

# Program Overview

Room /Time	Bar/Living Room	Silver Creek
<b>MoM</b>		MBE-1MoM: Oxides and Nitrides  MBE-2MoM: Heterogeneous Integration
<b>MoA</b>		MBE-1MoA: Novel Materials  MBE-2MoA: Bismuthides and Antimonides
<b>MoP</b>	Poster Sessions	
<b>TuM</b>		MBE-1TuM: Technology of MBE  MBE-2TuM: MBE Devices
<b>TuA</b>		MBE-1TuA: Layered Materials  MBE-2TuA: Quantum Dots
<b>WeM</b>		MBE-1WeM: Superconductor/Semiconductor Interfaces  MBE-2WeM: Heterostructures and Quantum Dots

# Monday Morning, September 23, 2019

Room Silver Creek		
8:00am	<b>INVITED: MBE-1MoM1</b> Oxide MBE Rocks!, <i>Darrell Schlom</i> , Cornell University	<b>MBE Session MBE-1MoM</b>  <b>Oxides and Nitrides</b>  <b>Moderator:</b> Jason Kawasaki, Univ. of Wisconsin Madison
8:15am	Invited talk continues.	
8:30am	Invited talk continues.	
8:45am	<b>MBE-1MoM4</b> RF-plasma MBE Growth and Characterization of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> /NbN <sub>x</sub> Heterostructures on SiC, <i>Neeraj Nepal</i> , D.S. Katzer, B. Downey, V.D. Wheeler, U.S. Naval Research Laboratory; <i>L. Nyakiti</i> , Texas A&M; <i>E. Jin</i> , V. Gokhale, <i>M. Hardy</i> , D. Storm, <i>D. Meyer</i> , U.S. Naval Research Laboratory	
9:00am	<b>MBE-1MoM5</b> Development of a High-Purity, High-Concentration Ozone Delivery System for MBE and Growth of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> , <i>Mark O'Steen</i> , T. Campbell, S. Farrell, E. Tucker, D. Hanser, Veeco Instruments Inc.	
9:15am	<b>MBE-1MoM6</b> Advancements in High Indium Content AlInN Grown Via Metal Modulated Epitaxy and Application Towards Polar/Non-Polar Optical Devices, <i>Zachary Engel</i> , E. Clinton, W.A. Doolittle, Georgia Institute of Technology	
9:30am	<b>MBE-1MoM7</b> Structural and Electronic Properties of NbN and III-N/NbN Heterostructure Grown by Molecular Beam Epitaxy, <i>John Wright</i> , G. Khalsa, H.G. Xing, D. Jena, Cornell University	
9:45am	<b>MBE-1MoM8</b> Optically-induced 2DEGs in GaN/AlGaN Heterostructures, <i>Stefan Schmult</i> , TU Dresden, Germany; <i>S. Wirth</i> , Max-Planck-Institute for Chemical Physics of Solids, Germany; <i>V. Solovyev</i> , Institute of Solid State Physics RAS, Russia; <i>R. Hentschel</i> , A. Wachowiak, NaMLab gGmbH; <i>T. Scheinert</i> , TU Dresden; <i>A. Grosser</i> , NaMLab gGmbH, Germany; <i>I. Kukushkin</i> , Institute of Solid State Physics RAS, Russia; <i>T. Mikolajick</i> , TU Dresden & NaMLab gGmbH, Germany	
10:00am	<b>Break &amp; Exhibits</b>	
10:15am	<b>Break &amp; Exhibits</b>	
10:30am	<b>MBE-2MoM11</b> MBE Growth of High-Quality GaAs on C-plane Sapphire Substrate, <i>Samir Kumar Saha</i> , R. Kumar, A. Kuchuk, Y. Maidaniuk, Y. Mazur, S.Q. Yu, G. Salamo, University of Arkansas	<b>MBE Session MBE-2MoM</b>  <b>Heterogeneous Integration</b>  <b>Moderator:</b> Zbigniew Roman Wasilewski, Univ. of Waterloo
10:45am	<b>MBE-2MoM12</b> Controlling Nucleation and Growth of IV-VI Rocksalt PbSe and PbSnSe on III-V Zincblende Substrates, <i>Brian Haidet</i> , E. Hughes, K. Mukherjee, University of California, Santa Barbara	
11:00am	<b>MBE-2MoM13</b> On the Origin of Hillock Formation during the Growth of InGaAs/InAlAs Superlattice on InP(111) Substrates, <i>Ida Sadeghi</i> , University of Waterloo, Canada; <i>A. Pofelski</i> , G.B. Botton, McMaster University, Canada; <i>Z.R. Wasilewski</i> , University of Waterloo, Canada	
11:15am	<b>MBE-2MoM14</b> Effectiveness of In <sub>0.1</sub> Ga <sub>0.9</sub> As Dislocation Filters to Reduce Threading Dislocation Density, <i>Chen Shang</i> , J. Norman, A. Gossard, J. Bowers, University of California, Santa Barbara	
11:30am	<b>MBE-2MoM15</b> Study of Pit Formation in MBE Grown GaP on Misoriented Si Wafers, <i>Srinath Murali</i> , C. Zhang, R. King, C. Honsberg, Arizona State University	
11:45am	<b>MBE-2MoM16</b> GaSb-Based Mid-Infrared Photonic Devices Monolithically Integrated onto Silicon, <i>Peter Carrington</i> , Lancaster University, UK	

