

MIOMD 2023 Program Overview

Room /Time	Lecture Hall, Nielsen Hall	Great Hall, Sam Noble Museum
MoM	MIOMD-MoM1: Frequency Combs MIOMD-MoM2: Interband Cascade and Diode Lasers	
MoA	MIOMD-MoA1: THz Sources and Detectors MIOMD-MoA2: Quantum Cascade Lasers	
TuM	MIOMD-TuM1: Plenary Lecture & Integrated Photonics MIOMD-TuM2: Silicon Photonics	
TuA	MIOMD-TuA1: ICLs and LEDs MIOMD-TuA2: Mid-IR Plasmonics	
TuP		Poster Sessions
WeM	MIOMD-WeM1: Plenary Lecture & Applications of Mid-Infrared MIOMD-WeM2: Sensing	
ThM	MIOMD-ThM1: Detectors I MIOMD-ThM2: Detectors II	
ThA	MIOMD-ThA1: Materials for Mid-Infrared MIOMD-ThA2: Metamaterials and Polaritons	

Monday Morning, August 7, 2023

Room Lecture Hall, Nielsen Hall		
8:20am	Welcome and Opening Remarks	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-MoM1 Frequency Combs Moderator: David Burghoff, University of Notre Dame
8:30am	INVITED: MIOMD-MoM1-2 Mid-Infrared Semiconductor Laser Frequency Combs: From FM-Combs to Nozaki-Bekki Solitons, <i>N. Opačak</i> , TU Wien, Austria; <i>D. Kazakov</i> , Harvard University; <i>L. Columbo</i> , Politecnico di Torino, Italy; <i>S. Dal Cin</i> , <i>M. Beiser</i> , <i>F. Pilot</i> , TU Wien, Austria; <i>T. Letsou</i> , Harvard University; <i>M. Brambilla</i> , Università e Politecnico di Bari, Italy; <i>F. Prati</i> , Università dell'Insubria, Italy; <i>M. Piccardo</i> , Universidade de Lisboa, Portugal; <i>F. Capasso</i> , Harvard University; <i>Benedikt Schwarz</i> , TU Wien, Austria	
8:40am		
8:50am		
9:00am	MIOMD-MoM1-5 Temporal Solitons in Coherently-Driven Ring Lasers, <i>Theodore Letsou</i> , <i>D. Kazakov</i> , Harvard University; <i>M. Piccardo</i> , Universidade de Lisboa, Portugal; <i>L. Columbo</i> , Politecnico di Torino, Italy; <i>M. Brambilla</i> , Politecnico di Bari, Italy; <i>F. Prati</i> , Università dell'Insubria, Italy; <i>S. Dal Cin</i> , <i>M. Beiser</i> , <i>N. Opačak</i> , TU Wien, Austria; <i>M. Pushkarsky</i> , <i>D. Caffey</i> , <i>T. Day</i> , DRS Daylight Solutions; <i>L. Lugiato</i> , Università dell'Insubria, Italy; <i>B. Schwarz</i> , TU Wien, Austria; <i>F. Capasso</i> , Harvard University	
9:10am		
9:20am	MIOMD-MoM1-7 Full-Band Modeling of AM and FM Interband Cascade Laser Frequency Combs, <i>Michael Povolotskyi</i> , Jacobs; <i>I. Vurgaftman</i> , Naval Research Laboratory, USA	
9:30am		
9:40am	MIOMD-MoM1-9 Self-Referenced Terahertz Dual-comb Sources, <i>Hua Li</i> , <i>Z. Li</i> , <i>X. Ma</i> , <i>K. Zhou</i> , <i>B. Liu</i> , <i>J. Cao</i> , Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, China; <i>H. Zeng</i> , East China Normal University, China	
9:50am		
10:00am	BREAK	
10:10am		
10:20am		
10:30am	INVITED: MIOMD-MoM2-14 Recent Advances in Interband Cascade Lasers for Mid-Wave Infrared Free-Space Optical Communications, <i>Frederic Grillot</i> , Telecom Paris, France	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-MoM2 Interband Cascade and Diode Lasers Moderator: Benedikt Schwarz, TU Wien, Austria
10:40am		
10:50am		
11:00am	INVITED: MIOMD-MoM2-17 Continuous Wave Room Temperature Operation of the Epitaxially Regrown GaSb-Based Diode PCSELS, <i>Leon Shterengas</i> , Stony Brook University	
11:10am		
11:20am		
11:30am	MIOMD-MoM2-20 Single-Mode Tunable Interband Cascade Lasers with a Wide Tuning Range, <i>J. Gong</i> , <i>Z. Wang</i> , <i>J. He</i> , Zhejiang University, China; <i>Rui Yang</i> , University of Oklahoma	
11:40am		
11:50am		

