

Monday, August 11: Oral Presentations - Malachowsky Hall, NVIDIA Auditorium			
Start Time	Author	Affiliation	Title
8:00	David Meyer	DARPA	UWBG Semiconductors: The Next Revolution in High Performance Electronics
8:40	Zetian Mi	University of Michigan	Ultrawide Bandgap Ferroelectric Nitride Semiconductors for High Temperature Electronics
9:05	Xuiling Li	University of Texas - Austin	Enabling High-Performance (U)WBG Devices through Innovative Growth and Fabrication Approaches
9:30	Srabanti Chowdhury	Stanford	TBD
9:55	Break		
10:15	Leland Nordin	University of Central Florida	High-Performance, Low-Cost Mid-Infrared Optoelectronic Devices
10:40	Surjava Sanyal	University of Wisconsin, Madison	Influence of Electron Blocking Layer on the Optical Properties of Red InGaN MicroLEDs on Porous Substrates
10:55	Zachary Hargus	University of Florida	Characterization of n-type doping efficiency in Si-doped Al-polar and N-polar epitaxially grown AlN films
11:10	Daniel Francis	Akash Systems	GaN in and on diamond, 3D diamond, and interface engineering for low thermal resistance and deployment of GaN-on-diamond in space
11:35	Hsiao-Hsuan Wan	University of Florida	kV-class Vertical p-n Heterojunction Rectifier Based on ITO/Diamond
11:50	Surjava Sanyal	University of Wisconsin, Madison	Effect of TMIn surfactant on the sheet resistivity of Si-doped n++-GaN regrowth using MOCVD
12:05	Lunch		
13:00	Asif Khan	University of South Carolina	Electronic Devices using Extreme Bandgap Al <sub>x</sub> Ga <sub>1-x</sub> N heterojunctions over bulk AlN
13:40	David Storm	Army Research Laboratory	Ultrawide Bandgap High Al-Fraction AlGa <sub>N</sub> for High Power Devices
14:05	Maher Tahhan	Raytheon	Hetero-Bonding Approach to Realize Ultra-Wide Bandgap p-i-n Diodes
14:30	Khush Gohel	University of Wisconsin, Madison	High BFOM (> 350 MW/cm <sup>2</sup> ) Al <sub>0.65</sub> Ga <sub>0.35</sub> N Channel MISHEMT with > 2kV breakdown voltage
14:45	Katharina Loske	University of Florida	Electrical and Spectroscopic Analysis of High Aluminum-Content AlGa <sub>N</sub> Schottky Diodes and Photodetectors
15:00	Bingcheng Da	Arizona State University	High Current Density AlN Quasi-vertical Schottky Barrier Diodes
15:15	Break		
15:35	James Spencer Lundh	U.S. Naval Research Laboratory	The Next Frontier: Extreme Temperature (1000 °C) Operation of Wide and Ultrawide Bandgap Semiconductor Devices
16:00	Mark Sheplak	University of Florida	Towards a High-Frequency Dynamic Pressure Sensor for High-Enthalpy Hypersonic Flows
16:15	Ruixin Bai	University of Wisconsin, Madison	Improved Gate Stability in Scaled RF GaN HEMTs Using ALD TiN with Potential for High-Temperature Applications
16:30	Yixin Xiong	Pennsylvania State University	GaN Bootstrapping Amplifier IC Operating at up to 800 °C Temperature
16:45	Ajay Visvkarma	Pennsylvania State University	Robustness of GaN HEMT at 800 °C in N <sub>2</sub> and Air Ambient
17:00	Yuxin Du	Pennsylvania State University	Study of GaN JFET gate leakage induced by heavy ion irradiation
17:15	Break		
18:00	Poster Session (Rm 7200)		

