## 2003-2006 Publications

1. A. Efimov, A.I.Taylor, F.G.Omenetto, I.Gabitov, I.Knight, "Supercontinuum Generation and Soliton Self- Distruction in Soft-Glass Photonic Crystal Fibers," In Preparation CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115/R2006a055.

2. A. Gambetta, C. Manzoni, E. Menna, M. Meneghetti, G. Cerullo, G. Lanzani, S. Tretiak, A.Piryatinski, A. Saxena, R.L. Martin and A.R. Bishop, "Real Time Observation of Non-Linear Vibrational Dynamics in Semiconducting Single Wall Carbon Nanotubes," Nature Phys., 2, P. 515-520, (01 August 2006). CINT Proposal: Time-Domain Atomistic Simulation of Quantization Effects on the Relaxation Dynamics of Photogenerated Carriers in Quantum Dots, University of Washington, U2006a134.

3. A. Medasani, Y. H. Park, and I. Vasiliev, "Surface Energy of Silver Nanoparticles", (In Preparation, To Be Submitted To Phys. Rev. B. Before the End of 2006). CINT Proposal: Computational Study of Electronic and Optical Properties of Nanoscale Core- Shell Structures, New Mexico State University, U2006al 74.

4. A. Medasani, Y. H. Park, and I. Vasiliev, "Surface Energy of Silver Nanoparticles", -- Article (In Preparation, To Be Submitted To Phys. Rev. B. Before the End of 2006). CINT Proposal: Computational Study of Electronic and Optical Properties of Nanoscale Core- Shell Structures, New Mexico State University, U2006al 74.

5. A. Ramamoorthy, J.P. Bird, and J.L. Reno, "Switching Characteristics of Coupled Quantum Wires with Tunable Coupling Strength", Appl. Phys. Lett. 89, 013118 (1–3) (2006). CINT Proposal: Spin- Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University of New York, P2003140/R2006a002.

6. A. Shailos, J.P. Bird, M. P. Lilly, J. L. Reno, and J. A. Simmons, "Spin-Polarized Transport through a Quantum Point Contact in Strongly-Quantizing Magnetic Fields: Mimicking the 0.7 Scenario", J. Phys.: Condens. Matter 18, P. 3277-3284, (2006). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University of New York, P2003140/R2006a002.

7. A. Wood, X. Weng, P.T. Wang, R.S. Goldman, Y.Q. Wang, "Ion-Beam-Synthesis of GaAsN and InAsN Nanostructures," In Preparation (2007). CINT Proposal: Matrix-Seeded Growth of Narrow Gap Nitride Semiconductor Nanostructures, University of Michigan, P2004032.

8. A. Wood, X. Weng, P.T. Wang, R.S. Goldman, Y.Q. Wang, "Ion-Beam-Synthesis of Gaasn and Inasn Nanostructures," In Preparation (2007). CINT Proposal: Matrix-Seeded Growth of Narrow Gap Nitride Semiconductor Nanostructures, University of Michigan, P2004032.

9. A. Wu, S.V. Malinin, S. Tretiak, and V. Chernyak, "Exciton Scattering and Localization in Branched Dendrimeric Structures," Nature Physics 2, P. 631–635, (2006). CINT Proposal: Design and Engineering of Optical Nanomaterials Based On Organic Branched Structures, Wayne State University, U2006a116.

10. A.Y.T. Leung, X. Guo, X.Q. He, H. Jiang, Y. Huang, "Post-Buckling of Carbon Nanotubes By Atomic-Scale Finite Element," Journal of Applied Physics, V 99, Article 124308, 2006. CINT Proposal: Atomic-Scale Finite Element Method (AFEM) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana- Champaign, P2005069.

11. A.Y.T. Leung, X. Guo, X. Q. He, H. Jiang, S. Kitipornchai, Y. Huang, "Buckling and Post-Buckling of Carbon Nanotubes: An Atomic-Scale Finite Element Study," Journal of Applied Mechanics (ASME Transactions) (in Press). CINT Proposal: Atomic-Scale Finite Element Method (AFEM) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana-Champaign, P2005069.

12. Anatoly Efimov, Antoinette J. Taylor, Fiorenza G. Omenetto, Jonathan C. Knight, William J. Wadsworth, and Philip St. J. Russell, "Simple Optical Profiling of Complex Guiding Structures," Applied Optics 43, 29 (2004). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115/R2006a055.

13. Anatoly Efimov, A. J. Taylor, F. G. Omenetto, A. V. Yulin, N. Y. Joly, F. Biancalana, D. V. Skryabin, J. C. Knight, and P. St. J. Russell, "Time-Spectrally-Resolved Ultrafast Nonlinear Dynamics in Small-Core Photonic Crystal Fibers: Experiment and Modeling," Opt. Exp. 12, 6498, (2004). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115.

14. Anatoly Efimov, A.V. Yulin, D. V. Skryabin, J.C. Knight, N. Y. Joly, F. G. Omenetto, J. Taylor and P. St. J. Russell, "Interaction of an Optical Soliton with a Dispersive Wave," Phys. Rev. Lett. 95, P. 213902, (2005). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115.

15. Anatoly Efimov, A. J. Taylor, F. G. Omenetto, N. Y Joly, D. V. Skryabin, J. C. Knight, W. J. Wadsworth, and P. St. J. Russell, "Spectral-Temporal Soliton Dynamics Analysis Near Second Zero- Dispersion Point in Photonic Crystal Fibers,"

16. Anderoglu, A. Misra, R. G. Hoagland, and X. Zhang, "Thermal Stability of Cu Films with Nanoscale Growth Twins", In Preparation. CINT Proposal: Synthesis and Mechanical Behavior of Metallic Thin Films with Nanoscale Growth Twins, Texas A&M University, U2006a031.

17. B.A. Hernandez-Sanchez, T.J. Boyle, T.N. Lambert, S.D. Daniel-Taylor, J.M. Oliver, B. S. Wilson, D.S. Lidke, and N.L. Andrews, "Synthesizing Biofunctionalized Nanoparticles to Image Cell Signaling Pathways," in Colloidal Quantum Dots for Biomedical Applications Ii Spie 6448, In Press. CINT Proposal: Fluorescent Nanocrystal Probes for the Spatiotemporal Analysis of Signal Transduction Networks, University of New Mexico, P2003148.

18. C. Katan, F. Terenziani, C. Droumaguet, 0. Mongin, M.H.V. Werts, A. Bain, E. Badaeva, S. Tretiak, and M. Blanchard-Desce, "Two-Photon Transitions in Quadrupolar and Branched Chromophores: Experiment and Theory", (Submitted To J. Chem. Phys.). CINT Proposal: Supramolecular Nanophotonics: a Concerted Experimental and Theoretical Approach, Cnrs, France, U2006a056.

19. C. Wu, S. Tretiak, V. Chemyak, "Excited States and Optical Response of a Donor-Acceptor Substituted Polyene: a Td-Dft Study," (Submitted To Chem. Phys. Lett.). CINT Proposal: Design and Engineering of Optical Nanomaterials Based On Organic Branched Structures, Wayne State University, U2006al 16.

20. D. Bussian, J. Glennon, H. Htoon, R. A. Loomis, W. Buhro and V. I. Klimov, "Intra-Wire Energy Tranfer Probed By Single-Quantum-Wire Photoluminescence Spectroscopy," In Preparation. CINT Proposal: Characterization of the Photoluminescnece Spectra and Charge Dynamics within Single Cdse Quantum Wire at Low Temperatures, Washington University, U2006a133.

21. D. G. Cole and R. L. Clark, "Fluid-Structure Interaction in Atomic Force Microscope Cantilever Dynamics and Thermal Response", J. Appl. Phys., in Press, 2007. CINT Proposal: Cadp for Magnetic Cantilever Calibration, Duke University, U2006al 13.

22. D. M. Follstaedt, K. Hattar, J. A. Knapp and I. M. Robertson, "In-Situ Tem Investigation of Abnormal Grain Growth in Nanocrystalline Nickel," (Invited), Proc. Materials Research Society, Vol. 907e, Mm06-01, 2006. CINT Jump-Start Proposal: Direct Correlation of the Macroscopic Mechanical Properties with the Deformation Mechanisms in Nanograined Metallic Systems, University of Illinois, Urbana- Champaign, P2003123.

23. D. V. Pelekhov, P. E.Wigen, J. Kim, P. C. Hammel, "Magnetic Resonance Force Microscopy Studies in a Thin Permalloy Film", Journal of Magnetism and Magnetic Materials (in Press). CINT Proposal: Magnetic Resonance Force Microscopy Studies of Sub-Micron Ferromagnetic Particles, Ohio State University, P2005034.

24. D. W. Hamby, D. A. Lucca, J.-K. Lee, M. Nastasi, H.S. Kang, S.Y. Lee, "Effects of Hydrogen Implantation On the Photoluminescence and Carrier Mobility of Zno Films", Nuclear Instruments and Methods in Physics Research B, 249, P. 196-199, (2006). CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

25. D.P. Sheehan, J.R. Webster and L. Baird, "Orthogonally-Oriented Nanotube Arrays: Experiment I," J. Nanosci. Nanotech. (In Review, 2006). CINT Proposal: Novel Low-Voltage, Coupled Electrical- Nanomechanical Resonators, University of San Diego, U2006a078.

26. D.R. Heine, D. K. Danova-Okpetu, G. S. Grest, and J. L. Harden, "Dynamical and Mechanical Behavior of Reversible Protein Hydrogels," in Preparation. CINT Proposal: Multi-Scale Modeling

ofnanostructured Protein Hydrogels, Johns Hopkins University and Sandia National Labs, P2003187.

27. D.W. Hamby, D.A. Lucca, J.K. Lee, M. Nastasi, "Photoluminescence of He-Implanted Zno", Nuclear Instruments and Methods in Physics Research B, 242, (2006) 663-666 CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

28. D.W. Hamby, D.A. Lucca, J.K. Lee, M. Nastasi, H.S. Kang, S.Y. Lee, "Effects of Hydrogen Implantation On the Photoluminescence and Carrier Mobility of Zno Films", Nuclear Instruments and Methods in Physics Research B, 249, (2006) 196-199 CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

29. D.W. Hamby, D.A. Lucca, J.-K. Lee, M. Nastasi, H. Seong, and S.Y. Lee, "Effects of Hydrogen Implantation on the Photoluminescence and Carrier Mobility of Zno Films," Nuclear Instrument and Methods (Nim.) B (Submitted). CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139.

30. Dongqing Yang, Martin Piech, Nelson S. Bell, Devens Gust, Sean.Vail, Antonio A. Garcia, John.Schneider, Mark A. Hayes, and S.T.Picraux, "Photo-Control of Liquid Motion On Reversible Switching Azobenzene Surfaces", Langmuir (in Preparation). CINT Proposal: Interfacial Force Microscopy Studies of the Interaction of Fluids with Optically-Modifiable Nanostructured Surfaces, Arizona State University, U2006a050.

31. E. J. Reed, M. Soljacic, R. Gee, J. D. Joannopoulos, "Prediction of Coherent Optical Radiation from Shock Waves in Polarizable Crystals," Proc. Conf. Shock Compression of Condensed Matter 2005 (New York, 2006). CINT Proposal: Shocked Photonic Crystals: Frequency Conversion in a New Regime, Lawrence Livermore National Laboratory, P2005088.

32. E. J. Reed, M. Soljacic, R. Gee, J. D. Joannopoulos, "Coherent Optical Photons from Shock Waves in Crystals," Phys. Rev. Lett. 96, P. 013904 (2006). CINT Proposal: Shocked Photonic Crystals: Frequency Conversion in a New Regime, Lawrence Livermore National Laboratory, P2005088.

33. E. Nazaretski, J. D. Thompson, R. Movshovich, M. Zalalutdinov, J.W. Baldwin, B. Houston, T. Mewes,

34. E. Nazaretski, I. Martin, R. Movshovich, M. Zalalutdinov, J. W. Baldwin, B. Houston, D. V. Pelekhov P. C. Hammel, "Ferromagnetic Resonance Force Microscopy On a Thin Permalloy Film", In Preparation for Applied Physics Letters. CINT Proposal: Magnetic Resonance Force Microscopy Studies of Sub-Micron Ferromagnetic Particles, Ohio State University, P2005034.

35. E. Nazaretski, I. Martin, R. Movshovich, M. Zalalutdinov, J. W. Baldwin B. Houston, D. V. Pelekhov, P. C. Hammel, "Detection oflocalized Excitations in a Continuous Ferromagnetic Film Via Magnetic Resonance Force Microscopy", In Preparation for Physical Review Letters. CINT

Proposal: Magnetic Resonance Force Microscopy Studies of Sub-Micron Ferromagnetic Particles, Ohio State University, P2005034.

36. Efimov, A. J. Taylor, A. V. Yulin, D. V. Skryabin, J. C. Knight, "Phase-Sensitive Scattering of a Continuous Wave On a Soliton," Opt. Lett. 31, 1624 (2006). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115/R2006a055.

37. F. G. Omenetto, N. A. Wolchover, M. R. Wehner, M. Ross, A. Efimov, A. J. Taylor, V. V. R. K. Kumar, A. K. George, J.C. Knight, N. Y. Joly, P. St. J. Russell, "Spectrally Smooth Supercontinuum from 350 Nm To 3 µmin Sub-Centimeter Lengths of Soft-Glass Photonic Crystal Fibers," Opt. Express 14, 4928 (2006). Nanophotonic Thrust. CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115/R2006a055.

38. G.A. Crawford, N. Chawla, K. Das, S. Bose, and A. Bandyopadhyay, "Microstructure and Deformation Behavior of Bioactive Tio2 Coatings," Acta Biomater. (2006) in Press. CINT Proposal: Nanomechanical Characterization of Bioactive Tio2 Nanotubes on a Titanium Substrate, Arizona State University, U2006a081.

39. Gambetta, C. Manzoni, E. Menna, M. Meneghetti, G. Cerullo, G. Lanzani, S. Tretiak, A. Piryatinski, A. Saxena, R. L. Martin and A. R. Bishop, "Real Time Observation of Non-Linear Vibrational Dynamics in Semiconducting Single Wall Carbon Nanotubes," Nature Phys., 2, 515-520 (2006). CINT Proposal: Time- Domain Atomistic Simulation of Quantization Effects on the Relaxation Dynamics of Photogenerated Carriers in Quantum Dots, University of Washington, U2006a134.

40. H-T. Chen, J.F. O'hara, A. J. Taylor, R. D. Averitt, C. Highstrete, Mark Lee, and W.J. Padilla, "Complementary Planar, Terahertz Materials," To Appear in Opt. Exp. (2007). CINT Proposal: Active Terahertz Metamaterials, Boston College, U2006a184.

41. H. Fan, E.W. Leve, C. Scullin, J. Gabaldon, D. Tallant, S. Bunge, T. Boyle, M.C. Wilson, C. J. and Brinker, "Surfactant-Assisted Synthesis of Water-Soluble and Biocompatible Semiconductor Quantum Dot- Micelles," Nanoletters 5: 645-648. CINT Proposal: Fluorescent Quantum Dot Fret-Based Synaptic Event Nanosensors for Analysis of Neurotransmission, University of New Mexico, P2004093.

42. H. Fehske and S. A. Trugman, "Numerical Solution of the Holstein Polaron Problem" Book Chapter in, Polarons in Advanced Materials, Ed. A. Alexandrov (2006), (Canopus Publishing and Springer Verlag Gmbh, Bath (UK), 2007, To Appear, La-Ur-06-6072. CINT Proposal: Dynamics of Excitons and Polarons in Low Dimensional and Mesoscopic Devices, Ernst-Moritz-Arndt Universitaet Greifswald, U2006a088.

43. H. Jiang, M. F. Yu, J. Q. Lu, Y. Huang, H. T. Johnson, X. G. Zhang, P. Ferreira, "Carbon Nanotube Electronic Displacement Encoder with Sub-Nanometer Resolution," Journal of Computational and Theoretical Nanoscience (in Press). CINT Proposal: Atomic-Scale Finite

Element Method (Afem) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana-Champaign, P2005069.

44. H. Mack, J. Riordon, C. Dean, R. Talbot, and G. Gervais, "Local Control of Light Polarization with Low- Temperature Fiber Optics," Submitted To Optics Letters. CINT Proposal: Quantum Electronics in Gaas/AlGaAs By Means of Resistive NMR and Scanned Probe Imaging, Mcgill Universite, P2006a105.

45. H.-T. Chen, W. J. Padilla, J.M. 0. Zide, A. C. Gossard, A. J. Taylor, R. D. Averitt, "Active Terahertz Metamaterials", Nature 444, P. 597,(2006). CINT Proposal: Optical Characterization of Self-Assembled Metallic Nanoislands in Semiconductors, University of California, Santa Barbara, P2003107.

46. H.-T. Chen, W. J. Padilla, J.M. 0. Zide, A. C. Gossard, A. J. Taylor, R. D. Averitt, Active Terahertz Metamaterial Devices, Nature, Vol. 444, No.7119, Pp. 597-600, (Nov. 2006). CINT Proposal: Optical and Terahertz Characterization of Epitaxially-Grown Semimetal/Semiconductor Nanocomposites, University of California, Santa Barbara, U2006a062.

47. H.-T. Chen, W. J. Padilla, J.M. 0. Zide, A. C. Gossard, A. J. Taylor, R. D. Averitt, "Ultrafast Thz Metamaterials Switching Using Eras: GaAs Nanoisland Superlattices", Submitted To Optics Letters. CINT Proposal: Optical Characterization of Self-Assembled Metallic Nanoislands in Semiconductors, University of California, Santa Barbara, P2003107.

48. H.J. Lee, J. Workman, J. S. Wark, R. D. Averitt, A. J. Taylor, J. Roberts, Q. Mcculloch, D. E. Hof, N. Hur, S.-W. Cheong, and D. J. Funk, "Optically Induced Lattice Dynamics Probed with Ultrafast X-Ray Diffraction," Physical Review B, Submitted. CINT Proposal: Complex Nanoscale Phenomena in Doped Manganites, Rutgers University, P2003131.

49. H.J. Lee, R. P. Prasankumar, R. D. Averitt, D. J. Funk, and A. J. Taylor, "Optical-Pump Mid-Infrared Probe Study o f Quasiparticle Dynamics in (La, Pr, Ca) Mn03," in Preparation. CINT Proposal: Complex Nanoscale Phenomena in Doped Manganites, Rutgers University, P2003131.

50. J. Demsar, A. Gozar, V. K. Thorsmolle, A. J. Taylor, and I. Bozovic, "Long-Lived Photo-Induced Absorption in Lasra1o4" Submitted To Phys. Rev. B, 2006. CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115/R2006a055.

51. J. F. O'hara, J.M. 0. Zide, A. C. Gossard, A. J. Taylor, R. D. Averitt, "Enhanced Thz Detection via Eras: GaAs Nanoisland Superlattices", Appl. Phys. Lett. 88, P.251119, (2006). CINT Proposal: Optical Characterization of Self-Assembled Metallic Nanoislands in Semiconductors, University of California, Santa Barbara, P2003107.

52. J. F. O'Hara, J.M. 0. Zide, A. C. Gossard, A. J. Taylor, R. D. Averitt, "Enhanced Terahertz Detection via Eras: GaAs Nanoisland Superlattices," Applied Physics Letters, Vol.88, No.25, 19, Pp. 251119-1-3, (June 2006). CINT Proposal: Optical and Terahertz Characterization of

Epitaxially-Grown Semimetal/Semiconductor Nanocomposites, University of California, Santa Barbara, U2006a062.

53. J. F. O'hara, R. P. Prasankumar, J.M. Zide, A. C. Gossard, A. J. Taylor, and R. D. Averitt, "Enhanced Terahertz Detection using Self-Assembled Eras Nanoislands," Appl. Phys. Lett. 88, P. 251119-1-3 (2006). CINT Proposal: Optical Characterization of Self-Assembled Metallic Nanoislands in Semiconductors, University of California at Santa Barbara, P2003107.

54. J. F. O'hara, E. Smirnova, H.-T. Chen, A.J. Taylor, R. D. Averitt, C. Highstrete, M. Lee, W. J. Padilla, "Properties of Planar Electric Metamaterials for Novel Terahertz Applications," To Appear in Journal oand Optoelectronics, (2007). CINT Proposal: Active Terahertz Metamaterials, Boston College, U2006a184.

55. J. Glennon, H. Htoon, R. A. Loomis, W. Buhro and V. I. Klimov, "Evidence for Exciton Localiztion in Cdse Nanowires," In Preparation CINT Proposal: Characterization of the Photoluminescnece Spectra and Charge Dynamics within Single Cdse Quantum Wire At Low Temperatures (U2006a133).

56. J. K. Lee, J. G. Swadener, M. Nastasi, D. W. Hamby, and D. A. Lucca, "Role oflmplantation Temperature on the Photoluminescence of Silicon Nanocrystals," (in Preparation). CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139.

57. J. Song, Y. Huang, H. Jiang, K.C. Hwang, M. F.Yu, "Deformation and Bifurcation Analysis of Boron-Nitride Nanotubes," International Journal of Mechanical Sciences, V 48, Pp 1197-1207, 2006. CINT Proposal: Atomic-Scale Finite Element Method (AFEM) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana-Champaign, P2005069.

58. J. Song, H. Jiang, D. L. Shi, X. Q. Feng, Y. Huang, M. F. Yu, K. C. Hwang, "Stone-Wales Transformation: Precurson of Fracture in Carbon Nanotubes," International Journal of Mechanical Sciences, V 48, Pp 1464- 1470, 2006. CINT Proposal: Atomic-Scale Finite Element Method (AFEM) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana-Champaign, P2005069.

