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Sato, Toshimi	The Univ. of Tokyo
Nagato, Keisuke	The Univ. of Tokyo
Choi, Juncho	The Univ. of Tokyo
Hamaguchi, Tetsuya	The Univ. of Tokyo
Nakao, Masayuki	Department of Mechanical Engineering, Graduate School of Enginee
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Hung, Shih-Che	national taiwan Univ.
Shiu, Shu-Chia	National Taiwan Univ.
Chao, Jiun-Jie	National Taiwan Univ.
Lin, Ching-fuh	National Taiwan Univ.
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Mohammadkhani, Ali	Univ. of Birmingham
Jiang, Kyle	Univ. of Birmingham
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Asghar, Waseem	Department Department of Electrical Engineering, Nanotechnology
Ilyas, Azhar	Department of Electrical Engineering, Nanotechnology Res. an
Timmons, Richard	Department of Chemistry and Biochemistry, Univ. of Texas at
Iqbal, Samir	Univ. of Texas at Arlington

TuA2T2	Salon C/D
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Brown, Steven	Intel Corp.
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Locascio, Laurie	NIST
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Baer, Donald R.	Pacific Northwest National Lab.
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Pleus, Richard	Intertox
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Hirt, Evelyn	PNNL

TuA2T3	Salon G/H
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Chair: Pejcinovic, Branimir	Portland State Univ.
10:30-11:00	TuA2T3.1

Isomerization in Single Molecules of Azobenzene Probed by Surface-Enhanced Raman Scattering, pp. 22-25.

Topal, Cagri Ozge	Oklahoma State Univ.
Kalkan, Ali Kaan	Oklahoma State Univ.

11:00-11:20 TuA2T3.2

Design and Fabrication of Single Chirality Carbon Nanotube-Based Sensors, pp. 26-29.

Cullinan, Michael	Massachusetts Inst. of Tech.
Culpepper, Martin	Massachusetts Inst. of Tech.

11:20-11:40 TuA2T3.3

Isopolar Actin Filament Pathways Using ACEO Pump, pp. 30-33.

Lee, Yongkuk	West Virginia Univ.
Famouri, Parviz	West Virginia Univ.

11:40-12:00 TuA2T3.4

Gas Discrimination by ZnO Nanowire Arrays with Different Metal Oxide Coatings, pp. 34-37.

Zhou, Weilie	Univ. of New Orleans
Chen, Jiajun	Univ. of NewOrleans
Su, Haiqiao	Univ. of New Orleans

12:00-12:30 TuA2T3.5

Gold Nanoparticles Detection Using Intrinsic SOI-Based Sensor, pp. 38-43.

Ionica, Irina	IMEP - LAHC
El Hajj Diab, Amer	IMEP - LAHC
Cristoloveanu, Sorin	IMEP - LAHC

TuA2T4 Salon I

Nanomaterials: Nanomaterials Characterization and Applications (Oral Session)

Chair: Graf, Matthias	Tech. Univ. Dresden, Electronics Packaging Lab.
Co-Chair: Yeow, John T.W.	Univ. of Waterloo

10:30-11:00 TuA2T4.1

Growth and Characterization of Compound Semiconductor Nanowires on Si, pp. 44-47.

Gao, Qiang	The Australian National Univ.
Kang, J. H.	The Australian National Unviersity
Tan, H.H.	The Australian National Univ.
Jagadish, Chennupati	The Australian National Univ.

11:00-11:20 TuA2T4.2

Detecting the Environmental Impact of Nanoparticles Using Plant-Based Biosensors, pp. 48-52.

Li, YuanYuan	Univ. of Tennessee, Knoxville
Lenaghan, Scott	The Univ. of Tennessee
Burris, Jason	The Univ. of Tennessee, Knoxville, USA
Stewart, Charles	Univ. of Tennessee
Parker, Lynne	Univ. of Tennessee, Knoxville
Zhang, Mingjun	Univ. of Tennessee

11:20-11:40 TuA2T4.3

Novel Entomotoxic Nanocides for Agro-Chemical Industry, pp. 53-56.

Debnath, Nitai	Indian Statistical Inst.
Das, Sumistha	Indian Statistical Inst.
Goswami, Arunava	Indian Statistical Inst.

11:40-12:00 TuA2T4.4

Study of Colloids of Ag Nanoparticles from Mentha Piperita Leaf Extract and Their Antibacterial Effect, pp. 57-60.

Singh, R. P.	Amity Univ. Uttar Pradesh
S, Magesh	Amity Univ. Uttar Pradesh
C, Rakkiyappan	Amity Univ. Uttar Pradesh

12:00-12:30 TuA2T4.5

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Ashall, Dan	Bangor Univ. UK

Fakher, Sundes	Bangor Univ.
Mabrook, Mohammed	Bangor Univ. UK

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Chair: Dong, Lixin	Michigan State Univ.
Co-Chair: Rorrer, Gregory L.	Oregon State Univ.
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Le, Linh	Stevens Inst. of Tech.
Ervin, Matt	ARL
Qiu, Hongwei	Stevens Inst. of Tech.
Fuchs, Brian	US Army Armament Res.
Zunino, James	US Army Armament Res.
Lee, Woo	Stevens Inst. of Tech.
11:00-11:20	TuA2T5.2
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Song, Yan-Yan	Northeastern Univ. Shenyang, China
Gao, Zhida	Northeastern Univ. Shenyang, China
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Modified Carbon Nano Structures for Supercapacitor and Display Applications, pp. 76-79.	
Arepalli, Sivaram	Sungkyunkwan Univ.
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Guittet, Mélanie	California Inst. of Tech.
Aria, Adrianus Indrat	California Inst. of Tech.
Gharib, Morteza	California Inst. of Tech.
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Measuring Piezoelectric Potential from Different ZnO Nanowire Growth Methods, pp. 86-90.	
van den Heever, Thomas Stanley	Stellenbosch Univ.

TuA2T6	Mt Hood
NanoPackaging (Oral Session)	
Chair: Felba, Jan	Wroclaw Univ. of Tech.
Co-Chair: Suganuma, Katsuaki	Osaka Univ.
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Suga, Tadatomo	The Univ. of Tokyo
Fujino, Masahisa	The Univ. of Tokyo
Kondoh, Ryuichi	The Univ. of Tokyo
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Tokuno, Takehiro	Osaka Univ.
Nogi, Masaya	Osaka Univ.
Suganuma, Katsuaki	Osaka Univ.
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Falat, Tomasz	Wroclaw Univ. of Tech.
Felba, Jan	Wroclaw Univ. of Tech.
Platek, Bartosz	Wroclaw Univ. of Tech. Faculty ofMicrosystemElectroni
Marcq, Fabien	Univ. de Toulouse, Inst. Carnot CIRIMAT, Univ. Paul
Demont, Philippe	Univ. de Toulouse, Inst. Carnot CIRIMAT, Univ. Paul

Monfraix, Philippe	Thalès Alenia Space
Moscicki, Andrzej	Amepox Microelectronics, Lodz, Pol.
Poltorak, Krzysztof	Amepox Microelectronics, Lodz, Pol.
Matkowski, Przemyslaw	Wroclaw Univ. of Tech. Faculty of Microsystem Electro

11:40-12:00 TuA2T6.4

The Method of Carbon Nanotube Dispersing for Composites Used in Electronic Packaging, pp. 102-105.

Platek, Bartosz	Wroclaw Univ. of Tech. Faculty ofMicrosystemElectroni
Urbanski, Krzysztof	Wroclaw Univ. of Tech. Faculty of Microsystem Electro
Falat, Tomasz	Wroclaw Univ. of Tech.
Felba, Jan	Wroclaw Univ. of Tech.

TuP1T1 Salon A/B

Nanofabrication: Nano Devices and BioSensing (Oral Session)

13:30-14:00 TuP1T1.1

Thin Film Power Components with Nanoscale Electrodes and Conformal Dielectrics, pp. 106-110.

Raj, P Markondeya	Georgia Inst. of Tech.
Sharma, Himani	Georgia Inst. of Tech.
Sethi, Kanika	Georgia Inst. of Tech.
Yushu, Wang	Georgia Inst. of Tech.
Sundaram, Venky	Georgia Inst. of Tech.
Tummala, Rao R	Georgia Inst. of Tech.

14:00-14:20 TuP1T1.2

Tool for Analysis and Quantification of Fabrication Layouts in Nanomagnet-Based Computing, pp. 111-115.

Panchumarthy, Ravi	Univ. of South Florida
Karunaratne, Dinuka	Univ. of South Florida
Sarkar, Sudeep	Univ. of South Florida
Bhanja, Sanjukta	Univ. of South Florida

14:20-14:40 TuP1T1.3

Antireflective Moth-Eye Structures Fabricated by a Cheap and Versatile Process on Various Optical Elements, pp. 116-121.

Morhard, Christoph	MPI for Intelligent Systems
Pacholski, Claudia	MPI for Intelligent Systems
Brunner, Robert	Univ. of Applied Sciences, SciTec, Jena, Germany
Helgert, Michael	Carl-Zeiss AG
Lehr, Dennis	Friedrich-Schiller-Univ. Jena, Germany
Spatz, Joachim	MPI for Intelligent Systems

14:40-15:00 TuP1T1.4

Fabrication of Low-Noise Carbon Nanotube Field-Effect Transistor Biosensors, pp. 122-125.

Sharf, Tal	Oregon State Univ.
Kevek, Joshua W.	Oregon State Univ. Cornell Univ.
Minot, Ethan	Oregon State Univ.

15:00-15:30 TuP1T1.5

Enhanced Sensitivity Using Rectangular Nanohole Arrays in Metal for Biosensing Applications, pp. 126-129.

Cervantes Tellez, Gabriela Andrea	Univ. of Victoria
Das, Mandira	Univ. of Victoria
Gordon, Reuven	Univ. of Victoria

TuP1T2 Salon C/D

Nanowire/CNTs/graphene: Nanowire Fabrication and Devices (Oral Session)

Chair: Xue, Wei	Washington State Univ.
Co-Chair: Koley, Goutam	Univ. of South Carolina

13:30-14:00 TuP1T2.1

An Oxide/Silicon Core/Shell Nanowire FET, pp. 130-133.

Zhang, Lining	Peking Univ.

He, Jin	Peking Univ.
Ma, Chenyue	Peking Univ.
Zhou, Xingye	Peking Univ.
Bian, Wei	Hong Kong Univ. of Science and Tech.
Li, Lin	Hong Kong Univ. of Science and Tech.
Chan, Mansun	Hong Kong Univ. of Science and Tech.

14:00-14:20 TuP1T2.2

Stress Effects on Self-Aligned Silicon Nanowires Junctionless Field Effect Transistors, pp. 134-138.

Huang, Chao-Ju	National Taiwan Univ.
Lee, Si-Chen	National Taiwan Univ.

14:20-14:40 TuP1T2.3

Analysis of Parasitic Bottom Capacitance in N and P-Type Si-Nanowire Field Effect Transistors on Bulk, pp. 139-143.

Baek, Rock-Hyun	POSTECH
Ko, Myung-Dong	POSTECH, Repulic of Korea
Lee, Sanghyun	POSTECH
Baek, Chang-Ki	National Center for Nanomaterials Tech. (NCNT)
Yeo, Kyoung Hwan	Samsung Electronics
Kim, Dong-Won	Samsung Electronics
Lee, Jeong-Soo	POSTECH
Kim, Dae Mann	National Center for Nanomaterials Tech. (NCNT)
Jeong, Yoon-Ha	POSTECH

14:40-15:00 TuP1T2.4

Synthesis and Characterization of N and P Doped Tin Oxide Nanowires, pp. 144-149.

Tran, Hoang	Portland State Univ.
Rananavare, Shankar	Portland State Univ.

15:00-15:30 TuP1T2.5

Self Assembled Cu Nanowires on Vicinal Si(001) by E-Beam Evaporation Method, pp. 150-154.

Ng, Poh Keong	Univ. of Illinois at Chicago
Fisher, Brandon	Argonne National Lab.
Bode, Matthias	Univ. of Wuerzburg
Lilley, Carmen	Univ. of Illinois at Chicago

TuP1T3 Salon G/H

Nanosensors & Actuators: Nanosensors and Actuators II (Oral Session)

Chair: Hu, Walter	Univ. of Texas at Dallas
Co-Chair: Martin, Michael	Louisiana State Univ.

13:30-14:00 TuP1T3.1

Evaluation of Nano-Knife's Edge Angle for Single Cell Cutting by Using Nanorobotic Manipulators Inside ESEM, pp. 155-160.

Shen, Yajing	Nagoya Univ.
Nakajima, Masahiro	Nagoya Univ.
Yang, Zhan	Nagoya Univ.
Kojima, Seiji	Nagoya Univ.
Homma, Michio	Nagoya Univ.
Fukuda, Toshio	Nagoya Univ.
Kojima, Masaru	Nagoya Univ.

14:00-14:20 TuP1T3.2

Nanodome Sensor Tubing for Monitoring of Intravenous Drug Infusion and Metabolites, pp. 161-165.

Choi, Charles	Univ. of Illinois at Urbana-Champaign
Wu, Hsin-Yu	Univ. of Illinois at Urbana-Champaign
Weyhenmeyer, Jonathan	Univ. of Illinois at Urbana-Champaign
George, Sherine	Univ. of Illinois at Urbana-Champaign
Cunningham, Brian	Univ. of Illinois at Urbana-Champaign

14:20-14:40 TuP1T3.3

Microfabrication of Spray-Coated SWCNT Film Strain Gauges, pp. 166-171.

Lee, Dongil	Korea Univ.
Park, Chan Won	Kangwon National Univ.
Min, Nam Ki	KOREA Univ.

14:40-15:00 TuP1T3.4

Self-Assembled NEMS for Pn Force Detection, pp. 172-175.

Rathfon, Jeremy	Univ. of Louisville
Yan, Minhao	Paris-Diderot Univ.
Berret, Jean-François	Paris-Diderot Univ.
Cohn, Robert	Univ. of Louisville

15:00-15:30 TuP1T3.5

Designing Better Nano Biosensors: Role of Pore Confinement of Biomolecules, pp. 176-180.

Brandigampala, Savindra Madhavi	Wichita State Univ.
Feikert, Paige	Wichita State Univ.
Vattipalli, Krishna	Wichita State Univ.
Prasad, Shalini	Wichita State Univ.

TuP1T4 Salon I

Nanomaterials: Nanomaterials Characterization and Applications II (Oral Session)

Chair: Lilley, Carmen	Univ. of Illinois at Chicago
Co-Chair: Wejinya, Uchechukwu C.	Univ. of Arkansas

13:30-14:00 TuP1T4.1

High Aspect Ratio Metallic Nanowire Arrays by Pulsed Electrodeposition, pp. 181-186.

Graf, Matthias	Tech. Univ. Dresden, Electronics Packaging Lab.

14:00-14:20 TuP1T4.2

An Analysis on Synthesizing Large-Area Silicon Nanowire Arrays by Electroless Metal Deposition, pp. 187-192.

Chiou, Ai-Huei	Inst. and Department of MechanicalEngineering,NationalChiao
Su, Ching-Kuei	Inst. and Department of Mechanical Engineering,National Chia
Lin, Jheng-Fong	Inst. and Department of Mechanical Engineering, National Chi
Hsu, Chun-Yao	Department of Mechanical Engineering, Lung Hwa Univ. of Sci
Wu, Wen-Fa	National Nano Device Lab.
Chou, Chang-Ping	Inst. and Department of Mechanical Engineering, National Chi

14:20-14:40 TuP1T4.3

Production and Characterization of Nanoparticle Dispersions of Organic Semiconductors for Potential Applications in Organic Electronics, pp. 193-196.

Sayyad, Muhammad Hassan	GIK Inst. of Engineering Sciences and Tech.
Wahab, Fazal	GIK Inst. of Engineering Sciences and Tech.
Ahmad, Zubair	GIK Inst. of Engineering Sciences and Tech.
Shahid, Muhammad	Inst. of Chemistry, Univ. of the Punjab, Lahore 54000,
Chaudhry, Jamil Anwar	Inst. of Chemistry, Univ. of the Punjab, Lahore 54000,
Munawar, Munawar Ali	Inst. of Chemistry, Univ. of the Punjab, Lahore 54000,

14:40-15:00 TuP1T4.4

Effect of Ink Viscosity on Electrical Resistivity of Narrow Printed Silver Lines, pp. 197-200.

Kim, ChangJae	Osaka Univ.
Nogi, Masaya	Osaka Univ.
Suganuma, Katsuaki	Osaka Univ.

15:00-15:30 TuP1T4.5

UV-Sintering of Inkjet-Printed Conductive Silver Tracks, pp. 201-204.

Polzinger, Bernhard	Univ. Stuttgart
Schön, Florian	HSG-IMAT
Matic, Vladimir	HSG-IMAT
Keck, Juergen	HSG-IMAT
Willeck, Hannes	HSG-IMAT
Eberhardt, Wolfgang	HSG-IMAT
Kueck, Heinz	IZFM

TuP1T5	Cascade
Energy: Photovoltaic Devices (Oral Session)	
Chair: Li, Guangyong	Univ. of Pittsburgh
13:30-14:00	TuP1T5.1
High-Efficiency Si-Nanowire Photovoltaic Devices with Optimal Tip Head Design, pp. 205-208.	
Nakamura, Hajime	IBM Res. Tokyo
14:00-14:20	TuP1T5.2
Quantum Dot Functionalized ZnO Nanowire/P3HT Hybrid Photovoltaic Devices, pp. 209-213.	
Harris, Nicholas	Univ. of Alabama
Brewer, Joseph	Univ. of Alabama
Shen, Gang	Univ. of Alabama
Wilbert, David	Univ. of Alabama
Butler, Lee	Univ. of Alabama
Dawahre, Nabil	Univ. of Alabama
Baughman, William	Univ. of Alabama
Balci, Soner	Univ. of Alabama
Rivera, Elmer	Univ. of Alabama
Kung, Patrick	The Univ. of Alabama
Kim, Seongsin	Univ. of Alabama
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Uppireddi, Kishore	HORIBA Scientific
Yan, Li	HORIBA Scientific
14:40-15:00	TuP1T5.4
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Bareiß, Mario	Tech. Univ. München
Hochmeister, Andreas	Inst. for nanoelectronics
Jegert, Gunther	Inst. for nanoelectronics
Koblmüller, Gregor	Walter Schottky Inst.
Zschieschang, Ute	Max Planck Inst.
Klauk, Hagen	Max Planck Inst.
Fabel, Bernhard	Inst. for nanoelectronics
Scarpa, Giuseppe	Inst. for nanoelectronics
Porod, Wolfgang	Univ. of Notre Dame
Paolo, Lugli	TUM
15:00-15:30	TuP1T5.5
Growth of Cu2ZnSnSe4 Thin Films by Spin-Coating and Selenization Process, pp. 222-226.	
Park, Mi Sun	Daegu Gyeongbuk Inst. of Science and Tech.
Kim, Dae-Hwan	Daegu Gyeongbuk Inst. of Science & Tech.
Sung, Shi-Joon	Daegu Gyeongbuk Inst. of Science and Tech.
Jo, Hyo Jeong	Daegu Gyeongbuk Inst. of Science and Tech.
Kang, Jin-Kyu	Daegu Gyeongbuk Inst. of Science and Tech.

