

CINT Publications for 2014 (234 Total)

CINT Science (45)

Ahmed, T., Haraldsen, J., **Zhu, J.X.**, **Balatsky, A.** (2014) "Next generation epigenetic detection technique: identifying methylated cytosine using graphene nanopore" Journal of Physical Chemistry Letters: 5, 2601

Benz, A., Campione, S., Moseley, M.W., Wierer, J.J., Allerman, A.A., Wendt, J.R., **Brener, I.** (2014) "Optical strong coupling between near-infrared metamaterials and intersubband transitions in III-nitride heterostructures" ACS Photonics: 1, 10

Bolinteanu, D.S., **Grest, G.S.**, Lechman, J.B., Pierce, F., Plimpton, S.J., Schunk, P.R. (2014) "Particle dynamics modeling methods for colloid suspensions" Computational Particle Mechanics: 1, 321

Bolinteanu, D.S., Lane, J.M.D., **Grest, G.S.** (2014) "Effects of functional groups and ionization on the structure of alkanethiol coated gold nanoparticles" Langmuir: 30, 11075

Coughlin, J.E., Bakus, R.C., van der Poll, T.S., Welch, G.C., Zhugayevych, A., Teat, S.J., Bazan, G.C., **Tretiak, S.** (2014) "Polymorphism of crystalline molecular donors for solution-processed organic photovoltaics" Journal of Physical Chemistry C: 118, 15610

Dowden, P.C., Bi, Z., **Jia, Q.X.** (2014) "Method for controlling energy density for reliable pulsed laser deposition of thin films" Review of Scientific Instruments: 85, 025111

Efimov, A. (2014) "Intuitive model for the scintillations of a partially coherent beam" Optics Express: 22, 26

Efimov, A. (2014) "Spatial coherence at the output of multimode optical fibers" Optics Express: 22, 13

Efimov, A., Velizhanin, K., Gelikonov, G. (2014) "Simultaneous scintillation measurements of coherent and partially coherent beams in an open atmosphere experiment" Proceedings of SPIE: 8971 U2013A0032

Fransson, J., Ren, J., **Zhu, J.X.** (2014) "Electrical and thermal control of magnetic exchange interactions" Physical Review Letters: 113, 257201

Goodwin, P.M., Bartram, B.D., Gibson, L.L., Wu, M., Dattelbaum, D.M. (2014) "Non-invasive timing of gas gun projectiles with light detection and ranging" Journal of Physics: Conference Series: 500, 14

Henderson, I.M., Adams, P.G., Montano, G.A., Paxton, W.F. (2014) "Ionic effects on the behavior of thermoresponsive PEO-PNIPAAm block copolymers" Journal of Polymer Science Part B- Polymer Physics: 52, 7

Hendrickson, S.M., Foster, A.C., Camacho, R.M., Clader, B.D. (2014) "Integrated nonlinear photonics: emerging applications and ongoing challenges" Journal of the Optical Society of America B: 31, 3193

Hollingsworth, J.A. (2014) "Nanoscale engineering facilitated by controlled synthesis: From structure to function" Coordin. Chem. Review: 197, 263-264

Ji, Z., Wu, R., Adamska, L., Velizhanin, K., Doorn, S.K., Sykora, M. (2014) "In-situ synthesis of graphene molecules on TiO₂. Application in sensitized solar cells" ACS Applied Materials and Interfaces: 6, 20473

Lane, J.M.D., Grest, G.S. (2014) "Aggregation of responsively-shaped coated nanoparticles at water/vapor interfaces" Nanoscale: 6, 5132

Lai, L.F., Love, J.A., Sharenko, A., Coughlin, J.E., Gupta, V., Tretiak, S., Nguyen, T.Q., Wong, W.Y., Bazan, G.C. (2014) "Topological considerations for the design of molecular donors with multiple absorbing units" Journal of the American Chemical Society: 136, 5591

Lee, J., Prasankumar, R.P. (2014) "Correlation between quantum charge fluctuations and magnetic ordering in multiferroic LuFe₂O₄" European Physics Journal B: 87, 267

Lei, Q.Y., Golalikhani, M., Yang, D., Withanage, W., Rafti, A., Qiu, J., Hambe, M., Bauer, E., Ronning, F., Jia, Q.X., Weiss, J., Hellstrom, E., Wang, X., Chen, X.H., Williams, F., Yang, Q., Temple, D., Xi, X.X. (2014) "Structural and transport properties of epitaxial Ba(Fe_{1-x}Cox)₂As₂ thin films on various substrates" Superconducting Science and Technology: 27, 115010

Leuth, C.A., Bolintineanu, D.S., Stevens, M.J., Frischknecht, A.L. (2014) "Hydrogen-bonded aggregates in precise acid copolymers" Journal of Chemical Physics: 140, 054902

McCleskey, T.M., Shi, P., Bauer, E., Highland, M.J., Eastman, J.A., Bi, Z.X., Fuoss, P.H., Baldo, P.M., Ren, W., Scott, B.L., Burrell, A.K., Jia, Q.X. (2014) "Nucleation and growth of epitaxial metal-

oxide films based on polymer-assisted deposition” Chemical Society Review: 43, 2141

McGrane, S.D., Moore, D.S., Goodwin, P.M., Dattelbaum, D.M. (2014) “Quantitative tradeoffs between spatial, temporal, and thermoelectric resolution of nonresonant raman thermometry for dynamic experiments” Applied Spectroscopy: 68, 11

Pan, L., Li, J., Tai, Y.Y., Graf, M.J., Zhu, J.X., Ting, C.S. (2014) “Evolution of quasiparticle states without a Zn impurity in doped 122 iron pnictides” Physical Review B: 90, 134501

Paranthaman, M.P., Aytug, T., Stan, L., Jia, Q.X., Cantoni, C., Wee, S.H. (2014) “Chemical solution derived planarization layers for highly aligned IBAD-MgO templates” Superconducting Science and Technology: 27, 022002

Pietryga, J.M., Hollingsworth, J.A. (2014) “Mid-infrared emitting lead selenide nanocrystal quantum dots” Inorganic Syntheses: 36, 198

Ren, J., Zhu, J.X. (2014) “Assymmetric Andreev reflection induced Hall-like effects in metal/anisotropic superconductor junctions” Physics Review B: 89, 064512

Salerno, K.M., Bolintineanu, D.S., Lane, J.M., Grest, G.S. (2014) “High Strength, Molecularly Thin Nanoparticle Membranes” Physical Review Letters: 113, 258301

Salerno, K.M., Ismail, A.E., Lane, J.M.D., Grest, G.S. (2014) “Coating thickness and coverage effects on the forces between silica nanoparticles in water” Journal of Chemical Physics: 140, 194904

Sheu, Y.M., Trugman, S.A., Yan, L., Qi, J., Jia, Q.X., Taylor, A.J., Prasankumar, R.P. (2014) “Polaronic transport induced by competing interfacial magnetic order in a La_{0.7}Ca_{0.3}MnO₃/BiFeO₃ heterostructure” Physical Review X: 4, 021001