59. J. Taraci, J. Houston, D. Yang, P. Aella, and S. T. Picraux, "Lateral Force Measurements of Bubble Motion On a Superhydrophobic Surface", Nano Lett. (In Prep.) CINT Proposal: Nanoporous Metal Electrodes Integrated Into Microsystems, Arizona State University, P2004082.

60. J. Werner, G. Montano, A. Zurek, E. Akhadov, G. Lopez, A. Shreve, "Formation and Characterization of Supported Phospholipid Membranes On a Periodic Nanotextured Substrate", In Preparation for Submission To J. Phys. Chem. B. CINT Proposal: Characterization of Lipid Bilayers Supported On Nanotextured Surfaces, University of New Mexico, P2003154.

61. J.-K. Lee, C.R. Tewell, R.K. Schulze, M. Nastasi, D.W. Hamby, D.A. Lucca, H.S. Jung, and K.S. Hong, "Synthesis of ZnO Nanocrystals by Sequential Implantation of Zn and O Species", Appl. Phys. Lett. 86, P.183111, (2005). CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

62. J.C. Thorp, K Sieradzki, T. Michael, P. Crozier, D. Mitlin, A. Misra, M. Nastasi, S.T. Picraux, "The Formation of Nanoporous Noble Metal Thin Films on Si By Electrochemical Dealloying of Ptxsil-X", Appl. Phys. Lett. 88, P. 33110-33112, (2006). CINT Proposal: Nanoporous Metal Electrodes Integrated Into Microsystems, Arizona State University, P2004082.

63. J.K. Lee, D.W. Hamby, D.A. Lucca, M. Nastasi, "Optical Observation of Donor-Bound Excitons in Hydrogen-Implanted Zno", Appl. Phys. Lett. 86, 171102 (2005) CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

64. J.K. Lee, T.A. Harriman, D.A. Lucca, H.S. Jung, D. B. Ryan, M. Nastasi, "Dynamic Recovery and Optical Properties Changes in He-Implanted Zno Nanoparticles", Nuclear Instruments and Methods in Physics Research B, Accepted. CINT Proposal: Quantum Confinement and Strain Effects in Photonic Nanocrystals, Oklahoma State University, P2003139/R2006a057.

65. J.L. Taraci, T. Clement, J.W. Dailey, J. Drucker, S.T. Picraux, "Ion Beam Analysis of VLS Grown Ge Nanostructures on Si", Nuclear Instrum. & Methods B 242, P.205, (2006). CINT Proposal: Strain Engineered Nanowire Heterostructures, Arizona State University, U2006a058.

66. J.M. Oliver, J. R. Pfeiffer, Z. Surviladze, S. L. Steinberg, K. Leiderman, M. Sanders, C. Wofsy, J. Zhang, H.Y. Fan, N. Andrews, S. Bunge, T. J. Boyle, P. Kotula and B. S. Wilson, "Membrane Receptor Mapping: the Membrane Topography offceri Signaling", in Subcellular Biochemistry 37: Membrane Dynamics and Domains, Pp 3-43. Ed Pj Quinn. Kluwer Press. CINT Proposal: Fluorescent Nanocrystal Probes for the Spatiotemporal Analysis of Signal Transduction Networks, University of New Mexico, P2003148.

67. J.P. Bird and Y. Ochiai, "Electron Spin Polarization in Nanoscale Constrictions", Science 303, 1621–1622, (2004). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum, University of Buffalo, P2003140.

68. Jessica E. Bickel, Normand A. Modine, Anton Vanderven, Joanna Mirecki-Millunchick, "The Z(4x4) Reconstruction in In0.27ga0.73as Films," (in Preparation). CINT Proposal: Ab Initio Simulated Stm Images for Compound Semiconductor Alloys, University of Michigan, U2006a090.

69. Jessica E. Bickel, Normand A. Modine, Anton Vanderven, Joanna Mirecki-Millunchick, "The Z(4x4) Reconstruction in In0.27ga0.73as Films," (in Preparation). CINT Proposal: Ab Initio Simulated Stm Images for Compound Semiconductor Alloys, University of Michigan, U2006a090.

70. K. Hattar, J. H. Han, D. M. Follstaedt, S. J. Hearne, T. A. Saif and I. M. Robertson, "Length Scale Effects On Deformation and Failure Mechanisms of Ultra-Fine and Nanograined Metals",

Proc. Materials Research Society, Vol. 907e, Mm0l-03.1, 2006. CINT Proposal: Direct Correlation of the Macroscopic Mechanical Properties with the Deformation Mechanisms in Nanograined Metallic Systems, University of Illinois, Urbana- Champaign, P2003123.

71. K. Hattar, J. H. Han, D. M. Follstaedt, S. J. Hearne, T. A. Saif and I. M. Robertson, "Deformation and Failure Processes Operating in Ultra-Fine Grain Materials", Proc. 16th European Conference On Fracture, Alexandroupolis, Greece, July 3-7, 2006, in Press. CINT Proposal: Direct Correlation of the Macroscopic Mechanical Properties with the Deformation Mechanisms in Nanograined Metallic Systems, University of Illinois, Urbana-Champaign, P2003123.

72. K. Lgumenshchev, S. Tretiak, and V. Chemyak, "Excitonic Effects in a Time-Dependent Density Functional Theory", (Submitted To Phys. Rev. B). CINT Proposal: Design and Engineering of Optical Nanomaterials Based On Organic Branched Structures, Wayne State University, U2006al 16.

73. L. Chen, W.D. Zhou, Z. X. Qiang, G. Brown, "Spectral Selectivity of Photonic Crystal Infrared Photodetectors", Proc. Spie, 6370, P. 637058, (2006). CINT Proposal: Nonlinear Optical Spectroscopy of nanocrystal Quantum Dots in Photonic Crystal Cavities, University of Texas At Arlington, U2006a041.

74. L.A. Tracy, J.P. Eisenstein, M. P. Lilly, L. N. Pfeiffer, and K. W. West, "Surface Acoustic Wave Propagation and Inhomogeneities in Low Density Two-Dimensional Electron Systems near the Metal-Insulator Transition," Solid State Communications, 137, P.150-153 (2006). CINT Proposal: Surface Acoustic Wave Studies of Ultra-Low Density 2d Electron Systems, California Institute of Technology, P2003183.

75. L.Y. Jiang, Y. Huang, H. Jiang, G. Ravichandran, H. Gao, K. C. Hwang, B. Liu, "A Cohesive Law for Carbon Nanotube/Polymer Interfaces Based On the Van Der Waals Force," Journal of the Mechanics and Physics of Solids (In Press). CINT Proposal: Atomic-Scale Finite Element Method (Afem) for the Study of Nanoscale Material Properties, Univ. of Illinois t Urbana-Champaign, P2005069.

76. M Norton, A. Barhoumi and D. Neff, "Templates for Sequential Assembly of DNA Based Nanostructures," Proceedings of IEEE-Nano 2005. CINT Proposal: Directed Sequential Assembly of NAa Nanostructures, Marshall University, P2003156.

77. M. Achermann, K. D. Shuford, G. C. Schatz, D. H. Dahanayaka, L.A. Bumm, and V. I. Klimov, "Local Near- Field Spectroscopy of Surface Plasmons in Flat Gold Nanoparticles," Submitted To Opt. Lett. (2007).

78. M. Buehler, Y. Kong, H. Gao, Y. Huang, "Self-Folding and Unfolding of Carbon Nanotubes," Journal of Engineering Materials and Technology (Asme Transactions), V 128, Pp 3-10, 2006.

CINT Proposal: Atomic- Scale Finite Element Method (AFEM) for the Study aMaterial Properties, Univ. of Illinois at Urbana- Champaign, P2005069.

79. M. Piech, M. C. George, N. S. Bell and P. V. Braun, "Patterned Colloid Assembly By Grafted Photochromic Polymer Layers", Langmuir, 22, P. 1379-1382, (2006). CINT Proposal: Direct Writing of Nanophotonic Structures in Self-Organized Photonic Crystals, P2003157/R2006a094.

80. M.L. Mclauchlin, D. Yang, P. Aella, A.A. Garcia, S.T. Picraux, and M.A. Hayes, "Hydrophilic Sites On Lotus Leaf-Like Fractal Surfaces," Langmuir (Submitted). CINT Proposal: Nanoporous Metal Electrodes Integrated Into Microsystems, Arizona State University, P2004082.

81. May Nyman, Aaron J. Celestian, John B. Parise, Gregory P. Holland, and Todd M. Alam, "A Rigid Framework of Lacunary Heteropolyniobates: Solid-State Structure and Benign Method for Framework Disruption," Inorganic Chemistry, 45, P. 1043-1052 (2006). CINT Proposal: Designing General Synthetic Routes to Mesostructured and Nanostructured Materials using Miscible-Immiscible Solvents, State University of New York, P2004112.

82. Melissa A. Holmes, Michael E. Mackay, and Rachel K. Giunta, "Nanoparticles for Dewetting Suppression of Thin Polymer Films Used in Chemical Sensors," Journal ofnanoparticle Research, in Press, 2006. CINT Proposal: Effect of Nanoparticle Surface Segregation on Polymer Film Dewetting, Michigan State University, P2004017.

83. Mesfin Tsige and Gary S. Grest, "Surface Tension and Surface Activity of Fluorinated Alkanes," In Preparation. CINT Proposal: Interfacial Effects of Nanometer Fluorinated Segments on Energy Controlled Responsive Polymeric Films, Clemson University, U2006a124.

84. Michael C. Howland, Annapoorna R. Sapuri-Butti, Sanhita S. Dixit, Andrew M. Dattelbaum, Andrew P. Shreve, Atul N. Parikh, "Phospholipid Morphologies on Photochemically Patterned Silane Monolayers," J. Amer. Chem. Soc. 127, P. 6752–6765, (2005). CINT Proposal: Advanced Imaging and Spectroscopy of Membrane Heterogeniety and Dynamics, University of California, Davis, P2003136.

85. N. A. Kabir, Y. Yoon, J. R. Knab, J.-Y. Chen, A.G. Markelz, J. L. Reno, Y. Sadofyev, S. Johnson and Y.-H. Zhang, and J.P. Bird, "Terahertz Transmission Characteristics of High- Mobility Gaas and InAs Two-Dimensional- Electron-Gas Systems", Appl. Phys. Lett. 89, 132109, P. 1–3, (2006). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University of New York, P2003140/R2006a002.

86. N. Liu, B. S. Prall, and V. I. Klimov, "Hybrid Gold/Silica/ Nanocrystal-Quantum-Dot Superstructures: Synthesis and Analysis of Semiconductor-Metal Interactions," J. Am. Chem. Soc. 128, 15362 (2006). CINT Proposal: Energy Transfer in Metal-Semiconductor Quantum Dot Nanoparticles, Georgia State University, U2006a063.

87. Naser, D. K. Ferry, J. Heeren, J. L. Reno, and J.P. Bird, "Large Capacitance in the Nanosecond-Scale Transient Response of Quantum Point Contacts", Appl. Phys. Lett. 89, 083103, P. 1–3,

(2006). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, The State University of New York, P2003140/R2006a002.

88. Nazaretski, J. D. Thompson, R. Movshovich, M. Zalalutdinov, J.W. Baldwin, B. Houston, T. Mewes, D. V. Pelekhov, P. E.Wigen, P. C. Hammel, "Temperature-Dependent Magnetic Resonance Force Microscopy Studies of a Thin Permalloy Film", Submitted To Journal of Applied Physics. CINT Proposal: Magnetic Resonance Force Microscopy Studies of Sub-Micron Ferromagnetic Particles, Ohio State University, P2005034.

89. Nicolas Y. Joly, Fiorenza G. Omenetto, Anatoly Efimov, Antoinette J. Taylor, Jonathan C. Knight and Philip St. J. Russell, "Competition Spectral Splitting and Raman Frequency Shift in Negative-Dispersion Slope Photonic Crystal Fiber," Opt. Commun. 248, 281, (2005). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid-Infrared, University of Bath, P2003115.

90. P. Sheehan, J.R. Webster and L. Baird, "Orthogonally-Oriented Nanotube Arrays: Experiment I," J. Nanosci. Nanotech. (In Review, 2006). CINT Proposal: Novel Low-Voltage, Coupled Electrical-Nanomechanical Resonator, University of San Diego, U2006a078

91. P.T. Wang, X. Weng, R.S. Goldman, and Y.Q. Wang, "Evolution of Gan Nanocrystal Formation in Nitrogen Ion Implanted Gaas," In Preparation (2005). CINT Proposal: Matrix-Seeded Growth of Narrow Gap Nitride Semiconductor Nanostructures, University of Michigan, P2004032.

92. R. J. Spontak, R. Shankar, K. 0. Rasmussen, "Triblock Copolymers Imbibed with Midblock-Selective Solvent Molecules Varying in Size and Selectivity," In Preparation for Submission To Phys. Rev. Lett. CINT Proposal: Fundamental Structure-Property Determination in Model Multicomponent Polymer Nanostructures, North Carolina State University, P2004051.

93. R. P. Prasankumar, A. Scopatz, D. J. Hilton, A. J. Taylor, R. D. Averitt, J.M. Zide, A. C. Gossard, "Carrier Dynamics in Self-Assembled Eras Nanoislands Measured By Optical-Pump Thz- Probe Spectroscopy," 2005 Quantum Electronics and Laser Science Conference (Qels) (Ieee Cat. No. 05ch37696). IEEE. Part Vol. 1, 2005, Pp. 446-8 1. CINT Proposal: Optical and Terahertz Characterization of Epitaxially-Grown Semimetal/Semiconductor Nanocomposites, University of California, Santa Barbara, U2006a062.

94. R. P. Prasankumar, A. Scopatz, D. J. Hilton, A. J. Taylor, R. D. Averitt, J.M. Zide, A. C. Gossard, "Carrier Dynamics in Self-Assembled Eras Nanoislands Embedded in GaAs Measured By Optical-Pump Terahertz-Probe Spectroscopy", Applied Physics Letters, Vol.86, No.20, Pp. 201107- 1-3, (May 2005). Publisher: AIP, USA. CINT Proposal: Optical and Terahertz Characterization of Epitaxially-Grown Semimetal/Semiconductor Nanocomposites, University of California, Santa Barbara, U2006a062.

95. R. P. Prasankumar, A. Scopatz, D. J. Hilton, A. J. Taylor, R. D. Averitt, J.M. Zide, and A. C. Gossard, "Carrier Dynamics in Self-Assembled Eras Nanoislands embedded in GNAs Measured by

Optical-Pump Terahertz- Probe Spectroscopy," Appl. Phys. Lett. 86, P. 201107, (2005). CINT Proposal: Optical Characterization of Self-Assembled Metallic Nanoislands in Semiconductors, University of California, Santa Barbara, P2003107.

96. R. P. Prasankumar, R. D. Averitt, A. J. Taylor, G. V. Winckel, A. Stintz, and S. Krishna, "Time-Resolved Mid- Infrared Dynamics of An InAs/Ingaas Quantum-Dots-in-a-Well Detector," in Preparation. CINT Proposal: Nanoscale Quantum Dots in a Well (Dwell) Sensors, University ofnew Mexico, P2004030.

97. R. P. Prasankumar, R. S. Attaluri, N. Weisse-Bernstein, R. D. Averitt, A. Stintz, S. Krishna, And A. J. Taylor, "Characterization of An InAs/Ingaas Quantum-Dots-in-a-Well Mid-Infrared Detector using Ultrafast Differential Transmission Spectroscopy," In Preparation. CINT Proposal: Understanding Carrier Dynamics in a Novel Nanoscale System: Quantum Dots in a Well (Dwell) Heterostructures, University of New Mexico, P2004010/R2006a009.

98. R. P. Prasankumar, H.J. Lee, S. W. Cheong, A. J. Taylor, and R. D. Averitt, "Quasiparticle Dynamics On Multiple Length and Time Scales in the Phase Separated Manganites (La,Pr,Ca)Mno3," In Preparation. CINT Proposal: Complex Nanoscale Phenomena in Doped Manganites, Rutgers University, P2003131.

99. Ramamoorthy, J.P. Bird, and J. L. Reno, "Quantum Asymmetry of Switching in Laterally-Coupled Quantum Wires with Tunable Coupling Strength", Appl. Phys. Lett. 89, 153128, P. 1–3, (2006). CINT Proposal: Spin- Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University of New York, P2003140/R2006a002.

100. Reema Zeineldin, Julie A. Last, Andrea Slade, Linnea K. Ista, Paul Bisong, Michael J. O'brien, Steve R. J. Brueck, Darryl Sasaki, Gabriel P. Lopez, "Using Bicellar Mixtures To Form Supported and Suspended Lipid Bilayers on Silicon Chips," Langmuir, 22, P. 8163-8168, (2006). CINT Proposal: Characterization of Lipid Bilayers Supported On Nanotextured Surfaces, University of New Mexico, P2003154.

101. S. D. Smith, M. W. Hamersky, K. 0. Rasmussen, M. K. Bowman, R. J. Spontak, "On the Origin of Molecular Bridging in Triblock Copolymer Melts," In Preparation for Submission To Phys. Rev. Lett. CINT Proposal: Fundamental Structure-Property Determination in Model Multicomponent Polymer Nanostructures, North Carolina State University, P2004051.

102. S. Das Sarma, M. P. Lilly, E. H. Hwang, L. N. Pfeiffer, K. W. West, and J. L. Reno, "Two Dimensional Metal- Insulator Transition as a Percolation Transition in a High-Mobility Electron System," Physical Review Letters 94, P. 136401, (2005). CINT Proposal: Transport Calculations in Low Dimensional Semiconductor Nanostructure Systems, University of Maryland, P2003188.

103. S. Ingole, P. Aella, Sean J. Hearne, S.T. Picraux, "Self Assembly ofnanowire-Metal Contacts Using Electrodeposition," Appl. Phys. Lett. (Submitted). CINT Proposal: Doped Sige Nanowires for Functional Nanodevices, Arizona State University, U2006a017.

104. S. Ingole, P. Aella, and S. T. Picraux, "Post Growth Electrical Doping of Silicon Nanowires with Boron", J. Vac. Sci. Tech. B (in Preparation). CINT Proposal: Doped Sige Nanowires for Functional Nanodevices, Arizona State University, U2006a017.

105. S. J. Koch, G. E. Thayer, A. D. Corwin, & M. P. De Boer, "Micro machined Pico newton Force Sensor for Biophysics Investigations", Appl. Phys. Lett. 89, P. 173901-3, (2006).

106. S. Jeong, M. Achermann, J. Nanda, S. Ivanovv. I. Klimov, and J. A. Hollingsworth, "Effect of the Thiol- Thiolate Equilibrium on the Photophysical Properties of Aqueous Cdse/Zns Nanocrystal Quantum Dots", J. Am. Chem. Soc. 127: 10126, 2005. CINT Mini Dr, "Assembly and Actuation of Nanomaterials Using Active Biomolecules" (#20030419dr).

107. S. Jeong and J. A. Hollingsworth, "Polymerization of Nanocrystal Quantum Dot-Tubulin Bioconjugates" Special Issue of the IEEE Transactions on Nanobioscience On "Colloidal Quantum Dots for Biomedical Applications." 5: 239, 2006. CINT Mini Dr, "Assembly and Actuation of Nanomaterials Using Active Biomolecules" (#20030419dr).

108. S. Kilina, S. Tretiak, D. Yarotskii, J. X. Zhu, N. Modine, A. Taylor and A. V. Balatsky, "Electronic Properties of DNA Base Molecules Adsorbed On a Metallic Surface", (Submitted To J Chem. Phys.). CINT Proposal: Time- Domain Atomistic Simulation of Quantization Effects on the Relaxation Dynamics of Photogenerated Carriers in Quantum Dots, University of Washington, U2006a134.

109. S. Tretiak, S. Kilina, A. Piryatinski, A. Saxena, R.L. Martin, A.R. Bishop, "Excitons and Peierls Distortion in Conjugated Carbon Nanotubes," Submitted To Nanoletters. CINT Proposal: Time-Domain Atomistic Simulation of Quantization Effects on the Relaxation Dynamics of Photogenerated Carriers in Quantum Dots, University of Washington, U2006a134.

110. Shailos, Y. Ochiai, T. Morimoto, Y. Iwase, N. Aoki, T. Sasaki, J.P. Bird, M. P. Lilly, J. L. Reno, and J. A. Simmons, "Coupled Quantum Wires as a Detector of Many-Body States below the Last Conductance Plateau," Semicond. Sci. Technol.19, S405–S408, (2004). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum, University of Buffalo, P2003140.

111. Shailos, A. Ashok, J.P. Bird, R. Akis, D. K. Ferry, S. M. Goodnick, M. P. Lilly, J. L. Reno, and J. A. Simmons, "Linear Conductance of Quantum Point Contacts with Deliberately-Broken Symmetry", J. Phys.: Condens. Matter 18, P. 1715-1724, (2006). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University of New York, P2003140/R2006a002.

112. T. Clement, S. Ingole, S. Ketharanathan, J. Drucker, and S.T. Picraux, "in Situ Study Semiconductor Nanowire Growth using Optical Reflectometry", Appl. Phys. Lett. 89, P. 163125 (2006). CINT Proposal: Strain Engineered Nanowire Heterostructures, Arizona State University, U2006a058. 2003–2006 In Press/In Process

113. T. Kobayashi, T. Okada, T. Kobayashi, K. A. Nelson, and S. De Silvestri Eds., Springer Series in Chemical Physics, V.79, P.52-54 (2005). CINT Proposal: Nonlinear Optics in Photonic Crystal Fibers in the Mid- Infrared, University of Bath, P2003115/R2006a055.