TuP1T6	Mt Hood
Nano-Bio-Medicince: Nano/Bio-Medicine Materials and Sensors (Oral Session)	
Co-Chair: Faria, Nuno	Medical Res. Council
13:30-14:00	TuP1T6.1
*(Invited Talk) Optical Characterization and Feasibility Study of PLGA Nanoparticles Designed for Photo-Thermal Optical Coherence Tomography**.	
McCarty, Owen	Oregon Health & Science Univ.
Subhash, Hrebesh	Oregon Health and Science Univ.
Xie, Hui	Sanford-Burnham Medical Res. Inst.
Smith, Jeffrey	Sanford-Burnham Medical Res. Inst.

14:00-14:20 TuP1T6.2

A Comprehensive Study of Concentration-Encoded Unicast Molecular Communication with Binary Pulse Transmission, pp. 227-232.

Mahfuz, Mohammad Upal — Univ. of Ottawa, Canada.
Makrakis, Dimitrios — Univ. of Ottawa, Canada.
Mouftah, Hussein T — Univ. of Ottawa

14:20-14:40 TuP1T6.3

Multi-Functional Protein-QD Hybrid Substrates for Photovoltaics and Real-Time Biosensing, pp. 233-236.

Griep, Mark — US ARL

14:40-15:00 TuP1T6.4

Enhanced Electrochemical Detection of Cardiovascular Biomarker Proteins Using Biogenic-Nanoporous Silica Diatoms, pp. 237-240.

Vattipalli, Krishna — Wichita State Univ.
Lin, Kai-Chun — Arizona State Univ.
Ramakrishna, B.L. — Arizona State Univ.
Prasad, Shalini — Wichita State Univ.

15:00-15:30 TuP1T6.5

Virus Enrichment for Single Virus Manipulation by Using 3D Insulator Based Dielectrophoresis, pp. 241-244.

Masuda, Taisuke — Nagoya Univ.
Maruyama, Hisataka — Nagoya Univ.
Honda, Ayae — Hosei Univ.
Arai, Fumihito — Nagoya Univ.

TuP2T1 — Salon A/B

Nanofabrication: Nano Fabrication, Growth, and Assembly (Oral Session)

Chair: Jiang, Kyle — Univ. of Birmingham
Co-Chair: Lin, Ching-fuh — National Taiwan Univ.

16:00-16:30 TuP2T1.1

*Zinc Oxide Nanostructures: Rapid Synthesis, Characterizations, and Their Photocatalytic Activity**.

Kajbafvala, Amir — Department of Materials Science and Engineering, North Carolina State Univ. 911 Partners Way, Raleigh, NC 27695-7907, Uni
Ghorbani, H. — Department of Materials Science and Engineering, Center of Excellence for Production of Advanced Materials, Sharif Univ. of
Paravar, A. — Material Engineering Department, Science & Res. Branch of Azad Univ. (SRBAU), PO Box 19395-6663, Tehran, IRAN
Kajbafvala, Ehsan — Department of Materials Science and Engineering, Center of Excellence for Production of Advanced Materials, Sharif Univ. of
Sadrnezhaad, S.K. — Department of Materials Science and Engineering, P.O. Box 11365-9466, Tehran, Iran

16:50-17:10 TuP2T1.3

Fabrication of Optically Patternable Nanocomposite Layers for Smart Polymer Structure Applications, pp. 245-248.

Amini, Alborz — Simon Fraser Univ.
Bahreyni, Behraad — Simon Fraser Univ.

16:50-17:10 TuP2T1.3

Ordered Monolayers of Metal-Phthalocyanines and Rare-Earth Bisphthalocyanines on Crystalline Metal Substrates – Crystallographic and Electronic Structure, pp. 249-254.

Hietschold, Michael — Chemnitz Univ. of Tech.
Toader, Marius — Solid Surfaces Analysis Group, Inst. of Physics, Chemnitz Un
Shukrynau, Pavel — Solid Surfaces Analysis Group, Inst. of Physics, Chemnitz Un
Smykalla, Lars — Solid Surfaces Analysis Group, Inst. of Physics, Chemnitz Un

17:10-17:30 TuP2T1.4

*Injection Molding of Nanostructures for Structural Coloring**.

Yoo, Yeong-Eun — KIMM

17:30-18:00 TuP2T1.5

Fabrication and Characterization of Gate-All-Around Silicon Nanowire Field Effect Transistors (I), pp. 255-259.

Park, Chan-Hoon	Pohang Univ. ofScience and Tech. (POSTECH)
Lee, Sang-Hyun	POSTECH
Kim, Ye-Ram	POSTECH
Baek, Chang-Ki	National Center for Nanomaterials Tech. (NCNT)
Jeong, Yoon-Ha	POSTECH

TuP2T2 Salon C/D

Nanoelectronic Devices: Applications and Characterization (Oral Session)

Chair: Avci, Uygar E.	Intel Corp.
Co-Chair: Bergstrom, Paul L.	Michigan Tech. Univ.

16:00-16:30 TuP2T2.1

Simultaneous Tuning of Tunnel Resistance of Integrated Nanogaps by Field-Emission-Induced Electromigration, pp. 260-263.

Ito, Mitsuki	Tokyo Univ. of Agriculture and Tech.
Ueno, Shunsuke	Tokyo Univ. of Agriculture and Tech.
Watanabe, Takato	Tokyo Univ. of Agriculture and Tech.
Akimoto, Shunsuke	Tokyo Univ. of Agriculture and Tech.
Shirakashi, Jun-ichi	Tokyo Univ. of Agriculture and Tech.

16:30-16:50 TuP2T2.2

Quantum-Mechanical Analysis of Single Molecule Quantum Electronic Devices, pp. 264-268.

Lyshevski, Sergey	Rochester Inst. of Tech.

16:50-17:10 TuP2T2.3

Bottom-Up Method for Work Function Tuning in High-K/metal Gate Stacks in Advanced CMOS Technologies, pp. 269-273.

Khaderbad, Mrunal Abhijith	Centre for Excellence in Nanoelectronic
Pandharipande, Rohit	Centre for Excellence in Nanoelectronics, Electrical Engg Depart
Gowtham, Aradhana	Centre for Excellence in Nanoelectronics, Electrical Engg Depart
Mishra, Abhishek	Centre for Excellence in Nanoelectronics, Electrical Engg Depart
Bhaisare, Meenakshi	Centre for Excellence in Nanoelectronics, Electrical Engg Depart
Kottantharayil, Anil	Centre for Excellence in Nanoelectronics, Electrical Engg Depart
Meesala, Yedukondalu	Department of Chemistry, IIT Bombay,Mumbai400076,Maharashtra, In
Mangalampalli, Ravikanth	Department of Chemistry, IIT Bombay, Mumbai 400076, Maharashtra,
Rao, Ramgopal V	Centre for Excellence in Nanoelectronics, Electrical Engg Depart

17:10-17:30 TuP2T2.4

Describing Function of MOM Systems, pp. 274-277.

Delgado, Alberto	National Univ. of Colombia

17:30-18:00 TuP2T2.5

Thermal Conductivity in Si/Ge and Si/SiGe Superlattices, pp. 278-281.

Aksamija, Zlatan	Univ. of Wisconsin-Madison
Knezevic, Irena	Univ. of Wisconsin-Madison

TuP2T3 Salon G/H

Nanosensors & Actuators: Optical Nanosensors (Oral Session)

Chair: Herman, Gregory	Oregon State Univ.

16:00-16:30 TuP2T3.1

Optimization of Photonic Crystal Enhanced Fluorescence by Excitation Laser Angle Scanning, pp. 282-285.

Chaudhery, Vikram	Univ. of Illinois
Lu, Meng	SRU Biosystems
Pokhriyal, Anusha	Univ. of Illinois
Schulz, Stephen	SRU Biosytems
Cunningham, Brian	Univ. of Illinois at Urbana-Champaign

16:30-16:50 TuP2T3.2

Photodetectors for Multi Spectral Sensing, pp. 286-291.

Perera, A. G. Unil	Georgia State Univ.

Aytac, Y.	Georgia State Univ.
Ariyawansa, Gamini	Georgia State Univ.
Matsik, Steven G.	Georgia State Univ.
Buchanan, M.	National Res. Council
Wasilewski, Z. R.	National Res. Council
Liu, Hui Chun	National Res. Council

16:50-17:10 TuP2T3.3

Photoluminescence from SnOx/Sn Nanoparticle Monolayer on Solid-Supported Liquid-Crystalline Phopholipid Membranes: Dioleoylphosphocholine, Dioleoylphosphatidylethanolamine, Dioleoyltrimethylammonium-Propane, pp. 292-296.

An, Hyeun Hwan An	Hanyang Univ.
Lee, Seung Jae	Hanyang Univ.
Kim, Hee-Soo	Hanyang Univ.
Lee, Jong Ho	Hanyang Univ.
Yoon, Chong Seung	Hanyang Univ.

17:10-17:30 TuP2T3.4

High Surface-Enhanced Raman Scattering (SERS) Sensitivity of R6G by Fabrication of Silver Nanoparticles Over GaN Nanowires, pp. 297-300.

Dar, Nitzan	National Cheng Kung Univ. Taiwan
Chen, In Gann	Department of Materials Science and Engineering, NationalCheng K

17:30-18:00 TuP2T3.5

Vapor Phase SERS Sensor for Explosives Detection, pp. 301-306.

Tamane, Sumedha	Oklahoma State Univ.
Topal, Cagri Ozge	Oklahoma State Univ.
Kalkan, Ali Kaan	Oklahoma State Univ.

TuP2T4 Salon I

Nanorobotics, Nanomanufacturing (Oral Session)

Chair: Arai, Fumihito	Nagoya Univ.
Co-Chair: Palo, Daniel	Pacific Northwest National Lab.

16:00-16:30 TuP2T4.1

Nickel Nanowire Swimmers for Colloidal Cargo Transport Near a Solid Surface, pp. 307-312.

Zhang, Li	ETH Zurich
Petit, Tristan	CEA-LIST
Peyer, Kathrin Eva	ETH Zurich, Switzerland
Nelson, Bradley J.	ETH Zurich

16:30-16:50 TuP2T4.2

Design of Molecular-Based Network Robots -Toward the Environmental Control, pp. 313-318.

Hirabayashi, Miki	National Inst. of Information and Communications Tech.
Nishikawa, Akio	Hosei Univ.
Tanaka, Fumiaki	Univ. of Tokyo
Hagiya, Masami	Univ. of Tokyo
Kojima, Hiroaki	NICT
Oiwa, Kazuhiro	NICT

16:50-17:10 TuP2T4.3

Local Temperature Measurement Using Specrta Shift of Quantum-Dot Hydrogel Sensor, pp. 319-322.

Maruyama, Hisataka	Nagoya Univ.
Masuda, Taisuke	Nagoya Univ.
Honda, Ayae	Hosei Univ.
Arai, Fumihito	Nagoya Univ.

17:10-17:30 TuP2T4.4

Copper Nanoparticle Synthesis in Continuous Mode by the Polyol Method – Progress towards Nanomanufacturing, pp. 323-327.

Ramprasad, Sudhir	Pacific Northwest National Lab.
Ramsing, Patrick	Oregon State Univ.

Miller, Todd — Microproducts Breakthrough Inst.
Rundel, Jack — Microproducts Breakthrough Inst.
Remcho, Vincent — Oregon State Univ.
Palo, Daniel — Pacific Northwest National Lab.

17:30-18:00 — TuP2T4.5

Continuous Synthesis of Ceria Nanoparticles Using a Micromixer, pp. 328-331.
Palanisamy, Barath — Oregon State Univ.
Paul, Brian — Oregon State Univ.

TuP2T5 — Cascade
Energy: Solar Cells I (Oral Session)
Co-Chair: Nakamura, Hajime — IBM Res. Tokyo

16:00-16:30 — TuP2T5.1

Thickness Optimization of Organic Solar Cells by Optical Transfer Matrix, pp. 332-336.
Liu, Liming — Univ. of Pittsburgh
Li, Guangyong — Univ. of Pittsburgh

16:30-16:50 — TuP2T5.2

Preparation of CuInSe2 Solar Cell Films Using CuInSe2/InSe Nanoparticle Ink, pp. 337-342.
Jo, Hyo Jeong — Daegu Gyeongbuk Inst. of Science and Tech.
Sung, Shi-Joon — Daegu Gyeongbuk Inst. of Science and Tech.
Kim, Dae-Hwan — Daegu Gyeongbuk Inst. of Science & Tech.
Park, Mi Sun — Daegu Gyeongbuk Inst. of Science and Tech.
Kang, Jin-Kyu — Daegu Gyeongbuk Inst. of Science and Tech.
Lee, Dong-Ha — Daegu Gyeongbuk Inst. of Science and Tech.

16:50-17:10 — TuP2T5.3

All-Solution-Processed CIS Solar Cells Based on Electrodeposited ZnO Nanopillars, pp. 343-346.
Shinagawa, Tsutomu — Portland State Univ.
Nadarajah, Athavan — Portland State Univ.
Koenenkamp, Rolf — Portland State Univ.

17:10-17:30 — TuP2T5.4

Structure-Controlled ZnO/Cu2O Inorganic Solar Cells by Electrodeposition, pp. 347-350.
Shinagawa, Tsutomu — Portland State Univ.
Izaki, Masanobu — Toyohashi Univ. of Tech.

17:30-18:00 — TuP2T5.5

Improvement of Heterojunction Silicon Solar Cell Efficiency by Au Nanoparticles, pp. 351-353.
Yeh, Dan-ju — National Taiwan Univ.
Ho, Chung-I — National Taiwan Univ.
Lee, Jheng Han — National Taiwan Univ.
Yang, Po Chuan — National Taiwan Univ.
Yang, Chieh-Hung — National Taiwan Univ.
Lee, Si-Chen — National Taiwan Univ.

TuP2T6 — Mt Hood
Nano-Bio-Medicine: NanoDevices for Diagnostics and Remediation (Oral Session)
Chair: Nagahara, Larry — National Cancer Inst.
Co-Chair: McCarty, Owen — Oregon Health & Science Univ.

16:00-16:30 — TuP2T6.1

*Measuring Multiple Physical Parameters from Single Cells: Size, Growth Rate and Stiffness**.
Manalis, Scott — MIT

16:30-16:50 — TuP2T6.2

Graphenated IR Screen for Detection of Human and Avian Flu Viruses, pp. 354-357.
Banerjee, Amrita — new jersey Inst. of tehcnology
Chakraborty, Sumit — Weill Cornell Medical Coll.

Grebel, Haim	new jersey Inst. of Tech.

16:50-17:10 TuP2T6.3

A Synthetic Eye Platform for Testing Contact Lenses with Integrated Electronic Biosensors, pp. 358-361.

Afanasiev, Andrei	Univ. of Washington
Yao, Huanfen	Univ. of Washington
Marcheselli, Christian	Univ. of Washington
Lähdesmäki, Ilkka	Univ. of Washington
Parviz, Babak	Univ. of Washington

17:10-17:30 TuP2T6.4

A Nanomonitor Compared to ELISA for C-Reactive Protein Detection in Patient Blood, pp. 362-366.

Prasad, Shalini	Wichita State Univ.
Vattipalli, Krishna	Wichita State Univ.
Barrett, Thomas	Oregon Health & Science Univ.
Carruthers, John	Portland State Univ.

17:30-18:00 TuP2T6.5

Evaluation of Antibacterial Property Induced by Surface-Modified Titanium Dioxide Nanoparticles, pp. 367-370.

Wan, Weijie	Univ. of Waterloo
Yeow, John T.W.	Univ. of Waterloo

TuP2T7 Salon E

Nanowire/CNTs/graphene: Properties of Carbon Nanotubes (Oral Session)

Chair: Solanki, Raj	Portland State Univ.
Co-Chair: Tummala, Rao R	Georgia Inst. of Tech.

16:00-16:30 TuP2T7.1

Fabrication of Supported Lipid Bilayer (SLB) and Nanotube Transistor Hybrid Biosensing Platform Using Microfluidic Channels, pp. 371-373.

Lim, Tae-Sun	Univ. of California, Irvine
Jain, Dheeraj	Univ. of California, Irvine
Burke, Peter	Univ. of California, Irvine

16:30-16:50 TuP2T7.2

Electrical Control of Synthesis Conditions for Locally Grown CNTs on Polysilicon Microstructure, pp. 374-377.

Ta, Bao Quoc	Vestfold Univ. Coll.
Hoivik, Nils	Vestfold Univ. Coll.
Halvorsen, Einar	Vestfold Univ. Coll.
Aasmundtveit, Knut	Vestfold Univ. Coll.

16:50-17:10 TuP2T7.3

Solution-Processable Random Carbon Nanotube Networks for Thin-Film Transistors, pp. 378-381.

Gong, Qingqing	Inst. for Nanoelectronics, Tech. Univ.
Albert, Edgar	Inst. for Nanoelectronics, Tech. Univ. München
Fabel, Bernhard	Inst. for Nanoelectronics, Tech. Univ. München
Abdellah, Alaa	Inst. for Nanoelectronics, Tech. Univ. München
Lugli, Paolo	Tech. Univ. Muenchen
Chan-Park, Mary B.	School of Chemical and Biomedical Engineering
Scarpa, Giuseppe	Tech. Univ. München

17:10-17:30 TuP2T7.4

A Spectrally-Tunable Photocurrent Microscope for Characterizing Nanoelectronic Devices, pp. 382-386.

DeBorde, Tristan	Oregon State Univ.
Kevek, Joshua W.	Oregon State Univ. Cornell Univ.
Sharf, Tal	Oregon State Univ.
Wardini, Jenna L.	Oregon State Univ.
Minot, Ethan	Oregon State Univ.

17:30-18:00 TuP2T7.5

Electrical Resistance Response Evaluation of Semiconducting Single-Walled Carbon Nanotube Film for X-Ray Sensing, pp. 387-391.

Kang, QingSheng	Univ. of Waterloo
Yeow, John T.W.	Univ. of Waterloo

TuP2T8 Salon F

Nanomaterials: Characterisation (Oral Session)

Chair: Jagadish, Chennupati	The Australian National Univ.
Co-Chair: Moeck, Peter	Portland State Univ.

16:00-16:30 TuP2T8.1

A Transmission Electron Probe Nano Analyzer for Improved High Accuracy Elemental Analysis, pp. 392-397.

Donovan, John	Univ. of Oregon
Johnson, David	Univ. of Oregon

16:30-16:50 TuP2T8.2

Structural Investigations of Ferecrystals [(SnSe)1+x]m[TSe2]n (T = Mo, Ta) by Means of Transmission Electron Microscopy, pp. 398-403.

Rouvimov, Sergei	Portland State Univ.
Beekman, Matt	Univ. or Oregon, Department of Chemistry
Atkins, Ryan	Univ. of Oregon, Department of Chemistry
Grosse, Corinna	Inst. for Physics, Humboldt Univ. Berlin
Kirmse, Holm	Inst. of Physics, Humboldt Univ. Berlin
Johnson, David	Univ. of Oregon
Neumann, Wolfgang	Univ. of Oregon, Department of Chemistry

16:50-17:10 TuP2T8.3

Terahertz Characterization of Zinc Oxide Nanowires Using Parallel-Plate Waveguides, pp. 404-408.

Kernan, Forest	Portland State Univ.
Nadarajah, Athavan	Portland State Univ.
Koenenkamp, Rolf	Portland State Univ.
Pejcinovic, Branimir	Portland State Univ.
Higgins, James Alexander	Portland State Univ.

17:10-17:30 TuP2T8.4

Hierarchical TiO2 Spheres Architectures for Quasi Solid State Dye-Sensitized Solar Cells by Living Radical Polymerization and Sol-Gel Process, pp. 409-412.

Park, Jung Tae	Yonsei Univ.
Kim, Jong Hak	Yonsei Univ.

