



TECHNICAL PROGRAM



IEEE NMDC 2019

14th IEEE Nanotechnology Materials and Devices Conference
Stockholm, Sweden October 27-30 2019 www.ieeenmdc.org

All Participants are invited to the **Welcome Reception** at the Conference Venue on Sunday, 27th of October, 17.00-20.00

Venue: **The Brewery Conference Centre, Stockholm**
Hosted by: **KTH Royal Institute of Technology**

General chair Program chair Publication chair
Jan Linnros Ilya Sychugov Apurba Dev
KTH, Sweden KTH, Sweden Uppsala Univ., Sweden

Time	Monday October 28		
08:00	Registration		
08:30	Welcome (Mikael Östling, KTH vice-rector, Room Mälarsalen)		
08:45	Albert Polman, AMOLF, The Netherlands Nanoscale (in)coherent optical excitations in the electron microscope		
09:45	Heike Riel, IBM, Switzerland TBD		
10:45	Coffee 2D materials and devices I (Room Mälarsalen, Chair: Clivia Sotomayor Torres)	Coffee Low-dimensional structures I (Room Lindgren, Chair: Nicola Marzari)	Coffee Nanophotonics I (Room Nobelterrassen, Chair: Val Zwiller)
11:00	Tibor Grasser, TU Wien, Austria Reliability and thermal stability of MoS2 FETs with ultrathin CaF2 insulators	Li Zheng, Shanghai Institute of Microsystems and IT, China Ambipolar graphene-quantum dot phototransistor	Juerg Leuthold, ETH Zurich, Switzerland Plasmonics - a solution for high-speed communications
11:15		Daryoush Shiri, Chalmers, Sweden An electrically controlled heat rectifier using graphene nanoribbons	
11:30	Kraig Andrews, Wayne State University, USA Ultrathin 2D semiconductors used as contact interlayer to improve performance of MoS2 transistors	Adam Burke, Lund University, Sweden Quantum Dot heat engines and hot carrier solar cells	Oliver Olsson, Chalmers, Sweden Plasmonic Electronic Paper
11:45	Yonhua Tzeng, National Cheng Kung University, Taiwan Graphene Assisted chemical nucleation of diamond		Felix Vennberg, KTH, Sweden Polarization dependent coloration in metallo-dielectric nanopillars
12:00	Lunch		
12:30	Women in Innovation and Sustainability - special lunch symposium - see separate program		
14:00	Nanoelectronics and CMOS I (Chair: Peter Steeneken) Akira Fujiwara, NTT Basic Research Labs, Japan Silicon nanodevices for metrology and sensors	III-V Nanostructures I (Chair: Linda Höglund) Dennis Visser, KTH, Sweden Top-down fabrication of high quality GaInP nanopillar/disk arrays	Nanophotonics II (Chair: Christophe Delerue) Eva Schöll, KTH, Sweden Resonance fluorescence of GaAs/AlGaAs quantum dots with near-unity photon indistinguishability
14:15		Omar Saket, University of Paris sud, France Nanoscale electrical characterization of organized GaAsP nanowires for photovoltaic energy harvesting	Ajith Padyana Ravishankar, KTH, Sweden Fabrication of self-organized InP nanopillars by ion-bombardment for optoelectronic applications
14:30	Anibal Pacheco-Sanchez, Autonomous University of Barcelona, Spain Efficient contact resistance extraction from individual device characteristics of graphene FETs	Lars-Erik Wernersson, Lund University, Sweden III-V nanowires for CMOS technology	Jan Valenta, Charles University, Czech Republic Light emission from gold nanoclusters and their ensembles
14:45	Arun Kumar, IIT Patna, India Compact drain current model of silicon-nanotube-based double gate-all-around MOSFETs incorporating short channel effects		Witlief Wieczorek, Chalmers, Sweden Engineering of free-free type micromechanical resonators with photonic crystals for GaAs-based cavity optomechanics
15:00	Qitao Hu, Uppsala University, Sweden Symmetric Lateral Bipolar Transistors as Low Noise Signal Amplifier	Young Hoon Sung, Korea University, Korea InGaN/GaN blue light emitting diodes grown on nanoimprint-based hollow patterned sapphire substrates	
15:15	Yuji Okuda, Tokyo University of Science & AIST, Japan Operando observation of analog resistance change in Metal/Oxide junctions	Withdrawn	Daoxin Dai, Zhejiang University, China Silicon nanophotonics for light manipulation and photodetection
15:30	Coffee Nanoelectronics and CMOS II (Chair: Elena Y. Vedmedenko)	Coffee Theory and modelling of nanomaterials, structures and devices I (Chair: JunWei Luo)	Coffee Nanophotonics III (Chair: Peter Lodahl)