114. T. Morimoto, M. Henmi, R. Naito, K. Tsubaki, N. Aoki, J.P. Bird, and Y. Ochiai, "Resonantly Enhanced Nonlinear Conductance in Long Quantum Point Contacts Near Pinch-off', Phys. Rev. Lett. 97, 096801 (1–4) (2006). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum Wires, University of Buffalo, the State University ofnew York, P2003140/R2006a002.

115. T. N. Lambert, N. L. Andrews, H. Gerung, T. J. Boyle, J. M. Oliver, B. S. Wilson and S. M. Han. "Bio-Compatible Germanium (0) Nanocrystals–Cell Signaling and Photothermal Discovery", Small, In Press. CINT Proposal: Fluorescent Nanocrystal Probes for the Spatiotemporal Analysis of Signal Transduction Networks, University of New Mexico, P2003148.

116. T. Sasaki, T. Morimoto, Y. Iwase, N. Aoki, Y. Ochiai, A. Shailos, J.P. Bird, M. P. Lilly, J. L. Reno, and J. A. Simmons, "Novel Many-Body Transport Phenomenon in Coupled Quantum Wires," IEEE Trans. Nanotech. 3,110–114, (2004). CINT Proposal: Spin-Dependent Transport & Many-Body Interactions in Coupled Quantum, University of Buffalo, P2003140.

117. V. I. Puller, L. G. Mourokh, A. Shailos, and J.P. Bird, "Detection of Local-Moment Formation using the Resonant Interaction between Coupled Quantum Wires," Phys. Rev. Lett. 92, 96802, P1–4, (2004).

118. V. I. Puller, L. G. Mourokh, J.P. Bird, and Y. Ochiai, "Influence of Magnetic Moment Formation On the Conductance of Coupled Quantum Wires," J. Phys.: Condensed. Matter, in Press. CINT Proposal: Spin- Dependent Transport & Many-Body Interactions in Coupled Quantum, University of Buffalo, P2003140.

119. V. K. Thorsm0lle, R. D. Averitt, T. Shibauchi, M. F. Hundley, and A. J. Taylor, "Dynamic Coupling- Decoupling Crossover in the Current-Driven Vortex State in Tl2ba2cacu2o8 Probed By the Josephson Plasma Resonance," Phys. Rev. Lett. 97, 237001 (2006). CINT Proposal: Ultrafast Dynamics in Pentacene Single Crystals and Films, Ecole Polytechnique Federal De Lausanne, U2006a054.

120. V. Klimov, "Spectral and Dynamic Properties of Multiexcitons in Semiconductor Nanocrystals," Annu. Submitted, Rev. Phys. Chem. (2007). CINT Proposal: Dynamical and Spectroscopic Signatures of Carrier Multiplication in Semiconductor Quantum Dot, University of New Mexico, U2006a155.

121. W. D. Zhou, Z. X. Qiang, L. Chen, "Photonic Crystal Defect Mode Cavity Modeling: A Phenomenological Dimensional Reduction Approach", J. Phys. D., Vol. 40, Pp. Xxx, 2007 (in Press) (Special Issue on Photonic Crystal Devices). CINT Proposal: Nonlinear Optical

Spectroscopy of Nanocrystal Quantum Dots in Photonic Crystal Cavities, University of Texas at Arlington, U2006a041.

122. W. Li, K.L. Kavanagh, A. A. Talin, J. W. P. Hsu, "Ballistic Electron Emission Microscopy Studies of Au/Molecule/N-Gaas Diodes," Submitted To J. Appl. Phys. CINT Proposal: Probing Molecular Junctions At the Nanoscale with Ballistic Electrons, Simon Fraser University, U2004108/R2006a019.

123. Wang Et Al, "Irradiation Tolerance Properties ofnanostructured Tin Thin Films", Accepted by Nimb 2007. CINT Proposal: Role of Layer-Interfaces and Grain Boundaries on the Properties ofnano- Structured Nitride Thin Films, Texas A&M University, U2006a011.

124. Wu, S. Malinin, S. Tretiak, and V. Chemyak, "Exciton Scattering and Localization in Branched Dendrimeric Structures," Nature Phys., 2, 631–635 (2006). CINT Proposal: Design and Engineering of Optical Nanomaterials Based On Organic Branched Structures, Wayne State University, U2006al 16.

125. X. Guo, A. Y. T. Leung, X. Q. He, H. Jiang, Y. Huang, "Bending Buckling of Single-Walled Carbon Nanotubes By Atomic-Scale Finite Element," Composites–Part B: Engineering (in Press). CINT Proposal: Atomic-Scale Finite Element Method (Afem) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana- Champaign, P2005069.

126. X. H. Tan and Y. L. Shen, "Analysis oflndentation-Derived Yield Strength in Metallic Multilayers," in 2004 Asme International Mechanical Engineering Congress and Exposition, Paper Number: IMECE 2004-61393. CINT Proposal: Mechanical Characterization of Nanolayers using Nanoindentation, University of New Mexico, P2003126.

127. X. H. Tan and Y.L. Shen, "Modeling Analysis of the Indentation-Derived Yield Properties of Metallic Multilayered Composites," Composites Science and Technology, 65, 1639-1646 (2005). CINT Proposal: Mechanical Characterization of nanolayers Using Nanoindentation, University of New Mexico, P2003126.

128. X. Weng, W. Ye, S. Clarke, A. Daniel, V. Rotberg, R. Clarke, and R.S. Goldman, "Matrix Seeded Growth of Nitride Semiconductor Nanostructures using Ion Beams", J. Appl. Phys. 97, 064301 (2005). CINT Proposal: Matrix-Seeded Growth of Narrow Gap Nitride Semiconductor Nanostructures, University of Michigan, P2004032.

129. X. Weng, R.S. Goldman, and Y.Q. Wang, "Structure Evolution of Nitrogen Ion Implanted InAs," In Preparation (2005). CINT Proposal: Matrix-Seeded Growth of Narrow Gap Nitride Semiconductor Nanostructures, University of Michigan, P2004032.

130. X. Zhang, A. Misra, H. Wang, J. G. Swadener, A. L. Lima, M. F. Hundley, and R. G. Hoagland, "Thermal Stability of Sputter-Deposited 330 Austenitic Stainless-Steel Thin Films with Nanoscale Growth Twins", Applied Physics Letters, 87, P. 233116, (2005). CINT Proposal: Synthesis and

Mechanical Behavior of Metallic Thin Films with Nanoscale Growth Twins, Texas A&M University, U2006a031.

131. X. Zhang, A. Misra, H. Wang, X. H. Chen, L. Lu, K. Lu, and R. G. Hoagland, "High-Strength Sputter-Deposited Cu Foils with Preferred Orientation of Nanoscale Growth Twins", Applied Physics Letters, 88, P. 173116, (2006). CINT Proposal: Synthesis and Mechanical Behavior of Metallic Thin Films with Nanoscale Growth Twins, Texas A&M University, U2006a031.

132. X. Zhang, 0. Anderoglu, A. Misra, "Deposition Rate On the Formation of Growth Twins in Sputter Deposited 330 Austenitic Stainless Steel Films", Applied Physics Letters, To Be Submitted. CINT Proposal: Synthesis and Mechanical Behavior of Metallic Thin Films with Nanoscale Growth Twins, Texas A&M University, U2006a031.

133. Y. Huang, J. Wu, K. C. Hwang, "Thickness of Graphene and Single-Wall Carbon Nanotubes," Physical Review B, V 74, Article 245413, 2006. CINT Proposal: Atomic-Scale Finite Element Method (Afem) for the Study of Nanoscale Material Properties, Univ. of Illinois at Urbana-Champaign, P2005069.

134. Y. Song, R. E. Haddad, S.-L. Jia, S. Hok, M. M. Olmstead, D. J. Nurco, N. E. Schore, J. Zhang, J.G. Ma, K. M. Smith, S. Gazeau, J. Pecaut, J.C. Marchon, C.J. Medforth and J. A. Shelnutt, "Energetics and Structural Consequences of Axial Ligand Coordination in Nonplanar Nickel Porphyrins", Journal of the American Chemical Society 2005, 127, 1179. CINT Proposal: Highly Functional Nanomaterials Based On Self- Assembled Porphyrin Arrays, University of California, Davis, P2004035.

135. Y. Sun, S. F. Cheng, G. Chen, R. F. Hicks, J. G. Cederberg, and R. M. Biefeld, "The Effect of Antimony in the Growth of Indium Arsenide Quantum Dots in Gallium Arsenide (001)," J. Appl. Phys. 97, 053503-1-6, (2005). CINT Proposal: Surfactant Mediated Control of lnAs Quantum Dot Self Assembly, University of California, Los Angeles, P2003191.

136. Y. Sun, S. F. Cheng, R. L. Woo, and R. F. Hicks, "The Structure of lndium Phosphide (001) Treated with Trimethylantimony in a Metalorganic Vapor-Phase Epitaxy Reactor," J. Appl. Phys., 97, 103512-1-5, (2005). CINT Proposal: Nanoscale Control of lndium Arsenide Antimony Quantum, University of California, Los Angeles, P2004023.

137. Y.N. Joglekar, A.V. Balatsky, and S. Das Sarma, "Wigner Supersolid of Excitons in Electron-Hole Bilayers", Phys. Rev. B 74, 233302 (2006). CINT Proposal: Excitonic Condensation in Double Quantum Wells, Indiana University–Purdue University, U2006a089.

138. Z. Qiang, W. D. Zhou, "Fast Evaluation of Cavity-Mode Characteristics of Photonic Crystal Cavities", IEEE Photon. Technol. Lett., Vol. 18, Pp.1940-2, 2006. CINT Proposal: Nonlinear Optical Spectroscopy of Nanocrystal Quantum Dots in Photonic Crystal Cavities, University of Texas at Arlington, U2006a041.

139. Z. X. Qiang, W. D. Zhou, "Photonic Crystal Cavities for Low Power Light Sources on Si: a Simplified Model Development", Proc. Spie, 6368, P. 636802, (2006). CINT Proposal: Nonlinear Optical Spectroscopy of nanocrystal Quantum Dots in Photonic Crystal Cavities, University of Texas At Arlington, U2006a041.

140. Z. Yuan, P. Atanassov, H. Nakotte, R.P. Hjelm, A. Alsmadi and S. Te Velthuis, "Magnetic Properties of Self- Assembled Ferritin-Core Arrays," Journal of Applied Physics, 99, P. 8q509-1- 3 (2006). CINT Proposal: Colloidal Crystal Templating and Magnetic Nanostructures, New Mexico State University, P2003114.

## 2007 Publications

1. Patel, S.; Mohanta, N.; Nandy, S.; Mahanti, S. D.; Taraphder, A. Layer-Dependent Electronic Structures and Magnetic Ground States of Polar-Polar Lavo3/Ktao3(001) Heterostructures. Physical Review B (2024). DOI: 10.1103/PhysRevB.110.054402

2. Patra, B.; Damoah, J.; Habteyes, T.G. Picometer Scale Photothermal Tuning of Plasmonic Nanocavities and Interfacial Processes. Nano Letters (2024). DOI:10.1021/acs.nanolett.4c04114

3. Perez-Castillo, R.; Freixas, V. M.; Mukamel, S.; Martinez-Mesa, A.; Uranga-Piña, L.; Tretiak, S.; Gelin, M. F.; Fernandez-Alberti, S. Transient-Absorption Spectroscopy of Dendrimers via Nonadiabatic Excited- State Dynamics Simulations. Chemical Science (2024). DOI: 10.1039/d4sc01019a

4. Petluru, P.; Allemang, C. R.; Liu, S.; Liu, J.; Lu, T.-M. Ambipolar Transport in Polycrystalline GeSn Transistors for Complementary Metal-Oxide-Semiconductor Applications. IEEE Journal of Selected Topics in Quantum Electronics (2024). DOI: 10.1109/JSTQE.2024.3499859

5. Photogalvanic Effect in Disordered Chiral Weyl Semimetals. Physical Review B (2024). DOI: 10.1103PhysRevB.110.014201 Elsayed, A.; Guleria, T.; Atli, K.C.; Bolmin, O.; Young, B.; Noell, PJ; Boyce, B. L.; Elwany, A.; Arroyave, R.; Karaman, I. Active Interlocking Metasurfaces Enabled by Shape Memory Alloys. Materials & Design (2024). DOI:10.1016/j.matdes.2024.113137

6. Pokharel, R.; Niu, T.; Ricci, S.; Clausen, B.; Balogh, L.; Ravkov, L.; Martinez, R.; Lee, C.; Vogel, S.; Cady, C. M.; Torrez, M. A.; Derby, B. K.; Gigax, J. G.; Bonora, N.; Li, N.; Fensin, S. J. Alloying Effects on Deformation Induced Microstructure Evolution in Copper. Nature Scientific Reports (2024). DOI: 10.1038/s41598-024-73926-3

7. Polavaram, K.C.; Evani, S.K.; Drewry, S.M.; Rodriguez, E.T.; Alnaggar, M.G.; Wetteland, C.J.; Page, K.; Popovics, J.S.; Sickafus, K.E.; Le Pape, Y.; Garg, N. Silicon Ion Radiation as a Viable Surrogate for Emulating Neutron Radiation Damage in Silicates. Npj Materials Degradation (2024). DOI:10.1038/s41529-024-00506-1

8. Prescott, S.; Iyer, P. P.; Addamane, S.; Jung, H.; Luk, T. S.; Brener, I.; Mitrofanov, O. Mie Metasurfaces for Enhancing Photon Outcoupling from Single Embedded Quantum Emitters. Nanophotonics (2024). DOI: 10.1515/nanoph-2024-0300

9. Prignano, L. A.; Stevens, M. J.; Vanegas, J. M.; Rempe, S. B.; Dempski, R. E. Metadynamics Simulations Reveal Mechanisms of Na+ and Ca2+ Transport in Two Open States of the Channelrhodopsin Chimera, C1C2. Plos One (2024). DOI: 10.1371/journal.pone.0309553

10. Prokoshin, A; Chow, W. W.; Dong, B. Z.; Grillot, F.; Bowers, J.; Wan, Y. T. Linewidth Narrowing in Self- Injection Locked Lasers: Effects of Quantum Confinement. APL Photonics (2024). DOI:10.1063/5.0214254

11. Qu, C. Y.; Hong, M. Q.; Wei, G.; Ge, W. T.; Guo, E. K.; Zhong, F.; Cai, G. X.; Wang, Y. Q.; Ren, F. Interfaces Enhanced Plasma Irradiation Resistance in CrMoTaWV/W Multilayer Films through Blocking He Diffusion. Nuclear Fusion (2024) DOI: 10.1088/1741-4326/ad5aaf

12. Qu, H.R.; Han, Y.L.; Fortner, J.; Wu, X.J.; Kilina, S.; Kilin, D.; Tretiak, S.; Wang, Y. H. [2+2] Cycloaddition Produces Divalent Organic Color-Centers with Reduced Heterogeneity in Single-Walled Carbon Nanotubes. Journal of the American Chemical Society (2024). DOI: 10.1021/jacs.4c08105

13. Quigley, L.; Shen, J.; Lu, J.; Mihalko, C. A.; Barnard, J. P.; Zhang, Y.; Bhatt, N. A.; Evancho, K.; Sarma, R.; Siddiqui, A.; Wang, H. Target Configuration Effect on Microstructures and Properties of Vertically Aligned Nanocomposites. Crystal Growth & Design (2024). DOI:10.1021/acs.cgd.4c00958

14. Rajput, A.; Kumari, A.; Basak, H. K.; Ghosh, D.; Chakraborty, B. Tracking the Active Phase and Reaction Pathway of the OER Mediated by an MnMoO4 Microrod Electro(pre)-Catalyst. Journal of Materials Chemistry A (2024) DOI: 10.1039/d4ta05985a

15. Rasel, M. A.; Schoell, R.; Smyth, C. M.; Hattar, K.; Harris, C. T.; Lu, T. M.; Haque, A.; Wolfe, D. E.; Ren, F.; Pearton, S. J. Influence of Electrical Field on the Susceptibility of Gallium Nitride Transistors to Proton Irradiation. Journal of Physics D-Applied Physics (2024). DOI: 10.1088/1361-6463/ad3f29

16. Ren, Z.; Huang, J.; Tan, H.; Biswas, A.; Pulkkinen, A.; Zhang, Y.; Xie, Y.; Yue, Z.; Chen, L.; Xie, F.; Allen, K.; Wu, H.; Ren, Q.; Rajapitamahuni, A.; Kundu, A. K.; Vescovo, E.; Kono, J.; Morosan, E.; Dai, P.; Zhu, J.-X.; Si, Q.; Minár, J.; Yan, B.; Yi, M. Persistent Flat Band Splitting and Strong Selective Band Renormalization in a Kagome Magnet Thin Film. Nature Communications (2024). DOI: 10.1038/s41467-024-53722-3

17. Renteria, E. J.; Heileman, G. D.; Neely, J. P.; Addamane, S. J.; Rotter, T. J.; Balakrishnan, G.; Christodoulou, CG; Cavallo, F. Infrared-Transparent Semiconductor Membranes for Electromagnetic Interference Shielding of Millimeter Waves. Advanced Materials Technologies (2024). DOI:10.1002/admt.202401013

18. Rezaee, M. D.; Dahal, B.; Watt, J.; Abrar, M.; Hodges, D. R.; Li, W. Z. Structural, Electrical, and Optical Properties of Single-Walled Carbon Nanotubes Synthesized through Floating Catalyst Chemical Vapor Deposition. Nanomaterials (2024). DOI:10.3390/nano14110965

19. Romero, A.; Babicheva, V. E. Enhanced Light Confinement in Nonlocal Resonant Metasurfaces with Weak Multipolar Scatterers. Journal of Applied Physics (2024). DOI: 10.1063/5.0221867

20. Rosenthal, E. I.; Biswas, S.; Scuri, G.; Lee, H.; Stein, A. J.; Kleidermacher, H. C.; Grzesik, J.; Rugar, A. E.; Aghaeimeibodi, S.; Riedel, D.; Titze, M.; Bielejec, E. S.; Choi, J.; Anderson, C. P.; Vučković, J. Single-Shot Readout and Weak Measurement of a Tin-Vacancy Qubit in Diamond. Physical Review X (2024). DOI:10.1103/PhysRevX.14.041008

21. Roy, M.; Xiao, Z.; Dong, C.; Addamane, S.; Burghoff, D. Fundamental Bandwidth Limits and Shaping of Frequency-modulated Combs. Optica (2024). DOI: 10.1364/OPTICA.529119

22. Ryan, D.; Meier, K.; Seitz, K.; Hanson, D.; Morales, D.; Palmer, D.; Hanson, B.; Goodwin, P.; Newell, R.; Holmes, R.; Thompson, D.; Werner, J. Infrared Quantum Ghost Imaging of Living and Undisturbed Plants. Optica (2024). DOI: 10.1364/OPTICA.527982

23. Samanta, K.; Deswal, P.; Alam, S.; Bhati, M.; Ivanov, S.A.; Tretiak, S.; Ghosh, D. Ligand Controls Excited Charge Carrier Dynamics in Metal-Rich CdSe Quantum Dots: Computational Insights. ACS Nano (2024). DOI: 10.1021/acsnano.4c05638

24. Scheie, A.; Liu, Y.; Ghioldi, E. A.; Fender, S.; Rosa, P. F. S.; Bauer, E. D.; Zhu, J. X.; Ronning, F. Excess Heat Capacity in Magnetically Ordered Ce Heavy-Fermion Metals. Physical Review B (2024). DOI: 10.1103/PhysRevB.110.085123

25. Seth, S.; Reilly, K. J.; Ince, F. F.; Kalapala, A.; Gautam, C.; Rotter, T. J.; Neumann, A.; Addamane, S.; Thompson, B.; Gibson, R.; Zhou, W.; Balakrishnan, G. Thermal Stability of the Dot-in-Well Gain Medium for Photonic Crystal Surface Emitting Lasers. IEEE Journal of Selected Topics in Quantum Electronics (2024). DOI: 10.1109/JSTQE.2024.3486672

26. Shaikhanov, Z.; Al-Madi, M.; Chen, H. T.; Chang, C. C.; Addamane, S.; Mittleman, D. M.; Knightly, E. W. Audio Misinformation Encoding via an On-Phone Sub-Terahertz Metasurface. Optica (2024). DOI: 10.1364/OPTICA.531175

27. Sherburne, M. D.; Dreier, T. A.; Klitsner, B.H.; Huber, D.L.; Ivanov, S.A.; Parks, C.; Simons, M.T.; Schamiloglu, E. Material Characterization Study of Magnetite Nanocrystals for RF Sensing. ACS Omega (2024). DOI: 10.1021/acsomega.4c04589

28. Sherburne, M.; Harjes, C.; Klitsner, B.; Gigax, J.; Ivanov, S.; Schamiloglu, E.; Lehr, J. Rapid Prototyping for Nanoparticle-Based Photonic Crystal Fiber Sensors. Sensors (2024). DOI: 10.3390/s24123707

29. Shishkov, V. Yu.; Andrianov, E. S.; Tretiak, S.; Whaley, K. B.; Zasedatelev, A. V. Sympathetic Mechanism for Vibrational Condensation Enabled. Physical Review Letters (2024). DOI:10.1103/PhysRevLett.133.186903

30. Sikma, R. E.; Vogel, .D J.; Reyes, R.l A.; Meyerson, M. L.; Kotula, P. G.; Gallis, D. F. S. High-Entropy Metal- Organic Frameworks (HEMOFs): A New Frontier in Materials Design for CO2 Utilization. Advanced Materials (2024). DOI: 10.1002/adma.202407435