# Monday Afternoon, September 23, 2019

<b>Room Silver Creek</b>		
1:30pm	<b>MBE-1MoA1</b> MBE Innovator Awardee Lecture, <i>Zbigniew Roman Wasilewski</i> , University of Waterloo, Canada	<b>MBE Session MBE-1MoA</b>  <b>Novel Materials</b>  <b>Moderator:</b> Kunal Mukherjee, Univ. of California, Santa Barbara
1:45pm	Talk continues.	
2:00pm	<b>MBE-1MoA3</b> The Growth and Optical Properties of High Concentration of ErAs Embedded within GaAs, <i>Yuejing Wang, D. Wei, C. Ni, S. Law, J. Zide</i> , University of Delaware	
2:15pm	<b>MBE-1MoA4</b> Varying MBE Growth Conditions to Limit Droplet Formation and Improve the Material Properties of TlGaAs Films, <i>Kevin Grossklaus, J. McElearney, M. Stevens, T. Vandervelde</i> , Tufts University	
2:30pm	<b>MBE-1MoA5</b> Adsorption-controlled Epitaxial Growth of the Hyperferroelectric Candidate LiZnSb on GaSb (111), <i>Dongxue Du, P. Strohbeen, C. Zhang</i> , University of Wisconsin Madison; <i>H. Paik</i> , Cornell University; <i>P. Voyles, J. Kawasaki</i> , University of Wisconsin Madison	
2:45pm	<b>MBE-1MoA6</b> Tuning the Electronic Structure of LuSb via Epitaxial Synthesis, <i>Shouvik Chatterjee</i> , University of California, Santa Barbara; <i>S. Khalid</i> , University of Delaware; <i>H. Inbar, A. Goswami</i> , University of California, Santa Barbara; <i>F. Crasto deLima, A. Sharan, F. Sabino</i> , University of Delaware; <i>T. Brown-Heft, Y-H. Chang</i> , University of California, Santa Barbara; <i>A. Fedorov</i> , Lawrence Berkeley National Laboratory; <i>D. Read</i> , Cardiff University, UK; <i>A. Janotti</i> , University of Delaware; <i>C. Palmstrøm</i> , University of California, Santa Barbara	
3:00pm	<b>MBE-1MoA7</b> Programmable Magnetic Anisotropy in Ferromagnetic Semiconductor Films with Graded Composition, <i>Jacek Furdyna, S.-K. Bac, S. Dong, X. Liu, S. Rouvimov</i> , University of Notre Dame; <i>Y. Wang</i> , Nanjing University, China; <i>S. Lee</i> , Korea University, Republic of Korea; <i>M. Dobrowolska</i> , University of Notre Dame	
3:15pm	<b>Break &amp; Exhibit</b>	
3:30pm	<b>MBE-2MoA9</b> LATE NEWS: Minority Carrier Lifetime and Photoluminescence Properties of Mid-Wave InAsSbBi, <i>Preston T. Webster</i> , Air Force Research Laboratory; <i>P. Petluru</i> , University of Texas at Austin; <i>P.C. Grant</i> , Applied Technology Associates; <i>E.H. Steenbergen</i> , Air Force Research Laboratory; <i>D. Wasserman</i> , University of Texas at Austin	<b>MBE Session MBE-2MoA</b>  <b>Bismuthides and Antimonides</b>  <b>Moderator:</b> Joshua Zide, Univ. of Delaware
3:45pm	<b>MBE-2MoA10</b> Characterization of Thick GaSbBi Layers Grown with Strain-stabilization, <i>Margaret Stevens, K. Grossklaus, J. McElearney, S. Lenney, T. Vandervelde</i> , Tufts University	
4:00pm	<b>MBE-2MoA11</b> Comparing Droplet Formation and Phase Separation in Post-Saturation GaSbBi and GaAsBi, <i>John McElearney, K. Grossklaus, M. Stevens, T. Vandervelde</i> , Tufts University	
4:15pm	<b>MBE-2MoA12</b> Molecular Beam Epitaxy Growth and Bandgap Measurements of InAsSbBi, <i>Stephen Schaefer, R.R. Kosireddy, S. Johnson</i> , Arizona State University	
4:30pm	<b>MBE-2MoA13</b> Microstructure, Chemical Composition, and Surface Morphology of InAsSbBi Grown on GaSb by Molecular Beam Epitaxy, <i>Rajeev Reddy Kosireddy, S. Schaefer, S. Johnson</i> , Arizona State University	
4:45pm	<b>MBE-2MoA14</b> Dislocation Dynamics as a Function of MBE Growth Conditions in Metamorphic InAsSb, <i>Stephanie Tomasulo</i> , Naval Research Laboratory; <i>C. Affouda, M. Twigg</i> , U.S. Naval Research Laboratory; <i>M. Yakes</i> , Naval Research Laboratory; <i>E. Aifer</i> , U.S. Naval Research Laboratory	