16:00	Michel Calame, EMPA & Basel University, Switzerland Experimenting with molecular compounds in nanoelectronic devices	Patricia Cadareanu, Utah University, USA Nanoscale three-independent-gate transistors: geometric TCAD simulations at the 10 nm node	Carlos Anton Solanas, C2N-CNRS & University Paris-Saclay, France Interfacing scalable photonic platforms: solid-state based multi-photon interference in a reconfigurable glass chip
16:15		Arezki Benfdila, Mouloud Mammeri University, Algeria FinFET Versus GAAFET Performances and Perspectives	
16:30	Yann Beilliard, University of Sherbrooke & 3IT, Canada Observation of highly non-linear resistive switching of Al2O3/TiO2-based memristors at cryogenic temperature (1.5 K)	Nicola Marzari, EPFL, Switzerland Novel Two-dimensional Materials from High-throughput Computational Exfoliation	Lucas Schweickert, KTH, Sweden Resonance fluorescence vs. two-photon excitation with GaAs QDs
16:45	Badreyya Alshehhi, Khalifa University, UAE Impact of silver nanoparticles on current transport in CVD monolayer graphene/Si junctions		Pankaj Shivhare, IIT Bombay, India Design and development of quantum dots infused films and an optical reader for measurement of blood electrolytes
17:00	Poster session beer		
18:30	Buses to Town Hall		
19:00	Reception at Town Hall by City of Stockholm		
21:00			

Time	Tuesday October 29		
08:00	Registration		
08:30	Chennupati Jagadish, ANU, Australia Semiconductor nanowires for optoelectronics and energy applications		
09:30	Alex Zunger, University of Colorado, Boulder, USA Inverse design of nanostructures and compounds: Finding the structures with the properties you want?		
10:30	Coffee		
11:00	MEMS/NEMS & sensors (Room Mälarsalen, Chair: Max Lemme)	Organic materials and devices (Room Lindgren, Chair: Guilhem Larrieu)	Nanophotonics IV (Room Nobelterrassen, Chair: Daoxin Dai)
11:00	Peter Steeneken, Delft University, The Netherlands Nanomechanical sensing with 2D materials	Prabir Mahato, INSA, Lyon, France CBRAM devices with a water casted solid polymer electrolyte for flexible electronic applications	Miao Zhang, EPFL, Switzerland Super-resolved optical characterization of defects in 2D materials
11:15		Matteo Parmeggiani, Politecnico Torino & IIT, Italy Electromigration induced break junction for nanometers-sized EGOFET fabrication	Oleg Gridenco, University of Bremen, Germany Excitons bound to defect states in 2D semiconductors
11:30	Venkatarao Selamneni, Birla Institute, India Black phosphorus on paper based strain sensor for human motion monitoring	Magnus Berggren, Linköping University, Sweden Organic Bioelectronics: Nature Connected	Juliana Jaramillo Fernandez, ICN2, Spain A self-assembled single-layer radiative cooler
11:45	Zhuangjian Liu, A-star research, Singapore Materials and micro-structure design for pyramidal tactile sensors		Katharina Zeuner, KTH, Sweden Photonic qubits emitted by semiconductor quantum dots for quantum network applications
12:00	Srijita Nundy, Sungkyunkwan University, Korea Highly selective and sensitive distinct flower-like ZnO microstructure based gas sensor for detection of NOx at room temperature	Yu-Chia Chen, Taiwan University, Taiwan Investigation of interface characteristics in P(VDF0.75-TRFe0.25) organic ferroelectric capacitor	Peter Lodahl, Copenhagen University, Denmark Single-photon quantum hardware
12:15	Raghutham Ramesha, Delft University, The Netherlands Transfer-free graphene-based differential pressure sensor	Shree Prakash Tiwari, IIT Jodhpur, India Effect of polymer blend on electrical performance and photo-response of TIPS-pentacene OFETs	
12:30	Lunch	Lunch	Lunch
13:30	Biosensing I (Chair: Andreas Dahlin)	III-V Nanostructures II (Chair: Chennupati Jagadish)	Nanophotonics V (Chair: Albert Polman)
13:30	Zhen Zhang, Uppsala University, Sweden Understanding low-frequency noise in ion-selective FET sensors operating in electrolytes	Trupti Ranjan Lenka, National Institute of Technology Silchar, India Investigation of E-Mode beta-Gallium oxide MOSFET for emerging nanoelectronics	Wonjoong Kim, Korea University, Korea Fabrication of Fiber Bragg Grating stretchable color filter by UV nanoimprint lithography
13:45		Kyungwhan Kim, Yonsei University, Korea Single-step nanopatterning of GaAs via wet-based chemical etching with metal stamp	Lei Yin, Zhejiang University, China Optically stimulated synaptic device based on the hybrid structure of Si nanomembrane and organolead halide perovskite