31. Sikma, R. E.; Vogel, D. J.; Reyes, R. A.; Meyerson, M. L.; Kotula, P. G.; Gallis, D. F. S. High-Entropy Metal- Organic Frameworks (HEMOFs): A New Frontier in Materials Design for CO2 Utilization. Advanced Materials (2024) DOI: 10.1002/adma.202407435

32. Smyth, C. M.; Ohta, T.; Chou, S. S.; Lu, T. M. Controlling Electron and Hole Concentration in MoS2 through Scalable Plasma Processes. Journal of Vacuum Science & Technology A (2024) DOI: 10.1116/6.0003486

33. Startt, J.; McCarthy, M. J.; Wood, M. A.; Donegan, S.; Dingreville, R. Bayesian Blacksmithing: Discovering Thermomechanical Properties and Deformation Mechanisms in High-Entropy Refractory Alloys. npj Computational Materials (2024). DOI: 10.1038/s41524-024-01353-z

34. Stevens, M.; Rempe, S. Binding of Sulfates and Water to Monovalent Cations. Journal of Physical Chemistry A (2024). DOI: 10.1021/acs.jpca.4c05454

35. Sun, T. Y.; Niu, T. J.; Shang, Z. X.; Shen, C.; Xie, D. Y.; Wang, J.; Wang, H. Y.; Zhang, X. H. High-Temperature Mechanical Behavior of Single-Crystal Fecral Alloy Under In-Situ Micropillar Compression. Advanced Engineering Materials (2024). DOI: 10.1002/adem.202400820

36. Supakul, S.; Jain, M.; Yaddanapudi, K.; Gruber, J.; El-Atwani, O.; Tucker, G. J.; Pathak, S. Synthesis, Microstructure and Micro-Mechanical Characterization of Metal (Nb, Ti) - MAX Phase (Ti2AlC) Nanolaminates. Materials Science and Engineering A-Structural Materials Properties Microstructure and Processing (2024). DOI:10.1016/j.msea.2024.146905

37. Thomas, M.; Oh, H.; Schoell, R.; House, S.; Crespillo, M.; Hattar, K.; Windes, W.; Haque, A. Dynamic Deformation in Nuclear Graphite and Underlying Mechanisms. Materials (2024) DOI: 10.3390/ma17184530

38. Tracy, D.; Fernandez-Alberti, S.; Galindo, J. F.; Tretiak, S.; Roitberg, A. Nonadiabatic Excited-State Molecular Dynamics with an Explicit Solvent: NEXMD-SANDER Implementation. Journal of Physical Chemistry B (2024). DOI: 10.1021/acs.jpcb.4c05600

39. Trask, N.; Martinez, C.; Shilt, T.; Walker, E.; Lee, K.; Garland, A.; Adams, D. P.; Curry, J. F.; Dugger, M. T.; Larson, S. R.; Boyce, B. L. Unsupervised Physics-Informed Disentanglement of Multimodal Materials Data. Materials Today (2024). DOI:10.1016/j.mattod.2024.09.005

40. Tsironi, I.; Maleszka, J. A.; Kriebisch, B. A.; Wilson-Kovacs, R. S.; Acevedo, O.; O'Leary, S. L.; Watt, J.; Boekhoven, J.; Olivier, J. Fuel-driven π-conjugated Superstructures to Form Transient Conductive Hydrogels. Angewandte Chemie-International Edition (2024). DOI: 10.1002/anie.202417109

41. Tucker, K.; Rege, A. K.; Smith, C.; Monteleoni, C.; Albash, T. Hamiltonian Learning Using Machine- Learning Models Trained with Continuous Measurements. Physical Review Applied (2024). DOI: 10.1103/PhysRevApplied.22.044080

42. Tunes, M. A.; Parkison, D.; Huang, Y.; Chancey, M. R.; Vogel, S. C.; Mehta, V. K.; Torrez, M. A.; Luther, E. P.; Valdez, J. A.; Wang, Y.; Yu, J.; Cinbiz, M. N.; Shivprasad, A. P.; Kohnert, C. A. Challenges in Developing Materials for Microreactors: A Case-Study of Yttrium Dihydride in Extreme Conditions. Acta Materialia (2024). DOI:10.1016/j.actamat.2024.120333

43. Turney, D. E.; Dutta, D.; Banerjee, S.; Lambert, T. N.; Bell, N. S. Electrochemical and Cycle Analysis of Water-in-Salt K-Acetate Electrolyte Zn-Ion Batteries Under Commercially-Relevant Conditions. Journal of the Electrochemical Society (2024). DOI: 10.1149/1945-7111/ad5769

44. Tyagi, B.; Li, H.; Bittner, E. R.; Piryatinski, A.; Silva-Acuña, C. Noise-Induced Quantum Synchronization and Entanglement in a Quantum Analogue of Huygens' Clock. Journal of Physical Chemistry Letters (2024). DOI: 10.1021/acs.jpclett.4c02313

45. Vadthya, R.; Fetrow, C.; Oladoyin, O.; Wu, J.; Ivanov, S.; Wang, Y.; Chen, D.; Zhou, X.; Wei, S.; Low- Temperature and High-Rate Rechargeable Aluminum Batteries Enabled by Ternary Eutectic Electrolytes. ChemSusChem (2024). DOI: 10.1002/cssc.202400983

46. Velappan, N.; Biryukov, S. S.; Rill, N. O.; Klimko, C. P.; Rosario-Acevedo, R.; Shoe, J. L.; Hunter, M.; Dankmeyer, J. L.; Fetterer, D. P.; Bedinger, D.; Phipps, M. E.; Watt, A. J.; Abergel, R. J.; Dichosa, A.; Kozimor, S.A.; Cote, C.K.; Lillo, A. M. Characterization of Two Affinity Matured Anti-Yersinia Pestis F1 Human Antibodies with Medical Countermeasure Potential. Plos One (2024). DOI: 10.1371/journal.pone.0305034

47. Velasquez-Guzman, J. C.; Huttanus, H. M.; Morales, D. P.; Werner, T. S.; Carroll, A. L.; Guss, A. M.; Yeager, C. M.; Dale, T.; Jha, R. K. Biosensors for the Detection of Chorismate and Cis,Cis-Muconic Acid in Corynebacterium Glutamicum. Journal of Industrial Microbiology & Biotechnology (2024). DOI: 10.1093/jimb/kuae024

48. Vigil, D. L.; Ge, T.; O'Connor, T.C.; Grest, G. S. Measuring Topological Constraint Relaxation in Ring- Linear Polymer Blends. Physical Review Letters (2024). DOI:10.1103/PhysRevLett.133.118101

49. Vizoso, D.; Dingreville, R. Dataset of Simulated Vibrational Density of States and X-Ray Diffraction Profiles of Mechanically Deformed and Disordered Atomic Structures in Gold, Iron, Magnesium, and Silicon. Data in Brief (2024). DOI: 10.1016/j.dib.2024.110689

50. Wagle, K.; Rehn, D. A.; Mattsson, A. E.; Mason, H. E.; Malone, M. W. Effect of Dynamical Motion in Ab Initio Calculations of Solid-State Nuclear Magnetic and Nuclear Quadrupole Resonance Spectra. Chemistry of Materials (2024). DOI: 10.1021/acs.chemmater.4c00883

51. Wen, Y. H.; Heim, D.; Zimmermann, M.; Shugayev, R. A.; Dong, M.; Leenheer, A. J.; Gilbert, G.; Heuck, M.; Eichenfield, M.; Englund, D. R. Strain-Concentration for Fast, Compact Photonic Modulation and Non-Volatile Memory. Optica (2024). DOI: 10.1364/OPTICA.529094

52. Weng, S.Z.; Wang, Y.; Price, C.; Blackwood, H.R.; Choffel, M.; Miller, A.; Li, R.X.; Chen, M.R.; Lu, P.; Ilkhani, S.; Majumdar, A.; Johnson, D.C.; Cronin, S.B. Simultaneous Characterization of In-Plane and Cross-Plane Resistivities in Highly Anisotropic 2D Layered Heterostructures. ACS Nano (2024) DOI: 10.1021/acsnano.3c13232

53. Wijesekera, A.; Vigil, D. L.; Gary S.; Siteng, G.; Zhang Ting Ge. Diblock Rings as Topological Adhesives at Immiscible Polymer Interfaces. ACS Macro Letters (2024). DOI: 10.1021/acsmacrolett.4c00446

54. Will-Cole, A. R.; Lauter, V.; Grutter, A.; Dubs, C.; Lidsky, D. A.; Lindner, M.; Reimann, T.; Bhattacharjee, N.; Lu, T. M.; Sharma, P.; Valdez, N. R.; Pearce, C.J.; Monson, T.C.; Matzelle, M.; Bansil, A.; Heiman, D.; Sun, N. X. Probing Intrinsic Magnetization Dynamics of the Y3Fe5O12/Bi2Te3 Interface at Low Temperature. Physical Review Materials (2024). DOI: 10.1103/PhysRevMaterials.8.074409

55. Wissuchek, F.; Derby, B. K.; Misra, A. Heterogeneous Morphologies and Hardness of Co-Sputtered Thin Films of Concentrated Cu-Mo-W Alloys. Nanomaterials (2024). DOI: 10.3390/nano14181513

56. Wong, S.; Loring, T. A.; Cerjan, A. Classifying Topology in Photonic Crystal Slabs with Radiative Environments. Nature (2024). DOI: 10.48550/arXiv.2402.10347

57. Wu, A.K.; Guerci, D; Fu, Y.X.; Wilson, J.H.; Pixley, J.H. Absence of Quantization in the Circular

58. Wu, A.K.; Sarkar, S.; Wan, X.H.; Sun, K.; Lin, S.Z. Quantum-metric-induced Quantum Hall Conductance Inversion and Reentrant Transition in Fractional Chern Insulators. Physical Review Research (2024). DOI: 10.1103/PhysRevResearch.6.L032063

59. Wu, Y.; Schreiber, M. A.; Kim, A. D.; Addamane, S. J.; Jirauschek, C.; Williams, B. S. Harmonic and Subharmonic RF Injection Locking of THz Metasurface Quantum-Cascade VECSEL. ACS Photonics (2024). DOI: 10.1021/acsphotonics.4c00608

60. Wurden, G. A.; Partesotti, G.; Reimold, F.; Mukai, K.; Peterson, B. J.; Federici, F. Developing a Robust Sensor for Infrared Imaging Bolometers. Review of Scientific Instruments (2024). DOI: 10.1063/5.0219535

61. Xie, T. Y.; Zhu, W.; Zhu, J. X. Impurity Effects on Local Electronic Structure of Twisted Bilayer Cuprates. Physical Review B (2024). DOI: 10.1103/PhysRevB.110.134514

62. Yoo, J.; Nam, C. Y.; Bussmann, E. Atomic Precision Processing of Two-Dimensional Materials for Next-Generation Microelectronics. ACS Nano (2024). DOI: 10.1021/acsnano.4c04908

63. Yu, W.; Cuozzo, J.J.; Sapkota, K.; Rossi, E.; Rademacher, D. X.; Nenoff, T.M.; Pan, W. Time Reversal Symmetry Breaking and Zero Magnetic Field Josephson Diode Effect in Dirac Semimetal Cd3As2 Mediated Asymmetric SQUIDs. Physical Review B (2024). DOI: 10.1103/PhysRevB.110.104510

64. Yuan, M.; McNeece, A. J.; Dolgopolova, E. A.; Wolfsberg, L.; Bowes, E. G.; Batista, E. R.; Yang, P.; Filatov, A.; Davis, B. L. Photoinduced Isomerization of [N2]2- in a Bimetallic Lutetium Complex. Journal of the American Chemical Society (2024). DOI: 10.1021/jacs.4c10950

65. Zappala, E.; Elmslie, T. A.; Morris, G. D.; Meisel, M. W.; Dingreville, R.; Hamlin, J. J.; Frandsen, B. A. Tuning the Spin Dynamics and Magnetic Phase Transitions of the Cantor Alloy via Composition and Sample Processing Protocols: A Muon Spin Relaxation Study. Physical Review Materials (2024). DOI: 10.1103/PhysRevMaterials.8.104408

66. Zhang, B.; Victor, G., Y. G.; Freixas, M.; Shichao Sun; Tretiak, S.; Jiang, J.; Mukamel, S. Cavity Manipulation of Attosecond Charge Migration in Conjugated Dendrimers. Journal of the American Chemical Society (2024). DOI: 10.1021/jacs.4c06727

67. Zhang, D.; Shen, J.N.; Song, J.W.; Lu, P.; Gao, X.Y.; He, Z.H.; Lu, J.J.; Zhang, Y.Z.; Dou, H.Y.; Chen, A.P.; Wang, H.Y. Two-dimensional Perovskite Supercells Incorporated with Plasmonic and Ferromagnetic Secondary Phases toward Multifunctionalities. MRS Communications (2024). DOI: 10.1557/s43579-024- 00649-x

68. Zhang, H.; Lin, S.-Z. Multipolar Skyrmion Crystals in Non-Kramers Doublet Systems. Physical Review Letters (2024). DOI: 10.1103/PhysRevLett.133.196702

69. Zhang, R. Q.; Lane, C.; Nokelainen, J.; Singh, B.; Barbiellini, B.; Markiewicz, R. S.; Bansil, A.; Sun, J. W. Emergence of Competing Stripe Phases in Undoped Infinite-Layer Nickelates. Physical Review Letters (2024). DOI: 10.1103/PhysRevLett.133.066401

70. Zhu, Z.; Sarma, R.; Smith-Dryden, S.; Li, G.; Pang, S. S. Mode-multiplexed photonic integrated vector dot-product core from inverse design. Photonics Research (2024). DOI: 10.1364/PRJ.524419

## 2008 Publications

1. A. A. Talin, F Leonard, B. S. Swartzentruber, X.Wang, S. D. Hersee, "Unusually Strong Space-Charge- Limited Currents in Thin Wires", Phys. Rev. Lett., 101, 076802 (2008)

2. A. A. Talin, G. T. Wan, E. Lai and R. J. Anderson, "Correlation of Growth Temperature, Photoluminescence, and Resistivity in Gan Nanowires", App. Phys. Lett. 92, 093105 (2008)

3. A. Ahktari-Zavareh, W-J. Li, K. Kavanagh, A. J. Trionfi, J.C. Jones, J. L. Reno, A. A. Talin and J. W. P. Hsu, "Au/Ag and Au/Pd Molecular Contacts To Gaas", J. Vac. Sci. Technol. B 26, 1597 (2008)

4. A. Barhorst, 0. P. Harrison and G.D. Bachand, "Modeling Elasto-Mechanical Phenomena Involved in Motor-Driven Assembly of Nanomaterials", 19th International Conference On Design Theory and Methodology/1st International Conference On Micro and Nano Systems, Vol 3, Part a and B, Pp. 669-677 (2008)

5. A. Efimov, "Fundamental Nonlinear-Optical Interactions in Photonic Fibers: Time-Spectral Visualization", Laser Physics, 18, 667-681 (Invited, Reviews), (2008)

6. A. Efimov a nd A. J. Taylor, "Supercontinuum Generation a nd Soliton Timing Jitter in Sf6 Soft Glass Photonic Crystal Fibers", Optics Express 16, 5942 (2008)

7. A. Horsley, A. A. Talin and J. L. Skinner, "Micromechanical and Microfluidic Devices Incorporating Resonant Metallic Gratings Fabricated Using Nanoimprint Lithography", Journal of Nanophotonics 2, 021785 (2008)

8. A. M. Follstaedt, A. A. Allerman, S. R. Lee, J. R. Michael, K. H. A. Bogart, M. H. Crawford, N. a Missert and J. Cryst, "Dislocation Reduction in Algan Grown On Patterned Gan", Gro. 310, 766-776 (2008)

9. A. Piryatinski, S. Tretiak and V. Chernyak, "Dynamical Variational Approach To Non-Adiabatic Electronic Structure", Chem. Phys. 347 2538 (2008)

10. A. Rosengren, P.H. Lundow and A. V. Balatsky, "Isotope Effect On Superconductivity in Josephson Coupled Stripes in Underdoped Cuprates", Physical Review B (Condensed Matter and Materials Physics); Vol.77, No.13, P.134508-1-4, 1 April 2008

11. A. Saha, P. Katira, M. Bachand, G.D. Bachand and H. Hess, "Temperature-Compensation for Hybrid Devices: Kinesin's Km Is Temperature-Independent", Small (In Press), (2008)

12. A. Srivastava, H. Htoon, V. I. Klimov and J. Kono, "Direct Observation of Dark Excitons in Individual Carbon Nanotubes: Inhomogeneity in Exchange Splitting", Physical Review Letters, 101,087402 (2008)

13. A. Srivastava, H. Htoon, V. I. Klimov and J. Kono "Direct Observation of Dark Excitons in Individual Carbon Nanotubes: Inhomogeneity in Exchange Splitting", Submitted To Phys. Rev. Lett., In Press (2008)

14. A.Trionfi, D. A. Scrymgeour, J. W. P. Hsu, M. J. Arlen, D. Tomlin, J. D. Jacobs, D. H. Wang, L- S. Tan and R. A. Vaia, "Direct Ilmaging of Current Paths in Multi-Walled Carbon Nanofiber Polymer

Nanocomposites Using Conducting-Tip Atomic Force Microscopy", J. Appl. Phys., 104, 083708 (2008)

15. Abul K. Azad, Rohit P. Prasankumar, Diyar Talbayev, Antoinette J. Taylor, John F. O'hara, Richard D. Averitt, Joshua M. 0. Zide, Hong Lu and Arthur K. Gossard, "Carrier Dynamics in Eras Nanoislands Embedded in Ingaas", Appl. Phys. Lett. 93, 121108 (2008)

16. Alvermann, H. Fehske and S. A. Trugman, "Solution of the Holstein Polaron Anisotropy Problem", Submitted To Prl (2008)

17. Anderoglu, X. Zhang and A. Misra, "Thermal Stability of Sputtered Cu Films with Nanoscale Growth Twins", Journal of Applied Physics, V.103, P. 094322 (2008)

18. Anderoglu, A. Misra, H. Wang and X. Zhang, "Thermal Stability of Sputtered Cu Films with Nanoscale Growth Twins", Journal of Applied Physics, 103, 094322, (2008)

19. Anderoglu, A. Misra, H. Wang, F. Ronning, M. F. Hundley and X. Zhang, "Epitaxial Nanotwinned Cu Films with High Strength and High Conductivity", Applied Physics Letters,_23., 083108 (2008)

20. Arslan, A. A. Talin and G. T. Wang, "Three-Dimensional Sisualization of Surface Defects in Core-Shell Nanowires", J. Phys. Chem., C., 112, 11093 (2008)

21. Balakishore Yellampalle, Elbert E. M. Chia, Kiyong Kim, Antoinette J. Taylor and Richard Averitt, "Three Pulse Envelope Approach for Ultrashort Pulse Characterization in a Pump-Probe Experiment", Appl. Phys. Let. 92 061111 (2008)

22. C.H. Mielke and A. V. Balatsky, "Crossing a Bridge Into the Unknown", Nature Nanotechnology; V.3, No.3, P.129-130, March 2008

23. Chee Huei Lee, Jiesheng Wang, Vijaya K. Kayastha, Jian Y. Huang and Yoke Khin Yap "High Yield Synthesis of Boron Nitride Nanotubes By Thermal Chemical Vapor Deposition", (Submitted)

24. D. M. Rosu, J.C. Jones, J. W. P. Hsu, K. L. Kavanagh, D. Tsankov, U. Schade, N. Esser and K. Hinrichs, "Molecular Orientation of Octanedithiol and Hexadecanethiol On Gaas and Au", 25, 919-923 (2009)

25. D. Talbayev, A. Laforge, D. Basov, N. Hur, S. A. Trugman, J. Taylor and R. D. Averitt, "Magnetic Exchange Interaction between Rare-Earth and Manganese Ions in Multiferroic Hexagonal Manganites", (Preprint 2008)

26. D. Talbayev, S.A. Trugman, A.V. Balatsky, A. J. Taylor, R. D. Averitt and T. Kimura, "Detection of Coherent Magnons Via Transient Reflectance in Multiferroic Ba0.6sr1.4zn2fe12o22," Phys.Rev.Lett. 101,97603(2008)

27. D. Talbayev, S. A. Trugman, A. V. Balatsky, A. J. Taylor and R. D. Averitt, "Detection of Coherent Magnons Via Transient Reflectance in $Ba_{0.6}Sr_{1.4}Zn_2fe_{12}0_{22}$", Phys. Rev. Lett. 101, 097603 (2008); Also Selected for the Virtual Journal of Nanoscale Science & Technology, Sept. 8, 2008

28. E. Badaeva and S. Tretiak, "Two Photon Absorption of Extended Substituted Phenylenevinylene Oligomers: a Tddft Study", Chem. Phys. Lett. 450, 322-328 (2008)

29. E. Bielejec, J.L. Reno, S.K. Lyo and M.P. Lilly, "Tunneling Spectroscopy in Vertically Coupled Quantum Wires", Sol. State Commun. 147, 79 (2008)

30. E. J. Reed, M.R.Armstrong, K-Y. Kim a n d J.H. Glownia, "Atomic-Scale Time a n d Space Resolution of Terahertz Frequency Acoustic Waves", Phys. Rev. Lett. 101, 014302 (2008)

31. E. S. Mcgarrity, A. L. Frischknecht and M. E. Mackay, "Phase Behavior of Polymer/Nanoparticle Blends Near a Substrate", J. Chem. Phys. 128, 154904 (2008)

32. E. S. Mcgarrity, P. M. Duxbury, M. E. Mackay and A. L. Frischknecht, "Calculation of Entropic Terms Governing Nanoparticle Self-Assembly in Polymer Films", Macromolecules 41, 5952 (2008)