## MBE

### Room Bar/Living Room - Session MBE-MoP

#### MBE-Poster Session

4:45pm

**MBE-MoP1** Simultaneous Topographical And Electrochemical Mapping Using Scanning Ion Conductance Microscopy – Scanning Electrochemical Microscopy, *G. Mendoza*, Park Systems, Mexico; *Byong Kim, K. Lee*, Park Systems

**MBE-MoP2** Doping and Surfactant Behavior of Gallium in Low-Temperature Silicon and Germanium Growth, *Amanda Lemire, J. Manninen, J. Chivers, K. Grossklau, T. Vandervelde*, Tufts University

**MBE-MoP3** Buffer layer growth for  $\text{In}_2\text{O}_3$  on Si substrates using Molecular Beam Epitaxy, *Geun-Hwan Ryu*, Inha University, South Korea; *J.D. Song, S.Y. Ahn, N.G. Hong*, Korea Institute of Science and Technology, South Korea; *H.Y. Ryu*, Inha University, South Korea; *W.J. Choi*, Korea Institute of Science and Technology, South Korea

**MBE-MoP4** Influence of Strain on InAsSb Composition, *Wendy Sarney, S. Svensson, A. Leff*, CCDC Army Research Laboratory; *D. Donetsky*, Stony Brook University

**MBE-MoP5** Grading for Control of the Lattice Constant and Bandgap, as well as the Charge Distribution and Band Offsets at Interfaces, *Wendy Sarney, S. Svensson, A. Leff*, CCDC Army Research Laboratory; *D. Donetsky, G. Kipshidze, L. Shterengas, G. Belenky*, Stony Brook University

**MBE-MoP6** Estimation of the Lateral Dimensions of Epitaxial CdSe/ZnSe Fractional Monolayer Quantum Dots, *Carlos Basilio*, Cinvestav-IPN, México; *I. Hernández-Calderón*, CINVESTAV, México

**MBE-MoP7** Study of Conduction Mechanism using Temperature-Dependent Current-Voltage Measurements for GaAsSb Nanowire and Effect of In-situ Annealing, *Mehul Parakh, S. Johnson, R. Pokharel, S. Devakoa, P. Ramaswamy, J. Li, S. Iyer*, North Carolina A & T State University

**MBE-MoP8** N-type Doping of GaAs Nanowires using GaTe Source Grown by Self Assisted Molecular Beam Epitaxy, *Shisir Devkota, M. Parakh, P. Ramaswamy*, North Carolina A & T State University; *L. Reynolds*, North Carolina State University; *S. Iyer*, North Carolina A & T State University

**MBE-MoP9** Effect of Gold Coatings on Quantum Dot Emission, *Ariel Weltner, C. Schuck, K. Vallejo, K. Sautter, T. Garrett, D. Tenne, P. Simmonds*, Boise State University

