European Materials Research Society

2023 Spring Meeting May 29 | June 2

40th Anniversary

Congress & Exhibition Centre, Strasbourg, France

SYMPOSIUM M

Materials engineering for advanced semiconductor devices

Symposium Organizers:

Fuccio CRISTIANO, LAAS-CNRS, Toulouse, France

Alessandra ALBERTI, CNR-IMM, Catania, Italy

Benjamin COLOMBEAU, Applied Materials, Sunnyvale, USA

Lourdes PELAZ, Universidade de Valladolid, Spain

Peter PICHLER, Fraunhofer IISB, Erlangen, Germany

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Monday May 29

M01
Integration Challenges

Chairperson(s) : PICHLER Peter

Schuman (1st floor)

08:45	2740	INV	Recent advances in 3D sequential integration	**BRUNET Laurent**
09:15	958		Reconfigurable Field-Effect Transistor Technology via Heterogeneous Integration of SiGe with Crystalline Al Contacts	**WIND Lukas**
09:30	1411		Engineering of HZO layer for the fabrication of ultimate 3D vertical transistors for Memory-in-Logic applications	**MOUSTAKAS Konstantinos**
09:45	817		Isotopically Enriched 28Si Substrates for Quantum Computers Produced Using Ion Implantation Layer Exchange	**ENGLAND Jonathan**

Monday May 29

M02
Simulation and Modeling I

Chairperson(s) : MARQUES Miguel A. L.

Schuman (1st floor)

10:30	1974	INV	Modelling of Interfaces and Surface reactions	**NOLAN Michael**
11:00	1417		First Principles Calculation of Alloy Scattering Parameters and their Effect on the Mobility of GeSn	**SEWELL Kevin**
11:15	1551		Metal-Dielectric Adhesion Improvement Using Germanium Incorporation	**BAZIZI El Mehdi**
11:30	1830		Electronic properties of interstitial atom clusters in silicon and their impact on devices	**JAY Antoine**
11:45	2168		Variability in Si Spin Qubits Due to Disordered Si/SiO2 Interfaces	**CVITKOVICH Lukas**

Monday May 29

M03
Substrate Technologies and Layer Synthesis I

Chairperson(s) : SAWANO Kentarou

Schuman (1st floor)

13:30	188	INV	New Substrate Materials for Advanced Electronic Devices	**RADU Ionut**
14:00	198		Low temperature epitaxial SiGe:P for gate-all-around(GAA) nMOS devices	**FUJIMOTO Yuta**
14:15	622		Deposition of Zr0.05Sn0.95O2 Thin Film using Mist Chemical Vapor Deposition and Its Application to Thin-Film Transistor	**HSU Meng-Yu**
14:30	1129		CVD-Growth of Tellurium-Based 2D Materials	**GHOMI Sara**
14:45	360		Direct growth of wafer-scale self-separated GaN on reusable two-dimensional material substrate	**HUANG Chang-Hsun**

Monday May 29

M04
Metrology and Characterization I

Chairperson(s) : EYBEN Pierre

Schuman (1st floor)

15:00	512		Raman spectroscopy in Ge and GeSn: Temperature dependence	**SPIRITO Davide**
15:15	1779		Polarized Raman scattering of epitaxially grown GeSn layers with different Sn contents	**CORLEY-WICIAK Agnieszka Anna**
15:30	526		Coupling X-ray Beam Induced Current and X-ray Diffraction Imaging to characterize diamond plates used as semiconductor-based detectors	**LAFONT Fabien**
15:45	1522		X-ray Nanobeam Mapping of Lattice Strain Modulations from CMOS-Processed TiN Gate Electrodes for Quantum Technologies	**CORLEY-WICIAK Cedric**

Monday May 29

M05
Advanced Doping Technologies

Chairperson(s) : BAUER Matthias

Schuman (1st floor)

