

## Contributions in Chronological Order

Version: 08/03/23

<b>Partha Dutta</b>	Canyon II & IV	Monday	08:00 AM	Welcome!
<b>Zlatko Sitar</b>	Canyon II & IV	Monday	08:30 AM	Unlocking the AlN-based technology through crystal growth and epitaxy
<b>Jung Han</b>	Canyon II & IV	Monday	09:15 AM	Frontiers in Selective Area Growth, Etching, and Doping of GaN by OMVPE
<b>Christopher Grainger</b>	Aster	Monday	10:30 AM	(Invited) Extreme Helical Morphology Exhibited by Iodinated Phenanthroline Crystals
<b>John McCloy</b>	Canyon II & IV	Monday	10:30 AM	(Invited) Bulk Crystal Growth and Opto-electronic Characterization of $\hat{\Gamma}^2$ -Ga <sub>2</sub> O <sub>3</sub>
<b>Daniel Pennachio</b>	Canyon III	Monday	10:30 AM	(Invited) Novel Graphene and SiC Epitaxy to Enable Film Transfer
<b>Johannes Svensson</b>	Canyon I	Monday	10:30 AM	(Invited) Template-Assisted Selective Epitaxy of InAs on W metal films
<b>Jan Kovar</b>	Canyon II & IV	Monday	11:00 AM	Experience-based Feedforward control of Czochralski growth process using data processing.
<b>Prashant Kumar</b>	Aster	Monday	11:00 AM	(Invited) Bowties vs Mantis Shrimp. Who can rotate the polarization of light better?
<b>Theresa Saenz</b>	Canyon I	Monday	11:00 AM	(Invited) GaAs solar cells on V-groove Si substrates
<b>Gen Yin</b>	Canyon III	Monday	11:00 AM	(Invited) Electric and spin Hall transition in monolayer Fe <sub>3</sub> GeTe <sub>2</sub>
<b>Jan Polak</b>	Canyon II & IV	Monday	11:20 AM	Growth of large diameter yttrium aluminium garnet crystals by Czochralski method
<b>Stephanie Lee</b>	Aster	Monday	11:30 AM	(Invited) Twisted Organic Semiconductor Crystals
<b>Jun Lou</b>	Canyon III	Monday	11:30 AM	(Invited) Towards Controlled Synthesis and Scalable Production of 2D Crystals
<b>Anthony SpringThorpe</b>	Canyon I	Monday	11:30 AM	RELIABLE BURIED HETEROSTRUCTURE LASER via AN MOCVD IN-SITU ETCH PROCESS
<b>Adam Lindsey</b>	Canyon II & IV	Monday	11:40 AM	Bulk Crystal Growth of Yb <sub>3</sub> Ga <sub>5</sub> O <sub>12</sub> and GdLiF <sub>4</sub> for Adiabatic Demagnetization Refrigeration Devices
<b>Partha Dutta</b>	Canyon I	Monday	01:30 PM	(Invited) Potential Role of Reduced Gravity for Semimetal-Semiconductor Composite Bulk Crystal Growth and Novel Devices
<b>Jimmy Kotsakidis</b>	Canyon III	Monday	01:30 PM	(Invited) Investigating the Magnetotransport Properties of Hydrogen and Magnesium Intercalated Graphene on Silicon Carbide.