14:00	Andrada Iulia Velea, Delft University, The Netherlands Towards a microfabricated flexible graphene-based active implant for tissue monitoring	Anna Fontcuberta i Morral, EPFL, Switzerland Synthesis and applications of III-V nanowire arrays and scalable networks	Yuting Liu, Korea University, Korea Polymer Nanocomposite materials for passive daytime radiative cooling
14:15	Olena Synhaivska, Basel University, Switzerland Differentiating complexation with GGH peptide and non-specific adsorption of Cu ions on gold with Si-nanoribbon ISFET biosensors		Shaguftha Naureen, IR Nova, Stockholm, Sweden Improved design and fabrication of HOT MWIR Type-II superlattice detectors at IRNova
14:30	Sara Cavallaro, KTH, Sweden Morphological Analysis and Size-Based Profiling of Nanoscale Vesicles by Scanning Electron Microscopy	Siddharth Krishnan, IIT Gandhinagar, India Asymmetric current-voltage characteristics in graphene-hBN dot-ring nanostructures - a numerical study	Christophe Delerue, Lille University (IEMN) & CNRS, France Optical Absorptivity in Superlattices of Nanocrystals
14:45	Deepak Kumar Panda, VIT-AP University, India Modeling of AlGaIn/GaN HEMT as Biosensor for Detection of Breast Cancer	Jean Francois Millithaler, University of Massachusetts, USA GaN highly selective split drain transistor	
15:00	Coffee	Coffee	Coffee
15:30	Nano-magnetism (Chair: Ahmed Awad)	Theory and modelling of nanomaterials, structures and devices II (Chair: Trupti Ranjan Lenka)	Nanophotonics VI (Chair: Carlos Anton)
15:30	Elena Y. Vedmedenko, University of Hamburg, Germany Competition of Interfacial and Interlayer Dzyaloshinskii-Moriya Interactions	Withdrawn	Val Zwiller, KTH, Sweden Quantum light: generation, manipulation and detection of single photons
15:45		Tapas Dutta, Glasgow University, United Kingdom Schrodinger equation based quantum corrections in drift-diffusion: a multiscale approach	
16:00	Mohammad Zahedinejad, Gothenburg University, Sweden Spin Hall Nano Oscillators as Gigahertz Neurons	Junwei Luo, Chinese Academy of Sciences, Beijing Theory for silicon-based light emission	Federico Pevere, KTH, Sweden Two-step Large-Area Fabrication of Isolated Luminescent Silicon Quantum Dots
16:15	Lagen Kumar Pradhan, IIT Patna, India Compositional fluctuation induced relaxor antiferroelectricity in Bi0.5Na0.5TiO3 based solid solution: Effect of polar nanoregions		Rania Elhadi Adam, Linköping University, Sweden Zinc Oxide/Graphene-based nanocomposites with plasmonic effect for enhanced photocatalytic performance
16:30	Poster session beer		
18:00	Buses to Vasa museum		
18:30	Conference Banquet Vasa museum		
23:00			

Time		Wednesday October 30		
08:00	Registration			
08:30	Luisa Torsi, Bari University, Italy Single-molecule sensing of biomarkers			
09:30	Silvano de Franceschi, CEA, Grenoble, France Quantum prospects for silicon nanoelectronics			
10:30	Coffee			
11:00	Biosensing II (Room Nobelterrassen, Chair: Michel Calame)	Nanoelectronics and CMOS III (Room Mälarsalen, Chair: Akira Fujiwara)	Low-dimensional structures II (Room Lindgren, Chair: Adam Burke)	
11:15	Andreas Dahlin, Chalmers, Sweden Macromolecular gates: control of protein translocation through solid state nanopores	Ashita Kumar, Jamia Millia Islamia, India p-Heterogate Ge EHBTFET with asymmetric dielectric underlap pockets	Xiaodong Pi, Zhejiang University, China Optoelectronic devices based on silicon nanocrystals	
11:30	Siddharth Sahu, Uppsala University, Sweden Molecular Size and Charge Dependent Sensitivity in Electrokinetic Biosensing	Hiroshi Sato, Tokyo University of Science, Japan Conducting-bridge RAM with metal containing ionic liquid filled in artificially fabricated pore	Ahmad Ayesh, Qatar University, Qatar Fabrication of size-selected alloy nanoclusters and their applications for gas sensing	
11:45	Chenyu Wen, Uppsala University, Sweden Signal and Noise properties of translocation current in multiple-nanopore sensors	Floris Zwanenburg, Twente University, The Netherlands Ambipolar quantum dots in planar silicon	Atsushi Shimizu, Tokyo University of Science, Japan Area selective growth of MOF thin film patterns in micro-sized via holes promoted by surface covering of Cu powders	
12:00	Guilhem Larrieu, CNRS, Toulouse, France 3D nanodevices: powerful tools for high resolution monitoring of neural networks	Weijun Cheng, Tsinghua University, China Negative capacitance line tunneling TFET with a ferroelectric capacitor	Minoru Fujii, Kobe University, Japan Donor and Acceptor Pair Luminescence in colloidal silicon quantum dots	
