Contributions in Chronological Order

Version: 06/15/23

Partha Dutta	Canyon II & IV	Monday	08:00 AM	Welcome!
Zlatko Sitar	Canyon II & IV	Monday	08:30 AM	Unlocking the AlN-based technology through crystal growth and epitaxy
Jung Han	Canyon II & IV	Monday	09:15 AM	Frontiers in Selective Area Growth, Etching, and Doping of GaN by OMVPE
Christopher Grainger	Aster	Monday	10:30 AM	(Invited) Extreme Helical Morphology Exhibited by Iodinated Phenanthroline Crystals
John McCloy	Canyon II & IV	Monday	10:30 AM	(Invited) Bulk Crystal Growth and Opto-electronic Characterization of Î²-Ga2O3
Daniel Pennachio	Canyon III	Monday	10:30 AM	(Invited) Novel Graphene and SiC Epitaxy to Enable Film Transfer
Johannes Svensson	Canyon I	Monday	10:30 AM	(Invited) Template-Assisted Selective Epitaxy of InAs on W metal films
Jan Kovar	Canyon II & IV	Monday	11:00 AM	Experience-based Feedforward control of Czochralski growth process using data processing.
Prashant Kumar	Aster	Monday	11:00 AM	(Invited) Bowties vs Mantis Shrimp. Who can rotate the polarization of light better?
Theresa Saenz	Canyon I	Monday	11:00 AM	(Invited) GaAs solar cells on V-groove Si substrates
Gen Yin	Canyon III	Monday	11:00 AM	(Invited) Electric and spin Hall transition in monolayer Fe3GeTe2
Jan Polak	Canyon II & IV	Monday	11:20 AM	Growth of large diameter yttrium aluminium garnet crystals by Czochralski method
Stephanie Lee	Aster	Monday	11:30 AM	(Invited) Twisted Organic Semiconductor Crystals
Jun Lou	Canyon III	Monday	11:30 AM	(Invited) Towards Controlled Synthesis and Scalable Production of 2D Crystals
Anthony SpringThorpe	Canyon I	Monday	11:30 AM	RELIABLE BURIED HETEROSTRUCTURE LASER via AN MOCVD IN-SITU ETCH PROCESS
Adam Lindsey	Canyon II & IV	Monday	11:40 AM	Bulk Crystal Growth of Yb3Ga5O12 and GdLiF4 for Adiabatic Demagnetization Refrigeration Devices
Partha Dutta	Canyon I	Monday	01:30 PM	(Invited) Potential Role of Reduced Gravity for Semimetal-Semiconductor Composite Bulk Crystal Growth and Novel Devices
Jimmy Kotsakidis	Canyon III	Monday	01:30 PM	(Invited) Investigating the Magnetotransport Properties of Hydrogen and Magnesium Intercalated Graphene on Silicon Carbide.