Monday Afternoon, August 7, 2023

Room Lecture Hall, Nielsen Hall		
1:30pm	MIOMD-MoA1-1 Stabilization of Terahertz Quantum-Cascade VECSELS, <i>C. Curwen, J. Kawamura, D. Hayton</i> , Jet Propulsion Laboratory, California Institute of Technology; <i>S. Addamane, J. Reno</i> , Center for Integrated Nanotechnologies at Sandia National Laboratories; <i>B. Karasik</i> , Jet Propulsion Laboratory, California Institute of Technology; Benjamin S. Williams , University of California Los Angeles	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-MoA1 THz Sources and Detectors Moderator: Daniel Wasserman , University of Texas at Austin
1:40pm		
1:50pm	MIOMD-MoA1-3 A 231 GHz Generation in High-Power Long-Wavelength Quantum Cascade Laser Operating at Room Temperature, <i>Shohei Hayashi, A. Ito, T. Dougakiuchi, M. Hitaka, A. Nakanishi, K. Fujita</i> , Hamamatsu Photonics K.K., Japan	
2:00pm		
2:10pm	MIOMD-MoA1-5 RF Injection Locking of THz Metasurface Quantum-Cascade-VECSEL: Effect of Cavity Length Variation, Yu Wu , University of California, Los Angeles; <i>C. Curwen</i> , Jet Propulsion Laboratory; <i>J. Reno</i> , Sandia National Laboratories; <i>B. Williams</i> , University of California, Los Angeles	
2:20pm		
2:30pm	MIOMD-MoA1-7 THz Quantum Photodetector Based on LO-Phonon Scattering-Assisted Extraction, Joel Pérez Urquiza , Laboratoire de Physique de l'École Normale Supérieure, France	
2:40pm		
2:50pm	MIOMD-MoA1-9 Multi-Octave THz Wave Generation in PNPA crystal at MHz Repetition Rates, Lukasz Sterczewski, J. Mnich, J. Sotor , Wroclaw University of Science and Technology, Poland	
3:00pm		
3:10pm	BREAK	
3:20pm		
3:30pm		
3:40pm	MIOMD-MoA2-14 Long Wavelength Distributed Feedback Tapered Quantum Cascade Lasers, <i>Daivide Pinto, B. Lendl</i> , TU Wien, Austria; <i>A. Baranov</i> , Université de Montpellier, France	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-MoA2 Quantum Cascade Lasers Moderator: Benjamin S. Williams , University of California Los Angeles
3:50pm		
4:00pm	MIOMD-MoA2-16 Progress in Terahertz Quantum Cascade Lasers Supporting Clean N-Level Systems, Asaf Albo , Bar-Ilan University, Israel	
4:10pm		
4:20pm	MIOMD-MoA2-18 Improving Transverse Mode Quality of QCLs with Novel Waveguides, Matthew Suttinger, R. Go, A. Lu , Air Force Research Laboratory	
4:30pm		
4:40pm	MIOMD-MoA2-20 Broadly Tunable Single Spatial Mode Quantum Cascade Lasers in an External Cavity, B. Knipfer, D. Ruiz, S. Ruder, K. Oresick, M. Klaus, M. Dwyer, C. Galstad, T. Earles , DRS Daylight Solutions	
4:50pm		