Sheu, Y.M., Trugman, S.A., Yan, L., Jia, Q.X., Taylor, A.J., Prasankumar, R.P. (2014) “Using ultrafast optical pulses to couple ferroelectric and ferromagnetic order in an oxide heterostructure” Nature Communications: 5, 5832

Sista, P., Ghosh, K., Martinez, J.S., Rocha, R.C. (2014) “Polythiophenes in biological applications” Journal of Nanoscience and Nanotechnology: 14, 1

Staruch, M., Cil, K., Silva, H., Xiong, J., Jia, Q.X., Jain, M. (2014) “Effect of Mn doping on the properties of sol-gel derived Pb_{0.3}Sr_{0.7}TiO₃ thin films” Ferroelectrics: 470, 227

Sutter, E., **Jungjohann, K.**, Bliznakov, S., Courty, A., Maisonhaute, E., Tenney, S., Sutter, P. (2014) "In situ liquid-cell electron microscopy of silver-palladium galvanic replacement reactions on silver nanoparticles" Nature Communications: 5, 4946

Van der Poll, T.S., Zhugayevych, A., Chertkov, E., Bakus, R.C., Coughlin, J., Teat, S.J., Bazan, G.C., **Tretiak, S.** (2014) "Polymorphism of crystalline molecular donors for solution-processed organic photovoltaics" Journal of Physical Chemistry Letters: 5, 2700

Wang, F., Wei, Q.H., **Htoon, H.** (2014) "Generation of steep phase anisotropy with zero-backscattering by arrays of coupled dielectric nano-resonators" Applied Physics Letters: 105, 12112

Watkins, E.B., Kashinath, A., Wang, P., **Baldwin, J.K.**, Majewski, J., Demkowicz, M.J. (2014) "Characterization of a Fe/Y2O3 metal/oxide interface using neutron and x-ray scattering" Applied Physics Letters: 105, 041601

White, A.J., Gorshkov, V.N., Wang, R., **Tretiak, S.**, Mozyrsky, D. (2014) "Semiclassical monte-carlo: A first principles approach to nonadiabatic molecular dynamics" Journal of Physical Chemistry: 141, 184101

Xiong, J., Matias, V., Tao, B.W., Li, Y.R., **Jia, Q.X.** (2014) "Ferroelectric and ferromagnetic properties of epitaxial BiFeO3-BiMnO3 films on ion-beam-assisted deposited TiN buffered flexible Hastelloy" Journal of Applied Physics: 115, 17

Zhang, J., Zhang, Y., **Mara, N.A.**, Nicola, L., Lou, J. (2014) "Nanoimprinting of single crystalline gold: experiments and dislocation simulations" Applied Surface Science: 290, 301

Zhang, P., **Goodwin, P.M.**, **Werner, J.H.** (2014) "Fast 3D imaging via confocal line scanning of a Bessel beam using a single galvo mirror" Proceedings of SPIE: 8947

Zhang, P., **Goodwin, P.M.**, **Werner, J.H.** (2014) "Interferometric three-dimensional single molecule localization microscopy using a single high numerical-aperture objective" Applied Optics: 53, 31

Zhang, P., **Goodwin, P.**, **Werner, J.** (2014) "Fast, super resolution imaging via Bessel-beam stimulated emission depletion microscopy" Optics Express: 22, 10

Zhang, P., Phipps, M., **Goodwin, P.**, **Werner, J.** (2014) "Confocal line scanning of a Bessel beam for fast 3D imaging" Optics Letters: 39, 12

Zhernenkov, M., Gill, S., Stanic, V., DiMasi, E., Kisslinger, K., Baldwin, J.K., Misra, A., Demkowicz, M.J., Ecker, L. (2014) "Design of radiation resistant metallic multilayers for advanced nuclear systems" Applied Physics Letters: 104, 241906

Zhu, J.X., Janoschek, M., Rosenberg, R., Ronning, F., Thompson, J.D., Torrez, M.A., Bauer, E.D., Batista, C.D. (2014) "LDA+DMFT approach to magnetocrystalline anisotropy of strong magnets" Physics Review X: 4, 021027

CINT User Science - Internal (57)

Acharya, K.P., Ji, Z., Holesinger, T.G., Crisp, J.A., Ivanov, S.A., Williams, D.J., Casson, J.L., Sykora, M., Hollingsworth, J.A. (2014) "Layer-by-layer fabrication of nanowire sensitized solar cells: geometry-independent integration" Advanced Functional Materials: 24, 43. RA2013A0030

Aguiar, J.A., Dholabhai, P.P., Bi, Z., Jia, Q.X., Fu, E., Wang, Y., Aoki, T., Zhu, J. (2014) "Probing defect-boundary interactions at oxide interfaces" Journal of Materials Research: 29, 1699-1710

Aguiar, J.A., Dholabhai, P.P., Bi, Z., Jia, Q.X., Fu, E.G., Wang, Y.Q., Aoki, T., Zhu, J., Misra, A., Uberuaga, B.P. (2014) "Linking interfacial step structure and chemistry with locally enhanced radiation-induced amorphization at oxide heterointerfaces" Advanced Material Interfaces: 1, 1300142

Aguiar, J.A., Zhuo, M., Bi, Z., Fu, E., Wang, Y., Dholabhai, P.P., Misra, A., Jia, Q., Uberuaga, B.P. (2014) "Orientation-specific amorphization and intercalated recrystallization at ion-irradiated SrTiO₃/MgO interfaces" Journal of Materials Research: 10, 1557

Ardeljan, M., Knezevic, M., Nizolek, T., Beyerlein, I.J., Zheng, S.J., Carpenter, J.S., McCabe, R.J., Mara, N.A., Pollock, T.M. (2014) "A multi-scale model for texture development in Zr/Nb nanolayered composites processed by accumulative roll bonding" Materials Science and Engineering: 63, 012170. U2011B27

Balog, E.R.M., Ghosh, K., Park, Y.I., Hartung, V., Sista, P., Rocha, R.C., Wang, H.L., Martinez, J.S. (2014) "Optical properties of a pH-sensitive and thermoresponsive hydrogel made from a genetically engineered polymer and phenylene vinylene oligomer" Journal of Physical Chemistry Letters C2013A0022

Beyerlein, I.J., Mayeur, J.R., McCabe, R.J., Zheng, S.J., Carpenter, J.S., Mara, N.A. (2014) "Influence of slip and twinning on the crystallographic stability of bimetal interfaces in nanocomposites under deformation" Acta Materialia: 72, 137-147

Branch, B., Dubey, M., Anderson, A.S., Artyushkova, K., Baldwin, J. K., et al. (2014) "Investigating phosphonate monolayer stability on ALD oxide surfaces" Applied Surface Science 288, 98-108