**MBE-MoP10** Nanostructure Mapping of GaAs and Ge (111)A Quantum Dots using Island Scaling and Radial Distribution Scaling Analysis, *Trent Garrett, H. Henry, K. Sautter, K. Vallejo, C. Schuck, A. Weltner, E. Jankowski, P. Simmonds*, Boise State University

**MBE-MoP11** Optical Properties of InAs/GaAsSb Sub - Monolayer Quantum Dots with Various Sb Compositions, *Minseak Kim, H.J. Jo, J.S. Kim*, Yeungnam University, Republic of Korea; *Y. Kim, S.J. Lee*, Korea Research Institute of Standards and Science, Republic of Korea; *C. Honsberg*, Arizona State University

**MBE-MoP12** LATE NEWS: Epitaxial Growth of Relaxed InGaN Films on ZnO Substrate by Plasma-Assisted Molecular Beam Epitaxy, *Kamruzzaman Khan, E. Ahmadi*, University of Michigan

**MBE-MoP13** LATE NEWS: Molecular Beam Epitaxy of AlN and GaN Nanocrystals: Towards High Efficiency Deep Ultraviolet LEDs, *Yuanpeng Wu, A. Pandey, D.A. Laleyan, X. Liu, P. Wang, C. Ahn, M. Kira, Z. Mi*, University of Michigan

**MBE-MoP14** LATE NEWS: Graphene/III-V Hybrid Diodes and Optical Devices by Heteroepitaxy, *R. Yao, B. Zheng*, University of Massachusetts Lowell; *H. Kum, Y. Kim, S. Bae, J. Kim*, Massachusetts Institute of Technology; *H. Zhang*, University of Massachusetts Lowell; *S. Xia*, Georgia Institute of Technology; *Wei Guo*, University of Massachusetts Lowell

**MBE-MoP15** LATE NEWS: The Role of Intervalley Phonons in Hot-Carrier Transfer and Extraction in InAs/AlAs<sub>0.16</sub>Sb<sub>0.84</sub> Quantum-Well Solar Cells, *V.R. Whiteside, H. Esmaelpour, Kyle R. Dorman, T.D. Mishima*, University of Oklahoma; *D.K. Ferry*, Arizona State University; *M.B. Santos, I.R. Sellers*, University of Oklahoma