TuPoT9 Exhibition Hall

Nanocircuits, Architectures: Poster Session (Poster Session)

Chair: Sanchez, Erik	Portland State Univ.

10:00-19:30 TuPoT9.1

SET Based Boltzmann Machine and Hopfield Neural Networks, pp. 413-416.

Liu, Chia-Chin	Univ. of Windsor
Chen, Chunhong	Univ. of Windsor

10:00-19:30 TuPoT9.2

Design of Static and Dynamic RAM Arrays Using a Novel Reversible Logic Gate and Decoder, pp. 417-420.

Morrison, Matthew	Univ. of South Florida
Lewandowski, Matthew	Univ. of South Florida
Meana, Richard	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA

10:00-19:30 TuPoT9.3

Spike Timing-Dependent Synaptic Plasticity Using Memristors and Nano-Crystalline Silicon TFT Memories, pp. 421-425.

Cantley, Kurtis	Univ. of Texas at Dallas
Subramaniam, Anand	THE Univ. OF TEXAS AT DALLAS
Stiegler, Harvey	Univ. of Texas at Dallas
Chapman, Richard	Univ. of Texas at Dallas

Vogel, Eric	Univ. of Texas at Dallas
10:00-19:30	TuPoT9.4
Minimizing Communication Power Using Near-Neighbor Axon-Inspired Lattices, pp. 426-430.	
Valeriu, Beiu	United Arab Emirates Univ.
Zhang, Liren	United Arab Emirates Univ.
Ibrahim, Walid	UAEU
Tache, Mihai	UAEU
10:00-19:30	TuPoT9.5
Multi-Purpose Neuro-Architecture with Memristors, pp. 431-435.	
Ebong, Idongesit	Univ. of Michigan
Deshpande, Durgesh	Univ. of Michigan
Yilmaz, Yalcin	Univ. of Michigan
Mazumder, Pinaki	Univ. of Michigan
10:00-19:30	TuPoT9.6
Nanopipelining of NML Using Multiferroic Single-Domain Nanomagnets, pp. 436-440.	
Yilmaz, Yalcin	Univ. of Michigan
Mazumder, Pinaki	Univ. of Michigan
10:00-19:30	TuPoT9.7
Design of Low-Power and Reliable Nano Adders, pp. N/A	
Sulieman, Mawahib	United Arab Emirates Univ.
Ibrahim, Walid	UAEU
10:00-19:30	TuPoT9.8
Adaptive Learning in Random Linear Nanoscale Networks, pp. 445-450.	
Anghel, Marian	Los Alamos National Lab.
Christof, Teuscher	Portland State Univ.
Wang, Hsing-Lin	LANL
10:00-19:30	TuPoT9.9
Design of a Reversible Floating-Point Adder Architecture, pp. 451-456.	
Nachtigal, Michael	Univ. of South Florida
Thapliyal, Himanshu	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA
10:00-19:30	TuPoT9.11
Design of Neuromorphic Logic Networks and Fault-Tolerant Computing, pp. 457-462.	
Lyshevski, Sergey	Rochester Inst. of Tech.
Tran, Alexander	Univ. of Calgary
Yanushkevich, Svetlana	Univ. of Calgary
Shmerko, Vlad	Univ. of Calgary
10:00-19:30	TuPoT9.12
Design of a Reversible Bidirectional Barrel Shifter, pp. 463-468.	
Kotiyal, Saurabh	Univ. of South Florida
Thapliyal, Himanshu	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA
10:00-19:30	TuPoT9.13
Validation of Nano-CMOS Predictive Technology Model Tool on NanoHUB.org, pp. 469-472.	
Rodriguez, Alejandro	The Univ. of Texas - Pan American
Huq, Hasina	The Univ. of Texas - Pan American

TuPoT10	Exhibition Hall
Nanoelectronic Devices: Poster Session (Poster Session)	
Chair: Sanchez, Erik	Portland State Univ.
10:00-19:30	TuPoT10.1
Nano-Silver Inkjet Printed Interconnections through the Microvias for Flexible Electronics, pp. 473-477.	
Falat, Tomasz	Wroclaw Univ. of Tech.

Felba, Jan	Wroclaw Univ. of Tech.
Moscicki, Andrzej	Amepox Microelectronics, Lodz, Pol.
Borecki, Janusz	Tele and Radio Res. Inst. Center for Advanced Tech.

10:00-19:30 TuPoT10.6

Minimum Energy for Computation, Theory vs. Experiment, pp. 478-481.

Snider, Gregory	Univ. of Notre Dame
Blair, Enrique	Univ. of Notre Dame
Boechler, Graham	Univ. of Notre Dame
Thorpe, Cameron	Univ. of Notre Dame
Bosler, Nicholas	Univ. of Notre Dame
Wohlwend, Matthew	Univ. of Notre Dame
Whitney, Jean	Univ. of Wisconsin
Lent, Craig	Univ. of Notre Dame
Orlov, Alexei	Univ. of Notre Dame

10:00-19:30 TuPoT10.10

Electronic Ratchet: A Non-Equilibrium, Low Power Switch, pp. 482-486.

Kabir, Mehdi	Univ. of Virginia
Unluer, Dincer	Univ. of Virginia
Li, Lijun	Univ. of Virginia
Ghosh, Avik W	Univ. of Virginia
Stan, Mircea R., Mircea Stan	Univ. of Virginia

10:00-19:30 TuPoT10.11

Transport of Charge in DNA Heterostructures, pp. 487-491.

Qi, Jianqing	Univ. of Washington
Rabbani, Md. Golam	Univ. ofWashington
Anantram, Anant	Univ. of Washington
Edirisinghe, Suranga	Univ. of Washington

TuPoT11 Exhibition Hall

Nanoelectronics: Reliability and Yield: Poster Session (Poster Session)

Chair: Sanchez, Erik — Portland State Univ.

10:00-19:30 TuPoT11.1

Comparative Analysis of Mobility and Dopant Number Fluctuation Models for the Threshold Voltage Fluctuation Estimation in 45 Nm Channel Length MOSFET Device, pp. 492-495.

Vasileska, Dragica	Arizona State Univ. Tempe, AZ
Ashraf, Nabil	ASU
Wirth, Gilson	UFRGS
Srinivasan, Purushothaman	Texas Inst.

10:00-19:30 TuPoT11.3

Si3N4/SiO2 Dielectric Stacks for High Reliable Capacitive MEMS Switch, pp. 496-499.

Li, Gang — Vestfold Univ. Coll.

10:00-19:30 TuPoT11.4

Highly Reliable and Low-Power Full Adder Cell, pp. 500-503.

Ibrahim, Walid	UAEU
Beg, Azam	United Arab Emirates Univ. UAE
Valeriu, Beiu	United Arab Emirates Univ.

10:00-19:30 TuPoT11.6

Study of Electrical and Micro-Structural Properties of Nano-Scale Ultra Thin Gate Dielectric Stacks in a MOS Device Using Pulse Laser Deposition Technique, pp. 504-507.

Srivastava, Dr. Asutosh	PDPM-Indian Inst. for Information Tech. Design and Man
Nahar, R.K.	2Sensors and Nanotechnology Group, Central Electronics Engineeri
Gupta, Vinay	Deapartment of Physics and Astrophysics, Univ. of Delhi, De
Sarkar, C.K	Department of Electronics & Telecommunication Engineering, Jadav

10:00-19:30 TuPoT11.8

Intrinsic Unmanufacturability in Nanoelectronics, pp. 508-513.

Kelly, Michael — Centre for Advanced Photonics and Electronics, Univ. of Cam

TuPoT12 — Exhibition Hall

Nanometrology & Characterization: Poster Session (Poster Session)

Chair: Sanchez, Erik — Portland State Univ.

10:00-19:30 — TuPoT12.1

Efficient Formation of Au Nanoparticles and Fe2O3/Au@SiO2 Nanocomposite: Effect of Functional Alkoxysilanes, pp. 514-519.

Wei, Ming-Yuan — West Virginia Univ.

Famouri, Parviz — West Virginia Univ.

10:00-19:30 — TuPoT12.3

Crystallographic Image Processing for Scanning Probe and Transmission Electron Microscopy, pp. 520-525.

Moeck, Peter — Portland State Univ.

10:00-19:30 — TuPoT12.8

Nanoparticle Characterization with Photon Correlation LDA, pp. 526-530.

Vamos, Lenard — Res. Inst. for Solid State Physics and Optics ofHAS

Jani, Peter — Res. Inst. for Solid State Physics and Optics of HAS

Nagy, Attila — Res. Inst. for Solid State Physics and Optics of HAS

Kerekes, Attila — Res. Inst. for Solid State Physics and Optics of HAS

10:00-19:30 — TuPoT12.10

Coaxial Tips for Infrared NSOM, pp. 531-534.

Hopkins, Michael — Portland State Univ.

Morakinyo, Moshood Kayode — Portland State Univ.

Rananavare, Shankar — Portland State Univ.

La Rosa, Andres — Portland State Univ.

Freeouf, John — Portland State Univ.

10:00-19:30 — TuPoT12.11

Simplified Neutral Atom Microscopy, pp. 535-540.

Witham, Philip — Portland State Univ.

Sanchez, Erik — Portland State Univ.

10:00-19:30 — TuPoT12.13

Film Layer Determination of Thin HfO2 Films Using X-Ray Reflectivity and X-Ray Photoelectron Spectroscopy, pp. 541-546.

Chang, Yong-Qing — Industrial Tech. Res. Inst. (ITRI)

Fu, Wei-En — Industrial Tech. Inst.

10:00-19:30 — TuPoT12.14

Ferromagnetic Resonance Study on NiFe₂O₄ Nanocomposites, pp. 547-550.

Song, Han — Oregon State Univ.

Mulley, Sam — Oregon State Univ.

Coussens, Nathan — Oregon State Univ.

Dhagat, Pallavi — Oregon State Univ.

Jander, Albrecht — Oregon State Univ.

Yokochi, Alexandre — Oregon State Univ.

TuPoT13 — Exhibition Hall

Nanophotonics: Poster Session (Poster Session)

Chair: Sanchez, Erik — Portland State Univ.

10:00-19:30 — TuPoT13.1

Two-Color Polarized Infrared Emission in a Waveguide Thermal Emitter, pp. 551-553.

Chen, Hung-Hsin — National Taiwan Univ.

Chang, Yi-Tsung — National Taiwan Univ.

Huang, Shao-Yu — National Taiwan Univ.

Chuang, Fang-Tzu — National Taiwan Univ.

Yu, Chih-Wei Ronald — National Taiwan Univ. Graduation Inst. ofElectronics En

Lee, Si-Chen	National Taiwan Univ.

10:00-19:30 TuPoT13.2

OPTODET – Tool to Model LWIR and MWIR Region for HgCdTe Photodetectors, pp. 554-558.

Vasileska, Dragica	Arizona State Univ. Tempe, AZ
Muralidharan, Pradyumna	ASU
Wijewarnasuriya, Priyalal S.	ARL

10:00-19:30 TuPoT13.3

Tunable Random Laser Action in a Pi-Conjugated Polymer-Based Photonic Glass Gain Medium, pp. 559-563.

Chen, Yujie	Univ. of Strathclyde
Herrnsdorf, Johannes	Univ. of Strathclyde
Guilhabert, Benoit	Univ. of Strathclyde
Zhang, Yanfeng	Univ. of Strathclyde
Kanibolotsky, Alexander	Univ. of Strathclyde
Skabara, Peter	Univ. of Strathclyde
Gu, Erdan	Univ. of Strathclyde
Laurand, Nicolas	Univ. of Strathclyde
Dawson, Martin	Univ. of Strathclyde

10:00-19:30 TuPoT13.4

Directivity-Enhanced Raman Spectroscopy Using a Parabolic Reflector Nanoantenna, pp. 564-567.

Pang, Yuanjie	Univ. of Victoria
Hajisalem, Ghazal	Department of Electrical and ComputerEngineering,Univ. of V
Gordon, Reuven	Univ. of Victoria

10:00-19:30 TuPoT13.5

Near-Field Plates in the Visible-IR Regime Using Rectangular Subwavelength Apertures, pp. 568-571.

Zhao, Lan	Univ. of Victoria
Cervantes Tellez, Gabriela Andrea	Univ. of Victoria
Gordon, Reuven	Univ. of Victoria

10:00-19:30 TuPoT13.6

Design of Optical Waveguide Nanoantennas, pp. N/A.

Ahmed, Aftab	Univ. of Victoria, Victoria, BC, Canada
Gordon, Reuven	Univ. of Victoria

10:00-19:30 TuPoT13.8

A Low Cost High Resolution Non-Linear Spectroscopic Near-Field Microscope, pp. 576-581.

Nowak, Derek	Portland State Univ.
Lawrence, A. J.	Portland State Univ.
Sanchez, Erik	Portland State Univ.

10:00-19:30 TuPoT13.11

The Effect of Core Displacement on the High Order Resonance Modes of a Nanoegg in the Quasistatic Regime, pp. 582-587.

Smaili, Sami	Rice Univ.
Massoud, Yehia	Rice Univ.

10:00-19:30 TuPoT13.12

Fabrication of Antireflection Structure by Simple Annealing of Fe Film, pp. 588-591.

Suehiro, Daisuke	the Univ. of tokyo
Nagato, Keisuke	The Univ. of Tokyo
Hamaguchi, Tetsuya	The Univ. of Tokyo
Nakao, Masayuki	Department of Mechanical Engineering, Graduate School of Enginee

WeA2T1	Salon A/B
Nanofabrication: Nano Tubes and Wires (Oral Session)	
Chair: Gordon, Reuven	Univ. of Victoria
Co-Chair: Wybourne, Martin	Dartmouth Coll.
10:30-11:00	WeA2T1.1
Multi-Layer Graphene Grid and Nanowire Fabrication and Printing, pp. 592-595.	
Rahman, Masudur	Marshall Univ.
Norton, Michael	Marshall Univ.
11:00-11:20	WeA2T1.2
Towards Nanotube Fountain Pen, pp. 596-599.	
Fan, Zheng	Michigan State Univ.
Tao, Xinyong	Zhejiang Univ. of Tech.
Zhang, Xiaobin	Zhejiang Univ.
Dong, Lixin	Michigan State Univ.
11:20-11:40	WeA2T1.3
Modeling and Minimizing Variations of Gate-All-Around Multiple-Channel Nanowire TFTs, pp. 600-603.	
Huang, Po-Chun	National Chiao Tung Univ.
Chen, Lu-An	National Chiao Tung Univ.
Chen, C. C.	National Chiao Tung Univ.
Sheu, Jeng-Tzong	National Chiao Tung Univ.
11:40-12:00	WeA2T1.4
Transparent Gold Nanowire Electrodes, pp. 604-607.	
Rosamond, Mark	Durham Univ.
Gallant, Andrew	Durham Univ.
Atherton, Joseph	Durham Univ.
Petty, Michael	Durham Univ.
Kolosov, Oleg	Lancaster Univ.
Zeze, Dagou	Durham Univ.
12:00-12:30	WeA2T1.5
ZnO Nanowire Growth by Physical Vapor Deposition, pp. 608-611.	
Tigli, Onur	Univ. of Miami
Juhala, Jason	Washington State Univ.

WeA2T2	Salon C/D
Nanowire/CNTs/graphene: Nanosensors (Oral Session)	
Co-Chair: Minot, Ethan	Oregon State Univ.
10:30-11:00	WeA2T2.1
Functionalization of Graphene and Graphene Oxide for Biosensing and Imaging, pp. 612-616.	
Li, Zhaohui	Pacific Northwest National Lab.
Wang, Ying	Pacific Northwest National Lab.
Du, Dan	Pacific Northwest National Lab.
Wang, Jun	Pacific Northwest National Lab.
Lin, Yuehe	Pacific Northwest National Lab.
Tang, Zhiwen	Pacific Northwest National Lab.
11:00-11:20	WeA2T2.2
Lithography Free Fabrication of Bistability Graphene FET Biosensor, pp. 617-620.	
You, Xueqiu	Korea Univ.
Pak, James Jungho	Korea Univ.
11:20-11:40	WeA2T2.3
Si Multi-Nanochannel FETS to Improve Device Uniformity/Stability and Detection of 10 Fm Insulin in Serum, pp. 621-624.	
Regonda, Suresh	Univ. of Texas at Dallas

Trivedi, Krutarth	Univ. of Texas at Dallas
Tian, Ruhai	Univ. of Texas at Dallas
Spurgin, Lisa	Univ. of Texas at Dallas, Richardson, Texas
Greene, Serena	Inst. of Metabolic Disease, Baylor Res. Inst. Dalla
Ding, Jiahuan	Inst. of Metabolic Disease, Baylor Res. Inst. Dalla
Gao, Jingming	Univ. of Texas at Dallas
Hu, Walter	Univ. of Texas at Dallas

11:40-12:00 WeA2T2.4

Characterization of Silicon Nitride Films for Silicon Nanowire-Based Biosensor, pp. 625-629.

Daunais, Tom	Michigan Tech. Univ.
Cheam, DawDon	Michigan Tech. Univ.
Bergstrom, Paul L.	Michigan Tech. Univ.
Friedrich, Craig	Michigan Tech. Univ.

12:00-12:30 WeA2T2.5

Electroactivity of Chemical and Plasma Modified Single-Walled Carbon Nanotubes to Application of Glucose Detection, pp. 630-635.

Kim, Joon Hyub	KOREA Univ.
Jin, Joon-Hyung	Korea Univ.
Lee, Jun-Yong	Korea Univ.
Park, Chan Won	Kangwon National Univ.
Min, Nam Ki	KOREA Univ.

WeA2T3 Salon G/H

Nanometrology & Characterization: Characterization of Nanoscale Materials (Oral Session)

Chair: Lilley, Carmen	Univ. of Illinois at Chicago
Co-Chair: Damazo, Bradley	National Inst. of Standards and Tech.

10:30-11:00 WeA2T3.1

Structure of Mesoporous Al2O3 Thin Film Obtained by Surfactant Templating, pp. 636-639.

Ha, Tae-Jung	Yonsei Univ.
Park, Hyung-Ho	Yonsei Univ.
Seung-Soo, Baek	Agency for Defence Development

11:00-11:20 WeA2T3.2

Nanoscale Characteristics of Single Crystal Zinc Oxide Nanowires, pp. 640-645.

Dawahre, Nabil	Univ. of Alabama
Brewer, Joseph	Univ. of Alabama
Shen, Gang	Univ. of Alabama
Harris, Nicholas	Univ. of Alabama
Wilbert, David	Univ. of Alabama
Butler, Lee	Univ. of Alabama
Balci, Soner	Univ. of Alabama
Baughman, William	Univ. of Alabama
Kim, Seongsin	Univ. of Alabama
Kung, Patrick	The Univ. of Alabama

11:20-11:40 WeA2T3.3

Influence of Aging on the Properties of Cerium Oxide Nanoparticles – Implications to Quantum Confinemnet Effect, pp. 646-650.

Kuchibhatla, Satyanarayana	PACIFIC NORTHWEST NATIONAL Lab.
Karakoti, Ajay	PNNL
Thevuthasan, S.	PNNL
Seal, Sudipta	Univ. of Central Florida
Baer, Donald R.	Pacific Northwest National Lab.

11:40-12:00 WeA2T3.4

Crystallographic Image Processing for Scanning Probe Microscopy: Development of a Dedicated Computer Program, pp. 651-656.

Bilyeu, Taylor	Portland State Univ.

Moon, Bill — Portland State Univ.
Straton, Jack — Portland State Univ.
Moeck, Peter — Portland State Univ.