33. F. Leonard, A. A. Talin, B. S. Swartzentruber and S. T. Picraux, "Diameter-Dependent Electronic Transport Properties of Au-Catalyst/Ge-Nanowire Schottky Diodes", Phys. Rev. Lett., (in Press)

34. F. Terenziani, C. Katan, M. Blanchard-Desce, E. Badaeva and S. Tretiak, "Enhanced Two-Photon Absorption of Organic Chromophores: Theoretical and Experimental Assessments", Adv. Mat. (Review Article) (In Press)

35. Flint Pierce, Mesfin Tsige, Oleg Borodin, Dvora Perahia and Gary S. Grest, "Interfacial Properties of Semifluorinated Alkanes Via Atomistic Simulation", Journal of Chemical Physics 128, 214903 (2008)

36. Flint Pierce, Mesfin Tsige, Dvora Perahia and Gary S. Grest, "Liquid-Liquid Interfaces of Semiuorinated Alkane Diblock Copolymers with Water, Alkanes, and Peruoroalkanes", J. Phys. Chem B 112, 16012 (2008)

37. Flint Pierce, Dvora Perahia and Gary S. Grest, "Spreading of Liquid Polymer Droplets On a Viscous Polymer Liquid", Submitted To Europhysics Letters (2009)

38. G. Swadener and S. T. Picraux, "Strain Distributions and Electronic Property Modifications in Si/Ge Axial Nanowire Heterostructures", J. Appl. Phys. (Submitted)

39. Grant A. Crawford, Nikhilesh Chawla and J.E. Houston, "Nanomechanics ofbiocompatible Tio2 Nanotubes By Interfacial Force Microscopy (Ifm)", Journal of the Mechanical Behavior of Biomedical Materials

40. H-T. Chen, S. Palit, T. Tyler, C. M. Bingham, J.M. 0. Zide, J. F. O'hara, D.R. Smith, A. C. Gossard, R. D. Averitt, W. J. Padilla, N. M. Jokerst and A. J. Taylor, "Hybrid Metamaterials Enable Fast Electrical Modulation of Freely Propagating Terahertz Waves", Appl. Phys. Lett. 91, 091117 (2008)

41. H-T. Chen, J. F. O'hara, A. K. Azad, A. J. Taylor, R. D. Averitt, D. B. Shrekenhamer and W. J. Padilla, "Experimental Demonstration of Frequency Agile Terahertz Metamaterials", Nature Photonics 2, 295 (2008)

42. H. Htoon, S. A. Crooker, M.Furis, S. Jeong, Al. L. Efros, V. I. Klimov, "Linearly Polarized 'Fine Structure' of the Bright Exciton State in Individual Cdse Nanocrystal Quantum Dots", Phys. Rev. B 77, 035328 (2008)

43. H. Htoon, M.Furis, S. A. Crooker, S. Jeong and V. I. Klimov, "Anomalous Circular Polarization of Magneto- Photoluminescence From Individual Cdse Nanocrystals", Submitted To Physical Review Letters (2008)

44. H. J. Lee, J. Workman, J. S. Wark, R. D. Averitt, A. J. Taylor, J. Roberts, Q. Mcculloch, D. E. Hof, N. Hur, S-W. Cheong and D. J. Funk, "Optically Induced Lattice Dynamics Probed with Ultrafast X-Ray Diffraction", Physical Review B 77, 132301 (2008)

45. H. S. Jung, J-K. Lee, J. Lee, B. S. Kang, Q.X. Jia and M. Nastasi, "Strain Relaxation in Sol-Gel Grown Epitaxial Anatase Thin Films", J. Phys. Chem. C 112(11), 4205-4208 (2008)

46. H. S. Jung, J-K. Lee, J. Lee, B. S. Kang, Q.X. Jia, M. Nastasi, J. H. Noh, C-M. Cho and S. H. Yoon, "Mobility Enhanced Photoactivity in Sol-Gel Grown Epitaxial Anatase Tio2 Films", Langmuir 24(6), 2695-2698 (2008)

47. H.P. Dahal, A. V. Balatsky and J. X. Zhu, "Tuning Impurity States in Bilayer Grapheme" Physical Review B (Condensed Matter and Materials Physics); Vol.77, No.11, P.115114-1- 10 15 March 2008

48. Hou-Tong Chen, Hong Lu, A. K. Azad, R. D. Averitt, A. C. Gossard, S. A. Trugman, J. F. O'hara and A. J. Taylor, "Electronic Control of Extraordinary Terahertz Transmission Through Subwavelength Metal Hole Arrays", Optics Express {\Bf 16}, 7641 (2008)

49. Huisheng Peng, Daoyong Chen, Jian Yu Huang, S. B. Chikkannanavar, J. Hanisch, Menka Jain, E. Peterson, S. K Doom, Yunfeng Lu, Y. T. Zhu and Q. X. Jia, "Strong and Ductile Colossal Carbon Tubes with Walls of Rectangular Macropores ", Phys. Rev. Lett. (In Press)

50. I. A. Lessard, S. Habuchi, J. H. Werner, P. M. Goodwin, F. C. De Schryver, J. Hotkens and M. Cotlet, "Probing Dimerization and Intraprotein Fluorescence Resonance Energy Transfer in a Far Red Fluorescent Protein From the Sea Anemone Heteractis Crispa", Journal of Biomedical Optics 031212-1 To 031212-7 (2008)

51. I. A. Talin, F. Leonard, B. S. Swartzentruber, X. Wang and S. D. Hersee, "Unusually Strong Space-Charge- Limited Current in Thin Wires", Phys. Rev. Lett., 101, 076802 (2008)

52. I. Bussian, A. Malko, H. Htoon, Y. Chen, V. I. Klimov, J. A. Hollingsworth, "Quantum Optics with Nanocrystal Quantum Dots in Solution: Quantitative Study of Clustering", Submitted To J. Phys. Chem

53. I. Grigorenko, J. X. Zhu and A. Balatsky, "Optimization of the Design of Superconducting Inhomogeneous Nanowires", Journal of Physics-Condensed Matter; V.20, No.19, P.195204, May 14, 2008

54. I. Grigorenko, S. Haas, A. Balatsky, A. F. J. Levi, "Optimal Control of Electromagnetic Field Using Metallic Nanoclusters", New Journal of Physics; Vol.Io, No.4, April 2008

55. I. Grigorenko and A. Efimov "Coherent Control Near Metallic Nanostructures", Submitted To Phys. Rev. Lett

56. I. J. Hilton, R. P. Prasankumar, E. J. Schelter, V. K. Thorsmolle, S. A. Trugman, A. P. Shreve, J. L. Kiplinger, D. E. Morris and A. J. Taylor, "Ultrafast Spectroscopy of the Uranium(Iv) and Thorium(Iv) (Bis)Ketimide Complexes (C5me5)2an[-N=C(Ph)(Ch2ph)]2 (An=Th,U)", J. Phys. Chem. a, 112, 7840 (2008)

57. I. Subramania, Y. Lee, B.A. Hernandez-Sanchez, A.J. Fischer, T.S. Luk, I. Brener, P.G. Clem and T.J. Boyle, "Cdse Infiltrated Tio2 Based Onmidirectional Photonic Crystals for Visible Light Control", Photonics and Nanostructures–Fundamental and Applications, Vol. 6, 12 (2008)

58. I. Wu, S. Malinin, S. Tretiak and V. Chernyak, "Multiscale Modeling of Electronic Excitations in Branched Conjugated Molecules Using Exciton Scattering Approach", Phys. Rev. Lett. 100, 057405 (2008)

59. J. F. O'hara, R. Singh, I. Brener, E. Smirnova, J. Han, A. J. Taylor and W. Zhang, "Thin Film Sensing with Planar Metamaterials: Sensitivity and Limitations", Opt. Express 16, 1786 (2008)

60. J. Fransson, J. X. Zhu and A. V. Balatsky, "Vibrating Superconducting Island in a Josephson Junction", Physical Review Letters; V.1, No.6, P.01067202, August 8, 2008

61. J. Fransson and A. V. Balatsky, "Surface Imaging of Inelastic Friedel Oscillations", Physical Review B (Condensed Matter and Materials Physics); Vol.75, No.19, P.195337-1-5, 15 May 2007

62. J. Fransson and A. V. Balatsky, "Exchange Interaction and Fano Resonances in Diatomic Molecular Systems", Physical Review B (Condensed Matter); Vol.75, No.15, P.153309-1-4, 15 April 2007

63. J. H. Werner, G. A. Montano, A. L. Garcia, N. A. Zurek, E. A. Akhadov, G. P. Lopez and A. P. Shreve, "Formation and Dynamics of Supported Phospholipid Membranes On a Periodic Nanotextured Substrate", Langmuir (Accepted, Will Appear in 2009)

64. J. J. Glennon, R. Tang, W. E. Buhro, R. A. Loomis, D. A. Bussian, H. Htoon and V. I. Klimov, "Exciton Localization and Migration in Single Cdse Quantum Wires At Low Temperatures", Submitted To Phys. Rev. Lett

65. J. J. Glennon, R. Tang, W. E. Buhro, R. A. Loomis, D. A. Bussian, H. Htoon and V. I. Klimov, "Exciton Localization and Migration in Single Cdse Quantum Wires At Low Temperatures", Submitted To Physical Review Letters, 2008

66. J. L. Skinner, A. A. Talin and D. A. Horsley, "a Mems Light Modulator Based On Diffractive Nanohole Gratings", Optics Express 16, 3701 (2008)

67. J. L. Skinner, A. A. Talin and D. A. Horsley, "Light Modulation with Nano-Patterned Diffractive Mems Pixels", J. Vac. Sci. Technol. B, In Press

68. J. L. Skinner, L. L. Hunter, A. A. Talin, J Provine and D. A. Horsley, "Large-Area Subwavelength Aperture Arrays Fabricated Using Nanoimprint Lithography", IEEE Trans. Nanotech., Accepted for Publication

69. J. Tao, S. Tretiak and J-X. Zhu, "Performance of a Non-Empirical Meta-Gga Density Functional for Excitation Energies", J. Chem. Phys. 128, 084110 (2008)

70. J. Tatebayashi, B. L. Liang, R. B. Laghumavarapu, D. A. Bussian, H. Htoon, V. Klimov, G. Balakrishnan, L. R. Dawson and D. L. Huffaker, "Time-Resolved Photoluminescence of Type-Ii Ga(As)Sb/GaAs Quantum Dots Embedded in An Ingaas Quantum Well", Submitted To Nanotechnology, (Accepted) 2008

71. J. Temirov, A. Bradbury and J. H. Werner, "Measuring An Antibody Affinity Distribution Molecule By Molecule", Vol.80, Iss. 22, P.8642-8648 Analytical Chemistry (2008)

72. J. X. Zhu, K. 0. Rasmussen, A. V. Balatsky and A. R. Bishop, "Local Electronic Structure in the Peyrard- Bishop-Holstein Model", Journal of Physics Condensed Matter; V.19, No.13, Apr 4 2007 2008 In Press/In Process

73. J. Y. Huang, F. Ding, and B.I. Yakobson, "Dislocation Dynamics in Multiwalled Carbon Nanotubes At High Temperatures", Phys. Rev. Lett. 100, 035503 (2008)

74. J.M. Buset, A.H. Mack, D. Laroche, C.R. Dean, M.P. Lilly, J.L. Reno and G. Gervais, "Towards Optical Manipulation and Resistive Readout of the Gaas Nuclear Spins", Physica E 40, 1252 (2008)

75. J.M. Pietryga, J. D. Werder, D. J. Williams, J. L. Casson, R. D. Schaller, V. I. Klimov and J. A. Hollingsworth, "Utilizing the Lability of Lead Selenide To Produce Heterostructured Nanocrystals with Bright, Stable Infrared Emission", J. Am. Chem. Soc. 130, 4879, (2008)

76. J.M.D. Lane, M. Chandross, Mark J. Stevens and G.S. Grest, "Water in Nano-Confinement between Hydrophilic Self-Assembled Monolayers", Langmuir 24, 5209 (2008)

77. J.M.D. Lane, M. Chandross, M. Dugger, Mark J. Stevens and G.S. Grest, "Water Penetration of Damaged Self-Assembled Monolayers", Langmuir 24, 5734 (2008)

78. J.Y. Huang, F. Ding and B. I. Yakobson "Vacancy-Hole/Tube Migration in Multiwall Carbon Nanotubes ", (Submitted)

79. K. Abul. H. T. Azad, A. J. Chen, E. Taylor, N. R. Akhadov, N. R. Weisse-Bernstein and J. F. O'hara, "Flexible Quasi-Three-Dimensional Metamaterials", Submitted To Opt. Lett. (2008)

80. K. Azad, A. J. Taylor, E. Smimova, J. F. O'hara, "Characterization and Analysis of Terahertz Metamaterials Based On Rectangular Split-Ring Resonators", Appl. Phys. Lett. 92, 011119 (2008)

81. K. Becker, E. Da Como, J. Feldmann, F. Scheliga, E. Thom Csanyi, S. Tretiak and J.M. Lupton, "How Chromophore Shape Controls Photophysical Function in Phenylene-Vinylenes", J. Phys. Chem. B 112 4859-4864 (2008)

82. K.S. Burch, Elbert Chia, D. Talbayev, B.C Sales, D. Mandrus, A. J. Taylor and R.D. Averitt, "Coupling between Phonons and the Hybridization Gap in a Ct-Electron Kondo Lattice", Phys. Rev. Lett. 100, 026409 (2008)

83. K.Y. Kim, A.J. Taylor, J.H. Glownia and G. Rodriguez, "Coherent Control of Terahertz Supercontinuum Generation in Ultrafast Laser-Gas Interactions", Nature Photonics, Doi:10.1038/Nphoton.2008.153 (2008)

84. L. Shao, Y. Q. Wang, J. G. Swadener, M. Nastasi, P. E. Thompson, and N. D. Theodore, "Cracking in Hydrogen Ion-Implanted Si/Si0_8ge0.2/ Si Heterostructures", Applied Physics Letters 92, 061904, (2008)

85. Leon L. Shaw, Juan Villegas, Jianyu Huang and Shuo Chen, "Strengthening Via Deformation Twinning in a Nickel Alloy", Mater. Sci. Eng. a 480, 75-83 (2008)

86. M. D. Allendorf, R. J. T. Houk, L. Andruszkiewicz, A. A. Talin, J. Pikarsky, A. Choudhury, K. Gall and P. J. Hesketh, "Stress-Induced Chemical Detection Using Flexible Metal-Organic Frameworks", Jacs Comm., In Review

87. M. Dai, J. Temirov, P. Emanuele, C. Kiss, P. Pavlik, J. H. Werner and A. Bradbury, "Using T7 Phage Display To Select Gfp-Based Binders, "Protein Engineering Design and Selection Vol.21, Iss.7, P.413-424 (2008)

88. M. Galperin and S. A. Trugman, "Dynamical Features in the Scattering Approach To Inelastic Transport", (Preprint 2008)

89. M. Galperin and S. Tretiak, "Linear Optical Response of Current-Carrying Molecular Junction: a Negf-Tddft Approach", J. Chem. Phys. 128, 124705 (2008)

90. M. J. Arlen, D. Wang, J. D. Jacobs, R. Justice, A. Trionfi, J. W. P. Hsu, D. Schaffer, L-S. Tan, R. Vaia, "Thermal- Electrical Character of in Situ Synthesized Polyimide-Polyimide Grafted Carbon Nanofiber Composites", Macromolecules, 41, 8053-8062 (2008)

91. M. Liu, 0. Obi, J. Lou, S. Stoute, J. Y. Huang, Z. Cai, K. S. Ziemer an d N. X. Sun, "Spin-Spray Deposited Multiferroic Composite Nio.23fe2.77o4/Pb(Zr,Ti)O3 with Strong Interface Adhesion", Appl. Phys. Lett. 92, 152504 (2008)

92. M. M. Qazilbash, M. Brehm, Byung-Gyu Chae; P. C. Ho, G. 0. Andreev, Kim Bong-Jun, Sun Jin Yun, A. V. Balatsky, M. B. Maple and F. Keilmann, Et. al., "Mott Transition in Vol 2 Revealed By Infrared Spectroscopy and Nano-Imaging", Science; Vol.318, P.1750-3, Dec. 2007

93. M. Sykora, L. Mangolini, R. D. Schaller, U. Kortshagen, D. Jurbergs and V. I. Klimov, "Size-Dependent Intrinsic Radiative Decay Rates of Silicon Nanocrystals At Large Confinement Energies", Phys. Rev. Lett. 100, No. 6, 067401-1-4(2008)

94. M. T. Lloyd, R. P. Prasanhumar, M. B. Sinclair, A. C. Mayer, D. C. Olson and J. W. P. Hsu, "Impact of Interfacial Polymer Morphology On Photoexcitation Dynamics and Device Performance in P3ht/Zno Heterjunction", Submitted To J. Mater. Chem

95. M.J. Stevens and G.S. Grest, "Simulations of Water At the Interface with Hydrophilic Self-Assembled Monolayers", Biointerphases 3, Fc13 (2008)

96. Mesfin Tsige and Gary S. Grest, "Surface Tension and Surface Activity of Perfluorinated Alkanes", Journal of Physical Chemistry C 112, 5029 (2008)

97. N. Chinnasamy, J.Y. Huang, L. H. Lewis and V. G. Harris, "Direct Chemical Synthesis of High Coercivity Smco Nanoblades", Appl. Phys. Lett. 93, 032505 (2008)

98. N. P. Wells, GA. Lessard and J. H. Werner, "Confocal, 3-Dimensional Tracking of Individual Quantum-Dots in High Background Environments", Vol.80, Iss.24, P.9830-9834 Analytical Chemistry (2008)

99. N.W. Moore, J. Luo, J.Y. Huang, S. X. Mao and J.E. Houston, "Superplastic Nanowires Pulled From the Surface of Common Salt", (Submitted)

100. Natalie L. Adolphi, Dale L. Huber, Jason E. Jaetao, Howard C. Bryant, Debbie M. Lovato, Danielle L. Fegan, Eugene L. Venturini, Todd C. Monson, Trace E. Tessier, Helen J. Hathaway, Christian Bergemann, Richard S. Larson and Edward R. Flynn, "Characterization of Magnetite Nanoparticles for Squid-Relaxometry and Magnetic Needle Biopsy", Submitted To Journal of Magnetism and Magnetic Materials

101. P. Hosemann, J. G. Swadener, D. Kiener, G. S. Was, S. A. Maloy and N. Li, "An Exploratory Study To Determine the Applicability of Nano-Hardness and Micro-Compression Measurements for Yield Stress Estimation", J. Nucl. Mater. 375, 135, (2008)

102. P. Hosemann, M. Hawley, D. Koury, J. G. Swadener, J. Welch, A. J. Johnson, G. N. Mori and N. Li, "Characterization of Oxide Layers Grown On D9 Sustenitic Stainless Steel in Lead Bismuth Eutectic", J. Nucl. Mater. 375, 323, (2008)

103. P. Hosemann, J. G. Swadener, S. A. Maloy, T. Romero, "Oxygen Effects On Irradiated Ta Alloys," Accepted for Publication in Nucl. Inst. Meth. Phys. Res. B. (2008)

104. P. Morath, J.A. Seamons, J.L. Reno and M. P. Lilly, "Layer Interdependence of Transport in an Undoped Electron-Hole Bilayer", Phys. Rev. B 78, 115318 (2009)

105. P. Yang, S. Tretiak, A. Masunov and S. A. Ivanov, "Quantum Chemistry of the Minimal Cdse Clusters", J. Chem. Phys. /*129*, 074709 (2008)

106. P. Yang, S. Tretiak, a .E. Masunov and S. Ivanov, "Quantum Chemistry of the Minimal Cdse Clusters", J. Chem. Phys. (In Press)

107. Pieter in't Veld, Mark A. Horsch, Jeremey B. Lechman and Gary S. Grest, "Liquid-Vapor Coexistence for Nanoparticles of Various Size", Journal of Chemical Physics 129, 164504 (2008)

108. R. P. Prasankumar, S. G. Choi, S. A. Trugman, S. T. Picraux and A. J. Taylor, "Ultrafast Electron and Hole Dynamics in Germanium Nanowires", Nano Letters 8, 1619 (2008)

109. R. P. Prasankumar, H. J. Lee, H. Okamura, H. Imai, Y. Shimakawa, Y. Kubo, S. Zvyagin, K. V. Kamenev, G. Balakrishnan, D. Mck. Paul, S. A. Trugman, A. J. Taylor and R. D. Averitt, "Probing Nanoscale Inhomogeneities in Transition Metal Oxides with Ultrafast Mid-Infrared Spectroscopy", Physica B 403, 1401 (2008)

110. R. P. Prasankumar, R. S. Attaluri, R. D. Averitt, J. Urayama, N. Weisse-Bernstein, P. Rotella, A. Stintz, S. Krishna and A. J. Taylor, "Ultrafast Carrier Dynamics in An InAs/Ingaas Quantum-Dots-in-a-Well Heterostructure", Optics Express, 16, 1165 (2008)

111. R. P. Prasankumar, S. G. Choi, G. T. Wang, P. C. Upadhya, S. A. Trugman, S. T. Picraux and A. J. Taylor, "Ultrafast Carrier Dynamics in Semiconductor Nanowires", To Appear in Proceedings of Ultrafast Phenomena Conference, Stresa, Italy, June 2008

112. Ranjan Singh, Abul K. Azad, John F. O'hara, Antoinette J. Taylor and Weili Zhang, "Effect of Metal Permitivity on Resonant Properties of Terahertz Metamaterials", Opt. Lett. 33, 1506 (2008)