12:15		Cristina Medina-Bailon, University of Glasgow, United Kingdom Impact of effective mass on transport properties and s/d tunneling in ultrascaled double gate devices: a 2D MS-EMC study		
12:30	Lunch	Lunch	Lunch	
13:30	Lars Berglund, KTH, Stockholm, Sweden Wood and cellulose nanotechnology for photonics and other functional materials			
14:25	Session talks are moved to other sessions			
14:30	2D Materials and Devices II (Chair: Floris Zwanenburg)	Nanoelectronics and CMOS IV (Chair: Anna Fontcuberta i Morral)		
14:45	Arthur Bowman, Wayne State, USA High Mobility n-type PdSe2 Field Effect Transistors Enabled by Contact Engineering	Linda Höglund, IR Nova, Stockholm, Sweden Type-II superlattice infrared detector development at IRNova: from eSWIR to VLWIR		
15:00	Po-An Chen, National Cheng Kung University, Taiwan Gradual RESET modulation by intentionally oxidized titanium oxide for multilayer-hBN RRAM	Shonak Bansal, Punjab Engineering College, India Bilayer Graphene/HgCdTe based self-powered mid-wave IR nBn photodetector		
15:15	Max C. Lemme, RWTH Aachen University, Germany Photodetectors, Transistors and Memristors Based on MoS2/semiconductor Heterostructures	Nivedha Radhakrishnan, Glasgow University, United Kingdom Towards ballistic silicon nanowire transport		
15:30	Coffee	Coffee		
16:00	Synthesis and Fabrication of Nanostructures II (Chair: Zhen Zhang)	Nanoelectronics and CMOS V (Chair: Minoru Fujii)		
16:15	Björn Högberg, Karolinska Institute, Stockholm, Sweden Using DNA origami to decipher spatial effects in biology	Sachin Kumar Singh, University of Illinois at Chicago, USA High yield assembly of cobalt nanowires using floating electrode dielectrophoresis	7 plenary 28 invited 73 contributed 74 posters	
16:30	Zebing Mao, Tokyo Institute of Technology, Japan On-demand water-in-oil droplet generation using electro-conjugate fluid micropump	Yuuji Kakuya, SOKEN Inc., Japan 24GHz band printed silver nanowire radar antennas		
16:45	Md Ruhul Amin Shikder, University of Illinois at Chicago, USA Microstructure-dependent nanomechanics in battery relevant nanomaterials	Ahmad Awad, Gothenburg University, Sweden Stimulated wave-vector selective spin wave excitation using femtosecond laser pulse trains		
17:00	Clivia Sotomayor Torres, Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain Probing surface functionality mediated by micro- and nano-patterning	Kwang-Ho Jung, Sungkyunkwan University, Korea Pressureless TLPS bonding with Cu and Sn-S8Bi particles and its corrosion behaviour in 5 NaCl solution		
17:15		Jaemin Park, Korea University, Korea TiO2 nanoparticle based resistive switching memory on rigid and flexible substrate		
17:30	Rabia Akan, KTH Royal Institute of Technology, Sweden Wet-Chemical Techniques for Etching and Metallizing X-Ray Zone Plate Nanostructures	Jinhee Jeong, Korea University, Korea Fabrication of various NiO patterns by thermal nanoimprint lithography		
17:45				

POSTERS I

N	ID	Name	Title	Topic
1	1570556514	Arezki Benfdila	Investigation on High Switching Performances Graphene Transistors Using Band-gap Engineering	Emerging topics
2	1570563926	DurgaSankar V.; K. Asokan; Shubra Singh	Local Electronic Structure Engineering in New Multifunctional Brownmillerite KBiFe2O5 for Efficient Solar Energy Harvesting Applications	Emerging topics
3	1570566035	Yunho Nam; Byung Jun Lee; Junmyung Lee; Jongchan Lee; Kwang-Ho Kwon	Study on the Etching Properties by Using Inductively Coupled CF4/C4F8/O2 & CF4/CBr2F2/O2 Plasmas	Emerging topics
4	1570568858	Tejaswini Appidi; Rohit Srivastava; Aravind Rengan	Optical Properties of Plasmonic Gold: An Application for Diagnosis of Cervical Cancer	Biomedical applications including bio-sensing.
5	1570560968	Federico Pevere; Sara Cavallaro; André Görgens; Samir El-Andaloussi; Jan Linnros; Apurba Dev	High-sensitivity Profiling of Single Nanoscale Vesicles for Cancer Diagnosis	Biomedical applications including bio-sensing.
6	1570559841	Aseem Salhotra; Frida Lindberg; Roman Lyttleton; Jingyuan Zhu; Marko Usaj; Marlene Norrby	Improved Microenvironments for Increased Actin-Myosin Longevity in Nano Devices	Interconnects, packaging and reliability of nanodevices.