Bussmann, E., Rudolph, M., Subramania, G., Misra, S., Carr, S.M., Langlois, E., Dominguez, J., Ten Eyck, G., Pluym, T., Lilly, M., Carroll, M.S. (2014) "Scanning capacitance microscopy registration of buried atomic-precision donor devices" Nanotechnology: 26, 085701 U2013B0148

Campione, S., Benz, A., Sinclair, M.B., Capolino, F., Brener, I. (2014) "Second harmonic generation from metamaterials strongly coupled to intersubband transitions in quantum wells" Applied Physics Letters: 104, 131104 RA2013A0026

Caro, M., Mook, W.M., Fu, E.G., Wang, Y.Q., Sheehan, C., Martinez, E., Caro, A. (2014) "Radiation induced effects on mechanical properties of nanoporous gold foams" Applied Physics Letters: 104, 23

Carpenter, J.S., McCabe, R.J., Zheng, S.J., Wynn, T.A., Mara, N.A., Beyerlein, I.J. (2014) "Processing parameter influence on texture and microstructural evolution in Cu-Nb multilayer composites fabricated via accumulative roll bonding" Metallurgical and Materials Transactions A: 45, 4 RA2012B0013

Carpenter, J.S., Nizolek, T., McCabe, R.J., Zheng, S.J., Scott, J., Vogel, S.C., Mara, N.A., Pollock, T., Beyerlein, I.J. (2014) "The suppression of instabilities via biphasic interfaces during bulk fabrication of nanograined Zr" Materials Research Letters: 10.1080 U2013B0110

Chowdhury, D.R., Su, X., Zeng, Y., Chen, X., Taylor, A.J., Azad, A. (2014) "Excitation of dark plasmonic modes in symmetry broken terahertz metamaterials" Optics Express: 22, 19401 U2011A1082

Chowdhury, D.R., O'Hara, J. F., Taylor, A. J., Azad, A.K. (2014) "Orthogonally twisted planar concentric split ring resonators towards strong near field coupled terahertz metamaterials" Applied Physics Letters: 104, 101105 U2011A1082

Cobb, J., Vachhani, S., Dickerson, R.M., Dickerson, P.O., Han, W.Z., Mara, N.A., Schneider, J. (2014) "Layer stability and material properties of friction stir welded Cu-Nb nanolamellar composite plates" Materials Research Letters: 1, 1-6 RA2014A0000

Coltrin, M.E., Armstrong, A.M., Brener, I., Chow, W.W., Crawford, M.H., Fischer, A.J., Kelley, D.F., Koleske, D.D., Lauhon, L.J., Martin, J.E., Nyman, M., Schubert, E.F., Shea-Rohwer, L.E., Subramania, G., Tsao, J.Y., Wang, G.T., Wierer, J.J., Wright, J.B. (2014) "Energy frontier research

center for solid-state lighting science: exploring new materials architectures and light emission phenomena” Journal of Physical Chemistry C: 118, 13330

Crooker, S.A., Liu, F., Kelley, M.R., Martinez, N.J.D., Nie, W., Mohite, A., Nayyar, I.H., Tretiak, S., Smith, D.L., Ruden, P.P. (2014) “Spectrally-resolved hyper ne interactions between polaron and nuclear spins in organic light emitted diodes: Magneto-electroluminescence studies” Applied Physics Letters: 105, 153304

Dyer, G.C., Aizin, G.R., Allen, S.J., Grine, A.D., Bethke, D., Reno, J.L., Shaner, E.A. (2014) “Coherent phenomena in terahertz 2d plasmonic structures: strong coupling, plasmonic crystals, and induced transparency by coupling of localized modes” Terahertz physics, devices, and systems VIII: Advanced Applications in Industry and Defense: 9102 U2013B0053

Dyer, G.C., Aizin, G.R., Allen, S.J., Grine, A.D., Bethke, D., Reno, J.L., Shaner, E.A. (2014) “Interferometric measurement of far infrared plasmons via resonant homodyne mixing” Optics Express: 22, 13 RA2009B068

Eftink, B.P., Mara, N.A., Kingstedt, O.T., Safarik, D.J., Lambros, J., Robertson, I.M. (2014) “Anomalous deformation twinning in coarse-grained Cu in Ag60Cu40 composites under high strain-rate compressive loading” Materials Science & Engineering A: 618, 254

Ekiz, H.E., Lach, T., Averbach, R.S., Mara, N.A., Beyerlein, I.J., Pouryazdan, M., Hahn, H., Bellon, P. (2014) “Microstructural evolution of nanolayered Cu-Nb composites subjected to high pressure torsion” Acta Materialia: 72, 178

Gao, Y., Roslyak, O., Dervishi, E., Karan, N.S., Ghosh, Y., Sheehan, C.J., Wang, F., Gupta, G., Mohite, A., Dattelbaum, A.M., Doorn, S.K., Hollingsworth, J.A., Piryatinski, A., Htoon, H. (2014) “Hybrid graphene-giant nanocrystal quantum dot assemblies with highly efficient biexciton emission” Advanced Optical Materials: 10.1002 U2013B0037

Ghosh, K., Balog, E.R.M., Sista, P., Williams, D.J., Kelly, D., Martinez, J.S., Rocha, R.C. (2014) “Temperature-dependent morphology of hybrid nanoflowers from elastin-like polypeptides” APL Materials: 2, 021101

Gilbertson, S.M., Durakiewicz, T., Dakovski, G.L., Li, Y., Zhu, J.X., Conradson, S.D., Trugman, S.A., Rodriguez, G. (2014) “Ultrafast photoemission spectroscopy of the uranium dioxide UO₂ Mott insulator: Evidence for a robust energy gap structure” Physical Review Letters: 112, 87402

Guclu, C., **Luk, T.S., Wang, G.T.**, Capolino, F. (2014) "Radiative emission enhancement using nano-antennas made of hyperbolic metamaterial resonators" Applied Physics Letters: 105

Han, J.J., Kunde, Y.A., Hong-Geller, E., **Werner, J.H.** (2014) "Actin restructuring during salmonella typhimurium infection investigated by confocal and super resolution microscopy" Journal of Biomedical Optics: 19, 1

Hensley, J., Cederberg, J.G., **Bethke, D.T.**, Grine, A.D., **Shaner, E.A.** (2014) "Heterogenous metasurface for high temperature selective emission" Applied Physics Letters: 105, 8

Kappera, R., Voiry, D., **Yalcin, S.E.**, Jen, W., Acerce, M., Torrel, S., **Branch, B.**, Lei, S., Chen, W., Najmaei, S., Lou, J., Ajayan, P.M., **Gupta, G., Mohite, A.D.**, Chhowalla, M. (2014) "Metallic 1T phase source/drain electrodes for field effect transistors from chemical vapor deposited MoS₂" APL Materials: 2, 092516 U2012B0055