Frank Siebke	Aster	Monday	01:30 PM	(Invited) Green Solar Wafers for High-Efficiency Solar Cells Produced by Epitaxy

Kazuya Takahashi	Canyon II & IV	Monday	01:30 PM	(Invited) Crystal growth and characterization of large Ca0.582Sr0.418F2 single crystal by Czochralski method using cone die
Vincent Fratello	Canyon II & IV	Monday	02:00 PM	(Invited) Solution Phase Diagram of Lead Zirconate Titanate (PZT) in a High Temperature Solution
Alexander Goldstone	Aster	Monday	02:00 PM	(Invited) MBE growth of single and polycrystalline CdTe and CdSeTe for photovoltaic applications
Nicole Wagner	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
Kai Xiao	Canyon III	Monday	02:00 PM	(Invited) Van der Waals epitaxial growth of 2D materials and heterostructures
Ioana Cozmuta	Canyon I	Monday	02:20 PM	An AI predictive platform for microgravity innovation
Wei Gao	Canyon II & IV	Monday	02:30 PM	Vertical gradient freeze growth of 8 inch diameter semiconducting GaAs
Andrew Graves	Canyon III	Monday	02:30 PM	Epitaxial Growth of Transition Metal Dichalcogenide Monolayers by MOCVD for Large Area Device Applications
Joel Kearns	Aster	Monday	02:30 PM	Growth twins in gallium doped, dislocated single crystal silicon from NeoGrowth crystallization method
Sivasankara Rao Ede	Aster	Monday	02:50 PM	Optimizing Oxygen Reduction Reaction Efficiency through Templated Synthesis and Crystallographic Orientation Control of Transition Metals within Graphitic Nanofibers
Jani Jesenovec	Canyon II & IV	Monday	02:50 PM	Controlling Morphology of NiSb Needles in InSb through Low Temperature Gradient Horizontal Gradient Freeze
Michael Snure	Canyon III	Monday	02:50 PM	Growth of BN dielectric layer on GaN by metal organic chemical vapor deposition
Maryam Bari	Aster	Monday	03:30 PM	(Invited) Room-Temperature Growth, Ferroelastic Domains and Optoelectronic Properties of Halide Perovskite CH3NH3PbX3 (X = I, Br and Cl) and CsPbBr3 Single Crystals
Mark Goorsky	Canyon II & IV	Monday	03:30 PM	(Invited) Defect Evolution and Mg Segregation in implanted GaN using Ultra-High-Pressure Annealing
Rachael Myers-Ward	Canyon III	Monday	03:30 PM	(Invited) Epitaxial Graphene for Sensing Applications
Peter Vekilov	Canyon I	Monday	03:30 PM	(Invited) Solution convection and the nucleation precursors in protein condensation.
Shoufeng Lan	Canyon III	Monday	04:00 PM	(Invited) Reciprocal Quantum Electrodynamics for Two-Dimensional Materials
Ryuji Oshima	Aster	Monday	04:00 PM	(Invited) Overview of hydride vapor phase epitaxy development for affordable III-V solar cells at AIST
Divya Panchanathan	Canyon I	Monday	04:00 PM	Commercial Space Platform for Crystal Growth
Michael Snure	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

Aleksandar Ostrogorsky	Canyon I	Monday	04:20 PM	Crystal Growth in the SUBSA furnace in MSG: 2002 to 2022
Jae-Hyun Ryou	Canyon II & IV	Monday	04:20 PM	Single-Crystalline Layer-Transferred III-N Films for Flexible Piezoelectric Sensors in Extreme Environment Applications
Kevin Schulte	Aster	Monday	04:30 PM	27% Efficient GaAs Solar Cells Grown on Acoustically Spalled Substrates for Lower Cost III-V Photovoltaics
Sefaattin (Seth) Tongay	Canyon III	Monday	04:30 PM	(Invited) The synthesis and engineering of two-dimensional Janus quantum layers
Vladimir Riabov	Canyon I	Monday	04:40 PM	Detached Melt and Vapor Growth of InI in SUBSA hardware
Alexana Roshko	Canyon II & IV	Monday	04:40 PM	Defect Elimination in N-Polar GaN Nanostructures on Si
Jingze Zhao	Aster	Monday	04:50 PM	GaAs/AlGaAs Photodetector Arrays for Soft X-ray Beam Position Monitoring
Jie Yao	Canyon III	Monday	05:00 PM	(Invited) Towards novel morphologies of 2D materials: intercalation and twists
Allen Benton	Arizona Foyer	Monday	05:30 PM	(Poster) Growth of Single Crystal Fibers for Laser Applications
Ramki Chakaravarthy	Arizona Foyer	Monday	05:30 PM	(Poster) Magnetization - induced spin current flip in (4R)FeO3 single crystal (R- Rare-earth)
Ramki Chakaravarthy	Arizona Foyer	Monday	05:30 PM	(Poster) Influence of Eu 3+ doped on the spin reorientation in the imperfect antiferromagnetic system of Sm 1-x Eu x FeO 3 (x = 0.25, 0.5 and 0.75) single crystals
Ajisha D S	Arizona Foyer	Monday	05:30 PM	(Poster) Nucleation parameters, thermal and mechanical behavior of nonlinear optical potassium hydrogen oxalate trihydroxyborate single crystal
Pooja Devi	Arizona Foyer	Monday	05:30 PM	(Poster) Growth and characterization of co-crystal of vanillin and hexamethylenetetramine for NLO application
Kei Kamada	Arizona Foyer	Monday	05:30 PM	(Poster) Development of Ce doped LiGdCl4/LiCl eutectic as a high concentration 6Li contening thermal neutron scintillator
Yafei Liu	Arizona Foyer	Monday	05:30 PM	(Poster) Characterization of Growth Sectors in Gallium Nitride Substrate Wafers
Arindam Roy	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.
