

CINT 2016A Accepted Proposals

3D single nanoparticle tracking of the cellular interaction of specific and nonspecific protocells; Kimberly Butler, University of New Mexico: Jim Werner

A New Paradigm in Chem/Bio Threat Detection: Evaluating Threats Based on Biological Function Rather than Chemical Form; Wally Paxton, Sandia National Laboratories: Wally Paxton

Advanced Functional Biomimetic Soft/Composite Nanoparticle Protocells; Eric Carnes, Sandia National Laboratories: Wally Paxton

Advanced nanoscale patterning of light harvesting proteins; Peter Adams, University of Leeds: Gabe Montano

Advanced Simulation Methods for Ionomer Melts; Kris Delaney, University of California at Santa Barbara: Amalie Frischknecht

AFM/optical/microwave probe for nanoscale dielectric and conductivity imaging; Alexander Ukhanov, Actoprobe LLC: Doug Pete

Anisotropic mobility of metal ions in ionic liquid crystals; Piotr Kaszynski, Polish Academy of Sciences: Millie Firestone

Bose-Einstein Condensation of Photons using Quantum Dots; Martin Weitz, University of Bonn: Jennifer Hollingsworth

Carrier Dynamics and Transport in Type-II Superlattices; Eric Shaner, Sandia National Laboratories: John Nogan

Characterizing the Electronic Structure of Thin Film Photovoltaic Materials Using Spectroscopic Photoemission Microscopy; Calvin Chan, Sandia National Laboratories: Taisuke Ohta

Clarifying the Origin of Third-harmonic Generation from Plasmonic Structures; David Smith, Duke University: Hou-Tong Chen

Compositional heterogeneity effects on infrared optical phonons in active ferroelectric materials; Jon Ihlefeld, Sandia National Laboratories: Willie Luk

Conducting Ceramic Nanophotonics; Gordon Keeler, Sandia National Laboratories: Willie Luk

Confinement Effects in Infrared Spectra of Ultrathin Complex Oxide Epilayers; Stefan Zollner, New Mexico State University: Igal Brener

Controlling Cell Fate Through Geometric Regulation of Cell-Material Interface; Elizabeth Dirk, University of New Mexico: Gabe Montano

Copy of Light-matter Interaction Phenomena Enabled Engineering of Fundamental Material Properties; Omri Wolf, Sandia National Laboratories: Igal Brener

Copy of Mapping the temperature and dose rate conditions leading to nanoscale α' precipitation in ion-irradiated Fe-Cr alloys; Emmanuelle Marquis, University of Michigan: Khalid Hattar

Coupled Deformation Behavior in Crystalline-Amorphous Nanolaminates; Greg Thompson, University of Alabama: Khalid Hattar

Crystallization and Deformation of Refractory Metals; Matthew Janish, University of Connecticut: Katie Jungjohann

Crystallization of Lead Halide Perovskite Materials in the Liquid-Cell TEM; Bryan Kaehr, Sandia National Laboratories: Katie Junhjohann

Damage Behavior of Nanoporous Materials Under Irradiation; Thomas John Balk, University of Kentucky: Khalid Hattar

Deep reactive ion etched silicon devices for acoustofluidic bioanalysis; Menake Piyasena, New Mexico Institute of Mining and Technology: John Nogan

Deterministic Ion Implantation for Optimization of Donor-SET Tunneling Rates for Qubit Formation in Silicon MOS Devices; Edward Bielejec, Sandia National Laboratories: Mike Lilly

Developing a Solid State Technology for Electron Spin Qubits on Liquid Helium; Eric Shaner, Sandia National Laboratories: Tom Harris

Development and Optical spectroscopy of Infrared Active Plasmonic/Semiconductor Nanocrystals; Anton Malko, University of Texas at Dallas: Jennifer Hollingsworth

Development of Si-based infrared metasurfaces with high spectral purity and unusual optical functionalities; Gennady Shvets, University of Texas at Austin: Igal Brener