# Tuesday Morning, September 24, 2019

Room Silver Creek		
8:15am		<b>MBE Session MBE-1TuM</b>  <b>Technology of MBE</b>  <b>Moderator:</b> Sanjay Krishna, The Ohio State Univ.
8:30am		
8:45am	<b>MBE-1TuM3</b> Growth-Induced Temperature Changes During Transition Metal Nitride Epitaxy on Transparent SiC Substrates, <i>D. Scott Katzer, M. Hardy, N. Nepal, D. Storm, B. Downey, E. Jin, D. Meyer</i> , U.S. Naval Research Laboratory	
9:00am	<b>MBE-1TuM4</b> Using the Desorption Mass Spectrometry Technique to Optimize Sb Flux in GaSbBi Growth, <i>Jedidiah McCoy, C. Lu, R. Kaspi</i> , Air Force Research Laboratory	
9:15am	<b>MBE-1TuM5</b> BBr <sub>3</sub> as a B Source in Plasma Assisted MBE, <i>Richard Cramer, B. Bonef, J. Speck</i> , University of California, Santa Barbara	
9:30am	<b>MBE-1TuM6</b> Assessing MBE Regrowth Quality on Transfer Printed Virtual Substrates, <i>Michael Yakes</i> , Naval Research Laboratory; <i>M. Lumb, M. Bennett</i> , George Washington University; <i>J. Nolde, S. Tomasulo</i> , Naval Research Laboratory; <i>C. Haughn</i> , Army Research Laboratory; <i>S. Mack, S. Maximenko, K. Schmieder</i> , Naval Research Laboratory	
9:45am	<b>MBE-1TuM7</b> LATE NEWS: Mechanism of Si Doping in O <sub>2</sub> Plasma-Assisted MBE Growth of β-Ga <sub>2</sub> O <sub>3</sub> , <i>Nidhin Kurian Kalarickal, Z. Xia, J. McGlone, S. Krishnamoorthy, W. Moore, M. Brenner, A.R. Arehart, S.A. Ringel, S. Rajan</i> , The Ohio State University	
10:00am	<b>Break &amp; Exhibits</b>	
10:15am	<b>Break &amp; Exhibits</b>	
10:30am	<b>MBE-2TuM10</b> Development of AlAsSb Digital Alloys on GaSb and InP Substrates for Photo-Detector Applications, <i>Baolai Liang, B.C. Juang, M. Debnath, D. Huffaker</i> , University of California, Los Angeles	<b>MBE Session MBE-2TuM</b>  <b>MBE Devices</b>  <b>Moderator:</b> Songrui Zhao, McGill Univ.
10:45am	<b>MBE-2TuM11</b> Structural and Optical Properties of Bulk nBn InAsSb Metamorphic Detector, <i>Vinita Dahiya, Z. Taghipour, A. Blumer</i> , The Ohio State University; <i>D. Lubyshev, J. Fastenau, A. Liu</i> , IQE Inc.; <i>T. Grassman, S. Krishna</i> , The Ohio State University	
11:00am	<b>MBE-2TuM12</b> All-Epitaxial Mid-Wavelength Infrared Resonant Cavity-Enhanced Photodiodes, <i>Gregory Savich, G. Wicks, J. Shao, K. Jamison, L. Fredin, T. Golding</i> , Amethyst Research Inc.; <i>M. Carmichael</i> , Amethyst Research Ltd., UK; <i>A. Craig, F. Al-Saymari, A. Marshall</i> , Lancaster University, UK	
11:15am	<b>MBE-2TuM13</b> Molecular Beam Epitaxy of Coalesced AlGaN Nanowires: Ultraviolet Transparent Electrodes for Large-Area LEDs, <i>Brelon May</i> , National Renewable Energy Laboratory; <i>E. Hettiaratchy, B. Wang, C. Selcu, B. Esser, D. McComb, R. Myers</i> , The Ohio State University	
11:30am	<b>MBE-2TuM14</b> High Peak-current Density AlN/GaN Resonant Tunnel Diodes Grown by rf-MBE on GaN Templates, <i>David Storm</i> , U.S. Naval Research Laboratory; <i>T. Growden</i> , Naval Research Laboratory; <i>E. Cornuelle, L. Whitaker</i> , The Ohio State University; <i>P. Peri</i> , Arizona State University; <i>W. Zhang</i> , Wright State University; <i>J. Daulton</i> , Massachusetts Institute of Technology; <i>D.S. Katzer, M. Hardy, N. Nepal</i> , U.S. Naval Research Laboratory; <i>R. Molnar</i> , Massachusetts Institute of Technology; <i>E. Brown</i> , Wright State University; <i>P. Berger</i> , The Ohio State University; <i>D. Meyer</i> , U.S. Naval Research Laboratory; <i>D. Smith</i> , Arizona State University	
11:45am	<b>MBE-2TuM15</b> Optimized Material for Intermediate Band Solar Cells: Type-II CdTe Quantum Dots in a ZnCdSe Matrix, <i>Vasilios Deligiannakis</i> , The City College of New York/Graduate Center of CUNY; <i>M. Begliarbekov</i> , CUNY Advanced Science Research Center; <i>S. Alsheimer</i> , City College of New York, City University of New York; <i>I. Kuskovsky</i> , Queens College; <i>M. Tamargo</i> , City College of New York, City University of New York	