7	1570564186	Andreas Nylander; Marlene Bonmann; Jie Zhao; Andrei Vorobiev; Zhibin Zhang; Yifeng Fu; Johan Liu	Fabrication and Characterization of Carbon Based Interconnects for 3D ICs	Interconnects, packaging and reliability of nanodevices.
8	1570562889	Hyeongjin Lee; Hee Chang Yoon; Joong Ho Lee; Young Rag Do	Fabrication of Stable and Efficient Emissive Films with Core Perovskite Nanoparticles	Low-D structures: Nanowires, quantum dots etc
9	1570565344	Rinat Yapparov; Leah Kuritzky; Shuji Nakamura; Steven DenBaars; James Speck; Saulius Marcinkevicius	Interwell Carrier Transport in InGaN/(In)GaN Multiple Quantum Wells	Low-D structures: Nanowires, quantum dots etc
10	1570565083	Jingjian Zhou; Jing Huang; Tommy Haraldsson; Hiroshi Sugimoto; Minoru Fujii; Ilya Sychugov	Quantum Yield Enhancement of Si Nanocrystals Incorporated into Thiol-Ene Polymer	Low-D structures: Nanowires, quantum dots etc
11	1570568522	Hithesh Kumar Gatty; Xuan Chung Nguyen; Miao Zhang; Ilya Sychugov; Jan Linnros	Wafer-level Processing of a High Aspect Ratio Single Nanopore and Measurement of DNA Translocation	Low-D structures: Nanowires, quantum dots etc
12	1570572326	Fanny Béron; Raul Back Campanelli; Marcos Vinicius Puydinger Santos; Kleber Pirota	Towards Highly Doped Si Single Crystal Cylindrical Nanowire Fabrication	Low-D structures: Nanowires, quantum dots etc
13	1570563552	Alden Clemments; Ilya Sychugov	Multifunctional SiQD-embedded Transparent Wood	Materials and devices for energy harvesting and storage.
14	1570563759	Corina Birleanu; Marius Pustan; Violeta Merie; Lucian Barbu Tudoran; Daniel Marconi	Effect of Temperature on the Tribo-Mechanical Properties of Cooper Oxide Thin Films Prepared by Different Oxygen Pressure for TEG Application	Materials and devices for energy harvesting and storage.
15	1570563171	Abdulrahman Saleh Al Hagri; Ru Li	Direct Growth of Vertical Nanographene Array on Germanium Surface Using Plasma Enhanced Chemical Vapor Deposition	Materials and devices for energy harvesting and storage.
16	1570568285	(Withdrawn) Ashutosh Srivastava; Susanta Tripathy; Trupti Ranjan Lenka	Numerical Simulations on CZTS Based Solar Cell with ZnSe as an Alternative Buffer Layer Using SCAPS- 1D	Materials and devices for energy harvesting and storage.
17	1570566743	Vijay Choyal; Vijay Kumar Choyal; Shailesh Ishwarlal Kundalwal	Effect of Stone-Wales Defects on Transversely Isotropic Elastic Properties of Boron Nitride Nanotubes a Molecular Dynamics Study	Materials and devices for energy harvesting and storage.
18	1570563409	A Soibam; Trupti Ranjan Lenka; Krishanu Dey; M Thway; F Lin	Device Modeling for High Efficiency Lead Free Perovskite Solar Cell with Cu2O as Hole Transport Material	Materials and devices for energy harvesting and storage.
19	1570563767	Marius Pustan; Corina Birleanu; Cristian Dutescu; Camelia Rancea	Reliability Characterization of Flexible MEMS Micromembranes for the Out-Of-Plane Displacement	MEMS/NEMS and sensors.
20	1570564247	Shiyu Li; Shuangshuang Zeng; Zhen Zhang; Klas Hjort; Shi-Li Zhang	Optical Monitoring of Single Nanoparticle Capture in a Solid-State Nanopore Array	MEMS/NEMS and sensors.
21	1570569021	Monica Jaiswal; Robin Kumar; Jagjiwan Mittal	Iodine Intercalated Graphene and Its Sensing Properties Towards NH3 and NO2 Gas	MEMS/NEMS and sensors.
22	1570564044	Fathur Rahman; Jean-Pascal Cambronne; Antoine Belinger; Ngapuli Sinisuka; Kremena Makasheva	Electric Field Enhancement Factor Defined by Nanoprotrusions on the Electrode Surface in Microgaps in Needle-Plate Configuration	MEMS/NEMS and sensors.
23	1570570505	HoSup Jung	Precisely Control of Chemical Luminescence Detection Using Quantitative Injection by Microfluidic Chip	MEMS/NEMS and sensors.
24	1570563281	Neha Mishra; Ankur Jaiswar; Ishita Bansal; Amit Prabhakar; Sunny Sunny	Design and Fabrication of Microfluidic Device for Optical Detection of Heavy Metal Ions in Potable Water	MEMS/NEMS and sensors.