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Monday, August 11: Poster Session - Malachowsky Hall, Rm 7200			
Poster ID	Author	Affiliation	Title
P1	Andrew Koehler	U.S. Naval Research Laboratory	III-Nitride Devices for Extreme Temperature Operation
P2	Akshay Wali	Argonne National Lab	Room Temperature PN Junction Diodes Through Heterogenous Integration of Boron Doped p-Diamond With Monolayer n-MoS <sub>2</sub>
P3	Daqi Han	Georgia Institute of Technology	Finite Element Analysis of Static Mechanical Force to Control Piezo-Acoustic Transistors
P4	Miao Xiang	Georgia Institute of Technology	Evaluation of Amplifier Topologies for Driving Piezo-Acoustic Transistors
P5	Gong Jiarui	Texas A&M University	Towards Flat Surface Energy Band on M-Plane GaN and Its Implication for M-Plane GaN Heterojunction Bipolar Transistor Applications
P6	Owen Meilander	Vanderbilt University	Gate Leakage Suppression of Enhancement Mode GaN HEMTs on Engineered Substrate
P7	Eldridge Surianto	Georgia Institute of Technology	Finite Element Analysis of Inhomogeneity in Varistors with Monte Carlo Method
P8	Sihang Hui	University of Florida	Ex-situ surface cleaning of native oxide on N-polar AlN substrates
P9	Aritro Sarker	University of Florida	Face-to-Face Annealing of Al <sub>0.7</sub> Sc <sub>0.3</sub> N Thin Films on Sapphire
P10	Yashas Statapathy	North Carolina State University	Performance of Proton Irradiated 4H-SiC Low Gain Avalanche Detectors (LGADs)
P11	Abdulfatai Faro	University of Florida	Late News: Simulation-Driven Threshold Voltage Engineering in AlGaIn/GaN HEMTs via Gate Recess Depth Modulation
P12	Ruixin Bai	University of Wisconsin, Madison	Late News: Demonstration of high Johnson's Figure of Merit ( $f_t \times V_{BR} > 20$ THz-V) for Ultra-Wide-Bandgap Al <sub>0.66</sub> Ga <sub>0.34</sub> N Channel HEMT

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Tuesday, August 12: Oral Presentations - Malachowsky Hall, NVIDIA Auditorium			
Start Time	Author	Affiliation	Title
8:00	Reza Ghandi	GE Aerospace	Development of Medium Voltage SiC Superjunction Devices
8:40	Zeynep Dilli	CoolCad	Silicon Carbide Electronics in Extreme Environments: High-Voltage Devices and General-Purpose CMOS for High-Radiation and High-Temperature Environments
9:05	Richard Floyd	Sandia National Labs	Static Electrothermal Study of > 3 kV Co-Packaged MOSFETs and Monolithic BiDFETs
9:20	Raj Markondeya	Florida International University	3D Heterogeneous Integration with Panel-Scale Passive and Active Embedding
9:45	Moinuddin Ahmed	Argonne National Lab	Machine Learning Based Prediction of Neutron-induced Failure Time of 1200V and 1700V SiC Power Devices
10:10	Break		
10:30	Keisuke Shinohara	Teledyne	Normally-Off GaN Super-Heterojunction HEMTs with p-GaN Gate
10:55	Tyler Growden	Air Force Research Laboratory	High Temperature Performance of Scaled AlGaN/GaN HEMTs
11:20	Jae-Hyun Ryou	University of Houston	Ultrawide-Bandgap AlN Thin-Film Piezoelectric Physical Sensors for High-Temperature and Harsh-Environment Applications
11:45	Mansura Sadek	Pennsylvania State University	Field-dependent Carrier Transport in Implanted Isolation Region of GaN Lateral Power Devices
12:00	Lunch		
13:00	Kasey Hogan	Crystal IS	TBD
13:20	Jonathan Woo	Nextron	TBD
13:40	Yuyi Yamaoka	Taiyo Nippon Sanso	TBD
14:00			TBD
14:20	Travis Anderson	The Electrochemical Society	TBD
14:40	Break		
15:00	Jim Speck	University of California, Santa Barbara	Progress in $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Materials, Physical Properties, and Device Physics for High Voltage Power Electronics
15:25	Daniel Dryden	Air Force Research Laboratory	Gallium Oxide at AFRL: Prototyping in the Valley of Death
15:50	Sriram Krishnamoorti	University of California, Santa Barbara	High performance Gallium Oxide Power Devices Towards Grid-scale Electronics
16:15	Jacob Leach	Kyma	Single Event Breakdown in NiOx/ $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Heterojunction diodes with Plasma Etch edge termination
16:30	Will Brand	Agnitron	$\beta$ -Ga <sub>2</sub> O <sub>3</sub> MOSFETs grown by MOCVD on 2-inch (010) $\beta$ -Ga <sub>2</sub> O <sub>3</sub> Substrates
16:45	Mark Goorsky	University of California, Los Angeles	TBD
17:10	Award Presentations & Wrap-Up Discussion		
17:30	Break		
18:00	TBD		

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