Kaul, A.M., Ivanovsky, A.V., Atchison, W.L., Petrukhin, A.A., Duday, P.V., Griego, J.R., Salazar, M., Nadezhin, S.S., Tyupanova, O.A., Oro, D.M., Holtkamp, D.B., **Rodriguez, G.**, Tabaka, L.J., Kraev, A.I., Skobelev, A.N., Westley, D.T., Anderson, B.G., Ivanov, V.A., Glybin, A.M., Kuzyaev, A.I., Stone, J.B., Payton, J.R., **Goodwin, P.M., McCulloch, Q.**, Montoya, R.R., Dudin, V.I., Zimenkov, A.A., Randolph, R.B., Fierro, F., Reinovksy, R.E., Rousculp, C.L., Balandina, A.N., Podurets, A.M. (2014) "Damage growth and recollection in aluminum under axisymmetric convergence using a helical flux compression generator" Journal of Applied Physics: 115, 023516 RA2011A1268

Knezevic, M., Nizolek, T., Ardeljan, M., **Beyerlein, I.J., Mara, N.A.**, Pollock, T.M. (2014) "Texture evolution in two-phase Zr/Nb lamellar composites during accumulative roll bonding" International Journal of plasticity: 57, 16-28

Lei, S., Ge, L., Najmaei, S., George, A., **Kappera, R.**, Lou, J., Chhowalla, M., **Yamaguchi, H., Gupta, G., Vajtai, R., Mohite, A.D.**, Ajayan, P.M. (2014) "Evolution of the electronic band structure and efficient photo-detection in atomic layers of InSe" ACS Nano: 8, 2 U2012B0028

Li, N., Hattar, K., Misra, A. (2013) "In situ Probing of the Evolution of Irradiation-Induced Defects in Copper", Journal of Nuclear Materials: 439, 185. C2013A0036.

Li, N., Wang, J., Wang, Y.Q., Serruys, Y., Nastasi, M., Misra, A. (2013) "Σ3 Grain Boundary Migration Induced by Ion Irradiation", Journal of Applied Physics: 113, 023508. C2013A0036.

Liontas, R., Gu, X.W., **Fu, E., Wang, Y., Li, N., Mara, N.A., Greer, J.R.** (2014) "Effects of Helium

Implantation on the tensile properties and microstructure of Ni₇₃P₂₇ Metallic glass nanostructures” Nano Letters: 14, 5176

Luk, T.S., Fofang, N.T., Cruz-Campa, J.L., Frank, I., Campione, S. (2014) “Surface plasmon polariton enhanced ultrathin nano-structured CdTe solar cell” Optics Express: 22, 1372

Ma, X., Adamska, L., Yamaguchi, H., Yalcin, S.E., Tretiak, S., Doorn, S.K., Htoon, H. (2014) “Electronic structure and chemical nature of oxygen dopant states in carbon nanotubes” ACS Nano: 8, 10782

Ma, X., Wang, F., Roslyak, O., Duque, J.G., Piryatinski, A., Doorn, S.K., Htoon, H. (2014) “Influence of exciton dimensionality on spectral diffusion of single-walled carbon nanotubes” ACS Nano: 8, 10613 U2010A944 722

Mangum, B.D., Wang, F., Dennis, A.M., Gao, Y., Ma, X., Hollingsworth, J.A., Htoon, H. (2014) “Competition between auger recombination and hot-carrier trapping in PL intensity fluctuations of type Li Nanocrystals” Small: 10, 14 U2012B0040 1287

Mara, N.A., Beyerlein, I.J. (2014) “Review: Effect of bimetal interface structure on the mechanical behavior of Cu/Nb nanolayered composites” Journal of Materials Science: 49, 6497 U2008B092 419

McCabe, R.J., Beyerlein, I.J., Carpenter, J.S., Mara, N.A., (2014) “The critical role of grain orientation and applied stress in nanoscale twinning” Nature Communications: 5, 3806

Modine, N.A., Wright, A.F., Lee, S.R. (2014) “Bounds on the range of density-functional-theory point-defect levels in semiconductors and insulators” Computational Materials Science: 92, 431 U2013B0025

Nizolek, T., Mara, N.A., Beyerlein, I.J., Avallone, J.T., Scott, J.E., Pollock, T.M. (2014) “Processing and deformation behavior of bulk Cu-Nb nanolaminates” Metallography, Microstructure, and Analysis: 3, 6

Park, Y.I., Postupna, O., Zhugayevych, A., Kyu, W.S., Park, Y.S., Park, B., Park, J., Martinez, J.S., Tretiak, S., Wang, H.L. (2014) “A new pH sensitive fluorescent and white light emissive material through controlled intermolecular charge transfer” Chemical Science: 6, 789-797

Pena-Rodriguez, O., Caro, M., Rivera, A., Olivares, J., Perlado, J.M., Caro, A. (2014) “Optical properties of Au-Ag alloys: An ellipsometric study” Optical Materials Express: 4, 2 C2012A0092

Quan, Z., Xu, H., Wang, C., Wen, X., Wang, Y., Zhu, J., Li, R., Sheehan, C.J., Wang, Z., Smilgies, D., Luo, Z., Fang, J. (2014) "Solvent-mediated self-assembly of nanocube superlattices" Journal of the American Chemical Society: 136, 1352-1359 RA2014A0006

Ribaudo, T., Taylor, A.J., Nguyen, B.M., Bethke, D., Shaner, E.A. (2014) "High Efficiency Reflective Wave Plates in the Midwave Infrared" Optics Express: 22, 3, 2821 C2013A0099

Rudolph, M., Carr, S.M., Subramania, G., Ten Eyck, G., Dominguez, J., Pluym, T., Lilly, M.P., Carroll, M.S., Busmann, E. (2014) "Probing limits of STM field emission patterned Si:P-doped devices" Applied Physics Letters: 105, 163110 C2013B0052

Selby, N.S., Crawford, M., Tracy, L., Reno, J.L., Pan, W. (2014) "In-situ biaxial rotation at low-temperatures in high magnetic fields" Review of Scientific Instruments: 85, 9 U2012B0085

Small, L.J., Wolf, S., Spoerke, E.D. (2014) "Exploring Electrochromics: A series of eye-catching experiments to introduce students to multidisciplinary research" Journal of Chemical Education: 91, 12 U2013A0096

Tracy, L.A., Hargett, T.W., Reno, J.L. (2014) "Few-hole double quantum dot in an undoped GaAs/AlGaAs heterostructure" Applied Physics Letters: 104, 123101 U2011A1019

VanDelinder, V., Bachand, G.D. (2014) "Photodamage and the importance of photoreception in biomolecular-powered device applications" Analytical Chemistry: 86(1), 721-728

Wright, J.B., Figiel, J.J., Brener, I., Wang, G.T., Luk, T.S., Xu, H., Hurtado, A., Li, C., Liu, S., Brueck, S.R.J., Balakrishnan, G., Li, Q. (2014) "Polarization control in GaN nanowire lasers" Optics Express: 22, 16. C2013B0093