<b>Frank Siebke</b>	Aster	Monday	01:30 PM	(Invited) Green Solar Wafers for High-Efficiency Solar Cells Produced by Epitaxy

<b>Kazuya Takahashi</b>	Canyon II & IV	Monday	01:30 PM	(Invited) Crystal growth and characterization of large Ca <sub>0.582</sub> Sr <sub>0.418</sub> F <sub>2</sub> single crystal by Czochralski method using cone die
<b>Vincent Fratello</b>	Canyon II & IV	Monday	02:00 PM	(Invited) Solution Phase Diagram of Lead Zirconate Titanate (PZT) in a High Temperature Solution
<b>Alexander Goldstone</b>	Aster	Monday	02:00 PM	(Invited) MBE growth of single and polycrystalline CdTe and CdSeTe for photovoltaic applications
<b>Nicole Wagner</b>	Canyon I	Monday	02:00 PM	Characterization of Protein-based Artificial Retina Thin Films Produced via Layer-by-Layer Assembly on the International Space Station
<b>Kai Xiao</b>	Canyon III	Monday	02:00 PM	(Invited) Van der Waals epitaxial growth of 2D materials and heterostructures
<b>Ioana Cozmuta</b>	Canyon I	Monday	02:20 PM	An AI predictive platform for microgravity innovation
<b>Sivasankara Rao Ede</b>	Aster	Monday	02:30 PM	Optimizing Oxygen Reduction Reaction Efficiency through Templated Synthesis and Crystallographic Orientation Control of Transition Metals within Graphitic Nanofibers
<b>Wei Gao</b>	Canyon II & IV	Monday	02:30 PM	Vertical gradient freeze growth of 8 inch diameter semiconducting GaAs
<b>Andrew Graves</b>	Canyon III	Monday	02:30 PM	Epitaxial Growth of Transition Metal Dichalcogenide Monolayers by MOCVD for Large Area Device Applications
<b>Jani Jesenovec</b>	Canyon II & IV	Monday	02:50 PM	Controlling Morphology of NiSb Needles in InSb through Low Temperature Gradient Horizontal Gradient Freeze
<b>Michael Snure</b>	Canyon III	Monday	02:50 PM	Growth of BN dielectric layer on GaN by metal organic chemical vapor deposition
<b>Maryam Bari</b>	Aster	Monday	03:30 PM	(Invited) Room-Temperature Growth, Ferroelastic Domains and Optoelectronic Properties of Halide Perovskite CH <sub>3</sub> NH <sub>3</sub> PbX <sub>3</sub> (X = I, Br and Cl) and CsPbBr <sub>3</sub> Single Crystals
<b>Mark Goorsky</b>	Canyon II & IV	Monday	03:30 PM	(Invited) Defect Evolution and Mg Segregation in implanted GaN using Ultra-High-Pressure Annealing
<b>Rachael Myers-Ward</b>	Canyon III	Monday	03:30 PM	(Invited) Epitaxial Graphene for Sensing Applications
<b>Peter Vekilov</b>	Canyon I	Monday	03:30 PM	(Invited) Solution convection and the nucleation precursors in protein condensation.
<b>Shoufeng Lan</b>	Canyon III	Monday	04:00 PM	(Invited) Reciprocal Quantum Electrodynamics for Two-Dimensional Materials
<b>Ryuji Oshima</b>	Aster	Monday	04:00 PM	(Invited) Overview of hydride vapor phase epitaxy development for affordable III-V solar cells at AIST
<b>Divya Panchanathan</b>	Canyon I	Monday	04:00 PM	Commercial Space Platform for Crystal Growth
<b>Michael Snure</b>	Canyon II & IV	Monday	04:00 PM	Stress induced van der Waals lift-off of 4-inch GaN grown on two-dimensional BN by metal organic chemical vapor deposition
<b>Aleksandar Ostrogorsky</b>	Canyon I	Monday	04:20 PM	Crystal Growth in the SUBSA furnace in MSG: 2002 to 2022

<b>Jae-Hyun Ryou</b>	Canyon II & IV	Monday	04:20 PM	Single-Crystalline Layer-Transferred III-N Films for Flexible Piezoelectric Sensors in Extreme Environment Applications
<b>Kevin Schulte</b>	Aster	Monday	04:30 PM	27% Efficient GaAs Solar Cells Grown on Acoustically Spalled Substrates for Lower Cost III-V Photovoltaics
<b>Sefaattin (Seth) Tongay</b>	Canyon III	Monday	04:30 PM	(Invited) The synthesis and engineering of two-dimensional Janus quantum layers
<b>Vladimir Riabov</b>	Canyon I	Monday	04:40 PM	Detached Melt and Vapor Growth of InI in SUBSA hardware
<b>Alexana Roshko</b>	Canyon II & IV	Monday	04:40 PM	Defect Elimination in N-Polar GaN Nanostructures on Si
<b>Jingze Zhao</b>	Aster	Monday	04:50 PM	GaAs/AlGaAs Photodetector Arrays for Soft X-ray Beam Position Monitoring
<b>Jie Yao</b>	Canyon III	Monday	05:00 PM	(Invited) Towards novel morphologies of 2D materials: intercalation and twists
<b>Allen Benton</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Growth of Single Crystal Fibers for Laser Applications
<b>Ramki Chakaravarthy</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Magnetization - induced spin current flip in (4R)FeO <sub>3</sub> single crystal (R- Rare-earth)
<b>Ramki Chakaravarthy</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Influence of Eu <sup>3+</sup> doped on the spin reorientation in the imperfect antiferromagnetic system of Sm <sub>1-x</sub> Eu <sub>x</sub> FeO <sub>3</sub> (x = 0.25, 0.5 and 0.75) single crystals
<b>Ajisha D S</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Nucleation parameters, thermal and mechanical behavior of nonlinear optical potassium hydrogen oxalate trihydroxyborate single crystal
<b>Pooja Devi</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Growth and characterization of co-crystal of vanillin and hexamethylenetetramine for NLO application
<b>Erin Dickey</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Delineating the roles of casein at the interface in enzymatic induced carbonate precipitation with highly spatial and temporal methods
<b>Kei Kamada</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Development of Ce doped LiGdCl <sub>4</sub> /LiCl eutectic as a high concentration 6Li containing thermal neutron scintillator
<b>Yafei Liu</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Characterization of Growth Sectors in Gallium Nitride Substrate Wafers
<b>Jannette Marti-Subirana</b>	Arizona Foyer	Monday	05:30 PM	(Poster) TBD
<b>Nathan Miller</b>	Arizona Foyer	Monday	05:30 PM	(Poster) TBD
<b>Arindam Roy</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Growth and characterization of metal derivative of 1,4-Diazobicyclo [2.2.2] octane (DABCO) for non-linear optical applications.