Tuesday Morning, August 8, 2023

Room Lecture Hall, Nielsen Hall		
8:20am		Mid-IR Optoelectronics: Materials and Devices Session MIOMD-TuM1 Plenary Lecture & Integrated Photonics Moderator: Fisher Yu, University of Arkansas
8:30am	INVITED: MIOMD-TuM1-2 Plenary Lecture: Hybrid Passive Photonics in the Longwave-Infrared, <i>David Burghoff</i> , University of Notre Dame	
8:40am		
8:50am		
9:00am		
9:10am	INVITED: MIOMD-TuM1-6 Recent Progress in the Mid-IR Sensing Platform—From Waveguides and Nanoantennas to AI-Enhanced Technology, <i>Chengkuo Lee, Z. Ren</i> , National University of Singapore	
9:20am		
9:30am		
9:40am	MIOMD-TuM1-9 Modeling of GaSb-Based Monolithically Integrated Passive Photonic Devices at $\lambda > 2 \mu\text{m}$, <i>Md Saiful Islam Sumon</i> , The Ohio State University; <i>S. Sankar, S. Nikor</i> , Ohio State University; <i>I. Faruque</i> , university of Bristol, UK; <i>S. Dwivedi</i> , Rockley Photonics; <i>S. Arafin</i> , Ohio State University	
9:50am		
10:00am	BREAK	
10:10am		
10:20am		
10:30am	INVITED: MIOMD-TuM2-14 GaSb-Based ICLs Grown on GaSb, GaAs and Si Substrates, <i>M. Fagot, D. Diaz-Thomaz, A. Gilbert, G. Kombila N'Dmengoye, Y. Rouillard, A. Baranov, J. Rodriguez, E. Tournié, Laurent Cerutti</i> , IES - University Montpellier, France	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-TuM2 Silicon Photonics Moderator: Daniel Wasserman, University of Texas at Austin
10:40am		
10:50am		
11:00am	MIOMD-TuM2-17 Electrically Injected GeSn Laser on Si Substrate Operating Up to 130 K, <i>Sudip Acharya, S. Yu</i> , University of Arkansas	
11:10am		
11:20am	MIOMD-TuM2-19 Temperature and Band Structure Dependent Properties of GeSn Double Heterostructure Lasers, <i>Aneirin Ellis</i> , University of Glasgow, UK	
11:30am		
11:40am	MIOMD-TuM2-21 Integrating GaSb-Based Infrared Detectors with Si Substrates via Interfacial Misfit Arrays, <i>Trent Garrett, J. Tenorio, M. Drake</i> , Boise State University; <i>P. Reddy, K. Mukherjee</i> , Stanford University; <i>K. Grossklaus</i> , Tufts University; <i>S. Miamon</i> , NetzVision LLC; <i>P. Simmonds</i> , Boise State University	
11:50am		