16:30	2509	INV	Novel Processes for Advanced Nanoelectronics Devices	**SHARMA Shashank**
17:00	638		Title of abstract: Study on the electrical properties of ultrathin in situ Boron-doped strained Si0.7Ge0.3 layers annealed by nanosecond pulsed laser	**DAUBRIAC Richard**
17:15	1027		Study on structural and electrical properties of Si:P and Si:As films treated by RTA and NLA	**LEE Kihyen**
17:30	1171		Sb heavy doping of Ge1-xSnx epilayers by Pulsed Laser Melting	**FONTANA Daris**
17:45	1308		Evolution of carrier mobility and carrier density of femtosecond laser sulfur hyperdoped silicon after different post-processing treatments	**PAULUS Simon**
18:00	1808		Impact of Nanosecond Laser Annealing on the Structural and Electrical Properties of Heavily in-situ B-doped SiGe Epitaxial Films	**JO Chunghee**
18:15	926		Phosphorus monolayers formation on Ge: towards a reliable monolayer doping	**SGARBOSSA Francesco**

Tuesday May 30

M06
Simulation and Modeling II

Chairperson(s) : NOLAN Michael

Schuman (1st floor)

10:00	2737	INV	Machine-learning-assisted determination of the global zero-temperature phase diagram of materials	**MARQUES Miguel A. L.**
10:30	1196		Ground and excited state properties of meta-stable allotropic forms of 2D Tellurium from first principles approaches	**GRILLO Simone**
10:45	574		Charged intrinsic defect states in amorphous Si3N4	**WILHELMER Christoph**
11:00	710		Multiscale modeling of ultrafast transformations and structural disorder in laser annealed SiGe nanostructures	**CALOGERO Gaetano**
11:15	858		Functionality of polycrystalline-Si channel: insight from first-principles and multi-scale modeling	**MAJI Rita**
11:30	1769		A Multiscale Modeling Approach for Revealing Defects Relevant in Charge Trapping Related Phenomena	**WALDHOER Dominic**
11:45	2065		Kinetic Monte Carlo simulations of heated boron implantation and non-melt laser annealing in Si and SiGe layers	**MUNDINAR Simon**

Tuesday May 30

M07
Power Devices I

Chairperson(s) : SCHUSTEREDER Werner

Schuman (1st floor)

13:30	1508	INV	Virtualization of processes, metrology and maintenance for advanced SiC-based device manufacturing	**PAGANO Daniele**
14:00	1538		Growth of thick GaN layers on Si (111) for vertical power devices	**MICHLER Sondre**
14:15	681		Investigation of electron mobility in AlGaN channel heterostructures with different Al content	**BASSALER Julien**

14:30	1292		Novel Energy-Filtered Field Stop Technology for IGBT Power Devices	**KOCH Robert**
14:45	932		Single step of μs UV laser annealing for Si IGBT back-side activation	**CHEHADI Zeinab**

Tuesday May 30

M08
Silicides and Germanides I

Chairperson(s) : MANGELINCK Dominique

Schuman (1st floor)

15:00	227	INV	Optimization of the contact engineering processes in the frame of advanced semiconductor devices development.	**GREGOIRE Magali**
15:30	524		Effects of roughness variation on the electrical and structural properties of Ni silicide ohmic contacts formed by UV laser annealing	**BADALÀ Paolo**
15:45	2131		Investigation of the formation of nickel silicides on vertical silicon nanostructured channel for advanced electronics	**MÜLLER Jonas**

Tuesday May 30

M_P01
Poster session 1

Etoile (1st floor) - 4.30 p.m to 6.30 p.m

01_40		Defects visualization in Gallium Nitride by Scanning Transmission Electron Microscopy	**BONGIORNO Corrado**
02_148		Investigation of carrier Lifetime variation with nanopillar spacing in Si-nanopillar/ SiGe composite materials for MOSFET application by laser heterodyne photothermal displacement measurements	**HARADA Tomoki**
03_300		Deep Level Transient Spectroscopy-Secondary Ion Mass Spectrometry combined study of H+ irradiation effects on 4H-SiC	**SCALISI Melissa Lucia**
05_778		Super-Resolution Fluorescence Imaging for Semiconductor Nanoscale Metrology and Inspection	**MUN Seohyun**