<b>Kavitha S</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Investigation on structural, elemental, spectral, thermal, mechanical, linear, and nonlinear optical nature of Rubidium hydrogen succinate dihydrate metal-organic single crystals
<b>Amalthea Trobasre</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Optical characteristics of multifunctional heavy metal based multifunctional materials

<b>Hayato Watanabe</b>	Arizona Foyer	Monday	05:30 PM	(Poster) Investigation of non-destructive and non-contact electrical characterization of GaN thin film on ScAlMgO4 substrate using THz-TDSE with characteristic impedance analytical model
<b>Jalynn Wells</b>	Arizona Foyer	Monday	05:30 PM	(Poster) TBD
<b>Trevor Smith</b>	Canyon I	Monday	08:00 PM	Ga(As,P) OMVPE on Si substrates employing surfactant Sb and Ge ion implantation
<b>Jun Xiao</b>	Canyon III	Monday	08:00 PM	(Invited) Layered topological semimetals for novel high-performance electronics and THz optoelectronics
<b>Nikhil Pokharel</b>	Canyon I	Monday	08:20 PM	Optical and Structural Characteristics of ~1.65um-emitting Quantum Dots Grown by Selective Area Epitaxy
<b>Tony Low</b>	Canyon III	Monday	08:30 PM	(Invited) Novel plasmonic effects in 2D materials
<b>Michael Heuken</b>	Canyon I	Monday	08:40 PM	In-situ Reflectometry for Controlling Synthesis of 2D Materials and Heterostructures during MOCVD
<b>Kerstin Volz</b>	Canyon I	Monday	09:00 PM	Atomically-resolved structure and composition at III-V device heterointerfaces grown by MOVPE
<b>Shining Xu</b>	Canyon I	Monday	09:20 PM	~ 8.1 $\mu$ m InP-based quantum cascade lasers grown on Si via OMVPE
<b>Jingze Zhao</b>	Canyon I	Monday	09:40 PM	Impact of tellurium doping on minority carrier lifetime in heterostructures with bulk In(Ga)AsSb absorbers
<b>Aleksander Ostrogorsky</b>	Canyon II & IV	Tuesday	08:30 AM	Bridgman Crystal Growth on Earth and in Microgravity
<b>Leo Schowalter</b>	Canyon II & IV	Tuesday	09:15 AM	The development of ultrawide bandgap, pseudomorphic AlGaN semiconductor on native AlN substrates and its potential for opto-electronic and power devices (dedicated to Crystal IS co-founder Glen Slack)
<b>Cristian Ciobanu</b>	Canyon II & IV	Tuesday	10:30 AM	(Invited) Growth of highly oriented, high-entropy transition metal disulfide (VNbMoTaW) <sub>Sx</sub> thin films
<b>Rastgo Hawrami</b>	Aster	Tuesday	10:30 AM	(Invited) Intrinsic TI-based Halide Scintillators for Particle Detectors
<b>Jacob Leach</b>	Canyon I	Tuesday	10:30 AM	(Invited) GaN on GaN Epigrowth Using Chemically Pure Hydride Vapor Phase Epitaxy (HVPE)
<b>Sina Najmaei</b>	Canyon III	Tuesday	10:30 AM	(Invited) 2D Materials Electronic and Optoelectronic Device Applications
<b>Kimberly Pestovich</b>	Aster	Tuesday	11:00 AM	First Bridgman growth of RbSrI <sub>3</sub> :Eu scintillator for high energy X-ray radiography
<b>Jae-Hyun Ryou</b>	Canyon I	Tuesday	11:00 AM	Piezoelectric Single-Crystalline Flexible GaN Thin Film for Stress Hormone Detection from Sweat
<b>Chao Hsuan (Joseph) Sung</b>	Canyon II & IV	Tuesday	11:00 AM	Polymer Assisted Growth of Metal Nanoparticles for Sensing Applications
<b>Eli Sutter</b>	Canyon III	Tuesday	11:00 AM	(Invited) Growth and Emerging Functionality of van der Waals Crystals and Heterostructures

<b>Moira K. Miller</b>	Canyon I	Tuesday	11:20 AM	Optimization of ZnGeN <sub>2</sub> /GaN Quantum Wells for Green LEDs
<b>Oussama Moutanabbir</b>	Canyon II & IV	Tuesday	11:20 AM	(Invited) Growth of metastable (Si)GeSn semiconductors
<b>Martin Volz</b>	Aster	Tuesday	11:20 AM	Thermophysical Property Measurements of Indium Iodide Crystals
<b>Viktor Balema</b>	Canyon III	Tuesday	11:30 AM	(Invited) Heterostructuring by Mechanochemical Reshuffling of Layered 2D - Metal Chalcogenides.
