

2010B Accepted CINT User Proposals

Tracking Carrier Dynamics in Nitride-Based Nanowires; George Wang, Sandia National Laboratories: Rohit Prasankumar

The interaction of DNA with THz radiation; Kim Rasmussen, Los Alamos National Laboratories: Jen Martinez

Synthesis of Fluorescent noble nanoclusters using biological templates; Dung Vu, Los Alamos National Laboratories: Jen Martinez

Analysis of advanced III-N semiconductor materials: Using BF-STEM to analyze defect structures in Ultra-Violet laser diodes; Blythe Clark, Sandia National Laboratories: Jianyu Huang

Understanding and controlling the laser behavior of GaN nanowire with distributed feedback structures; Qiming Li, Sandia National Laboratories: Willie Luk

Fraction quantum hall effect and 5/2 state excitations in the vicinity of an etch defined quantum point contact; Wei Pan, Sandia National Laboratories: Aaron Gin

Characterization of 3D direct write conductive hydrogels: Towards real-time interfacing of living cells with electrodes; Bryan Kaehr, Sandia National Laboratories: Brian Swartzentruber

Interaction of endoglucanase enzymes with amorphous cellulose films revealed by a quartz crystal microbalance (QCM) and neutron reflectivity (NR); Michael Kent, Sandia National Laboratories: Dale Huber

Mapping nanocrystal quantum dot composition at the core/shell interface; Yagnaseni Ghosh, Los Alamos National Laboratories: Jianyu Huang

Nanomechanical behavior and bond strength determination of interfaces in nuclear fuel/cladding assemblies; Patricia Dickerson, Los Alamos National Laboratories: Nate Mara

Microbridges for high current density measurements; Boris Maiorov, Los Alamos National Laboratories: Doug Pete

Super-resolution fluorescence imaging studies of host-pathogen interactions; Jason Han, Los Alamos National Laboratories: Jim Werner

Thermal phenomena in micro- and nanosystems; Leslie Phinney, Sandia National Laboratories: John Sullivan

Electromagnetic energy transport through sub-wavelength channels and localization; Ganpathi Subramania, Sandia National Laboratories: Igal Brener

Gate control of spin lifetime in semiconductor quantum wells; Joseph Orenstein, Lawrence Berkeley National Laboratories: Mike Lilly

Developing robust carbon nanotube-based nanoelectromechanical systems (renewal of C2009A086); Horacio Espinosa, Northwestern University: John Sullivan

Modeling of coherent interfaces and misfit dislocations in core/shell nanowires; Greg Swadener, Aston University: Tom Picraux

Design and fabrication of plasmonic nanostructures for label free biomolecular detection and solar cells; Toshihiro Kamei, National Institute of Advanced Industrial Science and Technology: Igal Brener
High quality factor sol-gel carbon nanotubes micro cavities; Jean-Sebastien Lauret, ENS Cachan: Stephen Doorn

Theoretical studies of photexcited dynamics and energy transfer in conjugated macromolecules; Sebastian Fernandez Alberti, Universidad Nacional de Quilmes: Sergei Tretiak

Laterally-biased, voltage-tunable, quantum-dots-in-a-bilayer quantum well infrared detectors; Christian Morath, Air Force Research Laboratory: Mike Lilly

In-situ experiment and modeling of electrode failures in Li-Ion nano batteries; Sulin Zhang, Pennsylvania State University: Jianyu Huang

Dopant profiles in semiconductor nanowires; Lincoln Lauhon, Northwestern University: Tom Picraux

Ultrafast Magnetism in Manganites: Revealing thermally-inaccessible, hidden ground states at femtosecond timescales; Jigang Wang, Iowas State University and Ames Laboratory: Quanxi Jia

Mechanical Properties of electrospun inorganic nanofibers; Gary Carlson, MemPro Ceramics Corporation: Jianyu Huang

Nanoparticle 10B structures for radiation detection; Viswanath Krishnamoorthy, Qynergy Corporation: John Nogan

Ab initio simulations of novel giant semiconductor quantum dots; Svetlana Kilina, North Dakota State University: Sergei Ivanov

Broadband and tunable terahertz metamaterial absorbers; Sailing He, Zhejiang University: Toni Taylor

Quantum Phenomena in one-dimensional systems; Jonathan Bird, University at Buffalo: John Reno

Nanowire specialty diodes for integrated applications; Clarence Tracy, Arizona State University: Tom Picraux

Terahertz quantum cascade lasers for security and military application; Qing Hu, Massachusetts Institute of Technology: John Reno

Radiation damage in nanocrystalline metal films; Xinghang Zhang, Texas A&M University: Amit Misra

Ion Beam analysis of dilute nitride-bismide semiconductor alloy films; Rachel Goldman, University of Michigan: Tom Picraux

Role of layer-interfaces and grain boundaries on the properties of nano-structured nitride thin films; Haiyan Wang, Texas A&M University: Quanxi Jia

Patterning multiple layers of graphene; Ju Li, University of Pennsylvania: Jianyu Huang

LEEM study of nanodroplet motion; Peter Bennett, Arizona State University: Gary Kellogg

CINT Renewal Proposal: Molecular modeling of nanoparticles in thin polymer films; Michael Mackay, University of Delaware: Amalie Frischknecht

(renewal proposal) Establishing the yield strength of polycrystalline nanoporous metals; Antonia Antoniou, Georgia Institute of Technology: Nate Mara