06_811	Band Bending and Surface Composition Analysis by Angle Resolved XPS and Their Impact on Minority Carrier Lifetime After Germanium Wet Etching	**CHAPOTOT Alexandre**
07_930	Manipulating spin texture in a hybrid nanostructure comprised of topological insulator and 2D semiconductor with varied band alignment types	**CHENG Cheng-Maw**
08_950	Thermal transport on few-layers Fe3GeTe2	**CLARO Marcel S.**
09_1102	Stress/strain-induced Raman frequency shift in Gallium Nitride (GaN) Packaged Devices	**DAHROUCH Zainab**
10_1471	Features of Ultrathin SiO2 Layers on Si and Their Physical Manifestations	**KONIN Konstantin**
11_1472	4H-SiC RIE etch: Design of Experiments optimization for striations recovery by using ImageJ software	**BARCELLONA Matteo**
12_2639	Sub-Picosecond Carrier Dynamics Explored using Automated High-Throughput Studies of Doping Inhomogeneity within a Bayesian Framework	**AL-ABRI Ruqaiya**
13_355	Radiation-enhanced annealing of vacancy-oxygen defects in Cz n-Si: features of the experiment, factor of the radiation ionization, and a possible annealing mechanism	**KRAS'KO Mykola**
14_518	New states of ??2 defect in boron-doped Si	**KHIRUNENKO Lyudmila**
15_627	The Diffusion Behavior and Electrical Characteristics of Ru Interconnect with Polycrystalline MoS2 Diffusion Barrier	**JHAN Dun Jie**
16_2411	Density functional theory study of multi-interstitial defects complexes in germanium	**ABDURRAZAQ Abdulgaffar**
17_2001	Gibbs free energy for MoO2Cl2 reaction on SiO2 surface by density function theory	**KIM Hyun-Kyu**
18_2043	Two-dimensional carrier gas at a polar interface without surface band gap states: A first principles perspective	**BRIVIO Federico**
19_2095	Two-dimensional van der Waals heterostructures for energy-efficient tunneling transistors	**IORDANIDOU Konstantina**
20_69	General Purpose Machine Learning Interatomic Potential for Silicon-Germanium	**MILARDOVICH Diego**
21_2050	Ab-initio study of the effects of Pb intercalation in Graphene/SiC heterostructures	**BROZZESI Simone**

22_1380	Tuning the Schottky Contacts of graphene/ phosphorene heterostructure: a DFT study	**MURONI Alessia**
23_893	TCAD modelling of a-Si:H devices for particle detection applications	**PASSERI Daniele**
24_1206	Post growth thermal treatments of Si1-x-yGexSny alloys	**STEUER Oliver**
25_43	New method for the deposition of thin films on the inner walls of a deep cavity: application to germanium doping	**CARRARO Chiara**
26_1476	Strained sintered mesoporous silicon epifoils for IIIV/Si integration and substrate reuse	**SANCHEZ-PEREZ Clara**
27_2200	Properties and perspectives of supersaturated (Si)Ge nanosheets grown via molecular beam epitaxy at ultra-low temperatures	**ABERL Johannes**
28_827	Impact of annealing schemes on the formation and agglomeration of thin Ni(Pt)Si film for advanced 3D imagers technologies	**MORRIS ANAK Fabriziofranco**
29_2081	In-situ transmission electron microscope observation of nickel metal-induced crystallization on a-Si	**HSIANG Chen-Chih**
30_2202	Study of interfaces in nickel-based silicides through a multi-level modeling strategy	**JARA Cesar**
31_189	Influence of the type of interlayer on current transport mechanisms and defects in n-ZnO/ZnCdO/p-Si and n-ZnCdO/ZnO/p-Si heterojunctions grown by molecular beam epitaxy	**SZYMON Radoslaw**
32_1572	Phase transition control of crystalline Ga2O3 grown on sapphire (0001) by MOCVD	**KIM Hyeong-Yun**
33_1915	Deposition of Ga2O3 and ZnGa2O4 thin films by liquid metal target sputtering	**ZUBKINS Martins**
35_805	Wafer-Scale Production of 2D SnSe: Synthetic Platform for Van der Waals Semiconductor-Based Broadband Photodetectors	**JO Hyeong-Ku**
36_605	Formation of High-k Al-doped ZrO2 Dielectric Using a New Cocktail Precursor	**KIM Hayeong**
37_1030	Effect of dopant distribution on the remanent polarization of La-doped HfO2 thin films	**JEONG Ju Young**
38_1019	Ferroelectricity of La doped Hf0.5Zr0.5O2 Films Deposited by Atomic Layer Deposition using Supercycles	**HAN Yoogeun**