12:00-12:30 — WeA2T3.5

*Nanoparticle Size and Shape Metrology: Implications for Materials Properties (I)**.
LeBrun, Thomas — National Inst. of Standards and Tech.

WeA2T4 — Salon I
Nanomaterials: Characterisation (Nanoparticles and Composites) (Oral Session)
Chair: Li, Wen — Michigan State Univ.
Co-Chair: Hietschold, Michael — Chemnitz Univ. of Tech.

10:30-11:00 — WeA2T4.1

Heat Treatment on Ni and Cr Doped Ni Core-Shell Nanoparticle Granular Films, pp. 657-661.
Sundararajan, Jennifer Anand — Univ. of Idaho
Schimel, Tayler — Univ. of Idaho
Qiang, You — Univ. of Idaho
Wang, C. M. — Pacific Northwest National Lab.
Baer, Donald R. — Pacific Northwest National Lab.

11:00-11:20 — WeA2T4.2

Origin of the Green Luminescence Band in ZnO Nanoparticles Synthesized by Sol-Gel Route, pp. 662-665.
Sharma, Archana — Indian Inst. of Tech. Bombay
Dhar, Subhabrata — Indian Inst. of Tech.
Singh, Bhanu Pratap — Indian Inst. of Tech. Bombay, Mumbai

11:20-11:40 — WeA2T4.3

Introduction of Reverse Oscillatory Flow Microreactor System for the Synthesis of Uniformly-Size CdS Nanoparticles, pp. 666-670.
Peterson, Daniel — Oregon State Univ.
Chandran, Padmavathi — Oregon State Univ.
Paul, Brian — Oregon State Univ.

11:40-12:00 — WeA2T4.4

Physical Chemical Properties of Polyimide Palladium Nano - Composite Membranes, pp. 671-674.
Ndungu, Patrick — Univ. of Kwa - Zulu Natal
Adeniyi, Olushola — Univ. of the Western Cape
Petrik, Leslie — Univ. of the Western Cape
Nechaev, Alexander — Univ. of the Western Cape

WeA2T5 — Cascade
Energy: Solar Cells II (Oral Session)
Chair: Shinagawa, Tsutomu — Portland State Univ.

11:00-11:20 — WeA2T5.2

Improved Transport with 1, 2-Ethanedithiol Treatment in the Preparation of Quantum-Dot-Nanowire Solar Cells, pp. 675-679.
Nadarajah, Athavan — Portland State Univ.
Koenenkamp, Rolf — Portland State Univ.

11:20-11:40 — WeA2T5.3

Improved Light Scattering in Amorphous Silicon Solar Cell by Double-Walled Carbon Nanotubes, pp. 680-683.
Tu, Wei-Chen — National Taiwan Univ.
Chang, Yi-Tsung — National Taiwan Univ.
Yang, Chieh-Hung — National Taiwan Univ.
Yeh, Dan-ju — National Taiwan Univ.
Ho, Chung-I — National Taiwan Univ.
Hsueh, Chun-Yuan — National Taiwan Univ.
Lee, Si-Chen — National Taiwan Univ.
Huang, Chia-Tze — Graduate Inst. of Electronics Engineering, NationalTaiwan Un

11:40-12:00	WeA2T5.4
Anthocyanin Dyes in Titanium Dioxide Nanoparticle-Dye Sensitized Solar Cells, pp. 684-686.	
Griep, Mark	US ARL
Cramer, Hailey	Science and Math Acad.
Choi, Daniel	Dept. of Chemistry, Univ. of Maryland
Karna, Shashi	US ARL
12:00-12:30	WeA2T5.5
Effect of Ultrashort Silicon Nanowires on Si/organic Solar Cells, pp. 687-690.	
Syu, Hong-Jhang	National Taiwan Univ.
Shiu, Shu-Chia	National Taiwan Univ.
Lin, Chin-fuh	National Taiwan Univ.

WeA2T6	Mt Hood
Nano-Bio-Medicine: Probing Molecular Interactions (Oral Session)	
Chair: Prasad, Shalini	Wichita State Univ.
10:30-11:00	WeA2T6.1
Microengineered Hydrogels for Stem Cell Bioengineering and Tissue Regeneration (I), pp. N/A	
Khademhosseini, Ali	Harvard Univ.
11:00-11:20	WeA2T6.2
Probing Protein-Protein Interaction Forces Using Single-Molecule Force Spectroscopy, pp. 692-697.	
Li, Mi	Shenyang Inst. of Automation Chinese Acad. ofSciences
Liu, Lianqing	Shenyang Inst. of Automation, Chinese AcamedyofSciences
Xi, Ning	Michigan State Univ.
Wang, Yuechao	State Key Lab. of Robotics, ShenyangInstituteofAutomation
Dong, Zaili	Chinese Acad. of Sciences
Li, Guangyong	Univ. of Pittsburgh
Xiao, Xiubin	Affiliated Hospital of Military Medical Acad. of Sciences
Zhang, Weijing	Affiliated Hospital of Military Medical Acad. of Sciences
11:20-11:40	WeA2T6.3
Molecular and BioMolecular Communication: Possible Role of Neurotransmitters and Microtubules, pp. 698-702.	
Lyshevski, Sergey	Rochester Inst. of Tech.
Gill, Tsouri	RIT
11:40-12:00	WeA2T6.4
Investigations of Bio Marker for Stem Cell Differentiations Using an Atomic Force Microscope Based Nanorobot, pp. 703-706.	
Yang, Ruiguo	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Qu, Chengeng	Michigan State Univ.
Fung, Carmen Kar Man	Michigan State Univ.
Tan, Mingjia	Department of Radiation Oncology, Univ. of Michigan
Sun, Yi	Univ. of Michigan
12:00-12:30	WeA2T6.5
Evaluation of Nanomaterials-Biomolecule Hybrids for Signal Enhancement of Impedimetric Biosensors, pp. 707-710.	
Singh, Kanwar Vikas	Portland State Univ.
Dash, Sandhayarani	Portland State Univ.
Whited, Allison	Portland State Univ.
Solanki, Raj	Portland State Univ.

WeP1T1	Salon A/B
Nanoelectronics: Reliability and Yield (Oral Session)	
Co-Chair: Goldgeisser, Leonid	Mentor Graphics Corp.
13:30-14:00	WeP1T1.1
Power Consumption & Reliability in NanoC, pp. 711-714.	
Reis, Ricardo	Univ. Federal do Rio Grande do Sul

14:00-14:20 WeP1T1.2

Electrical Reliability and Breakdown Mechanisms in Single-Walled Carbon Nanotubes, pp. 715-719.

Strus, Mark C — NIST
Keller, Robert R — NIST
Barbosa, Nicholas — NIST

14:20-14:40 WeP1T1.3

ESD Protection Consideration in Nanoscale CMOS Technology, pp. 720-723.

Ker, Ming-Dou — National Chiao-Tung Univ.
Lin, Chun-Yu — National Chiao-Tung Univ.

14:40-15:00 WeP1T1.4

Analysis of Yield Improvement Techniques for CNFET-Based Logic Gates, pp. 724-729.

Ashraf, Rehman — portland state Univ.
Chrzanowska-Jeske, Malgorzata — Portland State Univ.
Narendra, Siva — Portland State Univ.

15:00-15:30 WeP1T1.5

Reliability Optimized CMOS Gates, pp. 730-734.

Ibrahim, Walid — UAEU
Valeriu, Beiu — United Arab Emirates Univ.
Amer, Hoda — UAEU

WeP1T2 — Salon C/D

Nanoelectronic Devices: Memory Devices (Oral Session)

Chair: Evans, David — Sharp Lab. of America, Inc.
Co-Chair: Morris, James E — Portland State Univ.

13:30-14:00 WeP1T2.1

Vanadium Dioxide (VO2) Is Also a Ferroelectric: Properties from Memory Structures, pp. 735-739.

Lee, Sang Hyeon — Cornell Univ. Samsung Electronics
Kim, Moonkyung — Cornell Univ.
Lee, Jo-Won — Hanyang Univ.
Yang, Zheng — Harvard Univ.
Ramanathan, Shriram — Harvard Univ.
Tiwari, Sandip — Cornell Univ.

14:00-14:20 WeP1T2.2

Bipolar Resistive Switching of Zinc-Tin-Oxide Resistive Random Access Memory, pp. 740-743.

Murali, Santosh — Oregon State Univ.
Saranya, Jaana — OSU
Seung, Han — osu
Chang, Alex — osu
Herman, Gregory — Oregon State Univ.
Conley, John — Oregon State Univ.

14:20-14:40 WeP1T2.3

Low Power SET-Based SRAM Cell Design Using Negative Differential Conductance, pp. 744-747.

Syed, Naila — Univ. of Windsor
Chen, Chunhong — Univ. of Windsor

14:40-15:00 WeP1T2.4

A Novel Hybrid Design of a Memory Cell Using a Memristor and Ambipolar Transistors, pp. 748-753.

Junsangsri, Pilin — Northeastern Univ.
Lombardi, Fabrizio — Northeastern Univ.

WeP1T3 — Salon G/H

Nanometrology & Characterization: Particle Beam Metrology (Oral Session)

Chair: LeBrun, Thomas — National Inst. of Standards and Tech.
Co-Chair: Jiao, Jun — Portland State Univ.

13:30-14:00 WeP1T3.1

Precession Electron Diffraction & Automated Crystallite Orientation/phase Mapping in a Transmission Electron Microscope, pp. 754-759.

Moeck, Peter — Portland State Univ.
Nicolopoulos, Stavros — NanoMEGAS SPRL
Haeusler, Ines — Inst. of Physics, Humboldt Univ. of Berlin,Newtonstra&#
Neumann, Wolfgang — Univ. of Oregon, Department of Chemistry
Rouvimov, Sergei — Portland State Univ.

14:00-14:20 WeP1T3.2

Electron Rutherford Back Scattering Spectroscopy with Energy and Angular Scanning for Thin Oxide Films Diagnistics, pp. 760-763.

Kostanovskiy, Ilya — Moscow power engineering Inst. (Tech. Univ.
Afanas`ev, Victor — Moscow Power Engineering Inst. (Tech. Univ.
Batrakov, Alexander — Moscow Power Engineering Inst. (Tech. Univ.

14:20-14:40 WeP1T3.3

HRTEM Contrast Analysis for Structure Characterization of Graphene Films Grown by CVD, pp. 764-769.

Plachinda, Paul — Portland State Univ.
Rouvimov, Sergei — Portland State Univ.
Solanki, Raj — Portland State Univ.

14:40-15:00 WeP1T3.4

3D Visualization and Characterization of Nano Structured Materials, pp. 770-775.

Ostadi, Hossein — Uniuversity of birmingham
Rama, Pratap — Loughborough Univ.
Zhang, Xiaoxian — Univ. of Liverpool
Zhang, Xiaoxian — Univ. of Liverpool
Jiang, Kyle — Univ. of Birmingham

15:00-15:30 WeP1T3.5

Accurate Nanometer-Scale Imaging and Measurements with SEM (I), pp. 776-779.

Damazo, Bradley — National Inst. of Standards and Tech.
Ming, Bin — National Inst. of Standards and Tech.
Kavuri, Purushotham — National Inst. of Standards and Tech.
Vladár, András — National Inst. of Standards and Tech.
Postek, Michael — National Inst. of Standards and Tech.

WeP1T4 — Salon I

Nanomaterials: Applications (Oral Session)

Co-Chair: Aasmundtveit, Knut — Vestfold Univ. Coll.

13:30-14:00 WeP1T4.1

Dietary Mineral Nanoparticles Are a Normal Occurrence in the Human Gastrointestinal Tract: The Case for Calcium Phosphate, pp. 780-783.

Powell, Jonathan — Medical Res. Council- HNR
Pele, Laetitia — Elsie Widdowson Lab.

14:00-14:20 WeP1T4.2

A Study of Sulfuric and Acetic Acid Effect on Vertically Aligned Carbon Nanofibers for Bio/Chemical Sensors Development, pp. 784-789.

Wejinya, Uchechukwu C. — Univ. of Arkansas
Chalamalasetty, Siva Naga Sandeep — Univ. of Arkansas
Dong, Zhuxin — Univ. of Arkansas
Meyyappan, M. — NASA Ames Res. Center

14:20-14:40 WeP1T4.3

Hybrid Plasmon Damping Chemical Sensor, pp. 790-795.

Karumuri, Sriharsha — Oklahoma State Univ.
Kalkan, Ali Kaan — Oklahoma State Univ.

15:00-15:30 WeP1T4.5

Nanostructural TiO2 Films with High Surface Areas and Controllable Pore Sizes for High Performance Dye-Sensitized Solar Cells, pp. 796-799.

Park, Jung Tae — Yonsei Univ.
Kim, Jong Hak — Yonsei Univ.

WeP1T5 — Cascade

Education: Nanoeducation I (Oral Session)

Chair: Freeouf, John — Portland State Univ.

13:30-14:00 — WeP1T5.1

Nanotechnology Education: The Impact of and on Electrical Engineering, pp. 800-803.

Newberry, Deb — Dakota County Tech. Coll. Nano-Link Regional Center

14:00-14:20 — WeP1T5.2

Empowering Academia to Look into the Future: Nanotechnology Safety Education Creating the Workforce That You Will Need, pp. 804-808.

Fazarro, Dominick — Univ. of Texas at Tyler
Kulinowski, Kristen — Rice Univ.
Trybula, Walt — Texas State Univ. Marcos

14:20-14:40 — WeP1T5.3

Nano and MicroElectromechanical Systems Courses, pp. 809-814.

Lyshevski, Sergey — Rochester Inst. of Tech.
Fuller, Lynn — RIT
Puchades, Ivan — RIT
Andersen, John — RIT

14:40-15:00 — WeP1T5.4

Nano-Materials for Renewable Energy: Toward the Integration of Education with Research and Internship, pp. 815-818.

Rouvimov, Sergei — Portland State Univ.
Mitchell, Drake — Portland Satae Univ.
Solanki, Raj — Portland State Univ.

15:00-15:30 — WeP1T5.5

Introduction to Nano-Materials Science and Engineering: An Elective Course within an Applied Physics PhD Program, pp. 819-824.

Moeck, Peter — Portland State Univ.

WeP1T6 — Mt Hood

Nano-Bio-Medicine: Nanotherapies (Oral Session)

Chair: Khademhosseini, Ali — Harvard Univ.
Co-Chair: Xi, Ning — Michigan State Univ.

13:30-14:00 — WeP1T6.1

Engineering a Change in Cancer Therapy through Nanotechnology, pp. 825-829.

Hinkal, George — National Cancer Inst.
Farrell, Dorothy — National Cancer Inst.
Hook, Sara — National Cancer Inst.
Panaro, Nicholas — SAIC-Frederick
Ptak, Krzysztof — National Cancer Inst.
Grodzinski, Piotr — National Cancer Inst.

14:00-14:20 — WeP1T6.2

Fabrication and Characterization of Porous Silicon Nanoparticles for Sirna Delivery, pp. 830-832.

Kopermsub, Phikunthong — National Nanotechnology Center
Mayen, Varissaporn — National Nanotechnology Center
McInnes, Steven — School of Chemical and Physical Sciences, Flinders Univ. of
Voelcker, Nicolas — School of Chemical and Physical Sciences, Flinders Univ. of

14:20-14:40 — WeP1T6.3

Curcumin Nanoparticles a Gateway for Multifaceted Approach to Tackle Alzheimer's Disease, pp. 833-836.

Mathew, Anila	Toyo Univ.
Aravind, Athulya	Toyo Univ.
Fukuda, Takahiro	Bio-Nano Electronics Res. Centre, Toyo Univ. Kawagoe,
Hasumura, Takashi	Bio-Nano Electronics Res. Centre, Toyo Univ. Kawagoe,
Nagaoka, Yutaka	Bio-Nano Electronics Res. Centre, Toyo Univ. Kawagoe,
Yoshida, Yasuhiko	Bio-Nano Electronics Res. Centre, Toyo Univ. Kawagoe,
Maekawa, Toru	Bio-Nano Electronics Res. Centre, Toyo Univ. Kawagoe,
Venugopal, K	Sooriya Hospital, Chennai, India
Kumar, Sakthi	Toyo Univ.

14:40-15:00 WeP1T6.4

Ligand Doping of Iron Oxide Nanoparticles As an Approach to Novel Oral Iron Therapeutics, pp. 837-840.

Faria, Nuno	Medical Res. Council
Pereira, Dora	MRC-HNR Elsie Widdowson Lab.
Mergler, Bianca	MRC-HNR Elsie Widdowson Lab.
Powell, Jonathan	Medical Res. Council- HNR

15:00-15:30 WeP1T6.5

Effects of Surface Functional Groups on the Aggregation Stability of Magnetite Nanoparticles in Biological Media Containing Serum, pp. 841-844.

Wiogo, Hilda Tri Rahmani	Univ. of New South Wales
Lim, May	Univ. of New South Wales
Amal, Rose	Univ. of New South Wales
Bulmus, Volga	İzmir Inst. of Tech. Turkey

WeP2T1 Salon A/B

Nanocircuits & Architectures: Nanoarchitecture (Oral Session)

Chair: Hammerstrom, Dan	Portland State Univ.
Co-Chair: Teuscher, Christof	Portland State Univ.

16:00-16:30 WeP2T1.1

Integrated Nanosystems with Junctionless Crossed Nanowire Transistors, pp. 845-848.

Narayanan, Pritish	Univ. of Massachusetts Amherst
Panchapakeshan, Pavan	Univ. of Massachusetts Amherst
Kina, Jorge	Univ. of California, Los Angeles
Chui, Chi On	Univ. of California, Los Angeles
Moritz, Csaba Andras	Univ. of Massachusetts Amherst

16:30-16:50 WeP2T1.2

3-D Integration Requirements for Hybrid Nanoscale-CMOS Fabrics, pp. 849-853.

Panchapakeshan, Pavan	Univ. of Massachusetts Amherst
Vijayakumar, Priyamvada	Univ. of Massachusetts,Amherst
Narayanan, Pritish	Univ. of Massachusetts Amherst
Chui, Chi On	Univ. of California, Los Angeles
Koren, Israel	Univ. of Massachusetts,Amherst
Moritz, Csaba Andras	Univ. of Massachusetts Amherst

16:50-17:10 WeP2T1.3

Latency and Power Consumption in Unstructured Nanoscale Boolean Networks, pp. 854-859.

Amarnath, Avinash	Portland State Univ.
Damera, Prateen Reddy	Portland State Univ.
Goudarzi, Alireza	Portland State Univ.
Christof, Teuscher	Portland State Univ.

17:10-17:30 WeP2T1.4

Evolving Nanoscale Associative Memories with Memristors, pp. 860-864.

Sinha, Arpita	Portland State Univ.
Kulkarni, Manjari	Portland State Univ.
Christof, Teuscher	Portland State Univ.

17:30-18:00 WeP2T1.5

All-NDR Crossbar Logic, pp. 865-868.

Strukov, Dmitri	UCSB
Likharev, Konstantin	SUNY

WeP2T2	Salon C/D
Nanoelectronic Devices: Novel Materials and Devices (Oral Session)	
Chair: Lombardi, Fabrizio	Northeastern Univ.
Co-Chair: Goodnick, Stephen	Arizona State Univ.
16:00-16:30	WeP2T2.1

Comparison of Power and Performance for the TFET and MOSFET and Considerations for P-TFET, pp. 869-872.