Kavitha S	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
Amalthea Trobasre	Arizona Foyer	Monday	05:30 PM	(Poster) Optical characteristics of multifunctional heavy metal based multifunctional materials
Hayato Watanabe	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
Trevor Smith	Canyon I	Monday	08:00 PM	Ga(As,P) OMVPE on Si substrates employing surfactant Sb and Ge ion implantation

Jun Xiao	Canyon III	Monday	08:00 PM	(Invited) Layered topological semimetals for novel high-performance electronics and THz optoelectronics
Nikhil Pokharel	Canyon I	Monday	08:20 PM	Optical and Structural Characteristics of ~1.65um-emitting Quantum Dots Grown by Selective Area Epitaxy
Tony Low	Canyon III	Monday	08:30 PM	(Invited) Novel plasmonic effects in 2D materials
Michael Heuken	Canyon I	Monday	08:40 PM	In-situ Reflectometry for Controlling Synthesis of 2D Materials and Heterostructures during MOCVD
Kerstin Volz	Canyon I	Monday	09:00 PM	Atomically-resolved structure and composition at III-V device heterointerfaces grown by MOVPE
Shining Xu	Canyon I	Monday	09:20 PM	~ 8.1 Î¼m InP-based quantum cascade lasers grown on Si via OMVPE
Jingze Zhao	Canyon I	Monday	09:40 PM	Impact of tellurium doping on minority carrier lifetime in heterostructures with bulk In(Ga)AsSb absorbers
Aleksander Ostrogorsky	Canyon II & IV	Tuesday	08:30 AM	Bridgman Crystal Growth on Earth and in Microgravity
Leo Schowalter	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 cofounder Glen Slack, 1928-2019)
Cristian Ciobanu	Canyon II & IV	Tuesday	10:30 AM	(Invited) Growth of highly oriented, high-entropy transition metal disulfide (VNbMoTaW)Sx thin films
Rastgo Hawrami	Aster	Tuesday	10:30 AM	(Invited) Intrinsic Tl-based Halide Scintillators for Particle Detectors
Jacob Leach	Canyon I	Tuesday	10:30 AM	(Invited) GaN on GaN Epigrowth Using Chemically Pure Hydride Vapor Phase Epitaxy (HVPE)
Sina Najmaei	Canyon III	Tuesday	10:30 AM	(Invited) 2D Materials Electronic and Optoelectronic Device Applications
Kimberly Pestovich	Aster	Tuesday	11:00 AM	First Bridgman growth of RbSrI3:Eu scintillator for high energy X-ray radiography
Jae-Hyun Ryou	Canyon I	Tuesday	11:00 AM	Piezoelectric Single-Crystalline Flexible GaN Thin Film for Stress Hormone Detection from Sweat
Chao Hsuan (Joseph) Sung	Canyon II & IV	Tuesday	11:00 AM	Polymer Assisted Growth of Metal Nanoparticles for Sensing Applications
Eli Sutter	Canyon III	Tuesday	11:00 AM	(Invited) Growth and Emerging Functionality of van der Waals Crystals and Heterostructures
Moira K. Miller	Canyon I	Tuesday	11:20 AM	Optimization of ZnGeN2/GaN Quantum Wells for Green LEDs
Oussama Moutanabbir	Canyon II & IV	Tuesday	11:20 AM	(Invited) Growth of metastable (Si)GeSn semiconductors
Martin Volz	Aster	Tuesday	11:20 AM	Thermophysical Property Measurements of Indium Iodide Crystals

Viktor Balema	Canyon III	Tuesday	11:30 AM	(Invited) Heterostructuring by Mechanochemical Reshuffling of Layered 2D - Metal Chalcogenides.