Xiao, X., Fischer, A.J., Wang, G.T., Lu, P., Koleske, D.D., Coltrin, M.E., Wright, J.B., Liu, S., Brener, I., Subramania, G.S., Tsao, J.Y. (2014) "Quantum-size-controlled photoelectrochemical fabrication of epitaxial InGaN quantum dots" Nano Letters: 14, 10 RA2010A1013

Yablinsky, C.A., Tippey, K.E., Vaynman, S., Anderoglu, O., Fine, M.E., Chung, Y.W., Speer, J.G., Findley, K.O., Dogan, O.N., Jablonski, P.D., Hackenberg, R.E., Clarke, A.J., Clarke, K.D. (2014) "Concepts for the development of nanoscale stable precipitation-strengthened steels manufactured by conventional methods" JOM: 66, 12 C2010A988

Zheng, S.J., Carpenter, J.S., McCabe, R.J., Beyerlein, I.J., Mara, N.A. (2014) "Engineering stable interfaces in bulk nanostructured metals" Scientific Reports: 4, 4226 C2013A0022

Zheng, S.J., Wang, J., Carpenter, J.S., Mook, W.M., Dickerson, P.O., Mara, N.A., Beyerlein, I.J. (2014) "Plastic instability mechanisms in bimetallic nanolayered composites" Acta Materialia: 79, 282-291 C2013A0022

CINT User Science - External (132)

Adams, P.G., Lamoreux, L., Swingle, K.L., Mukundan, H., Montano, G.A. (2014) "Lipopolysaccharide-induced dynamic lipid membrane reorganization: Tubules, perforations, and stacks" Biophysical Journal: 106, 11

Adamska, L., Nayyar, I., Chen, H., Swan, A.K., Oldani, N., Fernandez-Alberti, S., Doorn, S.K., Tretiak, S. (2014) "Self-trapping of excitons, violation of the condon approximation and efficient fluorescence in conjugated cycloparaphenylenes" Nano Letters: 14, 6539 C2012A0016

Agrawal, A., Aryal, D., Grest, G.S., Perahia, D. (2014) "Interfacial response of semifluorinated multi-block co-polymers" Handbook of Fluoropolymer Science and Technology: p. 43 C2012A0123

Ahmed, T., La-o-vorakiat, C., Salim, T., Lam, Y.M., Chia, E.M., Zhu, J.X. (2014) "Optical properties of organometallic perovskite: an ab initio study using relativistic GW correction and Bethe-salpeter equation" Euromphysics Letters: 108, 67015 U2013A0058

Alberi, K., Mialitsin, A.V., Fluegel, B., Crooker, S.A., Reno, J.L., Mascarenhas, A. (2014) "Magnetic field-induced direct-indirect crossover in Al_xGa_{1-x}As" Applied Physics Express: 7, 11 C2012B0045

Appavoo, K., Brady, N.F., Wang, B., Seo, M., Nag, J., Prasankumar, R.P., Pantelides, S.T., Hilton, D.J., Haglund Jr., R.F. (2014) "Ultrafast Phase Transition via Catastrophic Phonon Collapse Driven by Plasmonic Hot-Electron Injection" Nano Letters: 14, 1127-1133 C2011A1037

Aquino, A.A.J., Borges, I., Nieman, R., Kohn, A., Lischka, H. (2014) "Intermolecular interactions and charge transfer transitions in aromatic hydrocarbon- tetracyanoethylene complexes" Physical Chemistry Chemical Physics: 16, 20586 C2013A0070

Armijo, L.M., Kopciuch, M., Olszowka, Z., Wawrzyniec, S.J., Rivera, A.C., Plumley, J.B., Cook, N.C., Brandt, Y.I., Huber, D.L., Smolyakov, G.A., Adolphi, N.L., Smyth, H.D.C., Osinski, M. (2014) "Delivery of tobramycin coupled to iron oxide nanoparticles across the biofilm of mucoidal pseudomonas aeruginosa and investigation of its efficacy" Proceedings of SPIE: 10.1117 C2012A0105

Aryal, D., Etampawala, T., [Perahia, D.](#), [Grest, G.S.](#) (2014) "Phase behavior of a single structured ionomer chain in solution" Macromolecular Theory Simulations: 23, 523 C2012A0123

[Auge, W.K.](#), [Ganguly, K.](#), [Goodwin, P.M.](#), Gadomski, A., Gehlert, R.J. (2014) "Lipid distribution in human knee and hip articular cartilage correlated to tissue surface roughness and surface active phospholipid layer presence: evidence of cooperative interfacial lipid delivery mechanisms" Osteoarthritis and Cartilage: 22, 312-313 RA2009A135

Benavidez, A.D., Burton, P.D., Nogales, J.L., [Jenkins, A.R.](#), [Ivanov, S.A.](#), Miller, J.T., Karim, A.M., Datye, A.K. (2014) "Improved selectivity of carbon-supported palladium catalysts for the hydrogenation of acetylene in excess ethylene" Applied Catalysis A: 482, 108 RA2011A1256

Bi, Z., [Uberuaga, B.P.](#), Vernon, L.J., Aguiar, J.A., [Fu, E.](#), Zheng, S., [Zhang, S.](#), [Wang, Y.](#), [Misra, A.](#), [Jia, Q.X.](#) (2014) "Role of the interface on radiation damage in the SrTiO₃/LaAlO₃ heterostructure under Ne²⁺ ion irradiation" Journal of Applied Physics: 115, 124315 U2013A0039

[Browning, J.F.](#), Baggetto, L., [Jungjohann, K.](#), [Wang, Y.](#), Tenhaeff, W., Keum, J.K., Wood, D.L., Veith, G.M. (2014) "In situ determination of the liquid/solid interface thickness and composition for the Li-Ion cathode LiMn_{1.5}Ni_{0.5}O₄" ACS Applied Materials and Interfaces: 10.1021 U2013A0019

[Bufford, D.](#), Liu, Y., Wang, J., [Wang, H.](#), [Zhang, X.](#), (2014) "In situ nanoindentation study on plasticity and work hardening in aluminium with incoherent twin boundaries." Nature Communications: 5. C2013B0013.