Tuesday Afternoon, August 8, 2023

Room Lecture Hall, Nielsen Hall		
1:30pm	INVITED: MIOMD-TuA1-1 Interband Cascade Technology for Long Wavelength GaSb based Lasers and LEDs, Robert Weih , <i>J. Nauschütz</i> , nanoplus Advanced Photonics Gerbrunn GmbH, Germany; <i>H. Knötig</i> , TU Wien, Austria; <i>N. Schäfer</i> , nanoplus Advanced Photonics Gerbrunn GmbH, Germany; <i>B. Schwarz</i> , TU Wien, Austria; <i>J. Koeth</i> , nanoplus Advanced Photonics Gerbrunn GmbH, Germany	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-TuA1 ICLs and LEDs Moderator: Jerry Meyer , Naval Research Laboratory
1:40pm		
1:50pm		
2:00pm	MIOMD-TuA1-4 Metamorphic Growth of MWIR ICLED on Silicon, Fatih Furkan Ince , <i>T. Rotter</i> , <i>M. Frost</i> , <i>G. Balakrishnan</i> , University of New Mexico; <i>M. McCartney</i> , <i>D. Smith</i> , Arizona State University; <i>C. Canedy</i> , <i>W. Bewley</i> , <i>S. Tomasulo</i> , <i>C. Kim</i> , U.S. Naval Research Laboratory; <i>M. Kim</i> , Jacobs Corporation; <i>I. Vurgaftman</i> , <i>J. Meyer</i> , U.S. Naval Research Laboratory	
2:10pm		
2:20pm	MIOMD-TuA1-6 Production MBE Growth of Quic SLED with Emission in the Longwave Infrared for Custom Gas Sensing Solutions, Everett Fraser , <i>J. Shao</i> , <i>B. Barnes</i> , <i>P. Frensley</i> , <i>P. Pinsukanjana</i> , <i>Y. Kao</i> , Intelligent Epitaxy Technology, Inc.; <i>M. Miller</i> , Terahertz Device Corporation	
2:30pm		
2:40pm	MIOMD-TuA1-8 Interband Cascade Laser on Silicon for High-Speed Applications in the Mid-Infrared Domain, Sara Zaminga , Mines-ParisTech, France	
2:50pm		
3:00pm	BREAK	
3:10pm		
3:20pm		
3:30pm	INVITED: MIOMD-TuA2-13 All-Epitaxial Nanophotonic Architectures for Mid-Infrared Optoelectronics, <i>L. Nordin</i> , University of Texas at Austin; <i>A. Kamboj</i> , University of Delaware; <i>P. Petluru</i> , <i>M. Berghold</i> , <i>Y. Wang</i> , <i>A. Muhowski</i> , Daniel Wasserman , University of Texas at Austin	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-TuA2 Mid-IR Plasmonics Moderator: Qijie Wang , Nanyang Technology University, Singapore
3:40pm		
3:50pm		
4:00pm	INVITED: MIOMD-TuA2-16 Strategies for Electrical Tuning of Thermal Emissivity in Metamaterials, <i>B. Shrewsbury</i> , <i>A. Ghanekar</i> , <i>R. Audhkhasi</i> , <i>M. Sakib</i> , Michelle Lynn Povinelli , University of Southern California	
4:10pm		
4:20pm		
4:30pm	MIOMD-TuA2-19 Nonlocal Effects in Heavily Doped Semiconductor, <i>P. Loren</i> , University of Montpellier, France; <i>E. Sakat</i> , Université Paris-Saclay, CNRS, C2N, 91120 Palaiseau, France; <i>J. Hugonin</i> , Université Paris-Saclay, CNRS, Laboratoire Charles Fabry, 91127 Palaiseau, France; <i>L. Cerutti</i> , <i>F. Gonzalez-Posada</i> , IES, Univ Montpellier, UMR CNRS 5214, Montpellier, France; <i>A. Moreau</i> , Université Clermont Auvergne, CNRS, SIGMA Clermont, Institut Pascal, F-63000 Clermont-Ferrand, France; Thierry Taliercio , IES, Univ Montpellier, UMR CNRS 5214, Montpellier, France	
4:40pm		
4:50pm	MIOMD-TuA2-21 Low Doping Level and Carrier Lifetime Measurements in InAs with a Novel THz Characterization Technique, Julien Guise , <i>S. Blin</i> , <i>T. Taliercio</i> , Univ. of Montpellier, Montpellier, France	
5:00pm		

Mid-IR Optoelectronics: Materials and Devices

Great Hall, Sam Noble Museum - Session MIOMD-TuP

Mid-IR Optoelectronics: Materials and Devices Poster

Session

5:30pm

MIOMD-TuP-1 Temperature Dependence of the Infrared Dielectric Function and the Direct Band Gap of InSb from 25 to 800 K, **Sonam Yadav**, New Mexico State University

MIOMD-TuP-3 Sb-based Mid-Wave Infrared Laser Arrays, **Rowel Go, A. Lu, M. Suttinger**, Air Force Research Laboratory

MIOMD-TuP-5 Carrier Concentration-Dependent Optical Properties of Narrow Gap Semiconductors, **Yixuan Shen, R. Yang, M. Santos**, University of Oklahoma

MIOMD-TuP-7 Tuning the Plasmonic Response of Heavily-Doped Semiconductors in Epsilon-Near-Zero Regime, **P. Fehlen**, French-german research institute of Saint-Louis, France; **J. Guise**, University of Montpellier, France; **G. Thomas**, French-german research institute of Saint-Louis, France; **F. Gonzalez-Posada, J. Rodriguez, L. Cerutti**, University of Montpellier, France; **D. Spitzer**, French-german research institute of Saint-Louis, France; **Thierry Taliercio**, University of Montpellier, France

MIOMD-TuP-9 Interfacial Misfit Dislocation Array Assisted MBE Growth of InSb Quantum well on InAs using AlInSb Buffer Layer, **Fatih Furkan Ince, A. Newell, T. Rotter, G. Balakrishnan**, University of New Mexico; **M. McCartney, D. Smith**, Arizona State University

MIOMD-TuP-11 High Efficiency Room Temperature HgTe Colloidal Quantum Dot Photodiodes, **John Peterson, P. Guyot-Sionnest**, The University of Chicago

