<table>
<thead>
<tr>
<th>Poster Session I</th>
</tr>
</thead>
</table>
| #1A | Shun-ichiro Ohmi (Tokyo Institute of Technology, Japan)  
Low-Voltage Operation of MFSFET with Ferroelectric Nondoped HfO$_2$  
Formed by Kr/O$_2$-Plasma Sputtering |
| #1B | Han-Yin Liu (National Sun Yat-Sen University, Taiwan)  
Enhanced Performance of Amorphous InGaZnO-based Transparent  
Thin-Film Transistors by Modifying Precursors for Mist Atmospheric  
Pressure Chemical Vapor Deposition (Paper Withdrawn) |
| #1C | James L Doherty (Duke University)  
Capping Layers to Improve the Electrical Stress Stability of MoS$_2$  
Transistors |
| #1D | Wenjian Liu (University of California, Santa Barbara)  
Near-ideal Ru/N-polar GaN Schottky diode with ultralow reverse  
leakage |
| #1E | Jun Tao (University of Southern California)  
Monolithic InAs Photoconductive Detectors on Si/SiO$_2$ substrates |
| #1F | Pai-Ying Liao (Purdue University)  
Scaling of Electric Transport Properties of Tellurium Atomic Chains |
| #1G | Chih-Pin Lin (National Chiao Tung University, Taiwan)  
Phase and Carrier Polarity Control of Sputtered MoTe$_2$ by Plasma-  
induced Defect Engineering |
| #1H | Jun Tao (University of Southern California)  
A Platform for Monolithic Back End of Line III-V Integration (Paper  
Moved to Session II. 2AB) |
| #1I | John D. Stearns (University of Colorado, Boulder)  
High Frequency Characteristics of Graphene Geometric Diodes |
| #1J | Takumi Negoro (Tohoku University, Japan)  
A Novel Grating-Gate Plasmonic THz Detector with Photovoltage  
Gate-Readout for Use in High-Speed Wireless Communications |
| #1K | Jimin Kwon (Pohang University of Science and Technology, South  
Korea)  
Printed 2-V Dual-Gate CNFETs with an Enhanced Depletion Behavior |
| #1L | Yi-Ping Huang (National Cheng Kung University, Taiwan)  
Normally-Off InAlN/GaN Fin-MOSHEMT with Fluorine Treatment |
| #1M | Omor Shoron (University of California Santa Barbara)  
3D Dirac Semimetal Channel Field Effect Transistor with 4 A/mm  
Current Density and Transconductance greater than 120 mS/mm  
(Paper Withdrawn) |
| #1N | Elliott Brown (Wright State University)  
RTD Light Emission around 1550 nm with IQE up to 6% at 300 K |
| #1O | Dongqi Zheng (Purdue University)  
Concisely Bi-Directional Controlling Flat-Band and Threshold Voltage Using Single-Cycle ALD Intermixed-Dipole Engineering |
| #1P | Seunghyun Lee (The Ohio State University)  
Multiplication characteristics of $\text{Al}_{0.4}\text{Ga}_{0.07}\text{In}_{0.53}\text{As}$ avalanche photodiodes grown as digital alloys on InP substrates |
| #1Q | Hadrian Aquino (University of Notre Dame)  
Using Coplanar Waveguides as Spin-Wave Sources with Improved Bandwidth |
| #1R | Saurav Roy (University of Utah)  
Improving the BV-Ron trade-off of $\beta$-$\text{Ga}_2\text{O}_3$ vertical Schottky barrier diode Using Dielectric Superjunction |
| #1S | Chao-Yin Kuo (National Cheng Kung University, Taiwan)  
Near-Nernstian pH Sensors Based on Hydrothermally Grown NiO Nanosheets on Hierarchically Roughened Si Substrates |
| #1T | Tianning Liu (Pennsylvania State University)  
High Frequency Flexible Thin-Film PZT Ultrasonic Transducers |
| #1U | Jinhyun Noh (Purdue University)  
Robust $\beta$-$\text{Ga}_2\text{O}_3$ Ferroelectric Field-Effect Transistors in Harsh Environments |
| #1V | Xiaohan Wu (The University of Texas at Austin)  
Understanding of Multiple Resistance States by Current-sweep Measurement and Compliance Current Modulation in 2D MoS$_2$-based Non-volatile Resistance Switching Devices |
| #1W | Chia-Chun Yen (National Taiwan University)  
Mobility Enhancement and Reliability Characterization of Back-Channel-Etch Amorphous InGaZnO TFT with Double Layers |
| #1X | Yuan-Chun Luo (Georgia Institute of Technology)  
Modeling Multi-states in Ferroelectric Tunnel Junction |
| #1Y | Aravindh Kumar (Stanford University)  
Doped WS$_2$ transistors with large on-off ratio and high on-current |
| #1Z | KyungEun Park (Tokyo Institute of Technology, Japan)  
High-k LaB$_x$Ny gate insulator formed by the Ar/N$_2$ plasma sputtering of N-doped LaB$_6$ metal thin films and its application to floating-gate memory |
**Wednesday, June 24, 2020, 14:00PM – 16:00PM (Eastern Daylight Time)**

| #2A       | Dong Ji (Stanford University)  
|           | Demonstration of GaN Impact Ionization Avalanche Transit-Time (IMPATT) Diode |