<b>Muhammad Aqib</b>	Canyon I	Tuesday	11:40 AM	Strain Accumulation and Relaxation in AlN Film on Si (111) Substrate: A Consideration on Crack Formation in Epitaxial Growth of Ultrawide-Bandgap Semiconductor Films
<b>Peng Wang</b>	Aster	Tuesday	11:40 AM	Using In-situ Sublimation Methods in the Growth of Halide Perovskite Single Crystal Semiconductors
<b>Jasnamol Pezhumkattil Palakkal</b>	Canyon II & IV	Tuesday	11:50 AM	Effect of valence electrons on the core level x-ray photoelectron spectra of 4d transition-metal oxide thin films
<b>Greg Olsen</b>	Canyon II & IV	Tuesday	01:30 PM	From Crystal Growth, to Entrepreneur, to Space Flyer
<b>Jennifer DeMell</b>	Canyon III	Tuesday	03:00 PM	(Invited) Spintronic Quantum Phase Transition in a Graphene/Pb <sub>0.24</sub> Sn <sub>0.76</sub> Te Topological Heterostructure with Giant Rashba Spin Texture
<b>Vincent Fratello</b>	Canyon II & IV	Tuesday	03:00 PM	(Invited) Ken Jackson's Life and Work
<b>Guangxu Ju</b>	Canyon I	Tuesday	03:00 PM	(Invited) Revealing the Alternating Step Kinetics during Nitride Growth by OMVPE
<b>Brent Nannenga</b>	Aster	Tuesday	03:00 PM	(Invited) Biomolecular and materials structure determination by cryo-electron microscopy and microcrystal electron diffraction
<b>Eric Chason</b>	Canyon II & IV	Tuesday	03:30 PM	(Invited) Relating stress in thin films to the processes of crystal growth
<b>Derk Joester</b>	Aster	Tuesday	03:30 PM	(Invited) Nucleation Kinetics of Amorphous Carbonates in Confinement
<b>James Loveless</b>	Canyon I	Tuesday	03:30 PM	Micro-Electroluminescence and -Photoluminescence of Hexagonal Hillocks in UVC LEDs
<b>Apparao Rao</b>	Canyon III	Tuesday	03:30 PM	(Invited) Structure-optimized phosphorene for super-stable potassium storage
<b>Jacob Dooley</b>	Canyon I	Tuesday	03:50 PM	On the solubility of boron nitride in supercritical ammonia-sodium solutions
<b>Alix Deymier</b>	Aster	Tuesday	04:30 PM	Thermodynamic effects of stress on the crystal growth of apatite in aqueous environments
<b>Gregory Brian Stephenson</b>	Canyon II & IV	Tuesday	04:30 PM	(Invited) BCF Analysis of Azimuth Dependence of Step Dynamics
<b>Jifa Tian</b>	Canyon III	Tuesday	04:30 PM	(Invited) Electrical Transport and Phase Modulation in Two-Dimensional Topological Superconductors

<b>Tsutomu Araki</b>	Canyon I	Tuesday	04:40 PM	RF-MBE Growth of GaN on ScAlMgO4 Substrate
<b>Biao Jin</b>	Aster	Tuesday	04:50 PM	Biomimetic Control of Sequence-Defined Peptoids over Ag Nanocrystal Formation and Anisotropic Self-Assembly
<b>Stephen McDonnell</b>	Canyon III	Tuesday	05:00 PM	(Invited) Synthesis of Transition Metal Dichalcogenides on oxide surfaces
<b>Shashwat Rathkanthiwar</b>	Canyon I	Tuesday	05:00 PM	Conduction mechanism in Mg-doped compositionally graded AlGaIn: the role of polarization field and point defects
<b>Narsingh Singh</b>	Canyon II & IV	Tuesday	05:00 PM	(Invited) Evolution of Jackson-Hunt Diffusion theory and transition into 3D-dendritic morphology: An Overview
<b>Chenyang Shi</b>	Aster	Tuesday	05:10 PM	Multiphase silk assembly for two-dimensional composite
<b>Daniel Bentz</b>	Canyon II & IV	Tuesday	05:30 PM	Applying Kinetic Monte Carlo Modeling to Irregular Rod Eutectic Systems
<b>Kevin Schulte</b>	Aster	Tuesday	06:30 PM	Career Panel Event for Students
