**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 endogluconase 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 fluorophones 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 Masceranhas, 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 Shenoi, 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 bean 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