113. Ranjan Singh, Evgenya Smimova, Antoinette J. Taylor, John F. O'hara a nd Weili Zhang, "Optically Thin Terahertz Metamaterials", Optics Express 16, 6537 (2008)

114. S. Ingole, P. Manandhar, S.B. Chikkannanavar, E.A. Akhadov, D.J. Smith and S.T. Picraux, "Ex-Situ Doping of Silicon Nanowires with Boron", Appl. Phys. 103, 104302 (2008). Also in in Virtual Journal of Nanoscale Science & Technology, June 2, 2008

115. S. Ingole, P. Manandhar, S. B. Chikkannanavar, E. A. Akhadov and S. T. Picraux, "Charge Transport Characteristics in Boron Doped Silicon Nanowieres", Ieee Trans. On Electron Devices and Trans. On Nanotechnology [Special Joint Issue On Nanowire Electronics] (2008), (in Press)

116. S. Kilina, S. Tretiak, S.K. Doom, Z. Luo, F. Papadimitrakopoulos, A. Piryatinski, A. Saxena, R.L. Martin and A.R. Bishop, "Cross-Polarized Excitons of Carbon Nanotubes", Proc. Nat. Acad. Sci. Usa, 105 6797-6802 (2008)

117. S. Kilina, S. Tretiak, D. A. Yarotski, J. X. Zhu, N. Modine, A. Taylor and A. V. Balatsky, "Electronic Properties of DNA Base Molecules Adsorbed On a Metallic Surface", Journal of Physical Chemistry C; Vol.111, No.39, P.14541-51, 4 Oct. 2007

118. T. 0. Wehling, H.P. Dahal, A. I. Lichtenstein and A. V. Balatsky, "Local Impurity Effects in Superconducting Grapheme", Physical Review B; V.78, No.3, P.035414, July, 2008

119. T. 0. Wehling, A. V. Balatsky, M. I. Katsnelson, A. I. Lichtenstein, K. Scharnberg and R. Wiesendanger, "Local Electronic Signatures of Impurity States in Grapheme", Physical Review B; V.75, No.12, P.125425, March 2007

120. T. Westover, R. Jones, G. Wang, E. Lai and A. A. Talinl, "Photoluminescence, Thermal Transport and Breakdown in Joule-Heated Gan Nanowires", J. Appl. Phys.,( In Review)

121. T.S. Luk, T. Mclellan, G. Subramania, J.C. Verley and I. El-Kady, "Emissivity Measurements of 3d Photonic Crystals At High Temperatures", Photonics and Nanostructures–Fundamental and Applications, Vol. 6, 81 (2008)

122. Tatebayashi, R. B. Laghumavarapu, B. L. Liang, D. A. Bussian, H. Htoon, S. H. Huang, G. Balakrishnan, V. Klimov, L. R. Dawson and D. L. Huffaker, "Formation and Optical Characteristics of Type-Ii Strain-Relieved Gasb/Gaas Quantum Dots By Using An Interfacial Misfit Growth Mode", Submitted To IEEE Transaction On Nanotechnology

123. Trionfi, J. W. P. Hsu, D. H. Wang, J. D. Jacobs, L-S. Tan and R. A. Vaia, "Direct Measurement of the Percolation Probability in Carbon Nanofiber-Polyimide Nanocomposites", Submitted To Phys. Rev. Lett

124. V. I. Klimov, J. A. Mcguire, R. Schaller and V. I. Rupasov, "Scaling of Multiexciton Lifetimes in Semiconductor Nanocrystals", Phys. Rev. B 77, 195324-1- 12 (2008)

125. Vela, B. Prall, P. Rastogi, D. Werder, J. Casson, V. I. Klimov and J. A. Hollingsworth, "The Impact of Sensitization on Brightness in Lanthanide-Doped Nanocrystalline Semiconductors", Submitted June 2008 to Special Issue of the IEEE Transactions On Nanobioscience On "Colloidal Quantum Dots for Biomedical Applications"

126. X. Zhang, 0. Anderoglu, R.G. Hoagland and A. Misra, "Nanoscale Growth Twins in Sputtered Metal Films", Invited Overview Article, V. 60, Jom, P. 75, September (2008)

127. Y. Chen, J. Vela, H. Htoon, J. Casson, D. Werder, D. Bussian, V. I. Klimov and J. A. Hollingsworth, '"Giant' Multishell Cdse Nanocrystal Quantum Dots with Suppressed Blinking", J. Am. Chem. Soc. 130, No. 15, 5026- 5027 (2008)

128. Yajaira Sierra-Sastre, Sukgeun Choi, S. T. Picraux and Carl A. Batt, "Vertical Growth of Ge Nanowires From Biotemplated Au Nanoparticle Catalysts a", J. of the Amer. Chem. Soc. 130, 10488 (2008)

129. Yuanbin Mao, Jian Y. Huang, Roman Ostroumov, Kang L. Wang and Jane P. Chang, "Synthesis and Luminescence Properties of Erbium-Doped Y203 Nanotubes", J. Phys. Chem. C 112, 2278- 2285 (2008)

130. Yuanbing Mao, Xia Guo, Jian Y. Huang, Kang L. Wang and Jane P. Chang, "La2zr2o7 and La2hf2o7 Nanoparticles From Single-Source Complex Precursors: Kinetically Modified Synthesis and Luminescent Properties", (Submitted)

131. Z. Zhang, J.Y. Huang, D. T. Berry, P.P. Provencio and T.M. Nenoff, "Room Temperature Synthesis of Agni and Pdni Alloy Nanoparticles By Radiolysis", (In Prep)

## 2010 Publications

1. Adolphi, N. L., D. L. Huber, H. C. Bryant, T. C. Monson, D. L. Fegan, J. Lim, J. E. Trujillo, T. E. Tessier, D. M. Lovato, K.S. Butler, P. P. Provencio, H. J. Hathaway, S. A. Majetich, R.

2. Akatyeva, E., J. Y. Huang and T. Dumitric (2010). “Edge-Mediated Dislocation Precesses in Multishell Carbon Nano- Onions.” Physical Review Letters 105: 106102.

3. Alberti, S. F., V. Kleiman, S. Tretiak, and A. Roitberg (2010). ”Unidirectional Energy Transfer in Conjugated Molecules: the Crucial Role of High Frequency C (Triple)C Bonds.” Journal of Physical Chemistry I 2699-2704

4. Allen, D. G., T. Hargett, J. L. Reno, A. A. Zinn and M. C. Wanke (2011). “Index Tuning for Precise Frequency Selection of Terahertz Quantum Cascade Lasers." Ieee Photonics Technology Letters 23: 30. [User Proposal Number: C2009b040]

5. Allen, D. G., M. Wanke, J. L. Reno and T. Hargett (2010). “Optical Bistability from Domain Formation in Terahertz Quantum Cascade Lasers.” Ieee Journal of Selected Topics in Quantum Electronics Submitted 1/10. [User Proposal Number: U2008a105]

6. Alvermann, A., H. Fehske, and S. A. Trugman (2010). ``Polarons and Slow Quantum Phonons.”Physical Review B 81: 165113. [User Proposal Number: C2008a096

7. Baber, S., M. Zhou, Q. L. Lin, M. Naalla, Q. X. Jia, Y. Lu, and H. M. Luo (2010). “Nanoconfined Surfactant Templated Electrodeposition to Porous Hierarchical Nanowires and Nanotubes.” Nanotechnology 21: 165603. [User Proposal Number: U2009a043]

8. Badaeva, E., V. Albert, S. Kilina, M. Sykora, and S. Tretiak (2010). ”Effect of Deprotonation on Absorption and Emission Spectra of Ru (Ii)-Bpy Complexes Functionalized with Carboxyl Groups.” Physical Chemistry Chemical Physics 12: 8902-8913. [User Proposal Number: U2010b1108]

9. Baek, S. H., M. J. Graf, A. V. Balatsky, E. D. Bauer, C. Cooley, J. L. Smith, N. J. Curro (2010). “Antiferromagnetic Patches and Hidden Order in Uru2si2 by Impurity Doping.” Physical Review B 81: 132404. [User Proposal Number: U2008a075]

10. Bao, Y., H. C. Yeh, C. Zhong, S. A. Ivanov, J. K. Sharma, M. L. Neidig, D. M. Vu, A. P. Shreve, R. B. Dyer, J. H. Werner and J. S. Martinez (2010). "Formation and Stabilization of Fluorescent Gold Nanoclusters Using Small Molecules." Journal of Physical Chemistry C 10:102i. [User Proposal Number: U2008a132]

11. Bellou, A., C. T. Overman, H. M. Zbib, D. F. Bahr and A. Misra (2011). “Strength and Strain Hardening Behavior of Cu-Based Bilayers and Trilayers.” Scripta Materialia 64: 641. [User Proposal Number: U2009a080]

12. Beyerlein, I. J., N. A. Mara, D. Bhattacharyya, D. J. Alexander and C. T. Necker (2010). “Texture Evolution via Combined Slip and Deformation Twinning in Rolled Silver-Copper Eutectic Nanocomposite.” International Journal of Plasticity 27(1): 121. [User Proposal: U2008b092]

13. Bhattacharyya, D., N. A. Mara, P. Dickerson and A. Misra (2010). “a Transmission Electron Microscopy Study of the Deformation Behavior Underneath Nanoindents in Nano-Scale Al- Tin Multilayered Composites.” Philosophical Magazine 90: 13 1711-1724. [User Proposal: U2008b092]

14. Bi, Z., O. Anderoglu, X. Zhang, J. L. Macmanus-Driscoll, H. Yang, Q. X. Jia, and H. Wang (2010). “Nanoporous Thin Films with Controllable Nanopores Processed From Vertically Aligned Nanocomposites.” Nanotechnology 21: 285606. [User Proposal: C2009a006]

15. Bi, Z., A. Chen, H. Wang, E. Weal, J. L. Macmanus-Driscoll, H. Luo and Q. Jia (2011). “Micostructural and Magnetic Properties of Lsmo/Mno Nanocomposite Thin Films.” Journal of Applied Physics 109. In Press.

16. Biedermann, L. B., T. E. Beechem, A. J. Ross Iii, T. Ohta and S. W. Howell (2010). “Electrostatic Transfer of Patterned Epitaxial Graphene From Sic (000-1) To Glass.” New Journal of Physics 12: 125016. [User Proposal: U2009b048]

17. Bock, J., Y. Fukuyo, S. Kang, M. E. Phipps, L. B. Alexandrov, K. Ø. Rasmussen, A.R. Bishop, E. D. Rosen, J. S. Martinez, H.-T. Chen, G. Rodriguez, B. S. Alexandrov and A. Usheva (2010). “Mammalian Stem Cells Reprogramming in Response to Terahertz Radiation.” Plos One 5: 15806. [User Proposal: U2009a097]

18. Bowers, C. R., G. M. Gusev, J. Jarosyynski, J. L. Reno and J. A. Simmons (2010). “Resistively Detected NMR of the N=1 Quantum Hall State: a Tilted Magnetic Field Study.” Physical Review B 81: 07330.

19. Boyce, B. L., J. Y. Huang, D. C. Miller and M. S. Kennedy (2010). “Deformation and Failure of Small---Scale Structures.” Journal of the Minerals, Metals and Materials Society 62: 61.

20. Burckel, D. B., J. R. Wendt, G. A. Ten Eyck, A. R. Ellis, I. Brener and M. B. Sinclair (2010). “Fabrication of 3d Metamaterial Resonators Using Self---Aligned Membrane Projection Lithography.” Advanced Materials 22 (29) 3171–3175.

21. Burghoff, D., T. –Y. Kao, D. Ban, A. W. M. Lee, Q. Hu and J. Reno (2011). “a Terahertz Pulse Emitter Monolithically Integrated with a Quantum Cascade Laser.” Applied Physics Letters 98: 061112. [User Proposal: C2009a002]

22. Chandross, M., C. D. Lorenz, M. J. Stevens, G. S. Grest (2010). “Probe---Tip Induced Damage in Compliant Substrates.” Journal of Manufacturing Science and Engineering 132: 030916.

23. Chen, H. T., J. F. Ohara and A. J. Taylor (2010). “Active Terahertz Metamaterials.” Optics and Spectroscopy 108: 834–840.

24. Chen, H. T., H. Yang, R. Singh, J. F. O’hara, A. K. Azad, S. A. Trugman, Q.X. Jia and A. J. Taylor (2010). “Tuning the Resonance in High Temperature Superconducting Metamaterials.” Physical Review Letters 105: 247402.

25. Chen, H. T., J. Zhou, J. F. Ohara and A. J. Taylor (2010). “A Numerical Investigation of Metamaterial Antireflection Coatings.” Terahertz Science and Technology 3 66–73.

26. Chen, Z., A. J. Taylor and A. Efimov (2010). "Soliton Dynamics in Non-Uniform Fiber Tapers: Analytical Description through an Improved Moment Method." Journal of the Optical Society of America B 27: 1022-1030.

27. Choi, E. M., S. Patnaik, E. Weal, S. L. Sahonta, H. Wang, Z. Bi, J. Xiong, M. G. Blamire, Q. X. Jia and J. L. Macmanus- Driscoll (2011). “Strong Room Temperature Magnetism in Highly Resistive Strained Thin Films of Bife0.5mn0.5o3.” Applied Physics Letters 98 .[User Proposal: C2009a006]

28. D. Goodhue, J. Li and J. Reno (2010). “External Modulators for Terahertz Quantum Cascade Lasers Based On Electrically-Driven Active Metamaterials.” Metamaterials 4: 83–88. [User Proposal: U2007a030]

29. Dahal, H. P., Z. X. Hu, N. A. Sinitsyn, Yang, Kun and A. V. Balatsky (2010). “Edge States in a Honeycomb Lattice: Effects of Anisotropic Hopping and Mixed Edges.” Physical Review B 81: 155406. [User Proposal: U2010a897]

30. Dahal, H.P., T. O. Wehling, K. S. Bedell, J. X. Zhu and A. V. Balatsky (2010). “Charge Inhomogeneity in a Single and Bilayer Grapheme.” Physica B-Condensed Matter 405: 2241-2244. [User Proposal: Ra2009b053]

31. Davids, P. S., F. Intravaia, F. S. S. Rosa and D. A. R. Dalvit (2010). "Modal Approach to Casimir Forces in Periodic Systems.” Physical Review A 82: 06211.

32. Dayeh, S. A. and S. T. Picraux (2010). “Direct Observation of Nanoscale Size Effects in Ge Semiconductor Nanowire Growth.” Nano Letters 10: 4032. [User Proposal: U2008b028]

33. Dubi, Y. and A. V. Balatsky (2010). “Impurity-Induced Bound States and Proximity Effect in a Bilayer Exciton Condensate.” Physical Review Letters 104:166802.

34. Duque, J.G., A. Nicholas, G. Parra-Vasquez, N. Behabtu, M. Green, A. L. Higginbotham, B. K. Price, A. D. Leonard, H. K. Schmidt, B. Lounis, J. M. Tour, S. K. Doorn, L. Cognet And M. Pasquali (2010). “Diameter Dependent Solubility of Single Walled Carbon Nanotubes.” Acs Nano 4: 3063. [User Proposal: U2010a946]

35. Elbert E. M. Chia, D. Talbayev, Jian-Xin Zhu, H. Q. Yuan, T. Park, J. D. Thompson, C. Panagopoulos, G. F. Chen, J. L. Luo, N. L. Wang, andA. J. Taylor (2010). “Ultrafast Pump- Probe Study of Phase Separation and Competing Orders in the Underdoped (Ba, K) Fe2as2 Superconductor.” Physical Review Letters 104: 027003. [User Proposal: U2009b036]

36. Fraboni, B., A. Scida, A. Cavallini, P. Cosseddu, A. Bonfiglio, S. Milita and M. Nastasi (2010). “Spectroscopic Investigation of the Semiconductor Molecular Packing in Fully Operational Organic Thin-Film Transistors.” Applied Physics Letters 96: 163302. [User Proposal: C2010a907]

37. Franco, R., J. Jacobsen, H. Wang, Z. Wang, K. Istvan, N. E. Schore, Y. Song, C. J. Medforth and J. A. Shelnutt (2010). “Molecular Organization in Self-Assembled Binary Porphyrin Nanotubes Revealed By Resonance Raman Spectroscopy.” Physical Chemistry Chemical Physics 12: 4072. [User Proposal: U2009b017]

38. Fransson J., O. Eriksson and A. V. Balatsky (2010). “Theory of Spin-Polarized Scanning Tunneling Microscopy Applied To Local Spins.” Physical Review B 81: 115454. [User Proposal: C2008b110]

39. Fransson. J., A. V. Balatsky and J. X. Zhu (2010). “Dynamical Properties of a Vibrating Molecular Quantum Dot in a Josephson Junction.” Physical Review B 81: 155440. [User Proposal: C2008b110]

40. Frischknecht, A. L., E. S. Mcgarrity, and M. E. Mackay (2010). “Expanded Chain Dimensions in Polymer Melts with Nanoparticle Fillers.” Journal of Chemical Physics 132: 20490i. [User Proposal: U2008a043]

41. Gambari, J., S. A. Maier, B. S. Williams, S. Kumar, J. L. Reno, Q. Hu and C. C. Phillips (2010). “Thresholdless Coherent Light Scattering From Subband-Polaritons in a Strongly- Coupled Microcavity.” Physical Review B 82(12): 121303. [C2009a002(Hu)]

42. Ganguly K., I. D. Mcrury, P. M. Goodwin, R. E. Morgan and W. K. Augé (2010). “Histopomorphic Evaluation of Radiofrequency Mediated Débridement Chondroplasty.” the Open Orthopaedics Journal 4: 211. [User Proposal: Ra2009a135]

43. Ganguly K., I. D. Mcrury, P. M. Goodwin, R. E. Morgan and W. K. Augé (2010). “Native Chondrocyte Viability during Cartilage Lesion Progression: Normal to Surface Fibrillation.” Cartilage 10: 1177. [User Proposal: Ra2009a135]

44. Gao, J., H.-L. Wang, A. Shreve and R. Iyer (2010). "Fullerene Derivatives Induce Premature Senescence: a New Toxicity Paradigm Or Novel Biomedical Applications." Toxicology and Applied Pharmacology 244: 134-143. [User Proposal: C2008b119 and U2010a979]

45. Garcia, R. M., Y. Song, R. M. Dorin, H. Wang, A. M. Moreno, Y. B. Jiang, Y. Tian, Y. Qiu, J. Medforth, E. N. Coker, F. Van Swol, J. E. Miller and J. A. Shelnutt (2011). “Templated Growth of Platinum Nanowheels Using the Inhomogeneous Reaction Environment of Bicelles.” Physical Chemistry Chemical Physics 10: 1039.[User Proposal: U2009b017]

46. Goddard, G., L. O. Brown, R. Habbersett, C. I. Brady, J. C. Martin, S. W. Graves, J. P. Freyer and S. K. Doorn (2010). “High Resolution Spectral Analysis of Individual Surface- Enhanced Raman-Active Nanoparticle Spectral Tags in Flow.” Journal of the American Chemical Society 132: 6081. [User Proposal: C2009a067]

47. Goel, S., K. A. Velizhanin, A. Piryatinski, S. Tretiak and S. A. Ivanov (2010). ”Dft Study of Ligand Binding To Small Gold Clusters.” Journal of Physical Chemistry I 927 – 931. [User Proposal: U2008b031]

48. Gu, I. J., R. Singh, Z. Tian, W. Cao, Q. Xing, M. He, J. W. Zhang, J. Han, H.-T. Chen and W. Zhang (2010). “Terahertz Superconductor Metamaterial.” Applied Physics Letters 97:071102. [User Proposal: Ra2008a183]

49. Gupta, G., S. B. Rathod, K. W. Staggs, L. K. Ista, K. Abbou-Cucherif, P. B. Atanassov, M. S. Tartis, G. A. Montaño and G. P. Lopez (2010). “Cvd for Facile Synthesis of Hybrid Nano-Biomaterials Integrating Functional Supramolecular Assemblies. Science.” Langmuir 25: 2986-2993. [User Proposal: U2008a083]

50. Gupta, G., J. G. Duque, S. K. Doorn and A. M. Dattelbaum (2010). “Stable and Responsive Fluorescent Carbon Nanotube Silica Gels.” Materials Research Society Symposium Proceedings. In Press.

51. Guzei, I., I. Arachchige and S. A. Ivanov (2010). “Two Polymorphs of Chloro DiPhenylCyclohexyl Phosphine] Gold (I).” Acta Crystallography C 66(30): M55.

52. Hamilton, C. E., M. E. Chavez, J. G. Duque, G. Gupta, S. K. Doorn, A. M. Dattelbaum and K. Defriend-Obrey (2010). “Carbon Nanomaterials in Silica Aerogel Matrices.” Materials Research Society Symposium Hopkins, Proceedings, in Press.