Burghoff, D., Kao, T.Y., Han, N.R., Chan, C.W.I., Cai, X.W., Yang, Y., Hayton, D.J., [Gao, J.R.](#), [Reno, J.L.](#), [Hu, Q.](#) (2014) "Terahertz laser frequency combs" Nature Photonics: 8, 6 C2013A0020

Cao, Z., [Stevens, M.J.](#), [Dobrynin, A.V.](#) (2014) "Adhesion and wetting of nanoparticles on soft surfaces" Macromolecules: 47, 3203 C2013B0036

Cao, Z., [Stevens, M.J.](#), [Dobrynin, A.V.](#) (2014) "Elastocapillarity: Adhesion and wetting in soft polymeric systems" Macromolecules: 47, 6515 C2013B0036

[Chason, E.](#) [Shin, J.W.](#), [Chen, C-H.](#), [Engwall, A.M.](#), [Miller, C.M.](#), [Hearne, S.J.](#), [Freund, L.B.](#) "Growth of patterned island arrays to identify origins of thin film stress" Journal of Applied Physics 115(12) 123519

[Chen, A.](#), [Weigand, M.](#), Bi, Z., Zhang, W., Lu, X., Dowden, P., [MacManus-Driscoll, J.L.](#), [Wang, H.](#),

Jia, Q.X. (2014) "Evolution of microstructure, strain and physical properties in oxide nanocomposite films" Scientific Reports: 4, 5426 C2013A0005

Chen, A., Bi, Z., Zhang, W., Jian, J., Jia, Q.X., Wang, H. (2014) "Textured metastable VO₂ (B) thin films on SrTiO₃ substrates with significantly enhanced conductivity" Applied Physics Letters: 104, 071909 C2013A0005

Chen, Y., Jiao, L., Sun, C., Song, M., Yu, K. Y., Liu, Y., Kirk, M., Li, M., Wang, H., Zhang, X., (2014) "In situ studies of radiation induced crystallization in Fe/a-Y₂O₃ nanolayers." Journal of Nuclear Materials: 452 (1-3), 321-327. C2013B0013.

Cheng, L., La-o-vorakiat, C., Tang, C.S., Nair, S.K., Xia, B., Wang, L., Zhu, J.X., Chia, E.M. (2014) "Time-dependent ultrafast carrier and phonon dynamics of topologic insulator Bi_{1.5}Sb_{0.5}Te_{1.8}Se_{1.2}" Applied Physics Letters: 104, 211906 U2013A0058

Choi, E.M., Fix, T., Kursumovic, A., Kinane, C.J., Arena, D., Sahonta, S.L., Bi, Z., Xiong, J., Yan, L., Lee, J.S., Wang, H., Langridge, S., Kim, Y.M., Borisevich, A.Y., MacLaren, I., Ramasse, Q.M., Blamire, M.G., Jia, Q.X., MacManus-Driscoll, J.L. (2014) "Room temperature ferrimagnetism and ferroelectricity in strained, thin films of BiFe_{0.5}Mn_{0.5}O₃" Advanced Functional Materials: 24, 7478 U2012B0069

Chong, K.E., Hopkins, B., Staude, I., Miroshnichenko, A.E., Dominguez, J., Decker, M., Neshev, D.N., Brener, I., Kivshar, Y.S. (2014) "Observation of Fano Resonances in All-Dielectric Heptamers" Small: 10.1002 U2012A0053

Chul, X.L., Brenner, T.J.K., Chen, X.W., Ghosh, Y., Hollingsworth, J.A., Sandoghdar, V., Goetzinger, S. (2014) "Experimental realization of an optical antenna for collecting 99% of photons from a quantum emitter" Optical: 1, 203 RA2013A0008

Duzik, A., Millunchick, J.M. (2014) "Surface morphology and Bi incorporation in GaSbBi(As)GaSb films" Journal of Crystal Growth: 390, 5-11 C2013B0023

Fan, Z., Jian, J., Liu, Y., Chen, Y., Song, M., Jiao, L., Wang, H., Zhang, X., "In situ studies on superior thermal stability of bulk FeZr nanocomposites." Acta Materialia 101, 125-135. C2015A0021.

Fang, K., Fernando, G.W., Balatsky, A.V., Kocharian, A.N., Palandage, K. (2014) "Pairing modulations and phase separation instabilities in Bi₂Sr₂CaCu₂O₈" Physics Letters A: 378, 243-248 C2012B0074

Fransson, J., Kang, M.G., Yoon, Y., Xiao, S., Ochiai, Y., **Reno, J.L.**, Aoki, N., **Bird, J.P.** (2014) "Tuning the Fano resonance with an intruder continuum" Nano Letters: 14, 788 C2012A0038

Fu, E.G., Fang, Y., Zhuo, M.J., Zheng, S.J., Bi, Z.X., **Wang, Y.Q.**, Tang, M., **Ding, X.**, Han, W.Z., **Luo, H.M.**, **Baldwin, J.K.**, **Misra, A.**, **Nastasi, M.** (2014) "Interface structure of Nb films on single crystal MgO(100) and MgO(111) substrates" Acta Materialia: 64, 100-112 U2012B0011

Gao, W., **Wu, G.**, **Janicke, M.T.**, **Cullen, D.A.**, **Mukundan, R.** (2014) "Proton conducting ozonated graphene oxide membrane" Angewandte Chemie International Edition: 53, 14 RA2012A0009

Gao, W., **Wu, G.**, **Janicke, M.T.**, **Cullen, D.A.**, **Mukundan, R.** et al. (2014) "Ozonated graphene oxide film as a proton-exchange membrane" Angewandte Chemie International Edition: 53, 14 RA2012A0009

Gao, X., Mamaluy, D., Nielsen, E., Young, R.W., **Shirkhorshidian, A.**, **Lilly, M.P.**, **Bishop, N.C.**, **Carroll, M.S.**, Muller, R.P. (2014) "Efficient self-consistent quantum transport simulator for quantum devices" Journal of Applied Physics: 115, 133707 U2011A1066

Ge, T., **Grest, G.S.**, Robbins, M.O. (2014) "Tensile Fracture of Welded Polymer Interfaces: Miscibility, Entanglements, and Crazing" Macromolecules: 47, 6982-6989 C2011B75

Ge, T., Robbins, M.O., **Perahia, D.**, **Grest, G.S.** (2014) "Healing of polymer interfaces: Interfacial dynamics, entanglements, and strength" Physical Review E: 90, 012602 C2012A0123

Habteyes, T. G., **Staude, I.**, **Chong, K.E.**, **Dominguez, J.**, Decker, M., Miroshnichenko, A., Kivshar, Y., **Brener, I.** (2014) "Near-field mapping of optical modes on all-dielectric silicon nanodisk" ACS Photonics: 1, 9 U2012A0053

Han, N.R., de Geofroy, A., Burghoff, D.P., Chan, C.W.I., Lee, A.W.M., **Reno, J.L.**, **Hu, Q.** (2014) "Broadband all-electronically tunable mems terahertz quantum cascade lasers" Optics Letters: 39, 12 C2012A0006

Han, X., Liu, Y., Jia, Z., Chen, T.C., Wan, J., Weadock, N., Gaskell, K.J., Li, T., **Hu, L.** (2014) "Atomic-layer-deposition oxide nano-glue for sodium ion batteries" Nano Letters: 14, 139

Han, Y., **Tretiak, S.**, **Kilin, D.S.** (2014) "Dynamics of charge transfer at Au/Si metal-semiconductor nano-interface" Molecular Physics: 112, 474-484 U2013B0142