39_1647	Oxygen Vacancy Control-mediated Ferroelectricity Enhancement in Hafnium Zirconium Oxide Via DUV Photoactivation	**LEE Sangwoo**
40_458	Chemical design of magnetoelectric GaFeO3 epitaxial thin films	**NASUI Mircea**
41_861	Engineering Transition Metal Oxide and Transition Metal Dichalcogenide Memristive Devices for Neuromorphic Systems	**LINKENHEIL Anna**
42_113	Mist-CVD Deposited c-Axis Aligned Crystalline ITZO Thin Film and Its Application to Thin-Film Transistor	**LIU Han-Yin**
43_1238	A comprehensive study of the influence of various deposition parameters on the physical properties of ZnO:Al thin transparent conducting films	**RACZ Adel Sarolta**
44_1103	High mobility Oxide Thin Film Transistor with amorphous In-Ga-Sn-O fabricated by RF-magnetron sputtering	**HYUNIL Jo**
45_1125	Growth Control, Optical and Structural Characterization of Layered Gallium Sulfide Films Prepared by Chemical Vapor Deposition	**DICORATO Stefano**
46_1992	Growth of MoSe2-MoS2 core-shell in-plane heterostructure TMDs using Chemical Vapor Deposition	**LIM Insu**
48_1827	Photothermal reaction based Low Temperature Synthesis of Vertically Integrated Two-dimensional Heterostructure	**JEON Min-Ji**
47_2454	Phase Change Sb2S3 films grown by Chemical Vapor Deposition	**GIANGREGORIO Maria Michela**
49_625	Manifestation of Eu dopants in Raman spectra and doping concentration profiles of {ZnCdO/ZnO} superlattices	**PERLIKOWSKI Igor**
50_1441	Effect of gallium doping on structural and transport properties of the Topological Insulator Bi2Se3 by molecular beam epitaxy	**PÉREZ RODRÍGUEZ Ana**
51_100	Extraction of single-walled carbon nanotubes of defined chirality with conjugated polymers in organic solvents	**JANAS Dawid**

Wednesday May 31

M09
Metrology and Characterization II

Chairperson(s) : VANTOMME André

Schuman (1st floor)

10:00	2577	INV	Combining cutting-edge metrology techniques and TCAD to support device integration towards the 2nm Technological Node and Beyond	**EYBEN Pierre**
10:30	1933		Scanning Spreading Resistance microscopy on dopant profiles in elemental and compound semiconductors	**BÖCKENDORF Tim**
10:45	391		Local Strain and Alloy Composition in Ge1-xSnx Microdisks: A Study by X-ray Nanoprobe	**ZOELLNER Marvin Hartwig**
11:00	864		Capacitance-Voltage Measurements on SiC-Based MOS Structures: What Information Can We Get from Them?	**BURENKOV Alex**
11:15	1399		On the bulk photovoltaic effect in non-uniformly strained Germanium	**MANGANELLI Costanza Lucia**
11:30	1447		Deep multi-energy proton implantation in silicon: a SIMS study	**SAMPERI Orazio**
11:45	1713		Photoemission Spectroscopy on photoresist materials: A useful tool to use with caution	**SAJJADIAN Faegheh**

Wednesday May 31

M10
Simulation and Modeling III

Chairperson(s) : LA MAGNA Antonino

Schuman (1st floor)

13:30	2698	INV	Material Engineering for Advanced CMOS Technology	**MOROZ Victor**
14:00	2325		Gate-All-Around SRAM: Performance Investigation and Optimization Towards Vccmin Scaling	**VYAS Pratik B**
14:15	2002		Impact of solid and liquid phase reflectivity on the ultra-fast laser melting of silicon-germanium alloys	**RICCIARELLI Damiano**

14:30	2074		Boron diffusion in germanium and the impact of oxygen	**KIPKE Felix**
14:45	623		Generation and loss of hydrogen-boron pairs in fired silicon wafers	**VORONKOV Vladimir**

Wednesday May 31

M11
Silicides and Germanides II

Chairperson(s) : GREGOIRE Magali

Schuman (1st floor)