Muhammad Aqib	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
Peng Wang	Aster	Tuesday	11:40 AM	Using In-situ Sublimation Methods in the Growth of Halide Perovskite Single Crystal Semiconductors
Jasnamol Pezhumkattil Palakkal	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
Greg Olsen	Canyon II & IV	Tuesday	01:30 PM	TBD
Jennifer DeMell	Canyon III	Tuesday	03:00 PM	(Invited) Spintronic Quantum Phase Transition in a Graphene/Pb0.24Sn0.76Te Topological Heterostructure with Giant Rashba Spin Texture
Vincent Fratello	Canyon II & IV	Tuesday	03:00 PM	(Invited) Ken Jackson's Life and Work
Guangxu Ju	Canyon I	Tuesday	03:00 PM	(Invited) Revealing the Alternating Step Kinetics during Nitride Growth by OMVPE
Brent Nannenga	Aster	Tuesday	03:00 PM	(Invited) Biomolecular and materials structure determination by cryo-electron microscopy and microcrystal electron diffraction
Eric Chason	Canyon II & IV	Tuesday	03:30 PM	(Invited) Relating stress in thin films to the processes of crystal growth
Derk Joester	Aster	Tuesday	03:30 PM	(Invited) Nucleation Kinetics of Amorphous Carbonates in Confinement
James Loveless	Canyon I	Tuesday	03:30 PM	Micro-Electroluminescence and -Photoluminescence of Hexagonal Hillocks in UVC LEDs
Apparao Rao	Canyon III	Tuesday	03:30 PM	(Invited) Structure-optimized phosphorene for super-stable potassium storage
Jacob Dooley	Canyon I	Tuesday	03:50 PM	On the solubility of boron nitride in supercritical ammonia-sodium solutions
Alix Deymier	Aster	Tuesday	04:30 PM	Thermodynamic effects of stress on the crystal growth of apatite in aqueous environments
Gregory Brian Stephenson	Canyon II & IV	Tuesday	04:30 PM	(Invited) BCF Analysis of Azimuth Dependence of Step Dynamics
Jifa Tian	Canyon III	Tuesday	04:30 PM	(Invited) Electrical Transport and Phase Modulation in Two-Dimensional Topological Superconductors
Tsutomu Araki	Canyon I	Tuesday	04:40 PM	RF-MBE Growth of GaN on ScAlMgO4 Substrate
Biao Jin	Aster	Tuesday	04:50 PM	Biomimetic Control of Sequence-Defined Peptoids over Ag Nanocrystal Formation and Anisotropic Self-Assembly
Brelon May	Canyon I	Tuesday	05:00 PM	Molecular Beam Epitaxy of Binary and Ternary Manganese and Chromium Nitrides

Stephen McDonnell	Canyon III	Tuesday	05:00 PM	(Invited) Synthesis of Transition Metal Dichalcogenides on oxide surfaces
Narsingh Singh	Canyon II & IV	Tuesday	05:00 PM	(Invited) Evolution of Jackson-Hunt Diffusion theory and transition into 3D-dendritic morphology: An Overview
Chenyang Shi	Aster	Tuesday	05:10 PM	Multiphase silk assembly for two-dimensional composite
Shashwat Rathkanthiwar	Canyon I	Tuesday	05:20 PM	Conduction mechanism in Mg-doped compositionally graded AlGaN: the role of polarization field and point defects
Daniel Bentz	Canyon II & IV	Tuesday	05:30 PM	Applying Kinetic Monte Carlo Modeling to Irregular Rod Eutectic Systems