<b>Russell Dupuis</b>	Canyon I	Tuesday	08:00 PM	Crack suppression of high Al-mole-fraction AlGaIn layers on patterned GaN substrates for ultraviolet laser diodes
<b>Christopher Hinkle</b>	Canyon III	Tuesday	08:00 PM	(Invited) New Functional Heterostructures Through Low-Temperature Growth of van der Waals Materials
<b>Russell Dupuis</b>	Canyon I	Tuesday	08:20 PM	Nitrogen-Implanted Floating Guard Rings as Edge Termination for kV-Class Vertical GaN PIN Rectifiers for Breakdown Voltage Improvement and Premature Breakdown Study by Sub-bandgap Photoluminescence
<b>Peter Sutter</b>	Canyon III	Tuesday	08:30 PM	Growth and Emerging Functionality of van der Waals Crystals and Heterostructures
<b>Brooks Tellekamp</b>	Canyon I	Tuesday	08:40 PM	Lattice matched virtual substrates for Al-X-N epitaxy
<b>Siddha Pimputkar</b>	Canyon I	Tuesday	09:00 PM	Computational Fluid Dynamics Modeling of a Novel High-Pressure Spatial Chemical Vapor Deposition Reactor (HPS-CVD) Design for Growth of Indium-Containing Nitrides
<b>Jack Almeter</b>	Canyon I	Tuesday	09:20 PM	XRD analysis of relaxation of non-biaxial strain at the semipolar interface in AlGaIn grown via heteroepitaxial FACELO
<b>Cristyan Quiñones</b>	Canyon I	Tuesday	09:40 PM	Quasi Vertical Schottky Barrier Diodes on Bulk AlN Substrates
<b>Abderraouf Boucherif</b>	Canyon III	Wednesday	01:30 PM	(Invited) Freestanding semiconductor nanomembranes: from materials to devices
<b>Mark Goorsky</b>	Canyon I	Wednesday	01:30 PM	(Invited) Engineered Substrates: Understanding structure and defects through x-ray and electron-based characterization techniques
<b>Moneesh Upmanyu</b>	Canyon II & IV	Wednesday	01:30 PM	(Invited) Stress modulation via oscillations in emergent grain boundary phases during growth of polycrystalline thin films
<b>Kimberly Weirich</b>	Aster	Wednesday	01:30 PM	(Invited) TBD

<b>Suja Elizabeth Saji</b>	Canyon I	Wednesday	02:00 PM	(Invited) Growth and characterization of pure and substituted rare-earth orthoferrite single crystals
<b>Peter Schunemann</b>	Canyon III	Wednesday	02:15 PM	(Invited) All-epitaxial growth of orientation-patterned GaAs and GaP engineered nonlinear optical crystals
<b>Peter Vekilov</b>	Canyon II & IV	Wednesday	02:15 PM	(Invited) Concentration-driven transition between classical and nonclassical modes in organic crystallization
<b>Haitao Yu</b>	Aster	Wednesday	02:15 PM	Biologically Inspired Synthesis of Metal Oxide Particles with Varied Morphology and Orientation
<b>XianRong Huang</b>	Canyon I	Wednesday	02:30 PM	(Invited) The comprehensive synchrotron topography and rocking curve imaging capabilities at the Advanced Photon Source
<b>Jacob Boyer</b>	Canyon III	Wednesday	03:00 PM	Growth of AlInP by Dynamic-Hydride Vapor Phase Epitaxy for Optoelectronic Devices
<b>Rylan Terry</b>	Canyon II & IV	Wednesday	03:00 PM	Crystal Growth, Structure and Magnetism of Transition Metal $d$ -Block Crystals
<b>Sakshi Yadav Schmid</b>	Aster	Wednesday	03:00 PM	Designed Interfaces Between Proteins and Inorganic Crystals for Templated Assembly and Co-Assembly
<b>Takeshi Yoshikawa</b>	Canyon I	Wednesday	03:00 PM	Step-bunching on 4H-SiC (000-1) in Si based solutions at 1873 K during interface reconstruction
<b>Ganesh Balakrishnan</b>	Canyon III	Wednesday	03:20 PM	Imaging dislocation networks formed by using defect filter layers in the growth of GaSb on GaAs.