15:00	964	INV	Some challenges and issues for contacts formation and stability in microelectronics	**MANGELINCK Dominique**
15:30	1332		NiGe formation on thin Ge films by flash lamp annealing: electrical properties	**REBOHLE Lars**
15:45	1046		NiSi2/Si interface with segregation of one-atomic Au layer in a silicide-embeded silicon nanowires	**WU Chia-Yi**

Wednesday May 31

M12
Applications in Advanced Devices

Chairperson(s) : ENGLAND Jonathan

Schuman (1st floor)

16:30	844		Back-end-of-line and flexible substrate compatible ferroelectric memories for neuromorphic computing and adaptive sensing	**MAJUMDAR Sayani**
16:45	1029		Indium Gallium Zinc Oxide Based Ferroelectric Thin Film Transistors for Content Addressable Memory Cell Applications	**DE Sourav**
17:15	1114		Impact of ferroelectricity on the electron-phonon coupling at oxide interfaces	**HUSANU Marius Adrian**
17:30	1272		Site-controlled fabrication of integrated graphene nanoribbons-based quantum dot devices using scanning probe nanopatterning	**LIU Xiao**
17:45	1312		Physically Unclonable Functions Capable of Preventing Machine Learning Hacking Attacks Obtained by Disordered Interfacial-doping of Graphene Using Mixed Self-assembled Monolayers	**LEE Subin**

18:00	1493	New technologies for High Purity Germanium segmented detectors: from virgin crystals to innovative devices.	**BERTOLDO Stefano**
18:15	2484	Different Schottky barriers have been obtained by varying the Schottky metal and deposition parameters	**MILAZZO Simone**

Thursday June 1

M13
Substrate Technologies and Layer Synthesis II

Chairperson(s) : RADU Ionut

Schuman (1st floor)

10:00	1555	INV	Strain engineering of Si/Ge heterostructures based on Ge virtual substrates	**SAWANO Kentarou**
10:45	920		Synthesis of MoS2 layers by sputter deposition and pulsed laser annealing.	**TONON Alessandro**
11:00	2166		Growth of transferable germanium membranes on porous substrate for flexible optoelectronics	**HANUS Tadeas**
11:15	1337		Van der Waals epitaxy of CdTe on 2D surfaces	**TOURARD Enguerrand**
11:30	2011		Lamellar GeP thin films: a first step on the road toward 2D-GeP	**STOFFEL Mathieu**
11:45	2197		Synthesis of relaxed Ge0.9Sn0.1/Ge by nanosecond pulsed laser melting	**DI RUSSO Enrico**

Thursday June 1

M14
Simulation and Modeling IV

Chairperson(s) : HEMERYCK Anne

Schuman (1st floor)

13:30	1168	INV	Multiscale simulations of critical processes for the fabrication and functionalization of nanostructures	**LA MAGNA Antonino**
14:00	1655		Multi-Threshold Voltages Enablement Using Oxide Dipoles in WFM-Less Gate Stack for n- and p- Type GAA Devices	**JADAUN Priyamvada**
14:15	2089		A simulation workflow to couple the meso and atomistic scale for the CVD epitaxy of Si and SiGe-based structures	**FISICARO Giuseppe**
14:30	433		Accurate and efficient 3-D analytic model of ion implantation based on Legendre polynomials	**ZOGRAPHOS Nikolas**
14:45	1363		TCAD process simulation of self-limiting oxidation of silicon nanowires	**ROSSI Chiara**

Thursday June 1

M15
Silicides and Germanides III

Chairperson(s) : ALBERTI Alessandra

Schuman (1st floor)

15:00	2154	INV	Tuning nickel silicide properties via ion implantation: the role of defects and impurities	**VANTOMME André**
15:30	898		Formation of the C54-TiSi2 phase using nanosecond laser annealing and RTA enhanced by amorphous silicon	**GUELLADRESS Reda**
15:45	614		Influence of the Si surface preparation on CoSi2 agglomeration	**NEWMAN Andréa**