25	1570563603	Ronit Ganguly; Korla Rajesh; Amit Acharyya; Ranjith Ramadurai	Study of Stiffness and Its Correlations with the Flexible Sensing Performance of Piezo Polymer PVDF	MEMS/NEMS and sensors.
26	1570565721	Gustavo Adolfo Gonzalez, Flores	Three-Dimensional Printed Photoluminescent Polymeric Waveguides	MEMS/NEMS and sensors.
27	1570568291	Hithesh Kumar Gatty; Jan Linnros; Apurba Dev	A Novel Miniaturized Electrokinetic Sensor Applicable for Biomarker Detection	MEMS/NEMS and sensors.
28	1570569269	Robin Kumar; Monica Jaiswal; Jagjiwan Mittal	Doping of K-OMS-2 Nano Fibers with Ni and Cu for NH3 and CO Gas Sensing	MEMS/NEMS and sensors.
29	1570569549	Bejan Hamawandi; Nuria Vicente; Martina Orlovská; Syed Shah; Muhammet Toprak	Synthesis, Processing and Characterization of Thermoelectric Thick Films	Synthesis and fabrication of nanostructures.
30	1570563166	Aamna Al Shehhi	Comparsion Between Direct Graphene Growth and Transfer Process on Anodic Aluminium Oxide Substrate	Synthesis and fabrication of nanostructures.
31	1570565243	Manoranjan Kar; Suman Kumari; Lagen Kumar Pradhan; Murli Kumar Manglam	Effect of Annealing Temperature on the Magnetic Properties of Nickel Ferrite Nanofiber Prepared by Electrospinning Method	Synthesis and fabrication of nanostructures.
32	1570563653	Sung Eun Lee; Hyunjae Na; Kyungho Kim; Jintaek Park; Eun Goo Lee; Youn Sang Kim	Self-assembled Monolayer Passivation for Improving Semiconductor Stability	Synthesis and fabrication of nanostructures.
33	1570563656	Eun Goo Lee; Jintaek Park; Sung Eun Lee; Hyunjae Na; Kyungho Kim; Youn Sang Kim	Control of Bias Stress Stability in IGZO Thin-Film Transistors by Atmospheric Pressure Plasma	Synthesis and fabrication of nanostructures.
34	1570563728	Jintaek Park; Sung Eun Lee; Eun Goo Lee; Hyunjae Na; Kyungho Kim; Youn Sang Kim	Effect of Atmospheric-Pressure Plasma Treatment for Solution-Processed Oxide Thin-Film Transistors	Synthesis and fabrication of nanostructures.
35	1570564568	Bekhedda Kheira	Structural Study of Silicon Thins Films Doped with Cerium	Synthesis and fabrication of nanostructures.
36	1570566951	Peng Kuo Tzu	Optimizing the Crystal of Ta/TaN Diffusion Barrier for the Improve Resistance of Cu Line	Synthesis and fabrication of nanostructures.
37	1570567359	Petr Kuznetsov; Galina Yakushcheva; Evgeny Savelyev; Dmitry Sudas; Vasily Yapaskurt; Vasily Sherbakov; Konstantin Golant	MOCVD Synthesis of 2D Saturable Absorbers for Pulsed Fiber Lasers	Synthesis and fabrication of nanostructures.
38	1570563889	(Moved to Oral talk on Wednesday at 17:30) Rabia Akan; Thomas Frisk; Ulrich Vogt	Wet-Chemical Techniques for Etching and Metallizing X-Ray Zone Plate Nanostructures	Synthesis and fabrication of nanostructures.
39	1570569870	(Withdrawn) Natthaphon Bun-Athuek	Study on Mathematical Modelling of Material Removal in Sapphire CMP Using Mechanical and Chemical Factors of Silica Particles	Synthesis and fabrication of nanostructures.
40	1570569352	Xi Lu; Zhengang Lu; Yilei Zhang; Heyan Wang; Jiubin Tan	Design and Fabrication of High-transmittance Electromagnetic Shielding Metallic Mesh Based on Randomly Distributed Mirco- Rings and Sub-Rings	Synthesis and fabrication of nanostructures.
41	1570598566	Qin Wang; Mats Sandberg; Marcus Gärdin; Astrid Armgarth; Olof Öberg ; Mats Göthelid	Graphene-Based Anisotropic Conductive Adhesives	Interconnects, packaging and reliability of nanodevices.
42	1570598576	Qin Wang; Ulle-Linda Talts; Olof Öberg; Arne Quellmalz; Simon Dunne; Louise Elmlund	CVD Graphene-Based Resistive Amphetamine Sensor	Biomedical applications including bio-sensing.