MIOMD-TuP-13 Experimental Study of Band Offsets at the GeSn/SiGeSn Interface by Internal Photon Emission, **Justin Rudie, H. Tran, S. Amoah, S. Ojo**, University of Arkansas; **M. Shah**, University of Arkansas at Pine Bluff; **S. Yu**, University of Arkansas

MIOMD-TuP-15 A Comparative Study of Ion-Implantation of As and B in GeSn Epilayers Grown on Si (001) by Chemical Vapor Deposition, **Amoah Sylvester, H. Stanchu, F. Yu**, University of Arkansas

MIOMD-TuP-17 Snowflakes Patterns Formation Enhances Performance of Nanostructure-based MWIR PbSe Photoconductive Detector, **Richard Kim**, OPTODIDOE/ITW Research and Development

MIOMD-TuP-19 GaSb-based Interband Cascade Lasers with Hybrid Cladding Layers Operating in the 3-4 μm Wavelength Region, **Y. Shen, Jeremy Massengale, R. Yang, T. Mishima, M. Santos**, University of Oklahoma

MIOMD-TuP-21 Halide Perovskite Material Development, Growth, and Characterization for Infrared Optoelectronics, **Yash Mirchandani**, Syrnatec

MIOMD-TuP-23 Infrared Endovascular Navigation for Enhanced Sensing and Treatment, **D. DeVries, M. Salter, S. Balzora, Linda Olafsen, J. Olafsen, K. Schubert**, Baylor University; **S. Dayawansa, J. Huang**, Baylor Scott & White Health System

MIOMD-TuP-25 Residual Gas Analysis of Reactions between Germane and Tin Tetrachloride for the Optimization (Si)GeSn CVD Growth, **Joshua M. Grant, E. Yang, A. Golden, W. Du**, University of Arkansas; **B. Li**, Arktonics LLC; **S. Yu**, University of Arkansas

MIOMD-TuP-27 Low Temperature Plasma Enhanced Growth of $\text{Si}_{1-x}\text{Sn}_x$ by Chemical Vapor Deposition, **Alexander Golden, J. Grant, E. Yang, S. Acharya, S. Yu**, University of Arkansas

Wednesday Morning, August 9, 2023

Room Lecture Hall, Nielsen Hall		
8:20am		Mid-IR Optoelectronics: Materials and Devices Session MIOMD-WeM1 Plenary Lecture & Applications of Mid-Infrared Moderator: Rui Yang, University of Oklahoma
8:30am	INVITED: MIOMD-WeM1-2 Plenary Lecture: Coherent Control of Quantum Cascade Laser Frequency Combs via Optical- and RF-Injection, <i>Gerard Wysocki</i> , Princeton University	
8:40am		
8:50am		
9:00am		
9:10am	MIOMD-WeM1-6 Compact QCL-Based Coherent Lidar in the Mid-Infrared, <i>Bruno Martin</i> , Thales / Laboratoire de physique de l'Ecole normale supérieure, France; <i>P. Feneyrou</i> , Thales research and technology, France; <i>N. Berthou</i> , Thales SIX, France; <i>D. Gacemi</i> , Laboratoire de physique de l'Ecole normale supérieure, France; <i>A. Martin</i> , Thales Research and Technology, France; <i>C. SIRTORI</i> , Laboratoire de physique de l'Ecole normale supérieure, France	
9:20am		
9:30am	MIOMD-WeM1-8 A Markov Chain Approach for Modeling Polarized Infrared Radiative Transfer in Optically Anisotropic Media, <i>Feng Xu</i> , University of Oklahoma; <i>W. Espinosa</i> , NASA Goddard Space Flight Center; <i>O. Kalashnikova</i> , <i>A. Davis</i> , <i>D. Diner</i> , <i>M. Garay</i> , Jet Propulsion Laboratory (NASA/JPL); <i>J. Gong</i> , NASA Goddard Space Flight Center; <i>B. Chen</i> , <i>L. Gao</i> , <i>J. Redemann</i> , University of Oklahoma; <i>Z. Zeng</i> , California Institute of Technology, China	
9:40am		
9:50am		
10:00am	BREAK	
10:10am		
10:20am		
10:30am	INVITED: MIOMD-WeM2-14 Mid-Infrared Trace Gas Detection Enhanced by Tuning Fork, Optical Cavity and Hollow-Core Fiber, <i>Wei Ren</i> , The Chinese University of Hong Kong	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-WeM2 Sensing Moderator: Gerard Wysocki, Princeton University
10:40am		
10:50am		
11:00am	MIOMD-WeM2-17 Highly Selective Toluene Detection using Quartz Enhanced Photoacoustic Spectroscopy at $\lambda = 13.71 \mu\text{m}$, <i>Kumar Kinjalk</i> , IES, University of Montpellier, CNRS, France; <i>G. Menduni</i> , <i>A. Zifarelli</i> , <i>M. Giglio</i> , PolySense Lab, Dipartimento Interateneo di Fisica, University and Politecnico of Bari, Italy; <i>R. Teissier</i> , MirSense, France; <i>A. N. Baranov</i> , IES, University of Montpellier, CNRS, France; <i>A. Sampaolo</i> , PolySense Lab, Dipartimento Interateneo di Fisica, University and Politecnico of Bari, Italy	
11:10am		
11:20am	MIOMD-WeM2-19 Mid-IR Hook Nanoantenna Array Enables Real-time In-Vitro Viral Biomarker Identification, <i>Zhihao Ren</i> , <i>H. Zhou</i> , <i>Z. Zhang</i> , <i>C. Xu</i> , <i>C. Lee</i> , National University of Singapore	
11:30am		
11:40am	MIOMD-WeM2-21 Quartz Enhanced Photoacoustic Spectroscopy Exploiting Beat Frequency Approach for Environmental Monitoring of Pollutants, <i>Giansergio Menduni</i> , PolySense Lab - Dipartimento Interateneo di Fisica, University and Politecnico of Bari, Italy	
11:50am		