# Tuesday Afternoon, September 24, 2019

Room Silver Creek		
1:30pm	<b>MBE-1TuA1</b> MBE Young Investigator Awardee Lecture, <i>Jason Kawasaki</i> , University of Wisconsin Madison	<b>MBE Session MBE-1TuA</b>  <b>Layered Materials</b>  <b>Moderator:</b> Stephanie Tomasulo, Naval Research Lab
1:45pm	Talk continues.	
2:00pm	<b>MBE-1TuA3</b> Band Engineering to Achieve a Wide Band Gap Topological Insulator, <i>Ido Levy, C. Youmans, T. Garcia, H. Deng, S. Alsheimer, L. Krusin-Elbaum, P. Ghaemi, M. Tamargo</i> , City College of New York, City University of New York	
2:15pm	<b>MBE-1TuA4</b> Van der Waal Epitaxy of Bi <sub>2</sub> Se <sub>3</sub> on GaAs: A Morphological Playground, <i>Theresa Ginley, S. Law</i> , University of Delaware	
2:30pm	<b>MBE-1TuA5</b> Growth of GeTe and Sb <sub>2</sub> Te <sub>3</sub> Interlayer Structures for Interfacial Phase Change Devices via Molecular Beam Epitaxy, <i>Adrian Podpirka, D. Shrekenhamer, C. Zgrabik, J. Pierce, J. Gagnon</i> , JHU/APL	
2:45pm	<b>MBE-1TuA6</b> Molecular Beam Epitaxy of Hexagonal Boron Nitride on HOPG, <i>Ping Wang, E.T. Reid, D.A. Laleyan, J. Gim, Q. Wen, Z. Liu, Z. Zhong, M. Kira, R. Hovden, Z. Mi</i> , University of Michigan	
3:00pm	<b>Break &amp; Exhibits</b>	
3:15pm	<b>Break &amp; Exhibits</b>	
3:30pm	<b>MBE-2TuA9</b> InAs Chirped Quantum Dot Growth on Si for Broadband Spectral Gain Mode--locked Laser, <i>Daehwan Jung</i> , Korea Institute of Science and Technology, Republic of Korea; <i>J. Norman, C. Shang, S. Tao, Y. Wan, A. Gossard, J. Bowers</i> , University of California, Santa Barbara	<b>MBE Session MBE-2TuA</b>  <b>Quantum Dots</b>  <b>Moderator:</b> Paul Simmonds, Boise State Univ.
3:45pm	<b>MBE-2TuA10</b> InP Quantum Dots for Dislocation-tolerant, Visible Light Emitters on Si, <i>Pankul Dhingra</i> , University of Illinois Urbana-Champaign; <i>Y. Sun</i> , Yale University; <i>S. Fan, R. Hool, M.L. Lee</i> , University of Illinois Urbana-Champaign	
4:00pm	<b>MBE-2TuA11</b> Gallium-assisted Deoxidation for Spatially and Spectrally Controlled InAs Quantum Dot Molecules, <i>Lauren McCabe, J. Zide</i> , University of Delaware	
4:15pm	<b>MBE-2TuA12</b> Influence of the Growth Conditions on the Performance of InAs Sub-Monolayer Quantum Dot Infrared Photodetectors, <i>Kevin Vallejo</i> , Boise State University; <i>A. Zeidan, T. Cantalice, A. Quivy</i> , University of Sao Paulo, Brazil; <i>P. Simmonds</i> , Boise State University	
4:30pm	<b>MBE-2TuA13</b> Effect of Annealing on Structure and Luminescence of InP/AlGaInP Quantum Dots, <i>Pankul Dhingra</i> , University of Illinois Urbana-Champaign; <i>Y. Sun</i> , Yale University; <i>E. Moog, M.L. Lee</i> , University of Illinois Urbana-Champaign	
4:45pm	<b>MBE-2TuA14</b> Structural and Optical Properties of GaAs(111)A Tensile-strained Quantum Dots using As <sub>2</sub> and As <sub>4</sub> , <i>Christopher Schuck</i> , University of Delaware; <i>K. Vallejo, T. Garrett</i> , Boise State University; <i>Q. Wang, Y. Wang, B. Liang</i> , Hebei University, China; <i>P. Simmonds</i> , Boise State University	
5:00pm	<b>MBE-2TuA15</b> Comparing the Self-assembly of Tensile-strained Ge and GaAs Quantum Dots on InAlAs(111)A, <i>Kathryn Sautter, C. Schuck, T. Garrett, K. Vallejo, A. Weltner</i> , Boise State University; <i>J. Smith, C. Ratsch</i> , University of California, Los Angeles; <i>P. Simmonds</i> , Boise State University	