Christopher Hinkle	Canyon III	Tuesday	08:00 PM	(Invited) New Functional Heterostructures Through Low-Temperature Growth of van der Waals Materials
Yuto Ando	Canyon I	Tuesday	08:00 PM	Crack suppression of high Al-mole-fraction AlGaN layers on patterned GaN substrates for ultraviolet laser diodes
Russell Dupuis	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
Peter Sutter	Canyon III	Tuesday	08:30 PM	Growth and Emerging Functionality of van der Waals Crystals and Heterostructures
Brooks Tellekamp	Canyon I	Tuesday	08:40 PM	Lattice matched virtual substrates for Al-X-N epitaxy
Siddha Pimputkar	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
Jack Almeter	Canyon I	Tuesday	09:20 PM	XRD analysis of relaxation of non-biaxial strain at the semipolar interface in AlGaN grown via heteroepitaxial FACELO
Cristyan Quiñones	Canyon I	Tuesday	09:40 PM	Quasi Vertical Schottky Barrier Diodes on Bulk AlN Substrates
Abderraouf Boucherif	Canyon III	Wednesday	01:30 PM	(Invited) Freestanding semiconductor nanomembranes: from materials to devices
Mark Goorsky	Canyon I	Wednesday	01:30 PM	(Invited) Engineered Substrates: Understanding structure and defects through x-ray and electron-based characterization techniques
Moneesh Upmanyu	Canyon II & IV	Wednesday	01:30 PM	(Invited) Stress modulation via oscillations in emergent grain boundary phases during growth of polycrystalline thin films
Kimberly Weirich	Aster	Wednesday	01:30 PM	(Invited) TBD
Suja Elizabeth Saji	Canyon I	Wednesday	02:00 PM	(Invited) Growth and characterization of pure and substituted rare-earth orthoferrite single crystals
Peter Schunemann	Canyon III	Wednesday	02:15 PM	(Invited) All-epitaxial growth of orientation-patterned GaAs and GaP engineered nonlinear optical crystals
Peter Vekilov	Canyon II & IV	Wednesday	02:15 PM	(Invited) Concentration-driven transition between classical and nonclassical modes in organic crystallization

Haitao Yu	Aster	Wednesday	02:15 PM	Biologically Inspired Synthesis of Metal Oxide Particles with Varied Morphology and Orientation
XianRong Huang	Canyon I	Wednesday	02:30 PM	(Invited) The comprehensive synchrotron topography and rocking curve imaging capabilities at the Advanced Photon Source
Jacob Boyer	Canyon III	Wednesday	03:00 PM	Growth of AlInP by Dynamic-Hydride Vapor Phase Epitaxy for Optoelectronic Devices
Rylan Terry	Canyon II & IV	Wednesday	03:00 PM	Crystal Growth, Structure and Magnetism of Transition Metal â€œHobbyâ€ Crystals
Sakshi Yadav Schmid	Aster	Wednesday	03:00 PM	Designed Interfaces Between Proteins and Inorganic Crystals for Templated Assembly and Co-Assembly
Takeshi Yoshikawa	Canyon I	Wednesday	03:00 PM	Step-bunching on 4H-SiC (000-1) in Si based solutions at 1873 K during interface reconstruction
Ganesh Balakrishnan	Canyon III	Wednesday	03:20 PM	Imaging dislocation networks formed by using defect filter layers in the growth of GaSb on GaAs.