Thursday Morning, August 10, 2023

Room Lecture Hall, Nielsen Hall		
8:20am		<p>Mid-IR Optoelectronics: Materials and Devices Session MIOMD-ThM1</p> <p>Detectors I</p> <p>Moderator: Paul Simmonds, Boise State University</p>
8:30am	<p>INVITED: MIOMD-ThM1-2 Progress in Antimonide Unipolar Barrier Infrared Detectors, <i>David Ting, S. Rafol, C. Hill, A. Khoshakhlagh, B. Pepper, A. Soibel, A. Fisher, S. Keo, Y. Maruyama, t. wenger, S. Gunapala</i>, NASA Jet Propulsion Laboratory</p>	
8:40am		
8:50am		
9:00am	<p>MIOMD-ThM1-5 MWIR Resonant Cavity Infrared Detectors (RCIDs) with High Quantum Efficiency and High Frequency Response, <i>C. Canedy, E. Jackson, R. Espinola, C. Kim, E. Aifer, I. Vurgaftman</i>, Naval Research Laboratory; <i>V. Jayaraman, B. Kolasa</i>, Praevium Research; <i>R. Marsland, B. Knipfer</i>, Intraband, LLC; <i>M. Turville-Heitz, J. Ryu, L. Mawst, D. Botez</i>, University of Wisconsin; <i>Jerry Meyer</i>, Naval Research Laboratory</p>	
9:10am		
9:20am	<p>MIOMD-ThM1-7 Growth and Development of Antimony-Based III-V Detector Materials for the Regime from eSWIR to LWIR, <i>Volker Daumer, L. Kirste, R. Müller, J. Niemasz, M. Wobrock, A. Wörl, Q. Yang, R. Rehm</i>, Fraunhofer Institute for Applied Solid State Physics IAF, Germany</p>	
9:30am		
9:40am	<p>MIOMD-ThM1-9 Optically-Addressed Monolithically-Integrated Triple-Band Photodetectors Using Type-II Superlattice Materials, <i>Z. Ju, Allison McMinn, X. Qi</i>, Arizona State University; <i>S. Schaefer</i>, National Renewable Energy Laboratory; <i>T. McCarthy, Y. Zhang</i>, Arizona State University</p>	
9:50am		
10:00am	BREAK	
10:10am		
10:20am		
10:30am	<p>MIOMD-ThM2-14 Top-Illuminated Mid-IR HgTe Colloidal Quantum Dot Photodiodes, <i>John Peterson, P. Guyot-Sionnest</i>, The University of Chicago</p>	<p>Mid-IR Optoelectronics: Materials and Devices Session MIOMD-ThM2</p> <p>Detectors II</p> <p>Moderator: David Ting, NASA Jet Propulsion Laboratory</p>
10:40am		
10:50am	<p>MIOMD-ThM2-16 Synthesis of HgTe Colloidal Quantum Dots and Processing of Films to Maximize Photodetector Performance, <i>Philippe Guyot-Sionnest</i>, University of Chicago</p>	
11:00am		
11:10am	<p>MIOMD-ThM2-18 Exploring Quantum Dots/Graphene van der Waals Heterostructures for Uncooled SWIR-MWIR Detection, <i>Judy Wu</i>, University of Kansas</p>	
11:20am		
11:30am	<p>MIOMD-ThM2-20 Core-Shell Pbse/CdSe Quantum Dot Mid-Infrared Photoconductor, <i>Milad Rastkar Mirzaei, Z. Shi</i>, University of Oklahoma</p>	
11:40am		
11:50am		