Dynamic, robust, radiation-resistant ceramics: harnessing thermodynamic and kinetic driving forces; Jessica Krogstad, University of Illinois at Urbana-Champaign: Khalid Hattar

EBIC Characterizations of Nanostructured Photovoltaic Devices; Heayoung Yoon, University of Utah: Jinkyung Yoo

Effects of Nanoscale Ionic Aggregates on Dynamics in Ionomer Melts; Karen Winey, University of Pennsylvania: Amalie Frischknecht

Effects of Surface asperities on Colloid Adhesion; Matthew Rush, Los Alamos National Laboratory: Gabe Montano

Electrically Driven Single-Photon Sources Based on Carbon Nanotube Solitary Dopants; Xiaowei He, Los Alamos National Laboratory: Steven Doorn

Electronic and vibrational energy relaxation and redistribution in photoexcited extended conjugated molecules using non-adiabatic excited state molecular dynamics; Sebastian Fernandez Alberti, Universidad Nacional de Quilmes: Sergei Tretiak

Encapsulation of the CRISPR/Cas9 construct for medical countermeasures against emerging disease; Amber McBride, Sandia National Laboratories: George Bachand

Engineering Emission Processes in "Giant" Quantum Dot in Hybrid Plasmonic Nanostructures; Zhongjian Hu, Los Alamos National Laboratory: Han Htoon

Epitaxy and Microscopy Studies for Vertical High Power GaN Devices on Silicon; Shadi Dayeh, University of California at San Diego: Katie Jungjohann

Evaporation-induced Nanoparticle Self-Assembly in Polymer Matrices; Shengfeng Cheng, Virginia Tech: Gary Grest

Experimental Validation of Enhanced Li Diffusion in Vacancy-Containing Si Nanowires; Yue Qi, Michigan State University: Katie Jungjohann

Fabrication and Optical Characterization of III-Nitride Core-Shell Nanostructures; Daniel Feezell, University of New Mexico: Igal Brener

GaN nanowires as AFM tips for imaging of high aspect ratio structures; Tito Busani, University of New Mexico: Doug Pete

Graphene and 2D-semiconductor-based devices for biochemistry and plasmonics; Eric Shaner, Sandia National Laboratories: John Nogan

Growth of GaAs Quantum Wells; Steven Cundiff, University of Michigan: John Reno

Improving "Giant" Quantum Dot Downconversion Phosphor Performance via High-Temperature Single Nanoparticle Spectroscopy; Noah Orfield, Los Alamos National Laboratory: Han Htoon

In situ Mechanical Testing of Metallic and Semiconducting Nanostructures using the CINT Discovery Platform; Daniel Gianola, University of Pennsylvania: Tom Harris

In Situ TEM Characterization of Metal Oxide Memristors; Matthew Marinella, Sandia National Laboratories: Katie Jungjohann

In situ TEM liquid cell investigation of corrosion in PLD Fe thin films; Joshua Kacher, Georgia Institute of Technology: Khalid Hattar

In-situ TEM experiments of electrochemical lithiation and delithiation of carbon nanotube-SnO₂ core-shell nanowires; Wenzhi Li, Florida International University: Katie Jungjohann

In-situ TEM investigation of irradiation creep in nanostructured alloys; Shen Dillon, University of Illinois at Urbana-Champaign: Khalid Hattar

In-Situ TEM Studies of Subcritical Cracking in Subsurface Minerals; Claire Chisholm, Sandia National Laboratories: Katie Jungjohann

Integrated photonics for quantum information processing; Damien Bonneau, University of Bristol: Ryan Camacho

Interaction of Teixobactin with bacterial lipids and peptidoglycan; Michael Kent, Sandia National Laboratories: Wally Paxton

Investigating the Growth of Au/Pd Core-Shell Nanostructures in an Extended La Mer Mechanism; Richard Tilley, University of New South Wales: Dale Huber

Investigation of magnetic structure at the interface of YBaCuO7 and SrTiO3; Jason Haraldsen, University of North Florida: Jian-Xin Zhu

Irradiation and Swelling Resistance of Laser-Peened Oxide-Dispersion-Strengthened Steels; Bai Cui, University of Nebraska: Khalid Hattar