Qianyu Cheng	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
Laurie Gower	Aster	Wednesday	04:00 PM	(Invited) TBD
Shekhar Guha	Canyon I	Wednesday	04:00 PM	(Invited) Measurement of temperature-dependent refractive indices and absorption coefficients of ZnSe and ZnTe
Qiang Li	Canyon III	Wednesday	04:00 PM	(Invited) MOCVD growth of InAs/InP quantum dots for C-band to near 2 Âµm emission
Talid Sinno	Canyon II & IV	Wednesday	04:00 PM	(Invited) Impact of configurational entropy on point defect thermodynamics in silicon
Lu-Chung Chuang	Canyon I	Wednesday	04:30 PM	(Invited) In situ observation of growth behavior of small-angle grain boundaries in multicrystalline silicon during directional solidification
Alison Haymaker	Aster	Wednesday	04:30 PM	Tatumella morbirosei: A Study of Cyanophycin Synthetase and Cyanophycin
Joel Kearns	Canyon II & IV	Wednesday	04:30 PM	Attributes of heavily phosphorus-doped dislocation free silicon crystals for PowerMOS device substrates
Ting Wang	Canyon III	Wednesday	04:30 PM	(Invited) Monolithically Integrated III-V Lasers for Silicon Photonics
Sagnik Sen	Aster	Wednesday	04:50 PM	SINGLE PARTICLE CRYO-EM STRUCTURE OF FERRITIN BIOMINERALIZATION SHOWING THE PROTEIN-NANOPARTICLE COMPLEX
Maria Sushko	Canyon II & IV	Wednesday	04:50 PM	Crystallization pathways and interfacial drivers for the formation of hierarchical architectures
James Gupta	Canyon III	Wednesday	05:00 PM	Real-time, In-situ Flux Monitoring: A Revolutionary New Development in Solid-Source Molecular Beam Epitaxy
Sakiko Kawanishi	Canyon I	Wednesday	05:00 PM	In-situ observation of 4H-SiC{0001} dissolution into molten alloy at 1500 K

Ramki Chakaravarthy	Canyon II & IV	Wednesday	05:10 PM	Investigation of Synthesis Growth and Characterization of Single Crystal of 2-Methyl Benzimidazole and 4-Aminobenzoic Acid for Photonic Applications
Logan Tsosie	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
Reynald Alcotte	Canyon III	Wednesday	05:20 PM	InP Nano-Ridge Engineering for III-V device integration on silicon substrates
Senior Award	Canyon II & IV	Thursday	08:30 AM	It's a surprise!
Junior Award	Canyon II & IV	Thursday	09:00 AM	It's a surprise!
Matt Brubaker	Canyon III	Thursday	10:30 AM	(Invited) Selective Area Growth of N-polar GaN Nanostructures for Core-Shell Optoelectronic Devices
Alex Galyukov	Canyon I	Thursday	10:30 AM	(Invited) Advancements in Numerical Modeling of Epitaxy of Electronic Materials
Luiz Jacobsohn	Aster	Thursday	10:30 AM	(Invited) The Luminescence of Aluminate Spinels: The Role of Defects and Impurities
Michael Susner	Canyon II & IV	Thursday	10:30 AM	(Invited) Synthesis and Characterization of Novel Metal Thiophosphate Materials
Michael Filler	Canyon III	Thursday	11:00 AM	(Invited) Buckets of Transistors: Scalable Nanoelectronic Devices via Bottom-up Crystal Growth and Area-Selective Processes
Peter Menge	Aster	Thursday	11:00 AM	(Invited) Recent developments in Scintillator Co-doping at Luxium Solutions
Narsingh Bahadur Singh	Canyon I	Thursday	11:00 AM	(Invited) Growth of 2H-SiC pure hexagonal polytype by using nucleating agents
Joshua Tower	Canyon II & IV	Thursday	11:00 AM	(Invited) Low-Background Crystals for Rare Event Searches in Nuclear and High Energy Physics
Zeyu Chen	Canyon I	Thursday	11:30 AM	Analysis of strain due to High Energy Ion Implantation by Synchrotron X-ray Topography