Hayton, D.J., Kloosterman, J.L., Ren, Y., Gao, J.R., Klapwijk, T.M., Hu, Q., Walker, C.K., Reno, J.L. (2014) "A 4.7 THz heterodyne receiver for a balloon borne telescope" Proceedings of SPIE: 9153 C2013A0020

Heyes, J. E., Withayachumnankul, W., Grady, N. K., Chowdhury, D. R., Azad, A. K., Chen, H.-T. (2014) "Hybrid metasurface for ultra-broadband terahertz modulation" Applied Physics Letters: 105, 181108 U2012B0061

Hong, M., Wang, Y., Ren, F., Zhang, H., Fu, D., Yang, B., Xiao, X., Jiang, C. (2014) "Helium release and amorphization resistance in ion irradiated nanochannel films" Europhysics Letters: 106, 12001 U2011B13

Huang, H.Y.S., Subramanian, A. (2014) "Special section on spectroscopy, scattering, and imaging, techniques for nanostructured materials" ASME Journal of Nanotechnology in Engineering and Medicine: 5, 2 C2012B0030

Ignatova, T., Blades, M., Duque, J.G., Doorn, S.K., Biaggio, I., Rotkin, S.V. (2014) "Formation and dynamics of 'waterproof' photoluminescent complexes of rare earth ions in crowded environment" Physical Chemistry Chemical Physics: 16, 26715 C2013A0101

Ji, Y., Zhang, Y., Gao, M., Yuan, Z., Xia, Y., Jin, C., Tao, B., Chen, C., Jia, Q.X., Lin, Y. (2014) "Role of microstructures on the M1-M2 phase transition in epitaxial VO₂ thin films" Scientific Reports: 4, 4854 U2012B0070

Jun, Y.C., Luk, T.S., Ellis, A.R., Klem, J.F., Brener, I. (2014) "Doping-tunable thermal emission from plasmon polaritons in semiconductor epsilon-near-zero thin films" Applied Physics Letters: 105, 131109 RA2013A0012

Kalathi, J.T., Kumar, S.K., Rubinstein, M., Grest, G.S. (2014) "Rouse Mode Analysis of Chain Relaxation in Homopolymer Melts" Macromolecules: 47, 6925-6931 U2013A0057

Kalathi, J.T., Yamamoto, U., Schweizer, K.S., Grest, G.S., Kumar, S.K. (2014) "Nanoparticle diffusion in polymer nanocomposites" Physical Review Letters: 112, 108301 U2013A0057

Kao, T.Y., Cai, X., Hu, Q., Reno, J.L. (2014) "Microstrip-antenna-coupled distribute feedback terahertz quantum-cascade lasers" Quantum Sensing and Nanophotonic Devices: 8993 C2012A0006

Karl, N., Reichel, K., Chen, H.T., Taylor, A.J., Brener, I., Benz, A., Reno, J.L., Mendis, R.,

Mittleman, D.M. (2014) “An electrically driven terahertz modulator with over 20 dB of dynamic range” Applied Physics Letters: 104, 091115 C2013B0008

Kilina, S., Cui, P., Fischer, S.A., Tretiak, S. (2014) “Conditions for directional charge transfer in CdSe quantum dots functionalized by Ru(II) polypyridine complexes” Journal of Physical Chemistry Letters: 5, 20 C2012A0125

Keller, A.M., Ghosh, Y., Devore, M.S., Phipps, M.E., Stewart, M.H., Wilson, B.S., Lidke, D.S., Hollingsworth, J.A., Werner, J.H. (2014) “3-dimensional tracking of non-blinking ‘giant’ quantum dots in live cells” Advanced Functional Materials: 24, 30 C2013A0111

Khanal, S., Zhao, L., Reno, J.L., Kumar, S. (2014) “Temperature performance of terahertz quantum-cascade lasers with resonant-phonon active-regions” Journal of Optics: 16, 9 U2012A0041

Kocharian, A.N., Fang, K., Fernando, G.W., Balatsky, A.V. (2014) “Phase separation instabilities and magnetism in two dimensional square and honeycomb Hubbard model” Journal of Magnetism and Magnetic Materials: 383, 8-12 C2012B0074

Kormondy, K.J., Posadas, A.B., Slepko, A., Dhamdhere, A., Smith, D.J., Mitchell, K.N., Willet-Gies, T.I., Zollner, S., Marshall, L.G., Zhou, J., Demkov, A.A. (2014) “Epitaxy of polar semiconductor Co3O4 (110): Growth, structure, and characterization” Journal of Applied Physics: 115, 243708 C2012B0084

La-o-vorakiat, C., Tian, Y., Wu, T., Panagopoulos, C., Zhu, J.X., Su, H.B., Chia, E.M. (2014) “Interface-induced magnetic coupling in multiferroic/ferromagnetic bilayer: An ultrafast pump-probe study” Applied Physics Letters: 104, 141602 U2013A0058

Laroche, D., Gervais, G., Lilly, M.P., Reno, J.L. (2014) “1D-1D Coulomb Drag Signature of a Luttinger Liquid” Science: 343, 631 C2012B0019

Lee, J., Han, J.E., Xiao, S., Song, J., Reno, J.L., Bird, J.P. (2014) “Formation of a protected sub-band for conduction in quantum point contacts under extreme biasing” Nature Nanotechnology: 9, 101. C2013B0022

Lee, S., Sangle, A., Lu, P., Chen, A., Zhang, W., Lee, J.S., Wang, H., Jia, Q.X., MacManus-Driscoll, J.L. (2014) “Novel electroforming-free nanoscaffold memristor with very high uniformity, tenability, and density” Advanced Materials: 26, 6284 U2012B0069

Li, H., Nieman, R., Aquino, A.J.A., Lischka, H., Tretiak, S. (2014) “Comparison of LC-TDDFT and

ADC(2) methods in computations of bright and charge transfer states in stacked oligothiophenes” Journal of Chemical Theory and Computation: 10, 3280 C2013A0070

Li, H., Shi, T., **Tretiak, S.**, **Chernyak, V.Y.** (2014) “How geometric distortions scatter electronic excitations in conjugated macromolecules” Journal of Physical Chemistry Letters: 5, 3946 C2012B0034

Li, J., Catanzaro, M.J., **Tretiak, S.**, **Chernyak, V.Y.** (2014) “Excited-state structure modifications due to molecular substituents and exciton scattering in conjugated molecules” Journal of Physical Chemistry Letters: 5, 641-647 U2012A0008

Li, N., **Wang, H.**, **Misra, A.**, **Wang, J.** (2014) “In situ Nanoindentation Study of Plastic Co-deformation in Al-TiN Nanocomposites” Scientific Reports: 4, 6633 U2014A0085.