<b>Qianyu Cheng</b>	Canyon I	Wednesday	03:20 PM	Effective Penetration Depth Analysis of Dislocations Lying on the Basal Plane in Grazing Incidence Synchrotron X-ray Topographs of 4H-SiC Wafers
<b>Laurie Gower</b>	Aster	Wednesday	04:00 PM	(Invited) [CANCELLED]
<b>Shekhar Guha</b>	Canyon I	Wednesday	04:00 PM	(Invited) Measurement of temperature-dependent refractive indices and absorption coefficients of ZnSe and ZnTe
<b>Qiang Li</b>	Canyon III	Wednesday	04:00 PM	(Invited) MOCVD growth of InAs/InP quantum dots for C-band to near 2 $\mu$ m emission
<b>Talid Sinno</b>	Canyon II & IV	Wednesday	04:00 PM	(Invited) Impact of configurational entropy on point defect thermodynamics in silicon
<b>Lu-Chung Chuang</b>	Canyon I	Wednesday	04:30 PM	(Invited) In situ observation of growth behavior of small-angle grain boundaries in multicrystalline silicon during directional solidification
<b>Alison Haymaker</b>	Aster	Wednesday	04:30 PM	Tatumella morbirosei: A Study of Cyanophycin Synthetase and Cyanophycin
<b>Maria Sushko</b>	Canyon II & IV	Wednesday	04:30 PM	Crystallization pathways and interfacial drivers for the formation of hierarchical architectures
<b>Ting Wang</b>	Canyon III	Wednesday	04:30 PM	(Invited) Monolithically Integrated III-V Lasers for Silicon Photonics
<b>Ramki Chakaravarthy</b>	Canyon II & IV	Wednesday	04:50 PM	Investigation of Synthesis Growth and Characterization of Single Crystal of 2-Methyl Benzimidazole and 4-Aminobenzoic Acid for Photonic Applications

<b>Sagnik Sen</b>	Aster	Wednesday	04:50 PM	SINGLE PARTICLE CRYO-EM STRUCTURE OF FERRITIN BIOMINERALIZATION SHOWING THE PROTEIN-NANOPARTICLE COMPLEX
<b>James Gupta</b>	Canyon III	Wednesday	05:00 PM	Real-time, In-situ Flux Monitoring: A Revolutionary New Development in Solid-Source Molecular Beam Epitaxy
<b>Sakiko Kawanishi</b>	Canyon I	Wednesday	05:00 PM	In-situ observation of 4H-SiC{0001} dissolution into molten alloy at 1500 K
<b>Logan Tsosie</b>	Aster	Wednesday	05:10 PM	Delineating the Roles of Casein at the Interface in Enzyme Induced Carbonate Precipitation (EICP) with Highly-Resolved Spatial and Temporal Methods
<b>Reynald Alcotte</b>	Canyon III	Wednesday	05:20 PM	InP Nano-Ridge Engineering for III-V device integration on silicon substrates
<b>Partha S. Dutta</b>	Canyon II & IV	Thursday	09:15 AM	[AACG AWARD] Bulk Crystal Growth of Ternary III-V Compound Semiconductors – 30 years of personal journey
<b>Matt Brubaker</b>	Canyon III	Thursday	10:30 AM	(Invited) Selective Area Growth of N-polar GaN Nanostructures for Core-Shell Optoelectronic Devices
<b>Alex Galyukov</b>	Canyon I	Thursday	10:30 AM	(Invited) Advancements in Numerical Modeling of Epitaxy of Electronic Materials
<b>Luiz Jacobsohn</b>	Aster	Thursday	10:30 AM	(Invited) The Luminescence of Aluminate Spinels: The Role of Defects and Impurities
<b>Michael Susner</b>	Canyon II & IV	Thursday	10:30 AM	(Invited) Synthesis and Characterization of Novel Metal Thiophosphate Materials
<b>Michael Filler</b>	Canyon III	Thursday	11:00 AM	(Invited) Buckets of Transistors: Scalable Nanoelectronic Devices via Bottom-up Crystal Growth and Area-Selective Processes
<b>Peter Menge</b>	Aster	Thursday	11:00 AM	(Invited) Recent developments in Scintillator Co-doping at Luxium Solutions
<b>Narsingh Bahadur Singh</b>	Canyon I	Thursday	11:00 AM	(Invited) Growth of 2H-SiC pure hexagonal polytype by using nucleating agents
<b>Joshua Tower</b>	Canyon II & IV	Thursday	11:00 AM	(Invited) Low-Background Crystals for Rare Event Searches in Nuclear and High Energy Physics