43	1570564315	Behnoush Attarimashalkoubeh; Yusuf Leblebici	Improving Reliability Issue of HfO2-based Memristors by Protecting the Switching Materials Against Buffer Layer Deposition	Emerging topics

POSTERS II

N	ID	Name	Title	Topic
1	1570569842	Ramazan Kizil	Nanometer-sized Break Junction in Bimetallic Nanowires for Nanoelectronics	Nanoelectronics and CMOS.
2	1570556511	(Moved to Oral talk on Monday at 16:15) Arezki Benfdila	FinFET Versus GAAFET Performances and Perspectives	Nanoelectronics and CMOS.
3	1570564523	Soheli Farhana	CNTFET Based Galois Design with Multi-valued Logic	Nanoelectronics and CMOS.
4	1570566034	Byung Jun Lee; Yunho Nam; Jaemin Lee; Junmyung Lee; Kwang-Ho Kwor	A Study on the Etching Residues of Nano-Patterns in C4F8/CH2F2/O2/Ar Plasma	Nanoelectronics and CMOS.
5	1570568597	Mohamed Kessi	Charges Distribution Analysis in the Body Cylindrical Gate-All-Around Nanowire Transisto	Nanoelectronics and CMOS.
6	1570564011	(Moved to Oral talk on Monday at 15:00) Qitao Hu; Shi-Li Zhang; Si Chen; Zhen Zhang	Symmetric Lateral Bipolar Transistors as Low Noise Signal Amplifier	Nanoelectronics and CMOS.
7	1570564369	Mridula Gupta; Avashesh Dubey; Rakhi Narang; Manoj Saxena	Investigation of Single-Event-Transient Effect in Floating-Gate Junctionless Double-Gate Field-Effect-Transisto	Nanoelectronics and CMOS.
8	1570562689	(Withdrawn) Biraj Shougaijam; C Ngangbam; Trupti Ranjan Lenka	Investigation of Au Nanoparticle Embedded TiO2 Nanowires for Nano-Optoelectronic Application:	Nanoelectronics and CMOS.
9	1570562536	Yu Liu; Linyuan Zhao; Wenjie Chen; Renrong Liang; Jun Xu	A New Method for Fabricating Graphene-Based Field-Emission Air-Channel Photodetector	Nanoelectronics and CMOS.
10	1570562865	Wenjie Chen; Renrong Liang; Jun Xu	Enhanced Near-Infrared Photoresponsivity of MoTe2 Phototransistors by Using an Al2O3 High-K Gate Dielectri	Nanoelectronics and CMOS.
11	1570563713	Ammar Nayfeh; Ghada Dushaq; Mahmoud Rasras; Aamenah Siddiqui; Khadija Jumaa	Optical and Electrical Properties of RF-PECVD Germanium Spin Coated with 40Nm Silver Nanoparticles	Nanoelectronics and CMOS.
12	1570563919	Chandni Kumari; Ishan Varun; Shree Prakash Tiwari; Ambesh Dixit	Reliable Bipolar Resistive Switching in Solution Processed BiFe0.99Cr0.01O3 Thin Film:	Nanoelectronics and CMOS.
13	1570563824	Robert Mroczyski; Andrzej Mazurak	Memory Effect in MIS Structures with Embedded All-Inorganic Colloidal Silicon Carbide (SiC) Nanocrystal:	Nanoelectronics and CMOS.
14	1570563098	Ajay Kumar; Neha Gupta; Shrey Tripathi; Pranav Mani Tripathi; Rishu Chaujai	GaN Silicon-on-Insulator (SOI) N-Channel FinFET for High-Performance Low Power Applications	Nanoelectronics and CMOS.
15	1570566651	Mohd Haris; Sajad A. Loan; Mainuddin Mainuddin	Broken Gate of In0.53Ga0.43As TFET for Reduced OFF Current and Gate Capacitance	Nanoelectronics and CMOS.
16	1570569811	Krishna Prakash; Priyanka Thakur; Shonak Bansal; Kuldeep Sharma; Prince Jain; Sanjeev Kumar; Neena Gupta; Arun Kumar Singh	Drift Diffusion Modelling of Three Branch Junction (TBR) Based Nano-Rectifie	Nanoelectronics and CMOS.
17	1570569312	P s t n Srinivas; Arun Kumar; P. Tiwari	Analytical Modeling of Subthreshold Characteristics of Silicon-Nanotube-based Double Gate-All-Around (DGAA) FETs Incorporating Fringing Field Effect	Nanoelectronics and CMOS.
18	1570570444	Munindra Munindra	Study of Non-linearity of the Bilayer Graphene Field Effect Transistor:	Nanoelectronics and CMOS.
19	1570562405	Deepak Kumar Panda; Rajan Singh; Trupti Ranjan Lenka; Ravi Teja Velpula; Ha Quoc Thang Bui; Hieu Nguyen	Modeling of DC and RF Characteristics of Single and Double Gate AlGaN/GaN MOS-HEMT:	Nanoelectronics and CMOS.