Irradiation Effects on Electrochemical Charge Storage in Nanostructured TiO2 Electrode for Li-ion Batteries; Hui Xiong, Boise State University: Yongqiang Wang

Ligninase adsorption onto lignin and the impact on lignin breakdown; Michael Kent, Sandia National Laboratories: Wally Paxton

Linear and nonlinear optical phenomena using subwavelength dielectric metasurfaces; Sheng Liu, Sandia National Laboratories: Igal Brener

Lithiation Mechanisms in Tin Nanostructures; Matthew Janish, University of Connecticut: Katie Jungjohann

Magneto-electric effect on multiferroic layered systems in the Terahertz Frequency; Moumita Dutta, University of Texas at San Antonio: Rohit Prasankumar

Micro- and Nano-domain Modulation of Fungal Pathogen Interaction with Human Dendritic Cells; Aaron Neumann, University of New Mexico: George Bachand

Microstructural Evolution of Ion-irradiated 2-Dimensional Materials on Gallium Nitride; Debbie Senesky, Stanford University: Yongqiang Wang

Modeling Geometric Frustration in Negatively-Curved Membrane Assemblies; Gregory Grason, University of Massachusetts: Mark Stevens

Monolithically Integrated Ultrafast Transmitters for 5G Wireless Networks; Marek Osinski, University of New Mexico: John Nogan

MoS2 Energy Funnels for High Efficiency Photovoltaics; Francesca Cavallo, University of New Mexico: John Nogan

Multiscale Characterization of Carbon Nanotubes-Doped Poly(3-hexylthiophene) Thin Films; Donghyeon Ryu, New Mexico Institute of Mining and Technology: Nathan Mara

Nanoscale cavity structures for investigations of novel photonic characteristics; Elias Towe, Carnegie Mellon University: Willie Luk

Objective-first sorting and characterization of individual magnetic nanoparticles; Victor Acosta, University of New Mexico: Dale Huber

Optical Bistability with film-coupled metasurfaces; David Smith, Duke University: Hou-Tong Chen

Opto-electronic Materials Derived from Ionic Self Assembly (ISA) and Covalently Functionalized Single-Walled Carbon Nanotubes (SWNTs) Helically Wrapped by Charged, Semiconducting Polymers; Michael Therien, Duke University: Stephen Doorn

Optoelectronic Properties of III-V Semiconductor Nanostructures; George Wang, Sandia National Laboratories: Igal Brener

Oxide-deficient Apatites as Permeable Reactive Barriers; Mark Phillips, 1N1 Materials: Sergei Ivanov

Perovskite on Si; Jacky Even, National Institute of Applied Sciences of Lyon: Sergei Tretiak

Photocurrent Generation Dynamics in Supramolecular Composite Nanofibers; Yang Qin, University of New Mexico: Rohit Prasankumar

Photoluminescence excitation spectroscopy characterization of single-wall carbon nanotubes synthesized by chirality-controlled vapor phase epitaxy; Chongwu Zhou, University of Southern California: Stephen Doorn

Photothermal Investigation of a VLP Composite; Jeremiah Gassensmith, University of Texas at Dallas: Rohit Prasankumar

Physical Vapor Deposition Growth of Titanium Nitride Nanorods; Stephen Stagon, University of North Florida: Nate Mara

Pipeline Steel Corrosion: A Nanoscale Investigation of a Global-Scale Problem; Steven Hayden, Aramco Services Company: Katie Jungjohann

Plasmonics-transformed Quantum Emitters; Ajay Singh, Los Alamos National Laboratory: Jennifer Hollingsworth

Polyelectrolyte elasticity; Omar Saleh, University of California at Santa Barbara: Mark Stevens

Probing the existence and manipulation of Majorana fermions in strongly correlated topological insulators; Filip Ronning, Los Alamos National Laboratory: John Nogan

PVD Synthesis and Nanomechanics of Metallic Nanocomposite Thin Films; Amit Misra, University of Michigan: Nate Mara