# Wednesday Morning, September 25, 2019

<b>Room Silver Creek</b>		
8:15am	<b>INVITED: MBE-1WeM1</b> Towards Topological Qubits with MBE-grown Heterostructures, <i>Michael Manfra</i> , Purdue University	<b>MBE Session MBE-1WeM</b>  <b>Superconductor/Semiconductor Interfaces</b>  <b>Moderator:</b> Christopher Schuck, Univ. of Delaware
8:30am	Invited talk continues.	
8:45am	<b>MBE-1WeM3</b> Aluminum Metallization of III-V Semiconductors for the Study of Proximity Superconductivity, <i>Wendy Sarney</i> , <i>S. Svensson</i> , <i>A. Leff</i> , CCDC Army Research Laboratory; <i>J. Yuan</i> , <i>W. Mayer</i> , <i>K. Wickramasinghe</i> , <i>J. Shabani</i> , New York University	
9:00am	<b>MBE-1WeM4</b> Epitaxy and Characterization of Superconducting Aluminum Films on InAs Quantum Well Heterostructures, <i>Tiantian Wang</i> , Purdue University	
9:15am	<b>MBE-1WeM5</b> Transport Properties of Superconductor- Ferromagnetic-Semiconductor Heterostructures, <i>Kaushini Wickramasinghe</i> , <i>J. Yuan</i> , <i>K. Sardashti</i> , <i>M. Dartailh</i> , <i>W. Mayer</i> , New York University; <i>M. Jiang</i> , <i>L. Anh</i> , <i>M. Tanaka</i> , <i>S. Ohya</i> , University of Tokyo, Japan; <i>V. Manucharyan</i> , University of Maryland; <i>J. Shabani</i> , New York University	
9:30am	<b>MBE-1WeM6</b> LATE NEWS: Van der Waals Epitaxy of High Quality AlN towards Deep Ultraviolet Light Emitting Diodes on Monolayer Graphene, <i>Ping Wang</i> , <i>A. Pandey</i> , <i>E.T. Reid</i> , <i>J. Gim</i> , <i>W.J. Shin</i> , <i>D.A. Laleyan</i> , <i>D. Zhang</i> , <i>Y. Sun</i> , <i>Z. Zhong</i> , <i>R. Hovden</i> , University of Michigan	
9:45am	<b>MBE-1WeM7</b> LATE NEWS: Determination of Background Doping Type in Type-II Superlattice using Capacitance-Voltage Technique with Double Mesa Structure, <i>Seunghyun Lee</i> , <i>D.R. Fink</i> , <i>S.H. Kodati</i> , <i>V. Dahiya</i> , <i>T.J. Ronningen</i> , The Ohio State University; <i>M. Winslow</i> , <i>C.H. Grein</i> , University of Illinois at Chicago; <i>A.H. Jones</i> , <i>J.C. Campbell</i> , University of Virginia; <i>J.F. Klem</i> , Sandia National Laboratories; <i>S. Krishna</i> , The Ohio State University	
10:00am	<b>Break</b>	
10:15am	<b>Break</b>	
10:30am	<b>MBE-2WeM10</b> Vertical Hole Transport in InAs/InAs <sub>1-x</sub> Sb <sub>x</sub> Type-II Superlattices, <i>Cheng-Ying Tsai</i> , <i>Y. Zhang</i> , <i>Z. Ju</i> , <i>Y.-H. Zhang</i> , Arizona State University	<b>MBE Session MBE-2WeM</b>  <b>Heterostructures and Quantum Dots</b>  <b>Moderator:</b> Stephanie Law, Univ. of Delaware
10:45am	<b>MBE-2WeM11</b> Room Temperature THz Intersubband Transitions in Continuously-graded Al <sub>x</sub> Ga <sub>1-x</sub> As Parabolic Quantum Well Arrays, <i>C. Deimert</i> , University of Waterloo, Canada; <i>P. Goulain</i> , <i>J.-M. Manceau</i> , <i>A. Bousseksou</i> , CNRS and University of Paris-Sud, France; <i>W. Pasek</i> , <i>T. Yoon</i> , <i>N.Y. Kim</i> , University of Waterloo, Canada; <i>R. Colombelli</i> , CNRS and University of Paris-Sud, France; <i>Zbigniew Roman Wasilewski</i> , University of Waterloo, Canada	
11:00am	<b>MBE-2WeM12</b> Excitonic Properties of Asymmetric Triple CdSe Quantum Wells, <i>F. Hernández-García</i> , Cinvestav-IPN, México; <i>F. Sutara</i> , <i>Isaac Hernández-Calderón</i> , CINVESTAV, México	
11:15am	<b>MBE-2WeM13</b> Gain Measurements of Se-based II-VI Multiple Quantum Well Structures for Vertical-External-Cavity Surface-Emitting Laser Applications, <i>K. Zhao</i> , The City College of New York; <i>G. Chappell</i> , <i>J. Hastie</i> , University of Strathclyde, UK; <i>S.K. Gayen</i> , The City College of New York/Graduate Center of CUNY; <i>Maria Tamargo</i> , City College of New York, City University of New York	
11:30am	<b>MBE-2WeM14</b> Structural and Optical Properties of PbTe/CdTe/InSb Heterostructures Grown using Molecular Beam Epitaxy, <i>Tyler McCarthy</i> , Arizona State University	

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