Avci, Uygar E.	Intel Corp.
Rios, Rafael	Intel Corp.
Kuhn, Kelin	Intel Corp.
Young, Ian A.	Intel Corp.
16:30-16:50	WeP2T2.2

Highly Sensitive, Silicon-On-Insulator Nanowire Based Photodetector: Device Optimization and Analysis, pp. 873-876.

Fadavi Roudsari, Anita	Univ. of Waterloo
Li, Guanting	Univ. of Washington
Saini, Simarjeet	Univ. of Waterloo
O, Nixon	Teledyne DALSA Inc.
Anantram, Anant	Univ. of Washington
16:50-17:10	WeP2T2.3

Return Loss of Printed Silver Paste Lines with Different Filler Sizes and Their Surface Roughness, pp. 877-880.

Komoda, Natsuki	Osaka Univ.
Suganuma, Katsuaki	Osaka Univ.
Nogi, Masaya	Osaka Univ.
17:10-17:30	WeP2T2.4

Multiscale Modeling of Wurtzite InN/GaN Quantum Dot LEDs, pp. 881-886.

Yalavarthi, Krishna	Southern Illinois Univ. at Carbondale
Sundaresan, Sasi	Southern Illinois Univ. at Carbondale
Ahmed, Shaikh	Southern Illinois Univ. at Carbondale
17:30-18:00	WeP2T2.5

Spin Effects of Charged Exciton States in Electric Field Tunable Quantum Dot Molecules, pp. 887-890.

Wijesundara, Kushal C.	Ohio Univ.

WeP2T3	Salon G/H
Nanometrology & Characterization: Proximal Probe Metrology (Oral Session)	
Chair: Hietschold, Michael	Chemnitz Univ. of Tech.
Co-Chair: Moeck, Peter	Portland State Univ.
16:00-16:30	WeP2T3.1

*A Scaning Microscopy Probe with Pyramidal Nanowire Tip for Atomic Force Microscopy and Thermal Imaging**.

Burouni, Narges	Twente Univ.
16:30-16:50	WeP2T3.2

Crystallographic STM Image Processing of 2D Periodic and Highly Symmetric Molecule Arrays, pp. 891-896.

Moeck, Peter	Portland State Univ.
Bilyeu, Taylor	Portland State Univ.
Straton, Jack	Portland State Univ.
Hipps, Kerry	Washington State Univ.
Mazur, Ursula	Department of Chemistry, Washington State Univ. Pullman, W
Hietschold, Michael	Chemnitz Univ. of Tech.
Toader, Marius	Solid Surfaces Analysis Group, Inst. of Physics, Chemnitz Un
Juergen, Rabe	Humboldt Univ.
16:50-17:10	WeP2T3.3

Characterization of the Adhesion between Nanoparticles and Polymer Matrix by Atomic Force Microscopy, pp. 897-902.

Chung, Wenchiang Richard	San Jose State Univ.
Amo, Karl	Membrane Tech. and Res. Inc.

17:10-17:30 WeP2T3.4

Acousto Characterization of Fluid-Like Mesoscopic Films under Shear, pp. 903-906.

Fernandez, Rodolfo	Portland State Univ.
Wang, Xiaohua	Portland State Univ.
La Rosa, Andres	Portland State Univ.

17:30-18:00 WeP2T3.5

Tip-Enhanced Probe Design for Nanometrology, pp. 907-911.

Sanchez, Erik	Portland State Univ.
Nowak, Derek	Portland State Univ.
Doughty, Jeff	Portland State Univ.
DeArmond, Fredrick M.	Portland State Univ.

WeP2T4 Salon I

EHS & Standards II (Oral Session)

Chair: Pleus, Richard — Intertox

16:00-16:30 WeP2T4.1

Nano-Safety, pp. 912-915.

Trybula, Walt — Texas State Univ. Marcos

16:30-16:50 WeP2T4.2

Intelligent Informatics Platform for Nano-Agriculture, pp. 916-919.

Anish, Preethu Rose	Tata Consultancy Services
Bhat, Manoj	Tata Consultancy Services
Vidhani, Kumar	Tata Consultancy Services
Ajmeri, Nirav	Tata Consultancy Services
Gole, Anand	Tata Chemicals Limited
Ghaisas, Smita	Tata Consultancy Services

16:50-17:10 WeP2T4.3

Development of Photoactivable Nanofiber Membranes for Efficient Metal Extraction, pp. 920-925.

Nammoonnoy, Jintana	Oregon State Univ.
Koesdjojo, Myra	Oregon State Univ.
Remcho, Vincent	Oregon State Univ.

17:10-17:30 WeP2T4.4

The Big Five – Patent Filings Reveal the Hottest Upcoming Areas in Nanotech Commercialization, pp. 926-931.

Bachmann, Steve — Lewis & Roca LLP

WeP2T5 Cascade

Education: Nanoeducation II (Oral Session)

Chair: Trybula, Walt	Texas State Univ. Marcos
Co-Chair: Fazarro, Dominick	Univ. of Texas at Tyler

16:00-16:30 WeP2T5.1

Nanohub.org – the ABACUS Tool Suite As a Framework for Semiconductor Education Courses, pp. 932-936.

Mehrotra, Saumitra	Purdue Univ.
Zentner, Lynn	Purdue Univ.
Vasileska, Dragica	Arizona State Univ. Tempe, AZ
Klimeck, Gerhard	Purdue Univ.

16:30-16:50 WeP2T5.2

Impact of New Technologies on an Electrical Engineering Distance Education Classroom, pp. 937-941.

Nyathi, Jabulani	Eastern Washington Univ.
Talarico, Claudio	Eastern Washington Univ.
Rodriguez-Marek, Esteban	Eastern Washington Univ.

Koh, Min-Sung — Eastern Washington Univ.

16:50-17:10 — WeP2T5.3

Nanopatterns - Using Network Archetypes As an Approach to Understanding Emergence of Properties at Scale, pp. 942-947.

Cormia, Robert — Foothill Coll.
Johnsen, Jill — Foothill Coll.

17:10-17:30 — WeP2T5.4

Development of an Option in Nanotechnology: Elements of Student Learning, pp. 948-952.

Koretsky, Milo — Oregon State Univ.
Yokochi, Alexandre — Oregon State Univ.
Harper, Stacey — Oregon State Univ.

17:30-18:00 — WeP2T5.5

Construction of Concepts and Proposition Statements in High School Nanotechnology Curriculum, pp. 953-957.

Lin, Jang-Long — National Changhua Univ. of Education
Horng, Lance — National Changhua Univ. ofEducation
Wu, Jong-Ching — National Changhua Univ. of Education
Shih, Yu-Tai — Department of Physics, National Changhua Univ. of Education
Wen, Yu-Der — Department of biology, National Changhua Univ. of Education
Chang, Chun-Chuan — National Sihu Senior High School
Lin, Fu-Mei — National Chunan Senior High School

WeP2T6 — Mt Hood

Nanophotonics: Lasers and Photonic Crystals (Oral Session)

Chair: Koenenkamp, Rolf — Portland State Univ.
Co-Chair: Sanchez, Erik — Portland State Univ.

16:00-16:30 — WeP2T6.1

Fabrication and Optical Characterization of a Flexible Colloidal Quantum Dot Laser, pp. 958-962.

Chen, Yujie — Univ. of Strathclyde
Guilhabert, Benoit — Univ. of Strathclyde
Herrnsdorf, Johannes — Univ. of Strathclyde
Zhang, Yanfeng — Univ. of Strathclyde
Mackintosh, Allan — Univ. of Strathclyde
Pethrick, Richard — Univ. of Strathclyde
Gu, Erdan — Univ. of Strathclyde
Laurand, Nicolas — Univ. of Strathclyde
Dawson, Martin — Univ. of Strathclyde

16:30-16:50 — WeP2T6.2

Amplitude Instability and Phase Instability of Quantum-Cascade Lasers under Kerr Effect, pp. 963-968.

Bai, Jing — Univ. of Minnesota

16:50-17:10 — WeP2T6.3

Photonic Crystal Nanobeam Cavities for Single-Step Metal Nanoparticle Integration, pp. 969-972.

Mukherjee, Ishita — Univ. of Victoria
Hajisalem, Ghazal — Department of Electrical and ComputerEngineering,Univ. of V
Gordon, Reuven — Univ. of Victoria

17:10-17:30 — WeP2T6.4

Monitoring of Adenosine within Hollow Core Photonic Crystal Fiber by Surface Enhanced Raman Scattering (SERS), pp. 973-977.

Khetani, Altaf — Univ. of Ottawa
Tiwari, Vidhu — Univ. of Ottawa
Momenpour, Ali — Univ. of Ottawa
Anis, Hanan — Univ. of Ottawa

17:30-18:00 — WeP2T6.5

Photonic Crystal with a HfO2 Defect to Improve Performance of Carbon Nanotube Based Photodetectors, pp. 978-981.

Chen, Hongzhi — MSU
Xi, Ning — Michigan State Univ.

Lou, Jianyong	Michigan State Univ.
Lai, King Wai Chiu	Michigan State Univ.
Chen, Liangliang	Michigan State Univ.
Song, Bo	Department of Electrical and Computer Engineering,MichiganState

WeP2T7 Salon E

Nanowire/CNTs/graphene: Carbon Nanotube Devices (Oral Session)

Chair: Paolo, Lugli	TUM
Co-Chair: Kelly, Michael	Centre for Advanced Photonics and Electronics, Univ. of Cambridge

16:00-16:30 WeP2T7.1

Novel Approach towards Performance Enhancement of All Semiconducting Carbon Nanotube Devices for Printed Electronics, pp. 982-984.

Jain, Dheeraj	Univ. of California, Irvine
Rouhi, Nima	Univ. of California-Irvine
Burke, Peter	Univ. of California, Irvine

16:30-16:50 WeP2T7.2

Integrating Low Temperature Aligned Carbon Nanotubes As Vertical Interconnects in Si Technology, pp. 985-990.

Vollebregt, Sten	Delft Univ. of Tech.
Ishihara, Ryoichi	Delft Univ. of Tech.
Derakhshandeh, Jaber	Delft Univ. of Tech.
van der Cingel, Johan	Delft Univ. of Tech.
Schellevis, Hugo	Delft Univ. of Tech.
Beenakker, Cornelis Ignatius Maria	Delft Univ. of Tech.

16:50-17:10 WeP2T7.3

Single-Walled Nanotube MIS Memory Devices, pp. 991-995.

Alba Martin, Maria	Durham Univ.
Firmager, Tim	Durham Univ.
Atherton, Joseph	Durham Univ.
Rosamond, Mark	Durham Univ.
Gallant, Andrew	Durham Univ.
Petty, Michael	Durham Univ.
Al Ghaferi, Amal	Masdar Inst. United Arab Emirates
Ayesh, Ahmad	United Arab Emirates Univ.
Ashall, Dan	Bangor Univ. UK
Mabrook, Mohammed F.	Bangor Univ. School of Electronic Engineering
Zeze, Dagou	Durham Univ.

17:10-17:30 WeP2T7.4

Fabrication of Stable N-Type Thin-Film Transistor with Cs Encapsulated Single-Walled Carbon Nanotubes, pp. 996-999.

Hatakeyama, Rikizo	Tohoku Univ.
Kato, Toshiaki	Tohoku Univ.
Osanai, Yosuke	Tohoku Univ.

17:30-18:00 WeP2T7.5

Printing Technology and Advantage of Purified Semiconducting Carbon Nanotubes for Thin Film Transistor Fabrication on Plastic Films, pp. 1000-1005.

Numata, Hideaki	Tech. Res. Association for Single Wall Carbon Nanotubes
Ihara, Kazuki	Tech. Res. Association for Single Wall Carbon Nanotubes
Saito, Takeshi	National Inst. of Advanced Industrial Science and Tech.
Nihey, Fumiyuki	Tech. Res. Association for Single Wall Carbon Nanotubes

WeP2T8 Salon F

Nanomaterials: Titanium Dioxide and Zinc Oxide (Oral Session)

Chair: Felba, Jan	Wroclaw Univ. of Tech.

16:00-16:30 WeP2T8.1

Effect of Annealing on ZnO Nanowires Grown at Low Temperature, pp. 1006-1010.

Nadarajah, Athavan	Portland State Univ.
Rouvimov, Sergei	Portland State Univ.
Koenenkamp, Rolf	Portland State Univ.

16:30-16:50 WeP2T8.2

Free-Standing TiO2 Nanotube Membranes from Electrochemical Anodization, pp. 1011-1015.

Liu, Guohua	Vestfold Univ. Coll.
Hoivik, Nils	Vestfold Univ. Coll.
Wang, Kaiying	Vestfold Univ. Coll.
Jakobsen, Henrik	Vestfold Univ. Coll.

16:50-17:10 WeP2T8.3

One-Step Ambient-Pressure Conformal Deposition of Nanocrystalline Zinc Oxide Thin Films, pp. N/A

Teh, Kwok Siong	San Francisco State Univ.
Pedersen, Joachim	San Francisco State Univ.
Esposito, Heather	San Francisco State Univ.

17:10-17:30 WeP2T8.4

Low Temperature Optoelectrical Studies on Nanocrystalline CdS-ZnO Nanocomposite Thin Films, pp. 1021-1024.

Ghosh, Pintu	Indian Inst. of Tech. Bombay
Mishra, Jitendra Kumar	Indian Inst. of Tech. Bombay,Mumbai-400076, India.
Singh, Bhanu Pratap	Indian Inst. of Tech. Bombay, Mumbai

17:30-18:00 WeP2T8.5

Robust Conductivity Changes in ZnO and MgZnO Nanoparticle Films from Annealing in Hydrogen Ambient, pp. 1025-1029.

Chava, Sirisha	Univ. of Idaho
Young, Marie	Univ. of Idaho
Sanchez, Lorena	Univ. of Idaho
Dick, Joseph	Univ. of Idaho
Morrison, John	Univ. of Idaho
Huso, Jesse	Univ. of Idaho
Bergman, Leah	Univ. of Idaho
Berven, Christine	Univ. of Idaho

WePoT10 Exhibition Hall

Nanomagnetics - Poster Session (Poster Session)

Chair: Gibbons, Brady — Oregon State Univ.

08:30-19:30 WePoT10.1

Investigation of Magnet Polarity Induced Ferrofluid Ring Pattern in Microgravity and Hypergravity, pp. 1030-1033.

Ho, Kent Loong	Multimedia Univ. Cyberjaya Campus
Chong, Theng Yee	Multimedia Univ.
Ong, Boon Hoong	Faculty of Engineering, Multimedia Univ.

08:30-19:30 WePoT10.2

Error Analysis of Co/Pt Multilayer Based Nanomagnetic Logic, pp. 1034-1037.

Ju, Xueming	Tech. Univ. Muenchen
Becherer, Markus	Tech. Univ. München
Kiermaier, Josef	Tech. Univ. München
Breitkreutz, Stephan	Tech. Univ. München
Lugli, Paolo	Tech. Univ. Muenchen
Csaba, Gyorgy	Univ. of Notre Dame

08:30-19:30 WePoT10.3

An Experimental Demonstration of the Viability of Energy Minimizing Computing Using Nano-Magnets, pp. 1038-1042.

Pulecio, Javier	Brookhaven National Lab.
Sarkar, Sudeep	Univ. of South Florida
Bhanja, Sanjukta	Univ. of South Florida

08:30-19:30 WePoT10.5

An Over View of Cr Substituted Fe-Based Nanocrystalline Fe73.5-Xcrxcu1nb3si13.5b9 Alloys, pp. 1043-1047.

Mahmud, Sultan — The Univ. of Asia Pacific
Hakim, M.A. — The Univ. of Asia Pacific

WePoT11 — Exhibition Hall
Nanorobotics & Nanomanufacturing: Poster Session (Poster Session)
Chair: Gibbons, Brady — Oregon State Univ.

08:30-19:30 — WePoT11.2
Field Emission Induced Platinum Nanoparticles Synthesis, pp. 1048-1051.
Yang, Zhan — Nagoya Univ.
Nakajima, Masahiro — Nagoya Univ.
Fukuda, Toshio — Nagoya Univ.

08:30-19:30 — WePoT11.3
Quantitative Evaluation of Bacterium-Driven Microobject Fabricated by Optical Tweezers, pp. 1052-1055.
Nogawa, Kousuke — Nagoya Univ.
Kojima, Masaru — Nagoya Univ.
Nakajima, Masahiro — Nagoya Univ.
Homma, Michio — Nagoya Univ.
Arai, Fumihito — Nagoya Univ.
Fukuda, Toshio — Nagoya Univ.

08:30-19:30 — WePoT11.4
Video Rate Atomic Force Microscopy (AFM) Imaging Using Compressive Sensing, pp. 1056-1059.
Song, Bo — Department of Electrical and ComputerEngineering,MichiganState U
Xi, Ning — Michigan State Univ.
Yang, Ruiguo — Michigan State Univ.
Lai, King Wai Chiu — Michigan State Univ.
Qu, Chengeng — Michigan State Univ.

08:30-19:30 — WePoT11.5
Design Considerations for Nanoshell-Based Sensors, pp. 1060-1065.
Smaili, Sami — Rice Univ.
Massoud, Yehia — Rice Univ.

08:30-19:30 — WePoT11.6
Development and Testing of Nano Robot End Effector for Cell Electrophysiology and Elastography Studies, pp. 1066-1069.
Lai, King Wai Chiu — Michigan State Univ.
Gaitas, Angelo — Picocal, Inc, USA
Xi, Ning — Michigan State Univ.
Yang, Ruiguo — Michigan State Univ.
Fung, Carmen Kar Man — Michigan State Univ.

08:30-19:30 — WePoT11.7
Quick Repairing of Defects Inside Telescoping Multi-Walled Carbon Nanotubes Using Contact Resistance, pp. 1070-1073.
Nakajima, Masahiro — Nagoya Univ.
Ode, Yasuhito — Nagoya Univ.
Yang, Zhan — Nagoya Univ.
Saito, Yahachi — Nagoya Univ.
Fukuda, Toshio — Nagoya Univ.

WePoT13 — Exhibition Hall
Nanowire/CNTs/graphene: Poster Session (Poster Session)
Chair: Gibbons, Brady — Oregon State Univ.

08:30-19:30 — WePoT13.2
Defect Integration of Reduced Graphene Oxide Based on Dielectrophoretic Assembly, pp. N/A
Zhang, Yu — Shenyang Inst. of Automation, Chinese Acad.
Liu, Lianqing — Shenyang Inst. of Automation, Chinese AcamedyofSciences
Xi, Ning — Michigan State Univ.

Wang, Yuechao	State Key Lab. of Robotics, ShenyangInstituteofAutomation
Dong, Zaili	Chinese Acad. of Sciences

08:30-19:30 WePoT13.3

A Study of the Nucleation and Growth of Silver Nanowires on Titanium Dioxide, pp. 1080-1083.

Chen, Hung Tao	National Cheng Kung Univ. Taiwan
Song, Jenn Ming	Department of Materials Science and Engineering, National Dong H
Chen, In Gann	Department of Materials Science and Engineering, NationalCheng K
Lee, Hsin Yi	National Synchrotron Radiation Res. Center, Taiwan
Tung, Hsien Tse	Inst. of Physics, Acad. Sinica, Taipei

08:30-19:30 WePoT13.5

Carbon Nanotube Growth Process-Related Variability in CNFETs, pp. 1084-1087.

García Almudéver, Carmen	Univ. Pol. de Catalunya
Rubio, Antonio	Univ. Pol. de Catalunya

08:30-19:30 WePoT13.6

Graphene: Quantum-Mechanical Outlook, pp. 1088-1092.