Quantum Transport in Nanowire-Based Superconducting Junctions; Yong-Joo Doh, Gwangju Institute of Science and Technology: Jinkyong Yoo

Radiation Effect on Oxide Nanoparticles; Mohamed El-Genk, University of New Mexico: John Nogan

Responsive Diblock Copolymers for Artificial Photosynthetic Membrane Nanocomposites; Kirstie Swingle, Los Alamos National Laboratory: Gabe Montano

Role of Vacancies on Nanoscale Materials Properties: An In-situ TEM Irradiation Study; Md Haque, Pennsylvania State University: Khalid Hattar

Self-assembled "Dry" Proton Conductors as Polymer Electrolytes; Maria Forsyth, Deakin University: Millie Firestone

Simulations of Structure in Semi-Crystalline Precise Acid Copolymers and Ionomers and Comparisons with Experiments; Karen Winey, University of Pennsylvania: Mark Stevens

Single Particle Tracking Studies of Silicon Nanoparticles; Linda Peteanu, Carnegie Mellon University: Jim Werner

Spontaneous Emission Manipulation in Multilayer Metamaterial Nanostructures; Jie Gao, Missouri University of Science and Technology: Willie Luk

Stress-Induced Effects on the Optical Response of Doped ZnO Thin Films; Don Lucca, Oklahoma State University: Quanxi Jia

Studies of beam damage in siloxane-based foams by SAXS; Jaroslaw Majewski, Los Alamos National Laboratory: Darrick Williams

Study on stability of Y-Ti-O nano-oxides under extreme irradiation conditions; Eda Aydogan, Los Alamos National Laboratory: Khalid Hattar

Studying Proximity-induced Superconductivity in Topological Crystalline Insulator SnTe Nanoplates; Wenlong Yu, Sandia National Laboratories: John Nogan

Subwavelength grating based semiconductor disk laser; Zhou Yang, University of New Mexico: Doug Pete

Superparamagnetic Nanoparticles for Biomagnetic Imaging; Erika Vreeland, Senior Scientific: Dale Huber

Superresolution Microscopy of Quantum Dot Higher Order Structures; Alan van Orden, Colorado State University: Peter Goodwin

Suspended nanowire FETs for RF applications; Collin Delker, Sandia National Laboratories: Tom Harris

Terahertz Difference Frequency Generation on Graphene Plamonic Metasurfaces; Peter Qiang Liu, Sandia National Laboratories: Igal Brener

Terahertz Magneto-Optical Spectroscopy Studies of Multiferroic Rare-Earth Chromite Epitaxial Films; Menka Jain, University of Connecticut: Rohit Prasankumar

Terahertz Magnetospectroscopy of Two-dimensional Materials; David Hilton, University of Alabama Birmingham: Rohit Prasankumar

Terahertz quantum cascade metasurface lasers; Benjamin Williams, University of California, Los Angeles: John Reno

Theoretical design of perovskite active layers and interfaces; Aditya Mohite, Los Alamos National Laboratory: Sergei Tretiak

Thermalization of electronic excitations within time-dependent density functional theory; Andre Schleife, University of Illinois at Urbana-Champaign: Norman Modine

Thermionic emission from nanotextured substrates; Christopher Mann, Nanohmics, Inc.: Taisuke Ohta

Transport studies in superconductors, skyrmions and multiferroic systems; Leonardo Civale, Los Alamos National Laboratory: Quanxi Jia

Traps and defect states in organic/inorganic lead halide perovskite - a first principles study; Tae-Woo Lee, POSTECH: Jian-Xin Zhu

Ultrafast Dynamics of Ferromagnetic Phases of Vanadium Oxides; Richard Haglund, Vanderbilt University: Rohit Prasankumar

Understanding and controlling ultrafast magnetoelectric couplings in multiferroics using intense terahertz pulses; Christoph Hauri, Ecole Polytechnique Federale de Lausanne: Rohit Prasankumar

Valley splitting in Si/SiGe quantum dots; Dwight Luhman, Sandia National Laboratories: Mike Lilly