Joseph Kolis	Canyon II & IV	Thursday	11:30 AM	(Invited) Hydrothermal Growth of Magnetically Frustrated Crystals: Lanthanide Stannate Pyrochlores as a Prototype
Cheng Liu	Canyon III	Thursday	11:30 AM	Nanoscale selective area growth of ultra-high density InGaN/GaN QDs for visible emission patterned by diblock copolymer
Daniel Rutstrom	Aster	Thursday	11:30 AM	Discovery and Scale Up of New Ultrafast Chloride Scintillators
Robert Macfarlane	Canyon III	Thursday	01:30 PM	(Invited) Nanoparticle Assembly into Ordered Superlattices: When and Why these 'Artificial Atoms' Break Conventional Rules for Crystallization
Ian Manning	Canyon II & IV	Thursday	01:30 PM	(Invited) Development and scale-up of n-type conductive SiC for power electronics applications
Alexander Soibel	Canyon I	Thursday	01:30 PM	(Invited) Development of mid- and long-wavelength infrared detectors and focal plane arrays in JPL

Jian Tian	Aster	Thursday	01:30 PM	(Invited) Development in Crystal Growth of PMN-PT Based Single Crystals
Justin Mark	Canyon II & IV	Thursday	02:00 PM	(Invited) Manufacturing 2-inch AlN and beyond: the road to 4-inch AlN substrates
John Prineas	Canyon I	Thursday	02:00 PM	(Invited) Purcell Effect versus Auger Recombination in Variable Thickness Superlattices in Resonant Cavity Mid Infrared LEDs
Shirin Riahi	Canyon III	Thursday	02:00 PM	Gallium doped zinc oxide nanowires for quantum information applications: optical characterization of doping
Harold Robinson	Aster	Thursday	02:00 PM	(Invited) A Review of Single Crystal Underwater Transducers
Sandy Cochran	Aster	Thursday	02:30 PM	(Invited) Motivation, Challenges and Potential Solutions in Characterisation of Bulk Piezoelectric Crystal Materials
Narsingh Singh	Canyon II & IV	Thursday	02:30 PM	(Invited) Optical emission characteristics of PVT grown doped ZnSe crystals in near IR wavelength region
Jingze Zhao	Canyon I	Thursday	02:30 PM	Barrier heterostructures with bulk InAsSb absorbers for high operating temperature long-wave infrared sensors
Venkatraman Gopalan	Canyon II & IV	Thursday	03:30 PM	(Invited) Design and Discovery of Superior Nonlinear Optical Crystals
Seunghyun Lee	Canyon I	Thursday	03:30 PM	(Invited) Extremely low excess-noise and high gain AlxGa1-xAsSb avalanche photodiodes lattice matched to InP substrates
Richard Meyer	Aster	Thursday	03:30 PM	(Invited) Process/Property Relationships of Textured Piezoelectric Ceramics for Acoustic Applications
Amish Patel	Canyon III	Thursday	03:30 PM	(Invited) Molecular Insights into the Interactions between Antifreeze Proteins and Ice
Wei Du	Canyon I	Thursday	04:00 PM	(Invited) Development of SiGeSn Technology for Monolithic Infrared Silicon Photonics
Baron Peters	Canyon III	Thursday	04:00 PM	(Invited) Crystal growth impedance from boundary layer transport, conformational interconversion, and dimerization kinetics
Peter Schunemann	Canyon II & IV	Thursday	04:00 PM	Ternary chalcopyrite semiconductors for mid-IR laser applications
Yongke Yan	Aster	Thursday	04:00 PM	(Invited) Templated Grain Growth of High Performance Textured Piezoelectric Ceramics
Peter Schunemann	Canyon II & IV	Thursday	04:20 PM	Growth of BaGa4S7 and BaGa4Se7: new broad-band nonlinear crystals for the mid-infrared
Jim Evans	Canyon III	Thursday	04:30 PM	(Invited) Reshaping and diffusion of metallic nanocrystals