Thursday June 1

M_P02
Poster session 2

Etoile (1st floor) - 4.30 p.m to 6.30 p.m

01_1404		A low-temperature route to the green synthesis of CsPbBr3 films on rigid and flexible substrates	**SIRNA Lorenzo**
02_1200		A new Combinatorial Approach for Solution Deposition of Thin Films	**ZAKAY Noy**
03_126		Pulsed 193 nm Excimer laser processing of 4H-SiC(0001) wafers with radiant exposure dependent “in situ” reflectivity studies for process optimization.	**DELMDAHL Ralph**
04_1026		Investigation of the dopant activation in ultra-highly B-doped Si1-xGex films	**LEE Kiseok**
05_1506		Wet etching characteristics of poly-Si depending on the various structures for advanced 3D integrated circuits	**JI Sanghyeon**
06_1539		Impact of Si3N4 stoichiometry on the formation of an AlN layer in an Al/Ti/Si3N4 thin film system during AlGaN/GaN Ohmic contact formation for HEMT device	**COLOMBO Selene**
07_1159		Neuromorphic Synapse Implementation using InOx Interfacial Layer in InAs Nano-Wire Field-Effect Transistor	**LEE Junseo**

08_1574	Symmetric nitride-based ambipolar transistors with tunable electrical properties by high electronegativity dopant	**PARK Ji-Min**
09_2488	Fabricating Cfet Devices with Vertically Stacked P/N Si Channels Using Ge/Si 2D Epitaxy and High Ge/Si Selective Etching Ratio	**CHUN-LIN Chu**
11_1868	Electrical properties of graphene field-effect transistor (GFET) by minority carrier resistance effect of graphene	**GU Taejun**
12_1865	Electrical Characteristics (80 – 525 K) of High Quality Pt SBDs Fabricated on HVPE-Grown ß-Ga2O3 Epilayers	**SHEORAN Hardhyan**
13_138	Reliable Multiply-Accumulate Operation of a Ru/TaOx/Si:ZrOx/TiN Stacked Device	**SEO Hyun Kyu**
14_149	Tailoring the multilevel resistive switching characteristics of hafnium oxide-based memory devices by differential work function engineering	**S. P. Swathi**
15_1626	Self-assembled Tantalum oxide/2H-TaS2 as van der Waals Platform of Multilevel Memristor Circuit with ß-Ga2O3 Transistor	**KIM Taewook**
16_1674	Multiply-Accumulate Operation on One Selector-One Resistor(1S1R) 32 x 32 crossbar arrays	**LEE Su Yeon**
17_2155	Synthesis of Large-Area Monolayer MoS2 for Two-Terminal Neuromorphic Devices with Short-Term Memory	**THOOL Asmita**
18_2204	Transposable 1T-SRAM for neuromorphic computing	**LIM Doohyeok**
19_2508	Resistive switching properties of CuxO films through phase transition during low-temperature annealing	**KIM Eun Kyu**
20_2514	Synthesis and memristor properties of CVD grown ReS2 thin film: Change from DRAM to WORM	**AGGARWAL Pallavi**
21_772	Deposition of TiO2 Thin Films by Mist Chemical Vapor Deposition and Their Application to Resistive Random Access Memory	**CHENG Yun-Yun**
22_1007	Efficient Inverted Tandem Structure of Quantum Dot Light-Emitting Diodes with Inorganic Charge Generation Layers	**LEE Kwangkeun**
23_1058	Ligand exchanged highly dispersed NiO nanoparticles for hole injection layer of Quantum Dots LED	**HYOJUN Lim**