FCS studies of RNA and DNA-stabilized silver cluster fluorophores in structured and unstructured hosts; Elisabeth Gwinn, University of California Santa Barbara: Peter Goodwin

Coherent cyclotron resonance spectroscopy of semiconductor nanostructures; Junichiro Kono, Rice University: John Reno

Two-color quantum dot distributed feedback laser; Luke Lester, University of New Mexico: Aaron Gin

The effect of surface reconstructions on nanostructure formation in compound semiconductors; Joanna Millunchick, University of Michigan: Normand Modine

Nanoscale metallic multilayer thin films: new strategies for enhanced mechanical strength; Peter Anderson, Ohio State University: Amit Misra

In-situ TEM on deformation and phase transformation processes of nanowires; Scott Mao, University of Pittsburgh: Jianyu Huang

Biological Applications for heterostructured quantum dots; Elba Serrano, New Mexico State University: Jennifer Hollingsworth

Theory of nanolubrication using polymer brushes; Jeffrey Sokoloff, Northeastern University: Mark Stevens

Protein and nanoparticle dynamics in lipid bilayers; Alex Levine, University of California Los Angeles: Mark Stevens

Energy transfer mechanisms in Mn-doped ZnS nanoparticles (C2009A074 renewal); Tze-Chien Sum, Nanyang Technological University: Rohit Prasankumar

Mechanical Performance of three component Nano-laminate thin films; David Bahr, Washington State University: Amit Misra

Multiscale calculation of the strained, multi-band electronic structure of semiconductor nanowires: Hetero-interfaces; Michael Stopa, Harvard University: Normand Modine

Nanoheterogeneity in sensors and organized media; James Demas, University of Virginia: Jim Werner

Ultra-efficient energy transfer in polymeric light-harvesting systems; John Lupton, University of Utah: Sergei Tretiak

Molecular mechanism of neurofilament nanomechanics; Jan Hoh, Johns Hopkins University: Mark Stevens

Contact, adhesion, friction between molecular self assembled monolayers; Kenneth Liechti, UT Austin: Bruce Bunker

Integration of nano-micro photonic structures; C. Jeffrey Brinker, University of New Mexico: Willie Luk

Nanostructured thin films for atomic plane electrical contacts; Don Lucca, Oklahoma State University: Amit Misra

Nanostructure formation in hybrid sol-gel derived thin films by ion irradiation; Don Lucca, Oklahoma State University: Tom Picraux

FET devices for high speed frequency modulation of light; Angelo Mascaranhas, National Renewable Energy Laboratory: John Reno

*Measuring electrons on the surface of liquid helium; Stephen Lyon, Princeton University: Mike Lilly
Nanoscale quantum infrared focal plane arrays with Plasmon assisted cavities; Rajeev Sheno, Center for High technology materials University of New Mexico: Aaron Gin*

Synthesis and deformation behavior of metal-ceramic multilayered structures at nanoscale; Nik Chawla, Arizona State University: Amit Misra

Understanding carrier dynamics in a novel nanoscale system: Quantum Dots in a Well (DWELL) heterostructure; Sanjay Krishna, University of New Mexico: Rohit Prasankumar

Carrier dynamics in Type II InAs/GaSb nanoscale superlattice sensors; Sanjay Krishna, University of New Mexico: Rohit Prasankumar

Application of the nanoparticle synthesis discovery platform to magnetic nanoparticle synthesis; J. Ping Liu, University of Texas Arlington: Dale Huber

Modeling of elasto-mechanical phenomena involved in the motor-driven assembly of nanomaterials; Alan Barhorst, Texas Tech University: George Bachand

Electronic examination of ion beam induced nanowires; Joanna Millunchick, University of Michigan: Brian Swartzentruber

Graphene based hall sensor for magnetic nano-sensing; Zhigang Jiang, Georgia Institute of Technology: Mike Lilly

Using polymer brushes to achieve control over spacing and orientation of nanorods in polymer composite films: experiments and simulations; Russell Composto, University of Pennsylvania: Amalie Frischknecht

Characterization of multifunctional nanoparticles for enhanced drug delivery to the lung; Marek Osinski, University of New Mexico: Dale Huber

Towards a thermoelectrically cooled terahertz semiconductor laser; Sushil Kumar, LeHigh University: John Reno

Copy of: In-situ TEM of silicon-based carbon nanofibers for Li-Ion battery technology; David Burton, Applied Sciences Inc: Jianyu Huang

Polymer Dots, optically active nanoparticles formed by conjugated polymers: a molecular dynamics simulation study; Dvora Perahia, Clemson University: Gary Grest

Hyper-spectral characterization of an STM tunneling junction; Mark Hagmann, NewPath Research LLC: Anatoly Efimov

Growth of 1-D nanowires on ion-beam modified Au nanoparticles for photovoltaic application; Jung-Kun Lee, University of Pittsburgh: Tom Picraux

Rapid Access Request: Nano-fabrication of a magnetic pillar arrays for novel magnetic switching and thermal stability studies; Greg Thompson, University of Alabama: Aaron Gin

Modeling surface reconstruction assisted interfacial misfit dislocation growth mode in GaSb/GaAs; Ganesh Balakrishnan, University of New Mexico: Normand Modine

Self-assembly of lithographically patterned three dimensional nanostructures; David Gracias, Johns Hopkins University: Hou-Tong Chen