53. Haroz, E.H., W. D. Rice, B. Y. Lu, R. H. Hauge, S. Ghosh, R. B. Weisman, S. K. Doorn AndJ. Kono (2010). “Enrichment of Armchair Carbon Nanotubes via Density Gradient Ultracentrifugation: Raman Evidence.” Acs Nano 4: 1955. [User Proposal: U2007a214]

54. Harper, J.C., C. Y. Khirpin, E. C. Carnes, C. E. Ashley, D. M., Lopez, T., Savage, H. D. T., Jones, R. W., Davis, L. M., Brinker, B., Kaehr, S. M., Brozik, C. J., Brinker (2010). “Cell- Directed Integration into 3d Lipid-Silica Nanostructured Matrices.” Acs Nano 10:1021 101793u. [User Proposal: U2008b041]

55. Hopkins, P. E., L. M. Phinney, J. R. Serrano, S. P. Kearney, T. W. Grasser and C. T. Harris (2010). “Criteria for Cross- Plane Dominated Thermal Transport in Multilayer Thin Film Systems During Modulated Laser Heating.” Journal of Heat Transfer 132: 081302. [User Proposal: U2008a097]

56. Hopkins, P. E., B. J. Kaehr, L. M. Phinney, T. P. Koehler, A. M. Grillet, D. Dunphy, F. Garcia and C. J. Brinker (2010). “Optical Measurements of the Thermal Conductivity of Porous Sio2 Films.” Proceeding of the International Heat Transfer Conference Ihtc14: 22488. [User Proposal: U2008b041]

57. Hopkins, P. E., L. M. Phinney and J. R. Serrano (2011). “Re-Examining Electron-Fermi Relaxation in Au with a Nonlinear Thermoreflectance Model.” Journal of Heat Transfer 133: 044505. [User Proposal: U2009a008]

58. Hopkins, P. E., L. M. Phinney, J. R. Serrano and T. E. Beechem (2010). “Effects of Surface Roughness on the Thermal Boundary ConductanceAt Aluminum/Silicon Interfaces.” Physical Review B 82: 085307. . [User Proposal: U2009a008]

59. Hopkins, P. E., L. M. Phinney and J. R. Serrano and T. E. Beechem (2010). “Effects of Surface Roughness On the Thermal Boundary Conductance At Aluminum/Silicon Interfaces.” Proceeding of the International Heat Transfer Conference Ihtc14: 22268. [User Proposal: U2009a008]

60. Hopkins, P. E., J. R. Serrano, L. M. Phinney, H. Li, S. T. Picraux and A. Misra (2011). “Boundary Scattering Effects during Electron Thermalization in Nanoporous Gold.” Journal of Applied Physics 109: 013524. [User Proposal: U2009a008]

61. Hou-Tong, C., J. Zhou, J. F. O’hara, F. Chen, A. K. Azad, and A. J. Taylor (2010). “Antireflection Coating Using Metamaterials and Identification of Its Mechanism.” Physical Review Letters 105: 0739021. [User Proposal: U2009b015]

62. Htoon, H., A. V. Malko, D. Bussian, J. Vela, Y. Chen, J. A. Hollingsworth and V. I. Klimov (2010). “Highly Emissive Multiexcitons in Steady-State Photo-Luminescence of Individual “Giant” Cdse/Cds Core/Shell Nanocrystals.” Nano Letters 10: 2401-07. [User Proposal: U2008a078]

63. Hu, Q. (2011). “Terahertz Quantum Cascade Lasers and Real-Time T-Rays Imaging at Video Rate.” International Journal of High Speed Electronics and Systems 2(4). [User Proposal: U2008a008]

64. Huang, J. Y., L. Qi and J. Li (2010). “In-situ Imaging of Layer-By-Layer Sublimation of Suspended Grapheme.” Nano Research 3: 43-50.

65. Huang, J. Y., L. Zhong, C. M. Wang, J. P. Sullivan, W. Xu, L. Q. Zhang, S. X. Mao, N. S. Hudak, X. H. Liu, A. Subramanian, H. Y. Fan, L. Qi, A. Kushima and J. Li (2010). “In-situ Observation of the Electrochemical Lithiation of a Single Sno2 Nanowire Electrode.” Science 330: 1515. [User Proposal: C2009a052]

66. Huang, J. Y., L. Zhong, C. M. Wang, J. P. Sullivan, W. Xu, L. Q. Zhang, S. X. Mao, N. S. Hudak, X. H. Liu, A. Subramanian, H. Y. Fan, L. Qi, A. Kushima and J. Li (2010). “Real Time Observation of the Charging Process of a Single Sno2 Nanowire Anode in a Li-Ion Nanobattery.” Science 10: 1126. [User Proposal: C2009a052]

67. Hur, S. –M., A. L. Frischknecht, D. L. Huber and G. H. Fredrickson (2010). “Field-Based Simulations of Directed Self-Assembly in a Mixed Brush System.” Proceedings of the Spie 7637: 76370. [User Proposal: U2009b038]

68. Ivanov, S. A., and M. Achermann (2010). “Spectral and Dynamic Properties of Excitons and Biexcitons in Type-Ii Semiconductor Nanocrystals.” Acs Nano 4(10): 5994. [User Proposal: U2008a074]

69. Jones, R. E., J. A. Templeton, G. J. Wagner, D. Olmsted and N. A. Modine (2010). “Electron Transport Enhanced Molecular Dynamics for Metals and Semi-Metals.” International Journal for Numerical Methods in Engineering 83: 940.

70. Kadel, K., L. Kumari, W. Z. Li, J. Y. Huang and P. P. Provencio (2010). “Synthesis and Thermoelectric Properties of Bi2se3 Nanostructures.” Nanoscale Research Letters 10: 1007.

71. Kaehr, B., C. J. Brinker (2010). “Using Bacterial Growth to Template Catalytic Asymmetry.” Chemistry Communications 46: 5268-5270. [User Proposal: U2008b041]

72. Kalb, J., D. Dukes, S. K. Kumar, R. S. Hoy and G. S. Grest (2011). “End Grafted Polymer Nanoparticles in a Polymer Matrix: Effects of Coverage and Curvature.” Soft Matter 7: 1418. [User Proposal: U2008b030]

73. Kalugin, N. G., I. Kalichava, J. Fallt, C.Del Barga, C. Cooper, J. G. Duque, E. Gonzales, S. K. Doorn, E. A. Shaner and A. V. Gin (2010). “The Characterization of Non-Planar Graphene

Nanowires with an Ω Shape Cross-Section." Carbon 48(12): 3405-3411. [User Proposal: U2008a061]

74. Kao, T-Y., Q. Hu and J. L. Reno (2010). "Phase-Locked Arrays of Surface-Emitting Terahertz Quantum-Cascade Lasers." Applied Physics Letters 96: 101106. [User Proposal: C2008a008]

75. Kar, A., P. C. Upadhya, S. A. Dayeh, S. T. Picraux, A. J. Taylor and R. P. Prasankumar (2010). "Probing Ultrafast Carrier Dynamics in Silicon Nanowires." Ieee Journal of Selected Topics in Quantum Electronics 99: 7. [User Proposal: U2008b028]

76. Katan, C., M. Charlot, O. Mongin, C. Le Droumaguet, V. Jouikov, F. Terenziani, E. Badaeva, S. Tretiak and M. Blanchard-Desce (2010). "Simultaneous Control of Emission Localization and Two-Photon Absorption Efficiency in Dissymmetrical Chromophores." Journal of Physical Chemistry B 114: 3152-3169. [User Proposal: C2008a031]

77. Katan, C., S. Tretiak, and J. Even (2010). "Two-Photon Transitions in Triazole Based Quadrupolar and Octupolar Chromophores: a Td-Dft Investigation Nanophotonics Iii." Proceedings of Spie 7712: 77123d. [User Proposal: C2009a021]

78. Katan, C., M. Blanchard-Desce and S. Tretiak (2010). "Position Isomerism On One and Two Photon Absorption in Multibranched Chromophores: a Tddft Investigation." Journal Chem. Theory Comput., in Press.

79. Katzenmeyer, A. M., F. Leonard, A. A. Talin, P. S. Wong and D. L. Huffaker (2010). "Poole-Frenkel Effect and Phonon-Assisted Tunneling in Gaas Nanowires." Nano Letters 10: 4935. [User Proposal: U2008b116]

80. Kobayashi, T., J. Du, W. Feng, K. Yoshino, S. Tretiak, A. Saxena and A. R. Bishop (2010). "Observation of Breather Excitons in a Substituted Polythiophene with a Degenerate Ground State." Physical Review B 81: 075205.

81. Kos S., A. V. Balatsky, P. B. Littlewood, D. Smith, "Spin Noise of Itinerant Fermions." Physical Review B 81: 064407.

82. Kumar, S., C. W. I. Chan, Q. Hu and J. L. Reno (2011). "a 1.8 Thz Quantum---Cascade Laser Operating Up To 163 K; Significantly Above the Temperature of ħω/Kb Nature Physics 7: 166---

83. Kumari, L., W. Li, J. Y. Huang and P. P. Provencio (2010). "Nanosize Transition Metal Antimonides, Nisb and Fesb2: Solvothermal Synthesis and Characterization." Journal of Physical Chemistry 114: 9573.

84. Kumari, L., W. Li, J. Y. Huang and P. P. Provencio (2010). "Solvothermal Synthesis, Structure and Optical Property of Nanosized Cosb3 Skutterudite." Nanoscale Research Letters 5: 1698.

85. Laroche D, S. Das Sarma and G. Gervais (2010). “Scattering Mechanism in Modulation-Doped Shallow Two-Dimensional Electron Gases.” Applied Physics Letters 96: 162112. [User Proposal: C2008a019]

86. Le, S. T., P. Jannaty, A. Zaslavsky, S. A. Dayeh and S. T. Picraux (2010). “Growth, Electrical Rectification, and Gate Control in Axial in Situ Doped P-N Junction Germanium Nanowires.” Applied Physics Letters 96: 262102. [User Proposal: C2008a016]

87. Lee, A. W. M., B. Williams, S. Kumar, Q. Hu and J. L. Reno (2010). “Tunable Terahertz Quantum Cascade Lasers Based On External-Cavity Gratings.” Optics Letters 35 7: 910. [User Proposal: U2008b030]

88. Lee, Y. J., R. J. Davis, M. T. Lloyd, P. P. Provencio, R. P. Prasankumar, J. A. Voigt and J. W. P. Hsu (2010). “Open- Circuit Voltage Improvement in Hybrid Zno-Polymer Photovoltaic Devices with Oxide Engineering.” Ieee Journal of Selected Topics in Quantum Electronics 16(6): 1587. [User Proposal: C2008b042]

89. Leung, K., M. B. Nielsen, N. Sai, C. J. Medforth and J. Shelnutt (2010). “Cobalt-Porphyrin Catalyzed Electrochemical Reduction of Carbon Dioxide in Water. 2. Mechanism from First Principles.” Journal of Physical Chemistry a 37: 10174. [User Proposal: U2009b017]

90. Li, H., S. Malinin, S. Tretiak, and V. Chernyak (2010). ”Exciton Scattering Approach for Branched Conjugated Molecules and Complexes IV. Transition Dipoles and Optical SpectrA.” Journal of Chemical Physics 132: 124103. [User Proposal: C2009b011]

91. Li, N., J. Wang, J. Y. Huang, A. Misra and X. Zhang (2010). “In-situ Tem Observation of Room Temperature Dislocation Climb at Interfaces in Nanolayered Al/Nb Composites.” Scripta Materialia 63: 363. [User Proposal: C2009a017]

92. Li, N., J. Wang, J. Y. Huang, A. Misra and X. Zhang (2011). “Influence of Slip Transmission on the Migration of Incoherent Twin Boundaries in Nanotwinned Cu.” Scripta Materialia 64(2): 149. [User Proposal: C2009a017]

93. Lin, Y., C. Dai, Y. R. Li, X. Chen, C. L. Chen, A. Bhalla, and Q. X. Jia (2010). “Strain Relaxation in Epitaxial (Pb, Sr) Tio3 Thin Films on Nadgao3 Substrates.” Applied Physics Letters 96: 102901.

94. Lin, T. –Y., K. -M. Lim, A. M. Andrews, G. Strasser and J. P. Bird (2010). “Nonspin Related Giant Magnetoresistance <600% in Hybrid Field-Effect Transistors with Ferromagnetic Gates.” Applied Physics Letters 97: 063108. [User Proposal: C2008a037]

95. Loh, O., X. Wei, C. Ke, J. P. Sullivan and H. D. Espinosa (2010). “Robust Carbon Nanotube-Based Nanoelectromechanical Devices: Understanding and Eliminating Prevalent Failure Modes Using Alternative Electrode Materials.” Small 7: 79. [User Proposal: C2008a035]

96. Lu, Y., J. Y. Huang, C. Wang, S. Sun and J. Lou (2010). “Cold-Welding of Ultrathin Gold Nanowires.” Nature Nanotech 5: 218.

97. Lucca, D.A., Y. Qi, T. A. Harriman, T. Prenzel, Y. Q. Wang, M. Nastasi, J. Dong and A. Mehner (2010). “Effects of Ion Irradiation On the Mechanical Properties of Sinawoxcyhz Sol- Gel Derived Thin Films.” Nuclear Instruments and Methods in Physics Research B, 268: 2926. [User Proposal: U2008a095]

98. Luo, H. M., H. Wang, G. F. Zou, E. Bauer, T. M. Mccleskey, A. K. Burrell and Q. X. Jia (2010). “A Review of Epitaxial Metal-Nitride Films by Polymer-Assisted Deposition.” Transactions on Electrical and Electronic Materials 11: 54-60. [User Proposal: U2009a043]

99. Luo, J. H., F. F. Wu, J. Y. Huang and S. X. Mao (2010). “Superelongation and Atomic Chain Formation in Nanosized Metallic Glass.” Physical Review Letters 104: 215503. [User Proposal: C2008a004]

100. Manandhar, P., A. Akhadov, E. A. Akhadov, C. Tracy and S. T. Picraux (2010). “Integration of Nanowire Devices in Out-of-Plane Geometry.” Nano Letters 10: 2126. [User Proposal: C2009a042]

101. Manjeri, R. M., S. Qiu, N. Mara, A. Misra and R. Vaidyanathan (2010). “Superelastic Response of 111 and 101 Oriented Niti Micropillars.” Journal of Applied Physics 108: 023501. [User Proposal: C2008a098]

102. Mara, N. A., D. Bhattacharyya, J. P. Hirth, P. Dickerson and A. Misra (2010). “Mechanism for Shear Banding in Nanolayered Composites.” Applied Physics Letters 97: 021909. [User Proposal: U2008b092]

103. Mariani, G., R. B. Laghumavarapu, B. T. De Villers, J. Shapiro, P. Senanayake, A. Lin, B. J. Schwartz and D. L. Huffaker (2010). “Hybrid Conjugated Polymer Solar Cells Using Patterned Gaas Nanopillars.” Applied Physics Letters 97: 013107. [User Proposal: U2007a194]

104. Martin, K. E., Z. Wang, R. M. Garcia, Y. Song, J. L. Jacobsen, N. E. Schore, T. Busani, B. S. Swartzentruber, C. J. Medforth and J. A. Shelnutt (2010). "Donor-Acceptor Biomorphs from the Ionic Self-Assembly of Porphyrins." Journal of the American Chemical Society 13223: 8194. [User Proposal: U2008b185]

105. Matthew, J., D. Lane, and G. S. Grest (2010). “Spontaneious Asymmetry of Coated Spherical Nanoparticles in Solution and At Liquid/Vapor Interfaces.” Physical Review Letters 104: 23550i.

106. Mazin, I. I. and A. V. Balatsky (2010). “Superconductivity in Ca-Intercalated Bilayer Grapheme.” Philosophical Magazine Letters 90: 731-738.

107. Mcintyre, N. R., R. Franco, J. A. Shelnutt and G. C. Ferreira (2011). “Porphyrin Interactions with Nickel (Ii) Chelatase Variants Directly Evolved From Murine Ferrochelatase.” Biochemistry. In Press.

108. Medforth, C. J., J. A. Shelnutt, K. M. Kadish, K. M. Smith and R. Guilard (2011). “Self-Assembled Porphyrin Nanostructures.” Handbook of Porphyrin Science 11: 50 World Scientific Publishing Company, Hackensack, N,. In Press

109. Mehner, A., J. Dong, T. Hoja, T. Prenzel, Y. Mutluguenes, E. Brinksmeier, D. Lucca and F. Klaiber (2010). “Diamond Machinable Sol-Gel Silica Based Hybrid Coatings for High Precision Optical Molds.” Key Engineering Materials 438: 65. [User Proposal: U2008a095]

110. Mehner, A., J. Dong, T. Prenzel, W. Datchary and D. A. Lucca (2010). “Mechanical and Chemical Properties of Thick Hybrid Sol-Gel Silica Coatings from Acid and Base Catalyzed Sols.”Journal of Sol-Gel Science and Technology 54: 355. [User Proposal: U2008a095]

111. Miao, X., I. Brener, and T. S. Luk (2010). "Nanocomposite Plasmonic Fluorescence Emitters with Core/Shell Configurations." Journal of the Optical Society of America B 27: 1561-1570. [User Proposal: C2008b105]

112. Miao, X., B. Passmore, A. Gin, W. Langston, S. Vangala, W. Goodhue, E. Shaner and I. Brener (2010). “Doping Tunable Resonance: Toward Electrically Tunable Mid-Infrared Metamaterials.” Applied Physics Letters 96: 101111. [User Proposal: C2008b105]

113. Miranda, A. E. Malheiro, E. Skiba, P. Quaresma, P. A. Carvalho, P. Eaton, B. De Castro, J. Shelnutt and E. Pereira (2010). “One Pot Synthesis of Triangular Gold Nanoplates Allowing Broad and Fine Tuning of Edge Length.” Nanoscale 2: 1799. [User Proposal: U2009b017]

114. Mudalige, K., S., Habuchi, P. M., Goodwin, R. K., Pai, F., De Schryver, M., and M., Cotlet (2010). “Photophysics of the Red Chromophore of Hcred: Evidence for Cis-Trans Isomerization and Protonation-State Changes.” Journal of Physical Chemistry B 11413: 4678-4685.

115. Mukundan, H., H. Xie, W. K. Grace, A. S. Anderson, D. Price, J. S. Martinez, N. Hartman and B. I. Swanson (2010). “Quantitative Multiplex Detection of Pathogen Biomarkers on Multichannel Waveguides.” Analytical Chemistry 82(1): 136. [ User Proposal: U2008a167]

116. Nam, S. H., A. J. Taylor, and A. Efimov (2010). “Diabolical Point and Conical-Like Diffraction in Periodic Plasmonic Nanostructures.” Optics Express 18: 10120. [User Proposal: U2010a1004]

117. Ohta, T., N. C. Bartelt, S. Nie, K. Thürmer and G. L. Kellogg (2010). Tthe Role of Carbon Surface Diffusion On the Growth of Epitaxial Graphene On Sic.” Physics Review B 81: 121411 (R) Editors Suggestion. [User Proposal: Ra2008a186]

118. Okba, F., N. Cherkashin, Z. Di, M. Nastasi, F. Rossi, A. Merabet and A. Claverie (2010). “Controlled Drive-in and Precipitation of Hydrogen During Plasma Hydrogenation of Silicon Using a Thin Compressively Strained Sige Layer.” Applied Physics Letters 97: 31917.

119. P. E., B. J. Kaehr, L. M. Phinney, T. P. Koehler, A. M. Grillet, D. Dunphy, F. Garcia and C. J. Brinker (2011). “Measuring the Thermal Conductivity of Porous, Transparent Sio2 Films with Time Domai Thermoreflectance.”

120. Padmanabhan, V., A. L. Frischknecht and M. E. Mackay (2010). “Binary Fluid with Attractions near a Planar Wall.” Physical Review E 82: 021507. [User Proposal: C2009a047]

121. Passmore, B. S., D. C. Adams, R. Ribaudo, D. Wasserman, S. Lyon, P. Davids, W. W. Chow and E. A. Shaner (2011). “Observation of Rabi Splitting From Surface Plasmon Coupled Conduction State Transitions in Electrically Excited InAs Quantum Dots.” Nano Letters 11: 338. [User Proposal: C2008a049]

122. Peralta, X. G., I. Brener, W. J. Padilla, E.W. Young, A. J. Hoffman, M. J. Cich, R. D. Averitt, M. C. Wanke, J. B. Wright, H.-T. Chen, J. F. O’hara, A. J. Taylor, J. Waldman, W.

123. Peralta, X. G., M. C. Wanke, I. Brener, J. Waldman, W. D. Goodhue, J. Li, A. K. Azad, H. T. Chen, A. J. Taylor and J. F. O'hara (2010). “Metamaterial Based Devices for Terahertz Imaging.” Proceedings of the Spie 7562:75620i. [User Proposal: Ra2008b138]

124. Pesce, P.B.C., P. T. Araujo, P. Nikolaev, S. K. Doorn, K. Hata, R. Saito, M. S. Dresselhaus and A. Jorio (2010). “Calibrating Single-Wall Carbon Nanotubes’ Resonance Raman Intensity by High Resolution Transmission Electron Microscopy for Spectroscopy-Based Diameter Distribution Determination.” Applied Physics Letters 96: 051910.