Thursday Afternoon, August 10, 2023

Room Lecture Hall, Nielsen Hall		
1:30pm	MIOMD-ThA1-1 Tensile-Strained InGaAs Quantum Dots with Interband Emission in the Mid-Infrared, <i>K. Vallejo, T. Garrett</i> , Boise State University; <i>C. Cabrera-Perdomo</i> , Universidad Autónoma de Zacatecas, Mexico; <i>M. Drake</i> , Boise State University; <i>B. Liang</i> , UCLA; <i>K. Grossklous</i> , Tufts University; <i>Paul Simmonds</i> , Boise State University	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-ThA1 Materials for Mid-Infrared Moderator: Benjamin S. Williams, University of California Los Angeles
1:40pm		
1:50pm	INVITED: MIOMD-ThA1-3 Broadband Room-Temperature Mid-Infrared Detection with Nanoparticles, <i>C. Wang</i> , Nanyang Technology University, Singapore; <i>L. Liang</i> , Nanyang Technological University, Singapore; <i>J. Chen, X. Liu</i> , National University of Singapore; <i>Qijie Wang</i> , Nanyang Technology University, Singapore	
2:00pm		
2:10pm		
2:20pm	MIOMD-ThA1-6 Bi-Layered Silicon with Strain-Induced Tunable Optical Properties for IR Applications, <i>K. Vishal</i> , Wright State University; <i>yan zhuang</i> , wright state university	
2:30pm		
2:40pm	MIOMD-ThA1-8 Growth and Optical Properties of InGaAs QW on c-plane Sapphire for Laser Development, <i>Subhashis Das, R. Kumar, F. Maia de Oliveira, Y. Mazur, W. Du, S. Yu, G. Salamo</i> , University of Arkansas	
2:50pm		
3:00pm	BREAK	
3:10pm		
3:20pm		
3:30pm	INVITED: MIOMD-ThA2-13 Invited Paper, <i>Mercedeh Khajavikhan</i> , University of Southern California	Mid-IR Optoelectronics: Materials and Devices Session MIOMD-ThA2 Metamaterials and Polaritons Moderator: Michelle Lynn Povinelli, University of Southern California
3:40pm		
3:50pm		
4:00pm	MIOMD-ThA2-16 Dielectric Resonances in Hexagonal Boron Nitride Nanodisks, <i>Milad Nourbakhsh</i> , University of Oklahoma; <i>H. Ling</i> , University of California at Los Angeles; <i>V. Whiteside</i> , University of Oklahoma; <i>A. Davoyan</i> , University of California at Los Angeles; <i>J. Tischler</i> , University of Oklahoma	
4:10pm		
4:20pm	MIOMD-ThA2-18 Surface Phonon Polariton Coupling to 4H SiC Triangular Gratings Produced by Two-Photon Polymerization, <i>Nazli Rasouli Sarabi</i> , University of Oklahoma	
4:30pm		
4:40pm	MIOMD-ThA2-20 Mapping Surface Phonon Polaritons with Near-IR Light, <i>Kiernan Arledge</i> , The University of Oklahoma; <i>M. Meeker</i> , U.S. Naval Research Laboratory; <i>C. Ellis</i> , U.S. Naval Research Lab; <i>N. Sarabi, V. Whiteside</i> , The University of Oklahoma; <i>C. Kim, M. Kim, D. Ratchford, B. Weng</i> , U.S. Naval Research Laboratory; <i>J. Tischler</i> , The University of Oklahoma	
4:50pm		
5:00pm	Closing Remarks	

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