDs)	<b>Nihar R. Pradhan</b> National High Magnetic Field Laboratory, USA P55
15:10-15:25 PM	Session Break	
<b>Session: EMN General Workshop on Materials II Chair: Toshio Ogino</b>		
15:25-15:50 PM	C15: Tailoring the crystal orientation and the surface flatness of L10-ordered magnetic thin films for high density magnetic recording	<b>Masaaki Futamoto</b> Chuo University, Japan P56
15:50-16:15 PM	C16: Materials Design and investigation of waveguide structures for THz applications	<b>Marco Rahm</b> Technische Universität Kaiserslautern, Germany P57



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16:15-16:40 PM	C17: Structural and dielectric properties of the Ruddlesden-Popper Ba <sub>2</sub> ZrO <sub>4</sub> structure from first-principles	<b>Lydie Louis</b> University of Connecticut, USA P57
16:40-17:05 PM	C18: Growth of Metal Silicides Using Catalytic Chemical Vapor Deposition	<b>Yujun Shi</b> University of Calgary, Canada P58
17:05-17:30 PM	C19: Raman scattering study on Sb spray InAs/GaAs quantum dots with different capping thickness	<b>Liping Dai</b> University of Electronic Science and Technology of China, China P59
17:30-17:45 PM	C20: Compressive properties of SiC-Al composite micro-pillars containing a slanted interface	<b>Xiaolei Guo</b> Shanghai Jiao Tong University, China P59
18:00 PM	Dinner Social	