Lyshevski, Sergey	Rochester Inst. of Tech.

08:30-19:30 WePoT13.8

Low Stress Transfer of Graphene and Its Tuneable Resistance Characteristics by Plasma Treatments in Hydrogen, pp. 1093-1096.

Chen, Wai Leong	National Cheng Kung Univ.
Tzeng, Yonhua	National Cheng Kung Univ.
Tu, Chia-hao	National Cheng Kung Univ.
Chuan-Pu, Liu	National Cheng Kung Univ.
Liang, Keng-Chih	National Cheng Kung Univ.
Liu, Chih-Yi	National Cheng Kung Univ.

08:30-19:30 WePoT13.11

N3asic-Based Nanowire Volatile Ram, pp. 1097-1101.

Rahman, Mostafizur	Univ. of Massachusetts Amherst
Narayanan, Pritish	Univ. of Massachusetts Amherst
Moritz, Csaba Andras	Univ. of Massachusetts Amherst

08:30-19:30 WePoT13.12

A Qualitative Comparison of Energy Band Gap Equations with a Focus on Temperature and Its Effect on CNTFETs, pp. 1102-1105.

Torres, Jesus	Univ. of Texas Pan American
Huq, Hasina	The Univ. of Texas - Pan American

08:30-19:30 WePoT13.13

Selective Manipulation of ZnO Nanowires by Controlled Dielectrophoretic Force, pp. 1106-1109.

Tao, Quan	Univ. of Pittsburgh
Liu, Liming	Univ. of Pittsburgh
Li, Guangyong	Univ. of Pittsburgh

08:30-19:30 WePoT13.14

Self-Heating and Short-Range Coulomb Interactions Due to Charging of Traps in Nanowire Transistors, pp. 1110-1113.

Vasileska, Dragica	Arizona State Univ. Tempe, AZ
Goodnick, Stephen	Arizona State Univ.
Hossain, Arif	Intel

08:30-19:30 WePoT13.15

High Resolution Analysis of Self Assembled Cu Nanowires on Vicinal Si(001), pp. 1114-1117.

Ng, Poh Keong	Univ. of Illinois at Chicago
Fisher, Brandon	Argonne National Lab.
Low, Ke-Bin	Univ. of Illinois at Chicago
Joshi-Imre, Alexandra	-
Bode, Matthias	Univ. of Wuerzburg
Lilley, Carmen	Univ. of Illinois at Chicago

08:30-19:30 WePoT13.18

Spray Deposition of Highly Uniform CNT Films and Their Application in Gas Sensing, pp. 1118-1123.

Abdellah, Alaa	Inst. for Nanoelectronics, Tech. Univ. München
Yaqub, Arhan	Inst. for Nanoelectronics, Tech. Univ. München
Ferrari, Carlotta	Inst. for Nanoelectronics, Tech. Univ. München
Fabel, Bernhard	Inst. for Nanoelectronics, Tech. Univ. München
Lugli, Paolo	Tech. Univ. Muenchen
Scarpa, Giuseppe	Tech. Univ. München

08:30-19:30 WePoT13.19

Investigation and Characterization of Graphene for Optical Sensing, pp. 1124-1127.

Lai, King Wai Chiu	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Fung, Carmen Kar Man	Michigan State Univ.
Chen, Hongzhi	MSU
Chen, Liangliang	Michigan State Univ.
Yang, Ruiguo	Michigan State Univ.
Song, Bo	Department of Electrical and ComputerEngineering,MichiganState U

08:30-19:30 WePoT13.20

Influence of Argon on Field Emission from CVD-Grown In-Plane Single-Walled Carbon Nanotube Meshes, pp. N/A

Fontana, Marcio	Georgetown Univ.
Liu, Yian	Georgetown Univ.
Monica, Andrew H.	Johns Hopkins Univ.
Barbara, Paola	Georgetown Univ.
Paranjape, Makarand	Georgetown Univ.

WePoT14 Exhibition Hall

Quantum Computing: Poster Session (Poster Session)

Chair: Gibbons, Brady — Oregon State Univ.

08:30-19:30 WePoT14.1

Co-Tunnelling Effects on Transport in the Spin Blockade Regime, pp. 1133-1136.

Oh, Jung Hyun	KAIST
Bubanja, Vladimir	Industrial Res. Limited
Shin, Mincheol	KAIST
Lee, Seok-Hee	KAIST

08:30-19:30 WePoT14.2

Particle-Wave Deformation Controls Quantum Mechanisms, pp. N/A.

Kisel, Valery P. — Inst. of Solid State Physics, Russian Acad.

WePoT15 Exhibition Hall

Simulation & Modelling: Poster Session (Poster Session)

Chair: Gibbons, Brady — Oregon State Univ.

08:30-19:30 WePoT15.1

Modeling Magnetic Quantum-Dot Cellular Automata by HDL, pp. N/A.

Ottavi, Marco	Univ. of Rome "Tor Vergata"
Pontarelli, Salvatore	Univ. of Rome "Tor Vergata"
Salsano, Adelio	Univ. of Rome "Tor Vergata"
Lombardi, Fabrizio	Northeastern Univ.

08:30-19:30 WePoT15.2

An Equivalent Circuit for a Two--State Quantum System Coupled to a Single--Mode Electromagnetic Cavity, pp. 1145-1148.

Civalleri, Pier Paolo	Pol. di torino
Gilli, Marco	Pol. di torino
Bonnin, Michele	Pol. di torino

08:30-19:30 WePoT15.3

Analysis of Controlled Morse Type Frenkel-Kontorova Model, pp. 1149-1154.

Tang, Wenyan	Central South Univ.
Qu, Zhihua	Univ. of central florida
Guo, Yi	Stevens Inst. of Tech.
Kwon, Younghun	Hangyang Univ.

08:30-19:30 WePoT15.4

Embedded Self-Energy Technique for Solving Arbitrary Nanoelectronic Systems Using FEAST, pp. 1155-1158.

Levin, Alan	Univ. of Massachusetts Amherst
Polizzi, Eric	Department of Electrical and Computer Engineering, Univ. of

08:30-19:30 WePoT15.6

Random Interface-Traps-Induced Characteristic Fluctuation in 16-Nm High-K/metal Gate CMOS Device and SRAM Circuit, pp. 1159-1162.

Cheng, Hui-Wen	National Chiao Tung Univ. Inst. of Commnications Engin
Yung-Yueh, Chiu	National Chiao Tung Univ. Inst. of Communications Engi
Li, Yiming	National Chiao Tung Univ.

WePoT16 Exhibition Hall

Spintronics - Poster Session (Poster Session)

Chair: Gibbons, Brady Oregon State Univ.

08:30-19:30 WePoT16.1

The Role of Defects in Governing the Magnetic Properties of GaN: Gd Epitaxial Layers Grown by NH3 Molecular Beam Epitaxy, pp. 1163-1166.

Mishra, Jitendra Kumar	Indian Inst. of Tech. Bombay,Mumbai-400076, India.
Dhar, Subhabrata	Indian Inst. of Tech.
Singh, Bhanu Pratap	Indian Inst. of Tech. Bombay, Mumbai

ThA2T1	Salon A/B
Nanocircuits & Architectures: Novel Device Nanosystems (Oral Session)	
Chair: Morris, James E	Portland State Univ.
Co-Chair: Strukov, Dmitri	UCSB
10:30-11:00	ThA2T1.1
*Economic and Design Choices for Viable Nanoscale Electronic Systems**.	
Narendra, Siva	Portland State Univ.
Ashraf, Rehman	portland state Univ.
Chrzanowska-Jeske, Malgorzata	Portland State Univ.
11:00-11:20	ThA2T1.2
A Hybrid CMOS-SET Multiplier Using Frequency Modulation, pp. 1167-1170.	
Deng, Guoqing	Univ. of Windsor
Chen, Chunhong	Univ. of Windsor
11:20-11:40	ThA2T1.3
General Purpose Logic Gate Using Ballistic Nanotransistors, pp. 1171-1176.	
Kaushal, Vikas	Univ. of Massachusetts Lowell
Margala, Martin	Univ. of Massachusetts Lowell
Ampadu, Paul	Univ. of Rochester
Iniguez-de-la-Torre, Ignacio	Univ. de Salamanca
Wolpert, David	Univ. of Rochester
11:40-12:00	ThA2T1.4
Low Power and Metallic CNT Tolerant CNTFET SRAM Design, pp. 1177-1182.	
Zhang, Zhe	Washington State Univ.
Delgado-Frias, Jose G.	Washington State Univ.
12:00-12:30	ThA2T1.5
Ultra Low Power/Energy SET-Based Axon-Inspired Communication, pp. 1183-1186.	
Beg, Azam	United Arab Emirates Univ. UAE
Valeriu, Beiu	United Arab Emirates Univ.

ThA2T2	Salon C/D
Nanowire/CNTs/graphene: Properties of Graphene I (Oral Session)	
Chair: Balandin, Alexander	Univ. of California, Riverside (UCR)
Co-Chair: Koley, Goutam	Univ. of South Carolina
10:30-11:00	ThA2T2.1
Graphene Bandgap Modification Via Functionalization with Metal-Bis-Arene Molecules, pp. 1187-1192.	
Plachinda, Paul	Portland State Univ.
Evans, David	Sharp Lab. of America, Inc.
Solanki, Raj	Portland State Univ.
11:00-11:20	ThA2T2.2
Graphene-Based Thermal Interface Materials, pp. 1193-1196.	
Shahil, Khan	Univ. of California, Riverside (UCR)
Balandin, Alexander	Univ. of California, Riverside (UCR)
11:20-11:40	ThA2T2.3
Anisotropy of Lattice Thermal Conductivity in Edge-Disordered Graphene Nanoribbons, pp. 1197-1200.	
Aksamija, Zlatan	Univ. of Wisconsin-Madison
Knezevic, Irena	Univ. of Wisconsin-Madison
11:40-12:00	ThA2T2.4
Layer Engineering of Graphene with Oxygen Plasma Etching, pp. 1201-1204.	
Rao, Fubo	Michigan State Univ.
Li, Wen	Michigan State Univ.
Dong, Lixin	Michigan State Univ.

12:00-12:30	ThA2T2.5

Broadband Conductivity of Graphene from DC to THz, pp. 1205-1207.

Rouhi, Nima	Univ. of California-Irvine
Jain, Dheeraj	Univ. of California, Irvine
Capdevila, Santiago	Univ. Pol. de Catalunya
Jofre, Lluis	Univ. Pol. de Catalunya
Brown, Elliott	Physical Domains, LLC
Burke, Peter	Univ. of California, Irvine

ThA2T3	Salon G/H
Simulation & Modelling: Modeling of Nanometerials (Oral Session)	
Co-Chair: Lilley, Carmen	Univ. of Illinois at Chicago

10:30-11:00	ThA2T3.1

Electromagnetic Modelling and Experimental Characterization of Carbon-Based Nanocomposites, pp. 1208-1211.

De Bellis, Giovanni	Sapienza Univ. of Rome, DIAEE, CNIS
Sarto, Maria Sabrina	Sapienza Univ. of Rome
Tamburrano, Alessio	Sapienza Univ. of Rome, DIAEE, CNIS
D'Aloia, Alessandro Giuseppe	Sapienza Univ. of Rome, DIAEE, CNIS

11:00-11:20	ThA2T3.2

Low-Lying Electronic States of the Nanodiatomic Compounds CdS, pp. N/A.

Badreddine, Khalil	Beirut Arab Univ.
El-Kork, Nayla	Khalifa Univ. of Science Tech. and Res.
Korek, Mahmoud	Beirut Arab Univ.

11:20-11:40	ThA2T3.3

A Model for Calculating the Flexoelectric Coefficient of the Supercell Nano-Scale Structure, pp. N/A.

Wang, Wenyan	Tsinghua Univ.

11:40-12:00	ThA2T3.4

A System-Based Model for the Scattering by Two Spherical Nanoparticles, pp. 1220-1225.

Smaili, Sami	Rice Univ.
Massoud, Yehia	Rice Univ.

ThA2T4	Salon I
Nanomaterials: Nanomaterial Synthesis I (Oral Session)	

10:30-11:00	ThA2T4.1

Aqueous Synthesis of N-/p-Type ZnO Nanorods on Porous Silicon for the Application of P-N Junction Device, pp. 1226-1229.

Park, Eunkyung	LG Hausys Lab.
Lee, Jungwoo	LG electronics
Park, Taehee	Hanyang Univ.
Lee, Jongtaek	hanyang Univ.
Dongwhan, Lee	hanyang Univ.
Yi, Whikun	hanyang Univ.

11:00-11:20	ThA2T4.2

Synthesis of New Ferecrystals (SnSe)_y(TSe₂) Where T= V and Ta, pp. 1230-1234.

Atkins, Ryan	Univ. of Oregon, Dave Johnson Lab.
Johnson, David	Univ. of Oregon
Zschack, Paul	Argonne National Lab.

11:20-11:40	ThA2T4.3

Hydrothermal Synthesis of TiO2 Nanorod Arrays on Transparent Conducting Substrates, pp. 1235-1238.

Chao, Jiun-Jie	National Taiwan Univ.
Wang, Jyun-Jie	National Taiwan Univ.
Shiu, Shu-Chia	National Taiwan Univ.
Hung, Shih-Che	national taiwan Univ.
Lin, Ching-fuh	National Taiwan Univ.

12:00-12:30 ThA2T4.5

Nanoparticles, Nanotubes and Nanowell-Array Films Via Solvent Diffusion-Induced Self-Assembly, pp. 1239-1243.

Peng, Xiaobin — South China Univ. of Tech.

ThA2T5

Nanomagnetics (Oral Session)

Chair: Fukuda, Toshio — Nagoya Univ.

Co-Chair: Cahay, Marc — Univ. of Cincinnati

10:30-11:00 ThA2T5.1

Implementation of a Nanomagnetic Full Adder Circuit, pp. 1244-1247.

Varga, Edit — Univ. of Notre Dame

Csaba, Gyorgy — Univ. of Notre Dame

Bernstein, Gary — Univ. OF NOTRE DAME

Porod, Wolfgang — Univ. of Notre Dame

11:00-11:20 ThA2T5.2

Nanomagnetic Logic: Investigations on Field-Coupled Computing Devices by Experiment-Based Compact Modeling, pp. 1248-1251.

Breitkreutz, Stephan — Tech. Univ. München

Kiermaier, Josef — Tech. Univ. München

Yilmaz, Cenk — Tech. Univ. München

Ju, Xueming — Tech. Univ. Muenchen

Csaba, Gyorgy — Univ. of Notre Dame

Schmitt-Landsiedel, Doris — Tech. Univ. München

Becherer, Markus — Tech. Univ. München

11:20-11:40 ThA2T5.3

Ferrite Nanoparticles for MEMS Technology Sensors and Actuators, pp. 1252-1256.

Lyshevski, Sergey — Rochester Inst. of Tech.

Martirosyan, Karen — Univ. of Texas at Brownsville

11:40-12:00 ThA2T5.4

Collidal Study of Magnetic Nanoparticles Using Electromagnetic Separation Device, pp. 1257-1260.

Tarsem Singh, Maninder Kaur — Univ. of Idaho

Bailey, Paul — Univ. of Idaho

Qiang, You — Univ. of Idaho

12:00-12:30 ThA2T5.5

Low Power CMOS-Magnetic Nano-Logic with Increased Bit Controllability, pp. 1261-1266.

Das, Jayita — Univ. of South Florida

Alam, Syed — Everspin Tech.

Bhanja, Sanjukta — Univ. of South Florida

ThA2T6 Mt Hood

Nanophotonics: Plasmonic Nanostructures for Sensing and Emission (Oral Session)

Chair: Perera, A. G. Unil — Georgia State Univ.

Co-Chair: Armani, Andrea — Univ. of Southern California

10:30-11:00 ThA2T6.1

Triple Peaks Plasmonic Thermal Emitter with Selectable Wavelength Using Periodic Block Pattern As Top Layer, pp. 1267-1270.

Huang, Shao-Yu — National Taiwan Univ.

Chang, Pei-En — National Taiwan Univ.

Chen, Hung-Hsin — National Taiwan Univ.

Chen, Chun-Han — National Taiwan Univ.

Yu, Chih-Wei Ronald — National Taiwan Univ. Graduation Inst. ofElectronics En

Lee, Si-Chen — National Taiwan Univ.

11:00-11:20 ThA2T6.2

S and P-Polarization Dependence of Localized Surface Plasmon Enhanced Photoelectron Emission from Fractal Gold/ito Nanostructures, pp. 1271-1273.

Word, Robert	Portland State Univ.
Fitzgerald, Joe	Portland State Univ.
Koenenkamp, Rolf	Portland State Univ.

11:20-11:40 ThA2T6.3

Molecular Sensing and Processing on Photons, pp. 1274-1279.

Lyshevski, Sergey	Rochester Inst. of Tech.

11:40-12:00 ThA2T6.4

Biosensing Gold Plots in Near-Field Optical Microscopy, pp. N/A.

El-Kork, Nayla	Khalifa Univ. of Science Tech. and Res.
Moretti, Paul	Lab. de Physico Chimie des materiaux Luminescents
Jacquier, Bernard	Lab. de Physico Chimie des materiaux Luminescents

12:00-12:30 ThA2T6.5

Tuning the Resonance of Silver Nanoprisms by Plasmonic Hybridization with a Thin Gold Film, pp. 1286-1288.

Hajisalem, Ghazal	Department of Electrical and ComputerEngineering,Univ. of V
Pang, Yuanjie	Univ. of Victoria
Gordon, Reuven	Univ. of Victoria

ThP1T1 Salon A/B

Nanocircuits & Architectures: QCA Nanoelectronics (Oral Session)

Chair: Fukuda, Toshio	Nagoya Univ.
Co-Chair: Cotofana, Sorin	Delft Univ. of Tech.

13:30-14:00 ThP1T1.1

Heat Dissipation Bounds for Nanocomputing: Theory and Application to QCA, pp. 1289-1294.

Ercan, Ilke	Univ. of Massachusetts Amherst
Anderson, Neal	Univ. of Massachusetts Amherst

14:00-14:20 ThP1T1.2

Restoring Divider Design for Quantum-Dot Cellular Automata, pp. 1295-1300.

Kim, Seong-Wan	Univ. of Texas at Austin
Swartzlander, Earl	Univ. of Texas at Austin

14:20-14:40 ThP1T1.3

Lattice-Based Integrated-Signal Nanocellular Automata (LINA) for the Future of QCA-Based Nanoelectronics, pp. 1301-1306.

Hook, Loyd Reed	Univ. of Oklahoma
Lee, Samuel C.	Univ. of Oklahoma

14:40-15:00 ThP1T1.4

Minimal Majority Gate Mapping of 4-Variable Functions for Quantum Cellular Automata, pp. 1307-1312.

Wang, Peng	Univ. of Toledo
Niamat, Mohammed	Univ. of Toledo
Vemuru, Srinivasa	Ohio Northern Univ.

15:00-15:30 ThP1T1.5

Multi-State Digital and Quantum Signal Processing and Emerging Nanoelectronic Processing Hardware: Complexity, Performance and Capabilities, pp. 1313-1316.

Lyshevski, Sergey	Rochester Inst. of Tech.

ThP1T2 Salon C/D

Nanowire/CNTs/graphene: Properties of Graphene II (Oral Session)

Chair: Rouvimov, Sergei	Portland State Univ.
Co-Chair: Vasileska, Dragica	Arizona State Univ. Tempe, AZ

13:30-14:00 ThP1T2.1

Work Function and Conductivity Changes Due to Molecular Adsorption in Epitaxial Graphene on 6H-SiC, pp. 1317-1321.