| #2B       | Molla Manjurul Islam (University of Central Florida)  
|           | Optoelectronic Synapse Using Monolayer MoS₂ Field Effect Transistors for Neuromorphic Applications |
| #2C       | Andrew H. Jones (University of Virginia)  
|           | 2-µm-Compatible AlInAsSb Avalanche Photodiodes |
| #2D       | Mehdi Saremi (Applied Materials)  
|           | Modeling and Optimization of Advanced 3D NAND Memory |
| #2E       | Yury Yu. Illarionov (TU Wien, Austria)  
|           | Anomalous Instabilities in CVD-MoS₂ FETs Suppressed by High-Quality Al₂O₃ Encapsulation |
| #2F       | Kartikey Thakar (Indian Institute of Technology Bombay, India)  
|           | Optically-induced Frequency and Phase Modulation in Electrostatically Doped Anti-ambipolar WSe₂ Transistors |
| #2G       | Zhe Ashley Jian (University of Michigan)  
|           | Deep UV-assisted C-V Characterization of Post-deposition Annealed Al₂O₃/β-Ga₂O₃ (001) MOSCAPs |
| #2H       | Jinyoung Park (University of Massachusetts, Amherst)  
|           | High-Density Multilayer Graphene Microelectrode Arrays for Optogenetic Electrophysiology in Human Embryonic Kidney Cells |
| #2I       | Adithi Krishnaprasad (University of Central Florida)  
|           | Engineering Linear and Symmetric Synaptic Weight Update in Graphene/MoS₂ Cross-point Devices |
| #2J       | Niharika Thakuria (Purdue University)  
|           | Polarization-induced Strain-coupled TMD FETs (PS FETs) for Non-Volatile Memory Applications |
| #2K       | Christopher R. Allemang (University of Michigan)  
|           | Area-selective Atomic Layer Deposition of High Mobility Zinc-Tin-Oxide for Thin-film Transistors Patterned by Electrohydrodynamic-jet Printing |
| #2L       | Durjoy Dev (University of Central Florida)  
|           | Artificial Nociceptor Using Two-terminal 2D MoS₂ Threshold Switch |
| #2M       | Isaac Ruiz (Sandia National Laboratories)  
|           | Deeply Depleted Graphene-Oxide-Semiconductor Junctions on III-V Semiconductor Substrates for High Responsivity Photodetection (Paper Withdrawn) |
| #2N       | Jeevesh Kumar (Indian Institute of Science, India)  
|           | Defect Assisted Metal-TMDs Interface Engineering: A First Principle Insight |
| #2O | Peng Cui (University of Delaware)  
Enhanced Electrical Performance of Forming Gas Annealed InAlN/GaN HEMTs on Silicon with f\textsubscript{i}/f\textsubscript{max} of 165/165 GHz |
| #2P | Raihan Sayeed Khan (University of Connecticut)  
Stopping Resistance Drift in Phase Change Memory Cells |
| #2Q | Samiran Ganguly (University of Virginia)  
Proposal for a Magnetic Racetrack based Temporal Memory for Race Logic |
| #2R | Muhammad Bilal Khan (Helmholtz-Zentrum Dresden-Rossendorf, Germany)  
Towards Scalable Reconfigurable Field Effect Transistor using Flash Lamp Annealing |
| #2S | Sebastian Lukas (RWTH Aachen University, Germany)  
Correlation of Material Structure and Electronic Properties in 2D Platinum-Diselenide-based Devices |
| #2T | Akanksha Rohit (Ohio University)  
Ultra-Durable and Reliable High-k Textile Capacitors for Wearables and Robotics |
| #2U | Junkang Li (Purdue University)  
Ferroelectric Tunnel Junction Memory by the Intrinsically Asymmetric Structure of Hf\textsubscript{0.5}Zr\textsubscript{0.5}O\textsubscript{2}/Al\textsubscript{2}O\textsubscript{3} Ferroelectric/Dielectric Stack |
| #2V | Himani Jawa (IIT Bombay, India)  
Enhanced Photo-response of an MoS\textsubscript{2} Transistor Using Embedded BP |
| #2W | Fiheon Imroze (Indian Institute of Technology Madras, India)  
Effect of Recessed Electrodes on Contact Resistance in Organic Thin Film Transistor Based on Polymer Dielectric |
| #2X | Zhihui Cheng (NIST & Purdue)  
Are 2D Interfaces Really Flat? |
| #2Y | Nicolas Wainstein (Technion - Israel Institute of Technology)  
Electrothermal Compact Modeling of Indirectly Heated Phase Change RF Switches |
| #2Z | Yu Shen (University of California Riverside)  
Fully integrated paper microfluidic single-walled carbon nanotubes chemiresistive biosensor arrays for multiplexed point-of-care diagnostics |
| #2AA | Matthew Hartensveld (Rochester Institute of Technology)  
Field Effect Light-Emitting Diode Integration for Enhanced Hole Utilization |
| #2AB | Jun Tao (University of Southern California)  
A Platform for Monolithic Back End of Line III-V Integration |