125. Picraux, S. T. (2010). “Exploring New Science through Nanoscale Integration.” MRS Bulletin 35.

126. Picraux, S. T., S. Dayeh, P. Manandhar, D. E. Pera, and S. G. Choi (2010). “Silicon and Germanium Nanowires: Growth, Properties and Integration.” Journal of the Minerals, Metals, and Materials Society 62 4: 35. [User Proposal: U2008b028]

127. Pint, C.L., Y. Xu, T. Cherukuri, S. Moghazy, N. T. Alvarez, E. H. Haroz, S. Mahzooni, S. K. Doorn, J. Kono and R. H. Hauge (2010). “Dry Contact Transfer Printing of Patterns Formed From Pristine Well-Aligned Carbon Nanotube Arrays and Characterization of Their Anisotropic Optical Properties.” Acs Nano 4: 1131. [User Proposal: U2008a010]

128. Polsky, R., C. M. Washburn, G. A. Montaño, H. Liu, T. L. Edwards, D. M. Lopez, J. C. Harper, S. M. Brozik and D. R. Wheeler (2010). “Reactive Ion Etching of Gold Nanoparticle- Modified Pyrolyzed Photoresist Films.” Small 5:2510-2513. [User Proposal: U2008b122]

129. Prasankumar, R. P., W. W. Chow, J. Urayama, R. S. Attaluri, R. V. Shenoi, S. Krishna, and J. Taylor (2010). “Density– Dependent Carrier Dynamics in a Quantum Dots-in-a-Well Heterostructure.” Applied Physics Letters 96: 031110. [U2008a064]

130. Qi, J. S., J. Y. Huang, J. Feng, D. N. Shi and J. Li (2010). “The Possibility of Chemically Inert, Graphene-Based All- Carbon Electronic Devices with 0.8ev Gap.” Acs Nano 10: 1021. [User Proposal: U2009b034]

131. Qi, L., J. Y. Huang, J. Feng and J. Li (2010). “In-situ Observations of the Nucleation and Growth of Atomically Sharp Graphene Bilayer Edges.” Carbon 48: 2354. [User Proposal: U2009b034]

132. Qi, Y., T. Prenzel, T.A. Harriman, Y.Q. Wang, D.A. Lucca, D. Williams, M. Nastasi, J. Dong, and A. Mehner (2010). “Investigation of Hydrogen Concentration and Hardness of Ion Irradiated Organically Modified Silicate Thin Films.” Nuclear Instruments and Methods in Physics Research B 268:1997. [User Proposal: C2008a092]

133. Ren, Y., J. N. Hovenier, R. Higgins, J. R. Gao, T. M. Klapwijk, S. C. Shi, A. Bell, B. Klein, T-Y. Kao, S. Kumar, Q. Hu and J. L. Reno (2010). “Terahertz Heterodyne Spectrometer using a Quantum Cascade Laser.” Applied Physics Letters 97: 161105. [User Proposal: U2008b030]

134. Rivera, E. M., C. T. Provencio, A. Steinbrueck, P. Rastogi, A. Dennis, J. Hollingsworth and E. Serrano (2011). “Imaging Heterostructured Quantum Dots in Cultured Cells with Epifluorescence and Transmission Electron Microscopy.” Proceedings of the Spie 7909: 12. [User Proposal: C2008a079]

135. S. Larson and E. R. Flynn (2010). “Characterization of Single-Core Magnetite Nanoparticles for Magnetic Imaging by Squid Relaxometry.” Physics in Medicine and Biology 55(19): 5985-6003.[User Proposal #C2009a123]

136. Schmidt, A. R., M. H. Hamidian, P. Wahl, F. Meier, A. V. Balatsky, J. D. Garrett, T. J. Williams, G. M. Luke and J. C. Davis (2010). “Imaging the Fano Lattice to 'Hidden Order' Transition in Uru2si2.” Nature 465: 570-576.

137. Senanayake, P. N., A. Lin, G. Mariani, J. Shapiro, C. Tu, A. Scofield, P. S. Wong, B. L. Liang and D. L. Huffaker (2010). “Photoconductive Gain in Patterned Nanopillar Photodetector Arrays.” Applied Physics Letters 97: 203108.

138. Shapiro, J., A. Lin, A. Scofield, C. Tu, P. S. Wong, P. N. Senanayake, B. L. Liang and D. L. Huffaker (2010). “Axial Ingaas Heterostructure Embedded in Gaas Patterned Nanopillars.” Applied Physics Letters 97: 243102. [User Proposal: U2008b116]

139. Sharma, J., H. C. Yeh, Y. Hyojong, J. H. Werner and J. S. Martinez (2010). "A Complementary Palette of Fluorescent Silver Nanoclusters." Chemical Communications 46: 1-3. [User Proposal: U2010a1010]

140. Shelton, D. J., D. W. Peters, M. B. Sinclair, I. Brener, L. K. Warne, L. I. Basilio, K. R. Coffey and G. D. Boreman (2010). “Effect of Thin Silicon Dioxide Layers On Resonant Frequency in Infrared Metamaterials.” Optics Express 18 (2) 1085-1090.

141. Sheng, G., Y. L. Li, J. X. Zhang, S. Choudhury, Q. X. Jia, V. Gopalan, D. G. Schlom, Z. K. Liu, and L. Q. Chen (2010). “A Modified Landau-Devonshire Thermodynamic Potential for Strontium Titanate.” Applied Physics Letters 96: 232902.

142. Sierra-Sastre, Y., S. A. Dayeh, S. T. Picraux, C. (2010). “Epitaxy of Ge Nanowires from Biotemplated Au Nanoparticle Catalysts.” Acs Nano 4: 1209. [User Proposal: C2008a153]

143. Song, J. W., G. R. Aizin, Y. Kawano, K. Ishibashi, N. Aoki, Y. Ochiai, J. L. Reno and J. P. Bird (2010). “Evaluating the Performance of Quantum Point Contacts as Nanoscale Terahertz Sensors.” Optics Express 18: 4609 – 4614. [User Proposal: C2008a037]

144. Song, J. W., G. R. Aizin, J. Mikalopas, Y. Kawano, K. Ishibashi, N. Aoki, J. L. Reno, Y. Ochiai, and J. P. Bird (2010). “Bolometric Terahertz Detection in Pinched-off Quantum Point Contacts.” Applied Physics Letters 97: 8. [User Proposal: C2008a037]

145. Stan, L., Y. Chen, X. Xiong, T. G. Holesinger, B. Maiorov, D. M. Feldmann, L. Civale, R. F. Depaula, V. Selvamanickam, and Q. X. Jia (2010). “Investigation of (Y,Ga)Ba2cu3o7-D Grown By Mocvd On a Simplified Ibad Mgo Template.” Superconductor Science and Technology 23: 014011. [User Proposal: C2008a046]

146. Stan, L., B. W. Tao, T. G. Holesinger, H. Yang, D. M. Feldmann, B. Maiorov, S. A. Baily, L. Civale, R. F. Depaula, Y. R. Li, and Q. X. Jia (2010). “The Role of Thermally and Chemically Stable Composite Y2o3:Al2o3 in the Development of Yba2cu3o7 Films On Metal Substrates,” Superconductor Science and Technology 23: 045012. [User Proposal: C2008a046]

147. Staruch, M., L. Stan, F. Ronning, J. D. Thompson, Q. X. Jia, J. Yoon, H. Wang, and M. Jain, “Magnetotransport Properties of Epitaxial Pr0.5ca0.5mno3 Films Grown By a Solution Technique.” Journal of Magnetism and Magnetic Materials 322: 2708-2711. [User Proposal: C2009a006]

148. Stevens, M. and J.H. Hoh (2010). “Conformational Dynamics of Neurofilament Side-Arms.”Journal of Physical Chemistry B 114: 8879. [User Proposal: C2009a088]

149. Su, J. J., M. J. Graf and A. V. Balatsky (2010). “A Glassy Contribution to the Heat Capacity of Hcp He-4 Solids.” Physical Review B 81:15454. [User Proposal: U2008a075]

150. Su, Q., S. Cho, Z. Bi, A.Chen and H. Wang (2011). “Enhanced Electrochemical Properties of Bi-Layer La0.5sr0.5coo3-Δ Cathode Prepared By a Hybrid Method.” Electrochemica Acta, in Press.

151. Su, Q., J. H. Lee, Z. Bi, Q. Zhou, Q. Jia and H. Wang (2011). “Self-Separated Pzt Thick Films with Bulk-Like Piezoelectric and Electromechanical Properties.” Journal of Materials Research in Press.

152. Sullivan, J. P., J. Huang, M. J. Shaw, A. Subramanian, N. Hudak, Y. Zhan, and J. Lou (2010). “Understanding Li-Ion Battery Processes at the Atomic To Nano-Scale.” Proceedings of the SPIE. 7683: 76830bi. [User Proposal: U2009b054]

153. Talanov, V. V., C. Del Barga, L. Wickey, I. Kalichava, E. Gonzales, E. A. Shaner, A. V. Gin and N. G. Kalugin (2010). “Few-Layer Graphene Characterization by Near-Field Scanning Microwave Microscopy.” ACS Nano 4(7): 3831- 3838. [User Proposal: C2008b061]

154. Talbayev, D., K.S. Burch, Elbert E.M. Chia, S.A. Trugman, J.-X. Zhu, E.D. Bauer, J.A. Kennison, J.N. Mitchell, J. D. Thompson, J. L. Sarrao, and A. J. Taylor (2010). “Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor Pucoga5 Probed Via the Dynamics of Photoinduced Quasiparticles.” Physical Review Letters 104: 227002. [User Proposal: U2009b036, U2008a077, U2008a053]

155. Talbayev, D., S. A. Trugman, S. Lee, S.-W. Cheong and A. J. Taylor (2011). ``Long Wavelength Magnetic Excitations in the Ferroelectric Antiferromagnet Bifeo3.'' Physical Review B 83: 094403. [User Proposal: U2008a077]

156. Talin, A. A., F. Léonard, A. M. Katzenmeyer, B. S. Swartzentruber, S. T. Picraux, E. Toimil-Molares, J.G. Cederberg, X. Wang, S. D. Hersee and A. Rishinaramangalum (2010)."Transport Characterization in Nanowires using an Electrical Nanoprobe." Semiconductor Science and Technology 252: 024015. [User Proposal: U2008a071]

157. Tao, J., S. Tretiak, and J.-X. Zhu (2010). ”Prediction of Excitation Energies for Conjugated Oligomers and Polymers from Time-Dependent Density Functional Theory.” Materials 3: 3430-3467. [User Proposal: Ra2008a183]

158. Tian, Z., A. K. Azad, X. Lu, J. Gu, J. Han, Q. Xin, A. J. Taylor, J. F. O’hara, and W. Zhang (2010). “Large Dynamic Resonance Transition between Surface Plasmon and Localized Surface Plasmon Modes.” Optics Express 18: 12482. [User Proposal: C2010a954]

159. Tracy, L. A., K. Eng, K. Childs, M.S. Carroll, and M.P. Lilly (2010). “Enhancement of Valley Splitting in (100) Si Mosfets at High Magnetic Fields.” Solid State Communication 150: 231. [User Proposal: U2007a025]

160. Tracy, L. A., E. P. Nordberg, R. Young, H. L. Stalford, G. A. Ten Eyck, K. Eng, K. D. Childs, J. R.Wendt, J. Stevens, M. P. Lilly, M. A. Eriksson and M. S. Carroll (2010). “Double Quantum Dot with Tunable Coupling in an Enhancement-Mode Silicon Metal-Oxide Semiconductor Device with Lateral Geometry.” Applied Physics Letters 97: 192110. [User Proposal: U2007a025]

161. Tseng, T. C., E. S. Mcgarrity, J. W. Kiel, P. M. Duxbury, M. E. Mackay, A. L. Frischknecht, S. Asokan, and M. S. Wong (2010). “Three-Dimensional Liquid Surfaces Through Nanoparticle Self-Assembly.” Soft Matter 6: 1533. [User Proposal: U2008a043]

162. Upadhya, P. C., Q. Li, G. T. Wang, A. J. Fischer, A. J. Taylor, and R. P. Prasankumar (2010). “The Influence of Defect States on Non-Equilibrium Carrier Dynamics in Gan Nanowires.” Semiconductor Science and Technology 25: 024017. [C2009a087]

163. Vela, J., H. Htoon, Y. Chen, Y. Park, Y. Ghosh, P. Goodwin, J. Werner, N. Wells, J. Casson and J. Hollingsworth (2010). "Effect of Shell Thickness and Composition on Blinking Suppression and the Blinking Mechanism in "Giant" Cdse/Cds Nanocrystal Quantum Dots." Journal of Biophotonics 3: 706-717. [User Proposal: U2008a109]

164. Vidmar, L., J. Bonca, and S. A. Trugman (2010). ``Emergence of Novel States in the Phonon Spectral Function of the Holstein Polaron Below and Above the One-Phonon Continuum.'' Physical Review B 82: 104304.

165. Waldmueller, I., M. C. Wanke, M. Lerttamrab, D. G. Allen and W. W. Chow (2010). "Inverse-Quantum- Engineering: a New Methodology for Designing Quantum Cascade Lasers." Ieee Journal of Quantum Electronics 46: 1414. [User Proposal: C2009b040]

166. Wang, J., N. Li, O. Anderoglu, X. Zhang, A. Misra, J. Y. Huang and J. P. Hirth (2010). “Detwinning Mechanisms for Growth Twins in Face-Centered Cubic Metals.” Acta Materialia 58: (6) 2262-2270. [User Proposal: C2008a026]

167. Wang, X., D. J. Hilton, J. L. Reno, D. M. Mittleman and J. Kono (2010). “Direct Measurement of Cyclotron Coherence Times of High-Mobility Two-Dimensional Electron Gases.” Optics Express 18: 12354. [User Proposal: U2008a010]

168. Wanke, M. C., E. W. Young, C. D. Nordquist, M. J. Cich, A. D. Grine, C. T. Fuller, J. L. Reno, and M. Lee (2010). “Monolithically Integrated Solid-State Terahertz Transceivers.” Nature Photonics 4 8: 565. [User Proposal: U2008a105]

169. Wehling, T. O., A. V. Balatsky, M. I. Katsnelson, A. I. Lichtenstein and A. Rosch (2010). “Orbitally Controlled Kondo Effect of Co Adatoms on Grapheme.” Physical Review B 81: 115427.

170. Wehling T.O., H. P. Dahal, A. L. Lichtenstein, M. I. Katsnelson, H. C. Manoharan, A. V. Balatsky (2010). “Theory of Fano Resonances in Graphene: the Influence of Orbital and Structural Symmetries on Stm SpectrA.” Physical Review B 81: 085413. [User Proposal: U2008b113, U2008a090]

171. Wells, N. P., G. A. Lessard, P. M. Goodwin, M. E. Phipps, P. J. Cutler, D. S. Lidke, B. S. Wilson and J. H. Werner (2010). "Time Resolved 3d Molecular Tracking in Live Cells." Nano Letters 10(11): 4732. [User Proposal: U2008a062

172. Wettach, H., S. Hger, D. Chaudhuri, J. M. Lupton, F. Liu, E. M. Lupton, S. Tretiak, S. De Feyter and S. Forster (2010). ”Synthesis and Properties of a Triphenylene-Butadiinylene Macrocycle.” J. Mater. Chem., in press.

173. Wimbush, S. C., J. H. Durrell, C. F. Tsai, H. Wang, Q. X. Jia, M. G. Blamire, and J. L. Macmanus-Driscoll (2010). “Enhanced Critical Current in Yba2cu3o7-D Thin Films Through Pinning By Ferromagnetic Yfeo3 Nanoparticles.” Superconductor Science and Technology 23: 045019. [User Proposal: U2007a057]

174. Wong, P. S., B. L. Liang, A. Lin, J. Tatebayashi and D. L. Huffaker (2010). “1.52 µm Photoluminescence Emissions from InAs Quantum Dots Growno on Nanopatterned Gaas Buffer.” Applied Physics Letters 97: 143111. [User Proposal: U2008a124]

175. Wong, P. S., B. L. Liang, J. Tatebayashi and D. L. Huffaker (2010). “Controlled Formation and Wulff Simulation of Equilibrium Crystal Shapes of Gaas Pyramidal Structures on Nano-Patterned Substrates.” Crystal Growth & Design 10: 2509. Cover-Featured Article. [User Proposal: U2008a124]

176. Wu, H., F. Bai, Z. Sun, R. E. Haddad, Z. Wang, J. Huang and H. Fan (2010). “Three-Dimensional Ordered Gold Networks From Spherical Nanoparticle Assemblies Under High Pressure.” Journal of the American Chemical Society 132: 12826. [User Proposal: Ra2008b137]

177. Xiao, X., M. E. Roberts, D. R. Wheeler, C. M. Washburn, T. L. Edwards, S. M. Brozik, G. Montano, B. C. Bunker, D. B. Burckel and R. Polsky (2010). “Microelectrode Behavior at Lithographically Defined 3-D Porous Carbon Electrodes.” Applied Materials and Interfaces 2 (11): 3179. [User Proposal: U2008b122]

178. Xiong, S., X. Miao, J. Spencer, C. Khripin, T. S. Luk, and C. J. Brinker (2010). "Integration of a Close-Packed Quantum Dot Monolayer with a Photonic-Crystal Cavity via Interfacial Self-Assembly and Transfer." Small- Journal 6: 2126. [User Proposal: U2008a089]

179. Xiong, J., V. Matias, H. Wang, J. Y. Zhai, B. Maiorov, D. Trugman, B. W. Tao, Y. R. Li and Q. X. Jia (2010). “Much Simplified Ibad-Tin Template for High Performance Ybco Coated Conductors.” Journal of Applied Physics 108: 083903. [User Proposal: U2008a169]

180. Xu, P., S. H. Jeon, N. H. Mack, S. K. Doorn, D. J. Williams, X. Han and H. S. Wang (2010). “Field-Assisted Synthesis of Sers-Active Silver Nanostructures Using Conducting Polymers.” Nanoscale 2: 1436. [User Proposal: U2008b073]

181. Xu, P., N. H. Mack, S. H. Jeon, S. K. Doorn, X. Han and H.S. Wang (2010). “Facile Fabrication of Homogeneous 3d Silver Nanostructures on Gold-Supported Polyaniline Membranes as Sers-Active Substrates.” Langmuir 26: 8882. [User Proposal: U2008b073,]

182. Yang, H., Y. Q. Wang, H. Wang, and Q. X. Jia (2010). “Oxygen Concentration and Its Effect on the Leakage Current in Bifeo3 Thin Films.” Applied Physics Letters 96: 012909. [User Proposal: C2009a006]

183. Yeager, J. D., A. M. Dattelbaum, E. B. Orler, D. F. Bahr and D. M. Dattelbaum (2010). “Adhesive Properties of Some Fluoropolymer Binders with the Insensitive Explosive 1, 3, 5-Triamino-2, 4, 6-Trinitrobenzene (Tatb).” Journal of Colloid and Interface Science 352(2): 535. [User Proposal: U2009a080]

184. Yeh, H., J. Sharma, J. Han, J. Martinez, and J. Werner (2010). "A DNA- Silver Nanocluster Probe That Fluoresces Upon Hybridization." Nano Letters 10: 13308-13313. [User Proposal: U2008a132]

185. Yeh, H., J. Sharma, J. Han, J. Martinez, and J. Werner (2010). “Fluorescence Enhancement of DNA-Silver Nanoclusters from Guanine Proximity.” Nano Letters 10:1021. [User Proposal: U2008a132]

186. Yeh, H., J. Sharma, J. Han, J. Martinez, and J. Werner (2010). "Photophysical Characterization of Fluorescent Metal Nanoclusters Synthesized Using Oligonucleotides, Proteins and Small Reagent Molecules." Proceedings of the SPIE 1: 7576-10. [User Proposal: U2008a132] In Press/In Process

187. Yoo, H., J. Sharma, H. –C. Yeh and J. S. Martinez (2010). “Solution-Phase Synthesis of Au Fibers Using Rod-Shaped Micelles as Shape Directing Agents.” Chemical Communications 10: 1039. [User Proposal: U2008a132]

188. Zhang, Z., T. M. Nenoff, K. Leung, S. R. Ferreira, J. Y. Huang, D. T. Berry, P. P. Provencio and R. Stumpf (2010). “Room-Temperature Synthesis of Ag-Ni and Pd-Ni Alloy Nanoparticles.” Journal of Physical Chemistry 114: 14309.

189. Zhang, J., R. R. Du, J. A. Simmons, and J. L. Reno (2010). “Resistance Minimum Observed At Landau Level Filling Factor Nu=1/2 in Ultra High Magnetic Fields.” Physical Review B 81: 041308. [User Proposal: U2010a999]

190. Zhang, Y. Y., C. J. Sheehan, J. Y. Zhai, G. F. Zou, H. M. Luo, J. Xiong, Y. T. Zhu, and Q. X. Jia (2010). “Polymer- Embedded Carbon Nanotube Ribbons for Stretchable Conductors.” Advanced Materials 22: 3027-3031. [User Proposal: U2009a043]

191. Zhao, H., Y. Y. Zhang, P. D. Bradford, Q. Zhou, Q. X. Jia, F. G. Yuan, and Y. T. Zhu (2010). “Carbon Nanotube Yarn Strain Sensors.” Nanotechnology 21: 305502.

192. Zou, G., H. Luo, Y. Zhang, J. Xiong, Q. Wei, M. Zhuo, J. Zhai, H. Wang, D. Williams, N. Li, E. Bauer, X. Zhang, T. M. Mccleskey, Y. Li, A. K. Burrell and Q. X. Jia (2010). “A Chemical Solution Approach for Superconducting and Hard Epitaxial Nbc Film.” Chemistry Communications 46: 7837. [User Proposal: U2009a043]

193. Zou, G. F., M. K. Jain, H. Yang, Y. Y. Zhang, D. Williams, and Q. X. Jia (2010). “Recyclable and Electrically Conducting Carbon Nanotube Composite Films.” Nanoscale 2: 418-422. [User Proposal: U2010a960]

194. Zou, G., H. Luo, F. Ronning, B. Sun, T. M. Mccleskey, A. K. Burrell, E. Bauer, and Q. X. Jia (2010). “Facile Chemical Solution Deposition of High-Mobility Epitaxial Germanium Films on Silicon.” Angewandte Chemie International Edition 49: 1782- 1785. [User Proposal: U2009a043]

195. Zou, G., H. Wang, N. Mara, H. Luo, N. Li, Z. F. Di, E. Bauer, Y. Q. Wang, T. M. Mccleskey, A. K. Burrell, X. Zhang, M. Nastasi, and Q. X. Jia (2010). “Chemical Solution Deposition of Epitaxial Carbide Films.” Journal of the American Chemical Society 132: 2516-2517. [User Proposal: C2009a006, U2009a043]