Nomani, Waliullah	Univ. of South Carolina
Singh, Amol K.	Univ. of South Carolina

Shields, Virgil B.	Cornell Univ.
Spencer, Michael G.	Cornell Univ.
Sbrockey, Nick M.	Structured Materials Industries, Inc.
Tompa, Gary S.	Structured Materials Industries, Inc.
Koley, Goutam	Univ. of South Carolina

14:00-14:20 ThP1T2.2

First-Principle Study of Energy-Band Control by Cross-Sectional Morphology in [110]-Si Nanowires, pp. 1322-1326.

Kyogoku, Shinya	The Univ. of Tokyo
Iwata, Jun-Ichi	Univ. of Tsukuba
Oshiyama, Atsushi	The Univ. of Tokyo

14:20-14:40 ThP1T2.3

High-Yield Dielectrophoretic Deposition and Ion Sensitivity of Graphene, pp. 1327-1330.

Li, Pengfei	Washington State Univ.
Lei, Nan	Washington State Univ.
Xu, Jie	Washington State Univ.
Xue, Wei	Washington State Univ.

14:40-15:00 ThP1T2.4

Electron Transport Properties of Individual Gallium Nitride Nanowire Decorated with Gold Nanoparticles, pp. 1331-1334.

Sundararajan, Jency P	Univ. of Idaho
McIlroy, David N	Univ. of Idaho

15:00-15:30 ThP1T2.5

Self-Aligned Nanowires in Tetrahedral Amorphous Carbon Multilayer Structures, pp. 1335-1338.

Krauser, Johann	Hochschule Harz, Univ. of Applied Sciences
Gehrke, Hans-Gregor	II. Inst. of Physics, Univ. of Göttingen
Hofsäss, Hans	II. Inst. of Physics, Univ. of Göttingen
Trautmann, Christina	Helmholtzzentrum für Schwerionenforschung GmbH
Weidinger, Alois	Helmholtz-Zentrum Berlin GmbH

ThP1T3 Salon G/H

Simulation & Modelling: Modeling of Nanowires (Oral Session)

13:30-14:00 ThP1T3.1

Real-Time Quantum Simulation of Terahertz Response in Single Wall Carbon Nanotube, pp. 1339-1342.

Chen, Zuojing	Univ. of Massachusetts - Amherst, MA 01003, USA
Polizzi, Eric	Department of Electrical and Computer Engineering, Univ. of
Yngvesson, Sigfrid	Department of Electrical and Computer Engineering, Univ. of

14:00-14:20 ThP1T3.2

Isotropic and Anisotropic Scaling Analysis of Nanowire Phase Change Memory, pp. 1343-1347.

Liu, Jie	Univ. of Washington
Yu, Bin	State Univ. of New York, Albany
Anantram, Anant	Univ. of Washington

14:20-14:40 ThP1T3.3

Impact of Phonon Scattering in a Si GAA Nanowire FET with a Single Donor in the Channel, pp. 1348-1351.

Kalna, Karol	Swansea Univ.

14:40-15:00 ThP1T3.4

Enhancement of Thermoelectric Efficiency by Uniaxial Tensile Stress in N-Type GaAs Nanowires, pp. 1352-1357.

Paul, Abhijeet	Purdue Univ.
Miao, Kai	Purdue Univ.
Hegde, Ganesh	Purdue Univ.
Mehrotra, Saumitra	Purdue Univ.
Luisier, Mathieu	Purdue Univ.
Klimeck, Gerhard	Purdue Univ.

15:00-15:30 ThP1T3.5

Simulation of Si Nanowire Biosensor: Effects of Surface and Biasing on Sensitivity and Linearity, pp. 1358-1362.

Yang, Xinrong	Univ. of Texas at Dallas
Trivedi, Krutarth	Univ. of Texas at Dallas
Regonda, Suresh	Univ. of Texas at Dallas
Tian, Ruhai	Univ. of Texas at Dallas
Frensley, William	Univ. of Texas at Dallas
Zhou, Dian	Univ. of Texas at Dallas
Hu, Walter	Univ. of Texas at Dallas

ThP1T4 Salon I

Nanomaterials: Nanomaterial Synthesis II (Oral Session)

Chair: Yeow, John T.W.	Univ. of Waterloo
Co-Chair: Gibbons, Brady	Oregon State Univ.

13:30-14:00 ThP1T4.1

Synthesis of Four New Members of the (PbSe)1.16(TiSe2)n (n = 1, 2, 3, and 4) Family of Ferecrystals, pp. 1363-1366.

Moore, Daniel B.	Univ. of Oregon
Beekman, Matt	Univ. or Oregon, Department of Chemistry
Johnson, David	Univ. of Oregon
Zschack, Paul	Argonne National Lab.

14:00-14:20 ThP1T4.2

Room-Temperature Diamond Seeding and Microwave Plasma Enhanced CVD Growth of Nanodiamond with a Tungsten Interfacial Layer, pp. 1367-1370.

Chu, Yueh-Chieh	National Cheng KungUniversity
Jiang, Gerald	National Cheng Kung Univ.
Jhang, Ci	National Cheng Kung Univ.
Ting, Jyh-Ming	National Cheng Kung Univ.
Lee, Sony	Industrial Tech. Res. Inst.
Tzeng, Yonhua	National Cheng Kung Univ.

14:20-14:40 ThP1T4.3

Effect of Ultrafine Powderization of Natural Formulated Functional Food Using Low Temperature Turbo Mill on Antioxidant Activity, pp. 1371-1374.

Lee, Beomgoo	Korea Energy Tech.
Kim, Dongeun	Kangwon National Univ.
Lee, Kangyol	Korea Energy Tech.
Kim, Wonwoo	kangwon national Univ.
Min, Joohong	kangwon national Univ.
Kang, Wiesoo	Kangwon national Univ.

14:40-15:00 ThP1T4.4

Study of Lanthanum Incorporated HfO2 Nano-Scale Film Deposited As a MOS Device Structure Using Dense Plasma Focus Device, pp. N/A.

Srivastava, Dr. Asutosh	PDPM-Indian Inst. for Information Tech. Design and Man
Malhotra, Yashi	Department of Physics and Astrophysics, Univ. of Delhi

15:00-15:30 ThP1T4.5

Graphene Synthesis by Thermal CVD Method, pp. 1378-1383.

Chung, Wenchiang Richard	San Jose State Univ.
Zhao, Yufan	San Jose State Univ.
Oye, Michael	NASA Ames Res. Center
Nguyen, Cattien	NASA Ames Res. Center

ThP1T5

Spintronics (Oral Session)

Chair: Cahay, Marc	Univ. of Cincinnati
Co-Chair: Seipel, Bjoern	Portland State Univ.

13:30-14:00 ThP1T5.1

Nanomagnetic Circuits with Spin Torque Majority Gates, pp. 1384-1388.

Nikonov, Dmitri	Intel
Bourianoff, George I.	Intel
Ghani, Tahir	Intel

14:00-14:20 ThP1T5.2

On Physical Limits and Challenges of Interconnects for Spin Devices, pp. 1389-1394.

Rakheja, Shaloo	Georgia Inst. of Tech.
Naeemi, Azad	Georgia Inst. of Tech.

14:20-14:40 ThP1T5.3

Influence of Impurity Scattering on the Conductance Anomalies of Quantum Point Contacts with Lateral Spin-Orbit Coupling, pp. 1395-1398.

Wan, Junjun	Intel
Cahay, Marc	Univ. of Cincinnati
Debray, Philippe	Univ. of Cincinnati
Newrock, Richard	Univ. of Cincinnati

14:40-15:00 ThP1T5.4

Post-CMOS Hybrid Spin-Charge Nanofabrics, pp. 1399-1402.

Shabadi, Prasad	Univ. of Massachusetts, Amherst, Massachusetts, USA
Moritz, Csaba Andras	Univ. of Massachusetts Amherst

15:00-15:30 ThP1T5.5

Comparative Material Issues for Fast Reliable Switching in STT-RAMs, pp. 1403-1408.

Munira, Kamaram	Univ. of Virginia
Ghosh, Avik W	Univ. of Virginia
Soffa, William A	The Department of Material Science and Engineering, Univ. o

ThP1T6 Mt Hood

Nanophotonics: Plasmonic Nanostructures and Devices (Oral Session)

Chair: Koenenkamp, Rolf	Portland State Univ.
Co-Chair: Smaili, Sami	Rice Univ.

13:30-14:00 ThP1T6.1

Designing Optical Path Length, Photonic, and Plasmonic Effects into Nanostructured Solar Cells, pp. 1409-1412.

Nam, Wook Jun	Solarity, LLC
Ji, Liming	Department of Electrical Engineering, Univ. of Arkansas, Fa
Varadan, Vasundara	Univ. of Arkansas, Fayetteville, AR 72701, USA
Fonash, Stephen	Center for Nanotechnology Education and Utilization, The Pennsyl

14:00-14:20 ThP1T6.2

Design and Fabrication of Resonant Coaxial Nanoapertures in a Gold Film, pp. 1413-1415.

Li, Dan	Univ. of Victoria
Pang, Yuanjie	Univ. of Victoria
Gordon, Reuven	Univ. of Victoria

14:20-14:40 ThP1T6.3

Enhancement of Localized Resonance through Non-Centrosymmetric Trumpet Hole Arrays in Ag/Si and Ag/SiO2/Ag Structure, pp. 1416-1419.

Yu, Chih-Wei Ronald	National Taiwan Univ. Graduation Inst. ofElectronics En
Chang, Yi-Tsung	National Taiwan Univ.
Chen, Hung-Hsin	National Taiwan Univ.
Lee, Si-Chen	National Taiwan Univ.

14:40-15:00 ThP1T6.4

Spoof Surface Plasmon Polariton Switches for GHz~THz System, pp. 1420-1423.

Song, Kyungjun	The Univ. of Michigan
Mazumder, Pinaki	Univ. of Michigan

ThP2T1 Salon A/B

Nanocircuits & Architectures: Reversible Logic & Fault Tolerance (Oral Session)

Co-Chair: Christof, Teuscher	Portland State Univ.

16:00-16:30 ThP2T1.1

Atto-Joule Gates for the Whole Voltage Range, pp. 1424-1429.

Valeriu, Beiu	United Arab Emirates Univ.
Beg, Azam	United Arab Emirates Univ. UAE
Ibrahim, Walid	UAEU

16:30-16:50 ThP2T1.2

A New Design of the Reversible Subtractor Circuit, pp. 1430-1435.

Thapliyal, Himanshu	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA

16:50-17:10 ThP2T1.3

Design of a Novel Reversible ALU Using an Enhanced Carry Look-Ahead Adder, pp. 1436-1440.

Morrison, Matthew	Univ. of South Florida
Lewandowski, Matthew	Univ. of South Florida
Meana, Richard	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA

17:10-17:30 ThP2T1.4

Adaptive Fault-Tolerant Architecture for Unreliable Device Technologies, pp. 1441-1444.

Aymerich, Nivard	UPC Barcelona Tech.
Cotofana, Sorin	Delft Univ. of Tech.
Rubio, Antonio	Univ. Pol. de Catalunya

17:30-18:00 ThP2T1.5

Design of a Moore Finite State Machine Using a Novel Reversible Logic Gate, Decoder and Synchronous Up-Counter, pp. 1445-1449.

Morrison, Matthew	Univ. of South Florida
Ranganathan, Nagarajan	Univ. of South Florida, Tampa, FL, USA

ThP2T2 Salon C/D

Nanoelectronic Devices: Oxide-Based Materials and Devices (Oral Session)

Chair: Tiwari, Sandip	Cornell Univ.
Co-Chair: Herman, Gregory	Oregon State Univ.

16:00-16:30 ThP2T2.1

Ordered Nanocrystalline ZnO Films for High Speed and Transparent Thin Film Transistors, pp. 1450-1455.

Bayraktaroglu, Burhan	Air Force Res. Lab.
Leedy, Kevin	Air Force Res. Lab.

16:30-16:50 ThP2T2.2

High Resistive Tunnel Junctions for the Room Temperature Operating Single Electron Transistors Fabricated Using Chemical Oxidation of Tungsten Nano Particles, pp. 1456-1459.

Karre, Prasanjit Santosh Kumar Karre	Michigan Tech. Univ.
Cheam, DawDon	Michigan Tech. Univ.
Acharya, Manoranjan	Michigan Tech. Univ.
Bergstrom, Paul L.	Michigan Tech. Univ.

16:50-17:10 ThP2T2.3

White Si / ZnO Nanocrystal Light Emitting Devices, pp. N/A.

Neshataeva, Ekaterina	Univ. Duisburg-Essen
Tilmar, Kuemmell	Univ. Duisburg-Essen
Bacher, Gerd	Univ. Duisburg-Essen

17:10-17:30 ThP2T2.4

Reductive-Gas Sensor Using Iron Oxide Nanowires, pp. 1465-1469.

Uriya, Yuu	The Univ. of Tokyo
Nagato, Keisuke	The Univ. of Tokyo
Hamaguchi, Tetsuya	The Univ. of Tokyo
Nakao, Masayuki	Department of Mechanical Engineering, Graduate School of Enginee

17:30-18:00	ThP2T2.5

Tunneling Atomic Force Microscopy Characterization of Cuprous Oxide Thin Films, pp. 1470-1473.

Castle, Brett	AFIT
Li, Alex	Air Force Inst. of Tech.
Coutu, Ronald	Air Force Inst. of Tech.
Van Nostrand, Joseph	Air Force Res. Lab.
Hengehold, Robert L	Air Force Inst. of Tech.

ThP2T3	Salon G/H
Simulation & Modelling: Modeling of Nanoscale Devices (Oral Session)	
Co-Chair: Bergstrom, Paul L.	Michigan Tech. Univ.

16:00-16:30	ThP2T3.1

Modeling Complementary Resistive Switches by Nonlinear Memristive Systems, pp. 1474-1478.

Linn, Eike	RWTH Aachen Univ.
Menzel, Stephan	RWTH Aachen Univ.
Rosezin, Roland	Forschungszentrum Jülich GmbH
Böttger, Ulrich	RWTH Aachen Univ.
Bruchhaus, Rainer	Forschungszentrum Jülich GmbH
Waser, Rainer	RWTH Aachen Univ.

16:30-16:50	ThP2T3.2

The Computation of Power Requirements and Write-Time of Thermally Actuated Nano-Electro-Mechanical Memory, pp. 1479-1482.

Maghsoudi, Elham	Louisiana State Univ.
Martin, Michael	Louisiana State Univ.

16:50-17:10	ThP2T3.3

A PDMS-Based Pressure-Tunable Nanograting, pp. 1483-1486.

Foland, Steven	The Univ. of Texas at Dallas
Choi, Kyung-Hak	The Univ. of Texas at Dallas
Liu, Ke	The Univ. of Texas at Dallas
MacFarlane, Duncan	The Univ. of Texas at Dallas
Lee, Jeong-Bong	The Univ. of Texas at Dallas

17:10-17:30	ThP2T3.4

Towards Realistic Atomic-Scale Modeling of Nanoscale Devices, pp. 1487-1492.

Blom, Anders	QuantumWise
Stokbro, Kurt	QuantumWise

17:30-18:00	ThP2T3.5

Delay Analysis of Gate-Adjusted CNTFETs for Undeposited CNT Defect-Tolerance, pp. 1493-1498.

Cho, Geunho	Northeastern Univ.
Lombardi, Fabrizio	Northeastern Univ.

ThP2T4	Salon I
Industrial Applications & Commercialization (Oral Session)	
Chair: Rung, Skip	ONAMI
Co-Chair: Miller, John	Dune Sciences, Inc.

16:00-16:30	ThP2T4.1

New Characterization Strategies for Streamlining the Commercialization of Nanomaterials, pp. 1499-1503.

Miller, John	Dune Sciences, Inc.
Glover, Richard D.	Univ. of Oregon
Hutchison, James E.	Univ. of Oregon

16:30-16:50	ThP2T4.2

Fast Separation of Cadmium and Lead Ions from Contaminated Water Using Conjugates of Magnetic Nanoparticle-DTPA, pp. 1504-1507.

Zhang, Huijin	Univ. of Idaho

Johnson, Andrew — Environmental Biotechnology Inst. Univ. of Idaho
Tarsem Singh, Maninder Kaur — Univ. of Idaho
Paszczynski, Andrzej — Environmental Biotechnology Inst. Univ. of Idaho
Qiang, You — Univ. of Idaho

16:50-17:10 ThP2T4.3

Characteristic of Fuel Cell Pt/Carbon Powder Supported Pt Nano Particles by Making Coaxial Pulsed Vacuum Arc Discharge Evaporator, pp. 1508-1509.

Agawa, Yoshiaki — ULVAC-RIKO,Inc.
Endo, Satoshi — ULVAC-RIKO,Inc
Matsuura, Masamichi — ULVAC-RIKO,Inc
Ishii, Yoshikazu — ULVAC-RIKO,Inc

17:10-17:30 ThP2T4.4

THE SEM/FIB WORKBENCH: Automated Nanorobotics System Inside of Scanning Electron or Focussed Ion Beam Microscopes, pp. 1510-1515.

Klocke, Volker — KLOCKE NANOTECHNIK GmbH
Jones, Greg — Ec. Tech.

17:30-18:00 ThP2T4.5

Nucleation Sites for Multilayer Graphene on NIckel Catalyst, pp. 1516-1520.

Zakar, Eugene — U.S. Army Res. Lab.
Nichols, Barbara — U. S. Army Res. Lab.
Kilpatrick, Stephen — U.S. Army Res. Lab.
Meissner, Gregory — U.S. Army Res. Lab.
Fu, Richard — U.S. Army Res. Lab.
Kevin, Hauri — U.S. Army Res. Lab.

ThP2T5
Quantum Computing (Oral Session)

16:00-16:30 ThP2T5.1

An Approach to Quantum Cost Optimization in Reversible Circuits, pp. 1521-1526.

Szyprowski, Marek — Warsaw Univ. of Tech.
Kerntopf, Pawel — Warsaw Univ. of Tech.

16:30-16:50 ThP2T5.2

Quantum Processing: Feasibility Studies and Solutions, pp. 1527-1532.

Lyshevski, Sergey — Rochester Inst. of Tech.

16:50-17:10 ThP2T5.3

Quantum Authentication Protocol Using Entanglement Swapping, pp. 1533-1537.

Chien, Chia-Hung — National Taiwan Univ.
Lin, Tien-Sheng — Lan Yang Inst. of Tech.
Chang, Ting-Hsu — National Taiwan Univ.
Yuan, Shih-Yi — Feng Chia Univ.
Kuo, Sy-Yen — National Taiwan Univ.

17:10-17:30 ThP2T5.4

Reversible Quantum Circuits and Quantum Transmission Integrity, pp. 1538-1542.

Lin, Tien-Sheng — Lan Yang Inst. of Tech.
Chien, Chia-Hung — National Taiwan Univ.
Chang, Ting-Hsu — National Taiwan Univ.
Yuan, Shih-Yi — Feng Chia Univ.
Kuo, Sy-Yen — National Taiwan Univ.

17:30-18:00 ThP2T5.5

Design and Analysis of a Novel Reversible Encoder/Decoder, pp. 1543-1546.