<b>Zeyu Chen</b>	Canyon I	Thursday	11:30 AM	Analysis of strain due to High Energy Ion Implantation by Synchrotron X-ray Topography
<b>Joseph Kolis</b>	Canyon II & IV	Thursday	11:30 AM	(Invited) Hydrothermal Growth of Magnetically Frustrated Crystals: Lanthanide Stannate Pyrochlores as a Prototype
<b>Cheng Liu</b>	Canyon III	Thursday	11:30 AM	Nanoscale selective area growth of ultra-high density InGaN/GaN QDs for visible emission patterned by diblock copolymer
<b>Daniel Rutstrom</b>	Aster	Thursday	11:30 AM	Discovery and Scale Up of New Ultrafast Chloride Scintillators
<b>Robert Macfarlane</b>	Canyon III	Thursday	01:30 PM	(Invited) Nanoparticle Assembly into Ordered Superlattices: When and Why these 'Artificial Atoms' Break Conventional Rules for Crystallization
<b>Ian Manning</b>	Canyon II & IV	Thursday	01:30 PM	(Invited) Development and scale-up of n-type conductive SiC for power electronics applications



<b>Alexander Soibel</b>	Canyon I	Thursday	01:30 PM	(Invited) Development of mid- and long-wavelength infrared detectors and focal plane arrays in JPL
<b>Jian Tian</b>	Aster	Thursday	01:30 PM	(Invited) Development in Crystal Growth of PMN-PT Based Single Crystals
<b>David Lister</b>	Canyon III	Thursday	02:00 PM	Gallium doped zinc oxide nanowires for quantum information applications: optical characterization of doping
<b>Justin Mark</b>	Canyon II & IV	Thursday	02:00 PM	(Invited) Manufacturing 2-inch AlN and beyond: the road to 4-inch AlN substrates
<b>John Prineas</b>	Canyon I	Thursday	02:00 PM	(Invited) Purcell Effect versus Auger Recombination in Variable Thickness Superlattices in Resonant Cavity Mid Infrared LEDs
<b>Harold Robinson</b>	Aster	Thursday	02:00 PM	(Invited) A Review of Single Crystal Underwater Transducers
<b>Sandy Cochran</b>	Aster	Thursday	02:30 PM	(Invited) Motivation, Challenges and Potential Solutions in Characterisation of Bulk Piezoelectric Crystal Materials
<b>Narsingh Singh</b>	Canyon II & IV	Thursday	02:30 PM	(Invited) Optical emission characteristics of PVT grown doped ZnSe crystals in near IR wavelength region
<b>Jingze Zhao</b>	Canyon I	Thursday	02:30 PM	Barrier heterostructures with bulk InAsSb absorbers for high operating temperature long-wave infrared sensors
<b>Brelon May</b>	Canyon I	Thursday	02:50 PM	Molecular Beam Epitaxy of Binary and Ternary Manganese and Chromium Nitrides
<b>Venkatraman Gopalan</b>	Canyon II & IV	Thursday	03:30 PM	(Invited) Design and Discovery of Superior Nonlinear Optical Crystals
<b>Seunghyun Lee</b>	Canyon I	Thursday	03:30 PM	(Invited) Extremely low excess-noise and high gain AlxGa1-xAsSb avalanche photodiodes lattice matched to InP substrates
<b>Richard Meyer</b>	Aster	Thursday	03:30 PM	(Invited) Process/Property Relationships of Textured Piezoelectric Ceramics for Acoustic Applications
<b>Amish Patel</b>	Canyon III	Thursday	03:30 PM	(Invited) Molecular Insights into the Interactions between Antifreeze Proteins and Ice
<b>Wei Du</b>	Canyon I	Thursday	04:00 PM	(Invited) Development of SiGeSn Technology for Monolithic Infrared Silicon Photonics
<b>Baron Peters</b>	Canyon III	Thursday	04:00 PM	(Invited) Crystal growth impedance from boundary layer transport, conformational interconversion, and dimerization kinetics
<b>Peter Schunemann</b>	Canyon II & IV	Thursday	04:00 PM	Ternary chalcopyrite semiconductors for mid-IR laser applications