Fei Li	Aster	Thursday	04:30 PM	(Invited) Textured BiScO3-PbTiO3 Piezoelectric Ceramics with both High Electromechanical Coupling Factor and High Curie Temperature
Yong-Hang Zhang	Canyon I	Thursday	04:30 PM	(Invited) InAs/InAsSb type-II superlattice and its applications in devices

Kevin Zawilski	Canyon II & IV	Thursday	04:40 PM	Absorption and Defects Related to High Average Power Operation of CdSiP2 Crystals
Deep Choudhari	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
Shekhar Guha	Canyon II & IV	Thursday	05:00 PM	(Invited) Anisotropic thermal properties of CdSiP2 crystals
Zuo-Guang Ye	Aster	Thursday	05:00 PM	(Invited) Synthesis and Characterization of High-TC Piezo-/Ferroelectric Single Crystals Based on Bismuth Scandate
Jingze Zhao	Canyon I	Thursday	05:00 PM	Long-wave infrared beam steering with InAsSb-based plasmonic phased arrays
Talid Sinno	Canyon III	Thursday	05:30 PM	Computational Study of Non-Classical Homogeneous Crystallization in Liquid Si
Xiaoning Jiang	Aster	Friday	08:00 AM	(Invited) Alternating current poled relaxor-PbTiO3 single crystals for ultrasound transducers
Akito Kuramata	Canyon I	Friday	08:00 AM	(Invited) Gallium Oxide Bulk Crystal and Substrates Technology.
Sudhir Trivedi	Canyon II & IV	Friday	08:00 AM	(Invited) Cd1-x-yMgxZnyTe, a New Alternative High-Performance Radiation Detector Material
Duck Young Chung	Canyon II & IV	Friday	08:30 AM	Physical Properties of CsPbBr3 Crystal and Bridgman Crystal Growth
Siddharth Rajan	Canyon I	Friday	08:30 AM	(Invited) Materials and Device Engineering for High-Performance Gallium Oxide Electronics
Satoshi Wada	Aster	Friday	08:30 AM	(Invited) AC Poling Treatment over Tc in Grain-oriented BT-BNT Piezoceramics
Edgar van Loef	Canyon II & IV	Friday	08:50 AM	Crystal Growth, Density Functional Theory, and Scintillation Properties of TlSr2Cl5 and Tl2Sr2Br5
Sriram Krishnamoorthy	Canyon I	Friday	09:00 AM	Epitaxy and Engineering of beta-Ga2O3 Devices for High-Voltage Applications
Hiroki Matsuo	Aster	Friday	09:00 AM	(Invited) Ferroelectric BiFeO3-based epitaxial thin films with engineered domain structures for photovoltaic applications
William Brand	Canyon I	Friday	09:20 AM	Recent advances in epitaxial growth, in-situ etch, and regrowth of beta-Ga2O3 films using MOVPE
Guojian Wang	Aster	Friday	09:30 AM	(Invited) Growth and characterization of PMN-PT crystals by vertical gradient freeze (VGF) technology
Vincent Fratello	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
Robert Leonard	Canyon I	Friday	10:30 AM	(Invited) Large Diameter 4H-SiC Growth and Defect Characterization Methods
Yunfei Chang	Aster	Friday	11:00 AM	(Invited) Enhanced piezoelectric properties and superior unipolar fatigue resistance in textured Pb(Mg1/3Nb2/3)O3-PbZrO3-PbTiO3 textured ceramics

Yan Peng	Canyon I	Friday	11:00 AM	(Invited) The research and industrialization of SiC substrate in China
Jinglei Li	Aster	Friday	11:30 AM	(Invited) Lead zirconate titanate ceramics with aligned crystallite grains
Peter Muzykov	Canyon I	Friday	11:30 AM	Evaluation of thermal stress distribution in off-axis grown SiC crystals
Shanshan Hu	Canyon I	Friday	11:50 AM	Investigation of defect formation at the early stage of PVT-grown 4H-SiC crystals
Jun Luo	Aster	Friday	12:00 PM	(Invited) Development of Doped Relaxor-PT Ferroelectric Crystals at TRS