Nachtigal, Michael — Univ. of South Florida
Ranganathan, Nagarajan — Univ. of South Florida, Tampa, FL, USA

ThP2T6 Mt Hood

Nanophotonics: Resonance Effects in Nanodots, Nanorings, Nanoprisms & Nanoeggs (Oral Session)

Chair: Dawson, Martin — Univ. of Strathclyde
Co-Chair: Gordon, Reuven — Univ. of Victoria

16:00-16:30 ThP2T6.1

Selective Nano-Assembly of Single Quantum Dots on a Two Dimensional Surface, pp. 1547-1550.

Ropp, Chad — Univ. of Maryland
Cummins, Zachary — Univ. of Maryland
Probst, Roland — Univ. of Maryland
Kumar, Rakesh — Univ. of Maryland
Qin, Sijia — Univ. of Maryland
Fourkas, John — Univ. of Maryland
Raghavan, Srinivasa R. — Univ. of Maryland
Shapiro, Benjamin — Univ. of Maryland
Waks, Edo — Univ. of Maryland

16:30-16:50 ThP2T6.2

Thickness Dependent Transmission Spectra of Gold Nanoring Arrays, pp. 1551-1556.

Ou, Neil — National Changhua Univ. of Education
Lee, Huang-Ming — National Changhua Univ. of Edu.
Shyu, Jia-Hong — National Changhua Univ. of Education
Horng, Lance — National Changhua Univ. ofEducation
Wu, Jong-Ching — National Changhua Univ. of Education

16:50-17:10 ThP2T6.3

Dipole and Quadrupole Resonance Modes of Nanoegg Dimers in the Quasistatic Regime, pp. 1557-1562.

Smaili, Sami — Rice Univ.
Massoud, Yehia — Rice Univ.

17:10-17:30 ThP2T6.4

Athermal Polymer Coated Hybrid Microresonators, pp. 1563-1567.

Choi, Hong Seok — Univ. of Southern California
Armani, Andrea — Univ. of Southern California

ThP2T7 Salon E

Nanowire/CNTs/graphene: Graphene Devices (Oral Session)

Chair: Goncher, Gary — Tektronix
Co-Chair: Dubey, Madan — ARL/SEDD

16:00-16:30 ThP2T7.1

Scaling Study of Graphene Transistors, pp. 1568-1571.

Yoon, Youngki — Univ. of California, Berkeley
Nikonov, Dmitri — Intel
Salahuddin, Sayeef — Univ. of California, Berkeley

16:30-16:50 ThP2T7.2

Nanotransistors Using Graphene Interfaced with Advanced Dielectrics for High Speed Communication, pp. 1572-1574.

Nayfeh, Osama — United States Army Res. Lab.
Kim, Ki Kang — MIT
Kong, Jing — MIT

16:50-17:10 ThP2T7.3

System-Level Analysis of Graphene Klein Tunneling Device, pp. 1575-1579.

Yang, Yinxiao — Georgia Inst. of Tech.
Brenner, Kevin — Georgia Inst. of Tech.
Murali, Raghu — Georgia Inst. of Tech.

17:10-17:30 ThP2T7.4

Fabrication and Characterization of High-Performance Graphene-On-Diamond Devices, pp. 1580-1583.

Yu, Jie — Univ. of California,riverside

Balandin, Alexander	Univ. of California, Riverside (UCR)

17:30-18:00	ThP2T7.5

Field-Effect Transistors with Graphene Channels and Quantum Dots: Gate Control and Photo-Induced Effects, pp. 1584-1587.

Trivedi, Samarth	New Jersey Inst. of Tech.
Grebel, Haim	new jersey Inst. of Tech.

ThP2T8	Salon F
Nanomaterials: Nanoparticle Synthesis (Oral Session)	
Chair: Baer, Donald R.	Pacific Northwest National Lab.
Co-Chair: Xue, Wei	Washington State Univ.

16:00-16:30	ThP2T8.1

*Synthesis and Characterization of CNTs from Co-Nanoparticles Supported on Graphene Oxides**.

Lee, Heung Joo	DH Holdings Co., LTD
Kim, Jae Deuk	DH Holdings Co., LTD
Park, Jeong Hyun	DH Holdings Co., LTD
Jung, Seung Il	DH Holdings Co., LTD

16:30-16:50	ThP2T8.2

Non-Oxidative Copper Nano and Fine Particles for Electroconductive Pastes, pp. 1588-1591.

Yonezawa, Tetsu	Hokkaido Univ.
Tsukamoto, Hiroki	Hokkaido Univ.
Narushima, Takashi	Hokkaido Univ.

16:50-17:10	ThP2T8.3

Nanoparticles to Tune Mechanical Properties of Adhesive and Polymeric Matrix: An Inspiration from Nature, pp. 1592-1597.

Xia, Lijin	The Univ. of Tennessee
Zhang, Mingjun	Univ. of Tennessee

17:10-17:30	ThP2T8.4

Structural Evolution of Amorphous Thin Films of Titanium Dioxide, pp. 1598-1601.

Chen, Qiong	Vestfold Univ. Coll.
Ahmad, Waqas	Vestfold Univ. Coll.
Liu, Guohua	Vestfold Univ. Coll.
Wang, Kaiying	Vestfold Univ. Coll.

ThPoT9	Exhibition Hall
Nanosensors & Actuators: Poster Session (Poster Session)	
Chair: Gibbons, Brady	Oregon State Univ.

08:30-19:30	ThPoT9.1

Engineering of Self-Assembling Proteins for Biosensing Applications, pp. 1602-1606.

Varga, Melinda	Univ. of Tech. Dresden
Rödel, Gerhard	Univ. of Tech. Dresden
Pompe, Wolfgang	Univ. of Tech. Dresden

08:30-19:30	ThPoT9.2

Ultra-Sensitive Flexible Pressure Sensor with Stamped Polyurethane Rubber, pp. 1607-1610.

Kim, Woo Soo	Simon Fraser Univ.
Kalia, Dennis	Simon Fraser Univ.
Kim, Jiseok	Simon Fraser Univ.

08:30-19:30	ThPoT9.3

Simulation of Nano-Mechanical Measurement of Mass Accretion in Biological Systems, pp. 1611-1614.

Martin, Michael	Louisiana State Univ.

08:30-19:30	ThPoT9.5

Zinc Oxide Nanowires for Biosensing Applications, pp. 1615-1618.

Gupta, Anurag	The Univ. of Alabama-Tuscaloosa
Kim, Bruce	The Univ. of Alabama-Tuscaloosa

Li, Dawen	The Univ. of Alabama-Tuscaloosa
Edwards, Eugene	U.S. Army, RDECOM/AMRDEC
Brantley, Christina	U.S. Army, RDECOM/AMRDEC
Ruffin, Paul	U.S. Army, RDECOM/AMRDEC

08:30-19:30 ThPoT9.6

Nanotechnology Enabled Platforms for Trace Detection of Pharmaceuticals, pp. 1619-1623.

Mertz, Timothy	Wichita State Univ.
Annam, Venkata Praveen	Wichita State Univ.
Vattipalli, Krishna	Wichita State Univ.
Nagaraj, Vinay	The Biodesign Inst. at Arizona State Univ.
Prasad, Shalini	Wichita State Univ.

08:30-19:30 ThPoT9.7

Ordered 2-D Silver@Alumina Plasmonic Molecular Sensors, pp. 1624-1627.

Tzeng, Yonhua	National Cheng Kung Univ.
Liu, Chih-Yi	National Cheng Kung Univ.
Huang, Chen-Han	National Cheng Kung Univ.
Lin, Hsing-Ying	National Cheng Kung Univ.
Chen, Shih-Tse	NCKU

08:30-19:30 ThPoT9.9

Analysis of Current Hysteresis of SiNW in the Aqueous Solution Depending on Measurement Biases, pp. 1628-1630.

Jang, Hyeri	Kookmin Univ.
Lee, Jieun	Kookmin Univ.
Lee, Jung Han	Seoul National Univ.
Chung, In-Young	Kwangwoon Univ.
Kim, Dong Myong	Kookmin Univ.
Kim, Dae Hwan	Kookmin Univ.
Seo, Hyojoon	Kookmin Univ.
Uhm, Mihee	Univ. of Kookmin
Lee, Won Hee	Kookmin Univ.

08:30-19:30 ThPoT9.10

Electrical Characteristics of Carbon Nanofibers in Air and Vacuum, pp. 1631-1634.

Kanzaki, Nobuhiko	Santa Clara Univ.
Wilhite, Patrick	Santa Clara Univ.
Maeda, Shusaku	Santa Clara Univ.
Yamada, Toshishige	Santa Clara Univ.
Yang, Cary Y.	Santa Clara Univ.

08:30-19:30 ThPoT9.11

Readout System Design for MWCNT Infrared Sensors, pp. 1635-1638.

Chen, Liangliang	Michigan State Univ.
Xi, Ning	Michigan State Univ.
Chen, Hongzhi	MSU
Lai, King Wai Chiu	Michigan State Univ.

08:30-19:30 ThPoT9.12

Implementation of Porous Silicon Technology for Flow-Through Sensing Using Electro-Osmotic Phenomenon, pp. 1639-1643.

Vanga, Lakshman Kumar	Michigan Tech. Univ.
Hu, Qili	Michigan Tech. Univ.
Green, Sarah	Michigan Tech. Univ.
Bergstrom, Paul L.	Michigan Tech. Univ.

08:30-19:30 ThPoT9.13

Evaluation of Bacterial Behavior in Capillary Vessel Size Micro-Channel, pp. 1644-1647.

Kojima, Masaru	Nagoya Univ.
Miyamoto, Tatsuya	Nagoya Univ.
Nakajima, Masahiro	Nagoya Univ.
Homma, Michio	Nagoya Univ.

Fukuda, Toshio — Nagoya Univ.

08:30-19:30 — ThPoT9.14

Electromechanical Modeling of GNP Nanocomposites for Stress Sensors Applications, pp. 1648-1651.

D'Aloia, Alessandro Giuseppe — Sapienza Univ. of Rome, DIAEE, CNIS
Tamburrano, Alessio — Sapienza Univ. of Rome, DIAEE, CNIS
De Bellis, Giovanni — Sapienza Univ. of Rome, DIAEE, CNIS
Sarto, Maria Sabrina — Sapienza Univ. of Rome

ThPoT11 — Exhibition Hall

Nano-Bio-Medicine: Poster Session (Poster Session)

Chair: Nowak, Derek — Portland State Univ.

08:30-19:30 — ThPoT11.1

Electrophoretic Mobility of Lipoprotein Nanoparticle Mimics, pp. 1652-1656.

Wang, Min — Univ. of Colorado Denver
Reed, Scott — Univ. of Colorado Denver

08:30-19:30 — ThPoT11.2

Permeability of S-Layers Coated Polyelectrolyte Capsules, pp. 1657-1660.

Habibi, Neda — Univ. of Genova
Pastorino, Laura — Univ. of Genova, Dept. of Communication, ComputerandSystem
Caneva Soumetz, Federico — Univ. of Genova, Italy
Ruggiero, Carmelina — Univ. of Genova, Dept. ofCommunication,ComputerandSystem Sc

ThPoT12 — Exhibition Hall

Nanofabrication: Poster Session (Poster Session)

Chair: Nowak, Derek — Portland State Univ.

08:30-19:30 — ThPoT12.1

Optical Second Harmonic Generation from the Array of 2 Nm-Width Pt Nanowires on the MgO(210) Faceted Template, pp. 1661-1664.

Ogata, Yoichi — Japan Advanced Inst. of Science and Tech. (JAIST)

08:30-19:30 — ThPoT12.2

Anomalous Morphology Development During Femtosecond-Laser-Induced Growth of Tungsten Nanogratings, pp. N/A.

Gao, Zhida — Northeastern Univ. Shenyang, China
Her, Tsinghua — Univ. of North Carolina at Charlotte

08:30-19:30 — ThPoT12.3

Germanium-On-Insulator Fabricated by Ion Implantation and Dry Oxidation Technuque, pp. 1668-1672.

Choi, Duk-Yong — Australian national Univ.
Luther-Davies, Barry — Laser Physics Centre/ANU
Kim, Taehyun — Electronic Materials Engineering/ANU
Elliman, Rob — Electronic Materials Engineering/ANU

08:30-19:30 — ThPoT12.4

Nanostructure of Gallium Nitride Fabrication and Characterization, pp. N/A.

Srivastava, Mahesh Prasad — Delhi Univ.
Mangla, Onkar — Delhi Univ.

08:30-19:30 — ThPoT12.5

Positional Control Over Nanoparticle Deposition into Nanoholes, pp. 1677-1682.

Morakinyo, Moshood Kayode — Portland State Univ.
Rananavare, Shankar — Portland State Univ.

08:30-19:30 — ThPoT12.6

Photochemical Reactivity of Bis-Carbamate Photobase Generators, pp. 1683-1688.

Tran, Hoang — Portland State Univ.
Rananavare, Shankar — Portland State Univ.

08:30-19:30 — ThPoT12.7

Ultrathin Titanium Passive Devices Fabrication, pp. 1689-1692.

Ecoffey, Serge	Univ. de Sherbrooke
Morissette, Jean-Francois	Sherbrooke Univ.
Jedidi, Nader	Sherbrooke Univ.
Guilmain, Marc	Sherbrooke Univ.
Nauenheim, Christian	Univ. de Sherbrooke
Drouin, Dominique	Sherbrooke Univ.

08:30-19:30 ThPoT12.8

Low-Voltage Organic Memory Transistors, pp. 1693-1698.

Fakher, Sundes	Bangor Univ.
Ashall, Dan	Bangor Univ. UK
Mabrook, Mohammed	Bangor Univ. UK

08:30-19:30 ThPoT12.9

Improving the Quality of the Evaporated Ge Nanodot Array by Laser Annealing, pp. 1699-1702.

Liao, Ting-Wei	National Taiwan Univ. Taiwan

08:30-19:30 ThPoT12.10

Recycling Si Wafers to Fabricate Multiple Si Nanohole Thin Films by Metal-Assisted Etching, pp. 1703-1706.

Shiu, Shu-Chia	National Taiwan Univ.
Lin, Tzu-Ching	National Taiwan Univ.
Pun, Keng-Lam	National Taiwan Univ.
Syu, Hong-Jhang	National Taiwan Univ.
Hung, Shih-Che	national taiwan Univ.
Chao, Jiun-Jie	National Taiwan Univ.
Lin, Ching-fuh	National Taiwan Univ.

08:30-19:30 ThPoT12.13

Modeling Errors in Synthesized Tile Sets for Template Manufacturing by DNA Self-Assembly, pp. 1707-1712.

Hashempour, Masoud	Northeastern Univ.

08:30-19:30 ThPoT12.14

Super-Hydrophobicity of Nano-Patterned Polymer Needle Array, pp. 1713-1716.

Yoon, Youngsam	Univ. of Texas at Dallas
Lee, Dong-Weon	Chonnam National Univ.
Lee, Jeong-Bong	The Univ. of Texas at Dallas

08:30-19:30 ThPoT12.15

Optimized Built-In Self-Test Technique for CAEN-Based Nanofabric Systems, pp. 1717-1722.

Kundaikar, Sambhav	Missouri Univ. of Science & Tech. Rolla
Zawodniok, Maciej	Missouri Univ. of Science & Tech.

08:30-19:30 ThPoT12.16

Non-Collapsible PDMS Nanochannel Fabrication with Tunable Width and Height Using Single Master Mold, pp. 1723-1727.

Kim, Chang-Beom	Electronics and Telecommunications Res. Inst.
Chun, Honggu	Department of Biomedical Engineering, Korea Univ.
Chung, JaeHun	Department of Mechanical Engineering, Korea Univ.
Song, Ki-Bong	Electronics and Telecommunications Res. Inst.
Lee, Sang-Hoon	Korea Univ.

ThPoT13 Exhibition Hall

Nanofluidics: Poster Session (Poster Session)

Chair: Nowak, Derek — Portland State Univ.

08:30-19:30 ThPoT13.2

Nanoparticle Control of Slurry Flow in Microchannel, pp. 1728-1732.

Ikeshima, Shota	The Univ. of Tokyo
Nagato, Keisuke	The Univ. of Tokyo
Sugiyama, Kazuyasu	Department of Mechanical Engineering, Graduate School of Enginee
Takagi, Shu	Department of Mechanical Engineering, Graduate School of Enginee

Hamaguchi, Tetsuya — The Univ. of Tokyo
Nakao, Masayuki — Department of Mechanical Engineering, Graduate School of Enginee

ThPoT14 — Exhibition Hall

Nanomaterials: Poster Session (Poster Session)

Chair: Nowak, Derek — Portland State Univ.

08:30-19:30 — ThPoT14.6

Ultrafine Powderization Using Low Temperature Turbo Mill to Improve Enzymatic Hydrolysis of Rice, pp. N/A.

Kang, Wiesoo — Kangwon national Univ.
Kim, Dongeun — Kangwon National Univ.
Lee, Kangyol — Korea Energy Tech.
Kim, Wonwoo — kangwon national Univ.
Min, Joohong — kangwon national Univ.
Lee, Beomgoo — Korea Energy Tech.

08:30-19:30 — ThPoT14.9

Theoretical Calculation of Radiation Induced Conductivity in Nanomaterials, pp. 1737-1740.

Ahmadi, Morteza — Univ. of Waterloo
Yeow, John T.W. — Univ. of Waterloo

08:30-19:30 — ThPoT14.11

Poly(N-Isopropylacrylamide) Based Polymer Nanogels for Drug Delivery Applications, pp. 1741-1744.

Subhash, Dhanya — Indian Inst. of Tech. Bombay
Mody, Hardik — Indian Inst. of Tech. Bombay
Banerjee, Rinti — Indian Inst. of Tech. Bombay
Bahadur, Dhiren — Indian Inst. of Tech. Bombay
Srivastava, Rohit — Indian Inst. of Tech. Bombay

08:30-19:30 — ThPoT14.17

Interaction of Biosynthesized Gold Nanoparticles with Genomic DNA Isolated from E. Coli and S. Aureus, pp. 1745-1750.

Mishra, Amrita — Chonbuk National Univ.
Harper, Stacey — Oregon State Univ.
Yun, Soon-Il — Chonbuk National Univ.

08:30-19:30 — ThPoT14.21

Nanopore Ion Exclusion Spectroscopic Characterization of Varying Ph Purple Membrane Solution, pp. 1751-1754.

Hoque, Nabila — US ARMY
Griep, Mark — US ARMY
Karna, Shashi — US ARMY

08:30-19:30 — ThPoT14.22

Evaluation Method of Thermal Conductivity of Single Carbon Nanotube in Liquid Using Quantum Dot Hydrogel Sensor, pp. 1755-1758.

Maruyama, Hisataka — Nagoya Univ.
Tomita, Kyohei — Nagoya Univ.
Kariya, Ryo — Nagoya Univ.
Arai, Fumihito — Nagoya Univ.

08:30-19:30 — ThPoT14.23

Electrospun Islands-In-The-Sea Hydrogel Nanofibres and Their Thermo-Responsive Properties, pp. N/A.

Wang, Jing — Deakin Univ.

08:30-19:30 — ThPoT14.24

Effect of Radius of Cut Size and Cooling System on Superfine Powderization of Green Tea Using Low Temperature Turbo Mill, pp. N/A.

Kang, Wiesoo — Kangwon national Univ.
Lee, Beomgoo — Korea Energy Tech.
Kim, Dongeun — Kangwon National Univ.
Kim, Wonwoo — kangwon national Univ.
Min, Joohong — kangwon national Univ.
Lee, Kangyol — Korea Energy Tech.

08:30-19:30 ThPoT14.25

Accessibility of Nano-Crossbar Arrays of Resistive Switching Devices, pp. 1767-1771.

Chen, An GLOBALFOUNDRIES