20	1570569770	Syed Rizwan Hussain	2D MXene for Spintronic Application	Nano-magnetic structures and devices
21	1570560126	Georgiana Bulai	Structural and Magnetic Properties of Rare Earth Doped Cobalt Ferrite Nanostructures	Nano-magnetic structures and devices
22	1570572334	Fanny Béron; Bruno Segat Frare; Marcos Vinicius Puydinger Santos; Kleber Pirotz	Ni Nanowire Alignment Optimization During Dielectrophoresis Through External Magnetic Fiel	Nano-magnetic structures and devices
23	1570562532	Yu Liu; Linyuan Zhao; Renrong Liang; Wenjie Chen; Jun Xu	Graphene Based Self-Powered Mini-Spectrometer	Nanophotonics, Metamaterials and plasmonic devices.
24	1570569572	GeumYoon Oh; Jeong Beom Ko; Hyungchan Kim; Choon Keun Park	Analysis of T-shaped Plasmonic Nanogap Wavelength Filters	Nanophotonics, Metamaterials and plasmonic devices.
25	1570567321	Lina Tizani; Moh'd Rezeq; Baker Mohammad; Jaime Viegas	Bowtie Nano-Antenna Simulation for Bio-sensing Applications and Rectenna Integrator	Nanophotonics, Metamaterials and plasmonic devices.
26	1570563637	Muath Bani Salim; Reza Nekovei; Amit Verma	Light Trapping Shape Optimization of Organic Solar Cells for Maximum Conversion Efficiency	Nanophotonics, Metamaterials and plasmonic devices.
27	1570563588	Jing Huang, Ilya Sychugov	Ligand Influence of Si Quantum Dots on Light Scattering of Quantum Dots-Polymer Composite:	Nanophotonics, Metamaterials and plasmonic devices.
28	1570569810	Prince Jain; Arvind Singh; Shonak Bansal; Neha Sardana; Sanjeev Kumar; Neena Gupta; Arun Kumar Sing	Triple Band Polarisation Insensitive Metamaterial Absorber for Terahertz Application:	Nanophotonics, Metamaterials and plasmonic devices.
29	1570560317	Joong Ho Lee; Gang Yeol Yoo; Hyeongjin Lee; Woong Kim; Young Rag Dc	Fabrication of Finger Patterned Electrode and Its Application by Electrohydrodynamic Printin	Nanophotonics, Metamaterials and plasmonic devices.
30	1570562254	Harmeet Kaur; Akash Deep; Amit Sharma; Priyanshu Goel	A Novel Luminescent Terbium MOF Composite Based Conductive Ink for Application in OLEDs: From Synthesis to Thin Film Fabrication Through Inkjet Printin	Organic nanomaterials and devices.
31	1570555481	Eirini Kolonelou; Anthony N. Papathanassiou; Elias Sakellis; Athanasios Zarkadoulas	Tunable Fluctuation Induced Tunneling and Pressure Induced Electro-Switching Properties of Polymer Based Nano-Graphene Composite:	Organic nanomaterials and devices.
32	1570566753	Priyanshu Goel; Harmeet Kaur; Sunita Mishra; Akash Deep	Thin Film Synthesis of Organometal Halide Perovskite Nanomaterial and MOF Composite Using Inkjet Printing Techniqu	Organic nanomaterials and devices.
33	1570563348	Harrison M Hones; Michael McCaffrey; Jordan Cook; Thomas Bielicki; Richard T Chao; Robert Krchnavek; Wei Xu	Polyimide-based Nanocomposites as Low-Temperature Dielectrics	Organic nanomaterials and devices.
34	1570569927	Lily Yang; Stephan Steinhauer; Dmitry Solenov; Thomas Lettner; Elia Strambini; Francesco Giazotto; Lucia Sorba; Val Zwiller	Effect of Optical Photons on Hybrid Semiconductor-Superconductor Josephson Junction:	Quantum technology and devices.
35	1570567518	Elisaveta G Kirilova	Mathematical Modelling of Stresses in Graphene Polymer Nanocomposites Under Static Extension Loa	Theory and Modeling of Nanomaterials, Structures, and Devices.
36	1570563568	Adil Baitenov; Hui Chen; Elena Vasileva; Lars Berglund; Sergei Popov; Max Yan; Ilya Sychugov	Modeling Photon Migration in Organic Materials with Nanostructures	Theory and Modeling of Nanomaterials, Structures, and Devices.
37	1570568559	(Withdrawn) Tanmoy Kumar Paul; Quazi Khosru	Optimization of Device Performance Through Quantum Mechanical Analysis of a Single Layer 2D TMD Material Based Vertical Heterojunction Tunnel FE	Theory and Modeling of Nanomaterials, Structures, and Devices.
38	1570604978	(Late News) Nazir Hossain, Jean F. Millithaler, Martin Margala	Graphene in-plane double gate transistor for the RF applicator	Nanoelectronics and CMOS.