<b>Yongke Yan</b>	Aster	Thursday	04:00 PM	(Invited) Templated Grain Growth of High Performance Textured Piezoelectric Ceramics
<b>Peter Schunemann</b>	Canyon II & IV	Thursday	04:20 PM	Growth of BaGa4S7 and BaGa4Se7: new broad-band nonlinear crystals for the mid-infrared
<b>Jim Evans</b>	Canyon III	Thursday	04:30 PM	(Invited) Reshaping and diffusion of metallic nanocrystals

<b>Fei Li</b>	Aster	Thursday	04:30 PM	(Invited) Textured BiScO <sub>3</sub> -PbTiO <sub>3</sub> Piezoelectric Ceramics with both High Electromechanical Coupling Factor and High Curie Temperature
<b>Yong-Hang Zhang</b>	Canyon I	Thursday	04:30 PM	(Invited) InAs/InAsSb type-II superlattice and its applications in devices
<b>Kevin Zawilski</b>	Canyon II & IV	Thursday	04:40 PM	Absorption and Defects Related to High Average Power Operation of CdSiP <sub>2</sub> Crystals
<b>Deep Choudhari</b>	Canyon III	Thursday	05:00 PM	(Invited) Investigation of in-liquid ordering mediated transformations in Al-Sc via ab initio molecular dynamics and unsupervised learning
<b>Shekhar Guha</b>	Canyon II & IV	Thursday	05:00 PM	(Invited) Anisotropic thermal properties of CdSiP <sub>2</sub> crystals
<b>Zuo-Guang Ye</b>	Aster	Thursday	05:00 PM	(Invited) Synthesis and Characterization of High-TC Piezo-/Ferroelectric Single Crystals Based on Bismuth Scandate
<b>Jingze Zhao</b>	Canyon I	Thursday	05:00 PM	Long-wave infrared beam steering with InAsSb-based plasmonic phased arrays
<b>Talid Sinno</b>	Canyon III	Thursday	05:30 PM	Computational Study of Non-Classical Homogeneous Crystallization in Liquid Si
<b>Xiaoning Jiang</b>	Aster	Friday	08:00 AM	(Invited) Alternating current poled relaxor-PbTiO <sub>3</sub> single crystals for ultrasound transducers
<b>Akito Kuramata</b>	Canyon I	Friday	08:00 AM	(Invited) Gallium Oxide Bulk Crystal and Substrates Technology.
<b>Sudhir Trivedi</b>	Canyon II & IV	Friday	08:00 AM	(Invited) Cd <sub>1-x-y</sub> Mg <sub>x</sub> Zn <sub>y</sub> Te, a New Alternative High-Performance Radiation Detector Material
<b>Duck Young Chung</b>	Canyon II & IV	Friday	08:30 AM	Physical Properties of CsPbBr <sub>3</sub> Crystal and Bridgman Crystal Growth
<b>Siddharth Rajan</b>	Canyon I	Friday	08:30 AM	(Invited) Materials and Device Engineering for High-Performance Gallium Oxide Electronics
<b>Satoshi Wada</b>	Aster	Friday	08:30 AM	(Invited) AC Poling Treatment over T <sub>c</sub> in Grain-oriented BT-BNT Piezoceramics
<b>Edgar van Loef</b>	Canyon II & IV	Friday	08:50 AM	Crystal Growth, Density Functional Theory, and Scintillation Properties of TlSr <sub>2</sub> Cl <sub>5</sub> and Tl <sub>2</sub> Sr <sub>2</sub> Br <sub>5</sub>
<b>Sriram Krishnamoorthy</b>	Canyon I	Friday	09:00 AM	Epitaxy and Engineering of beta-Ga <sub>2</sub> O <sub>3</sub> Devices for High-Voltage Applications
<b>Hiroki Matsuo</b>	Aster	Friday	09:00 AM	(Invited) Ferroelectric BiFeO <sub>3</sub> -based epitaxial thin films with engineered domain structures for photovoltaic applications
<b>William Brand</b>	Canyon I	Friday	09:20 AM	Recent advances in epitaxial growth, in-situ etch, and regrowth of beta-Ga <sub>2</sub> O <sub>3</sub> films using MOVPE
<b>Guojian Wang</b>	Aster	Friday	09:30 AM	(Invited) Growth and characterization of PMN-PT crystals by vertical gradient freeze (VGF) technology
<b>Vincent Fratello</b>	Aster	Friday	10:30 AM	(Invited) Crystal Growth of [100] Lead Zirconate Titanate (PZT) Crystals with composition Near the Morphotropic Phase Boundary by High Temperature Solution Growth