24_1338	Interplay between strain, Sn content and temperature in GeSn optoelectronic devices	**ZAITSEV Ignatii**
25_1544	Investigation of Chiral Halide Perovskite/III-V LEDs with Circularly Polarized Emission	**HAUTZINGER Matthew**
261921	Carrier dynamics and structural properties of hybrid orange-red LED based on In-rich InGaN/GaN multiple quantum wells	**ALAMOUDI Hadeel**
27_1926	Studying the carrier dynamic of pyramid-shaped InGaN/GaN micro-light-emitting diodes (μ-LEDs) by using Time-resolved photoluminescence	**ALRESHIDI Fatimah**
28_333	AlxZn1-xO-based Ultraviolet Photodetectors with Tunable Cutoff Wavelength from Near-UV to Deep-UV	**CHEN Wei-Han**
29_1250	Gate/Light Co-Tunable Negative Differential Resistance Behaviors and 9 by 9 Photodetectors Array from Small-Molecules Heterostructure	**JEON Yunchae**
30_1703	Effect of Sn+ ion implantation and post-annealing on enhancing ß-Ga2O3–based DUV self-powered photodetector performance	**UPADHYAYA Kishor**
31_1223	Photosensitive graphene field-effect transistor with porous silicon supporting layer	**OLENYCH Igor**
32_834	Large area 4H-SiC Schottky barrier diodes as radiation detectors	**KNEZEVIC Tihomir**
33_1521	Ultrafast low power room temperature H2 gas sensor based on atomically sharp nanopatterned exfoliated MoS2 flakes	**AGRAWAL Abhay Vivek**
34_1801	Mercury (II) Selective Probe by Thin Film Transistor Based on Supramolecular Flavin-Wrapped Single-Chirality Single-Walled Carbon Nanotube	**KIM Dong Hwan**
35_2554	A High-temperature stable Self-driven Broadband-photodetector based on MoS2/ GaN Heterostructure.	**VASHISHTHA Pargam**
36_2645	Exploring light trapping of nanopillar arrays decorated with self-aligned quasi-nanolenses using near-field optical microscopy	**KUMAR Ankit**
37_2674	Development of AlGaAsBi for the Next Generation of APDs	**CARR Matthew**
381922	Synthesis of Pb-free Ag-Bi-based double perovskites thin films for photovoltaic applications	**RUIZ RAGA Sonia**

40_1928	Template synthesis and experimental-theoretical study of a new type of heterostructures	**DAULETBEKOVA Alma**
41_1084	3D-printed metasurface structure with thermal-compressed circuit patterns for phase shifter fabrication	**LEE Gyeongyeong**
42_1205	Electrical Conductivity and Light Sensing based on 3D Printed Nanoporous Structures	**XIA Kai**
43_1373	Oxide Nanopatterning using Sequential Infiltration Synthesis – In Situ FTIR study	**BISWAS Mahua**
44_480	Development of nanoelectromechanical device based on complementary metal oxide semiconductor for three dimensional integrated associative memory-augmented neural networks	**JUNG Sang Hyun**
45_876	Effect of stress and different crystal orientations on 3C-SiC resonator	**LA VIA Francesco**
46_2335	Investigation of Thermal ALD deposited AlOx and HfOx bilayer films for Silicon Surface Passivation	**DEVI Meenakshi**
47_1889	Design rules for selective deposition of silver by condensation coefficient modulation	**ABRAHAMCZYK Szymon**
48_1716	Control of interfacial reaction between high TC superconductor Tl2Ba2CaCu2O8 and topological insulator Bi2Se3	**CHUNG Yong-Duck**
49_1023	Elucidating the effects of impurities on interfacial void formation of Cu and Sn-Ag electrodeposits	**JO Yugeun**

Friday June 2

M16
Power Devices II

Chairperson(s) : PAGANO Daniele

Schuman (1st floor)

08:45	77	INV	Advanced Processes for Power Devices	**SCHUSTEREDER Werner**
09:15	342		Heteroepitaxy 3C-SiC/Si Power Devices - Key Materials Challenges	**WARD Peter**
09:30	2096		Defect formation in 3C-SiC grown on compliance Si substrates	**BONINELLI Simona**
09:45	1911		Impact of doping on the stress evaluation of Si/3C-SiC hetero-epitaxy	**LA VIA Francesco**

Friday June 2

M17
High-Mobility Electron Devices

Chairperson(s) : BAZIZI El Mehdi

Schuman (1st floor)

10:30	344	INV	Enabling High-capacity 6G Wireless Communication: Harnessing the Potential of InP Semiconductors	**COLLAERT Nadine**
11:00	610		Isolation of Bidimensional Electron Gas in AlGaN/GaN Heterojunction using C, Fe and Ar Ion Implantation	**SCANDURRA Antonino**
11:15	1939		Fabrication of Self-aligned Quantum Well InGaAs MOSFETs for High Frequency Applications	**GARIGAPATI Navya Sri**
11:30	152		Qualitative and quantitative defect analysis of high mobility InGaZnO oxide thin film transistor with polyimide insulator	**KIM Min Jung**
11:45	72		Mechanical Stress Confinement Effects on Microelectronics Reliability	**HAQUE Aman**