Liang, W., Li, Z., Bi, Z., Nan, T., Du., H., Nan, C., Chen, C., **Jia, Q.X.**, **Lin, Y.** (2014) “Role of the interface on the magnetoelectric properties of BaTiO₃ thin films deposited on polycrystalline Ni foils” Journal of Materials Chemistry C: 2, 708 U2012B0070

Lim, Y.S., Nugraha, A.R.T., Cho, S.J., Noh, M.Y., Yoon, E.J., Liu, H., Kim, J.H., Telg, H., **Haroz, E.H.**, Sanders, G.D., Baik, S.H., Kataura, H., **Doorn, S.K.**, Stanton, C.J., Saito, R., **Kono, J.**, Joo, T. (2014) “Ultrafast generation of fundamental and multiple-order phonon excitations in highly enriched (6,5) single-wall carbon nanotubes” Nano Letters: 14, 1426-1432 C2013A0029

Liu, S., **Sinclair, M.B.**, Mahony, T.S., **Jun, Y.C.**, Campione, S., Ginn, J., Bender, D.A., Wendt, J.R., Ihlefeld, J.F., Clem, P.G., Wright, J.B., **Brener, I.** (2014) “Optical magnetic mirrors without metals” Optica: 1, 4, 250 RA2013A0012

Liu, Y., Jian, J., Chen, Y., **Wang, H.**, **Zhang, X.**, (2014) “Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by in situ nanoindentation studies.” Applied Physics Letters: 104 (23), 231910. C2013B0013.

Liu, Y., Liu, X.H., Nguyen, B.M., **Yoo, J.**, Sullivan, J.P., **Picraux, S.T.**, **Dayeh, S.A.** (2014) “In-situ transmission electron microscopy (TEM) study on the lithium ion transport in Si-Ge heterostructures nanowires” Microscopy and Microanalysis: 20, 1534

Liu, Y., **Ren, F.**, Cai, G., Zhou, X., Hong, M., Li, W., Xiao, X., Wu, W., Jiang, C. (2014) “Energy dependence on formation of TiO₂ nanofilms by Ti Ion implantation and annealing” Materials Research Bulletin: 51, 376 C2013B0011

Liu, Y., Fan, F., Wang, J., Liu, Y., Chen, H., Jungjohann, K.L., Xu, Y., Zhu, Y., Bigio, D., Zhu, T., Wang, C. (2014) "In situ transmission electron microscopy study of electrochemical sodiation and potassiation of carbon nanofibers" Nano Letters: 14, 3445-3452 C2012B0038

Liu, Y., Zhang, S., Zhu, T. (2014) "Germanium-based electrode materials for lithium ion batteries" ChemElectroChem: 1, 706 C2012A0033

Loftian, S., Mayer, C., Chawla, N., Llorca, J., Misra, A., Baldwin, J.K., Molina-Aldareguia, J.M. (2014) "Effect of layer thickness on the high temperature mechanical properties of Al/SiC nanolaminates" Thin Solid Films: 10, 1016 U2012B0013

Lu, P., Romero, E., Lee, S., MacManus-Driscoll, J.L., Jia, Q.X. (2014) "Chemical quantification of atomic-scale EDS maps under thin specimen conditions" Microscopy and Microanalysis: 20, 1782 U2012B0069

Lu, Q., Hor, A., Fisher, J., Anderson, R.B., Liu, S., Luk, T.S., Paudel, H.P., Farrokh Baroughi, M., May, P.S., Smith, S. (2014) "Two-color Surface Plasmon Polariton Enhanced Upconversion in NaYF₄:Yb:Er Nanoparticles on Au Nanopillar Arrays" Journal of Physical Chemistry C: 118, 3251-3257 C2011B87

Lu, X., Wang, G., Howard, J.W., Chen, A., Zhao, Y., Daemen, L.L., Jia, Q.X. (2014) "Li-rich anti-perovskite Li₃OCl films with enhanced ionic conductivity" Chemical Communications: 50, 11520-11522 C2012A0024

Luk, T.S., Campione, S., Kim, I., Feng, S., Jun, Y.C., Liu, S., Wright, J.B., Brener, I., Catrysse, P.B., Fan, S., Sinclair, M.B. (2014) "Directional perfect absorption using deep subwavelength low-permittivity films" Physical Review B: 90, 085411 RA2013A0012

Macfaden, A.J., Reno, J.L., Brener, I., Mitrofanov, O. (2014) "3UM aperture probes for near-field terahertz transmission microscopy" Applied Physics Letters: 104, 011110 C2012B0064

Macfaden, A.J., Reno, J.L., Brener, I., Mitrofanov, O. (2014) "Terahertz near-field probe incorporating lambda/100 aperture for time-domain spectroscopy and imaging" Quantum Sensing and Nanophotonic Devices: 8993 C2012B0064

Mackay, D.T., Janish, M.T., Sahaym, U., Kotula, P.G., Jungjohann, K.L., Carter, C.B., Norton, M.G. (2014) "Template-free electrochemical synthesis of tin nanostructures" Journal of Materials Science: 49, 4 U2013A0103

Makarov, N.S., Lau, P.C., Olson, C., Velizhanin, K.A., Solntsev, K.M., Kieu, K., Kilina, S., Tretiak, S., Norwood, R.A., Peyghambarian, N., Perry, J.W. (2014) "Two-photon absorption in CdSe colloidal quantum dots compared to organic molecules" ACS Nano: 8, 12 C2012A0125

Mangum, B.D., Sampat, S., Ghosh, Y., Hollingsworth, J.A., Htoon, H., Malko, A.V. (2014) "Influence of the core size on biexciton quantum yield of giant Cdse/Cds Nanocrystals" Nanoscale: 6, 3712-3720 U2013A0134

Martin, K., Erdman, M., Quintana, H., Shelnut, J., Nogan, J., Swartzentruber, B., Martinez, J., Lavrova, O., Busani, T. (2014) "Bio-hybrid integrated system for wide-spectrum solar energy harvesting" Organic Photonic Materials and Devices: 89831 C2011A1013

Mitrofanov, O., Dominec, F., Kuzel, P., Reno, J.L., Brener, I., Chung, U.C., Elissalde, C., Maglione, M., Mounaix, P. (2014) "Near-field probing of Mie resonances in single TiO₂ microspheres at terahertz frequencies" Optics Express: 22, 19 C2012B0064

Nelson, T., Fernandez-Alberti, S., Roitberg, A.E., Tretiak, S. (2014) "Nonadiabatic excited-state molecular dynamics: modeling photophysics in organic conjugated materials" Account of Chemical Research: 47, 1155-1164 C2012A0016

Nguyen, B.M., Taur, Y., Picraux, S.T., Dayeh, S.A. (2014) "Diameter-independent hole mobility in Ge/Si core/shell nanowire field effect transistors" Nano Letters: 14, 2, 585 RA2013A0023

Oldani, N., Tretiak, S., Bazan, G., Fernandez-Alberti, S. (2014) "Modeling of internal conversion in photoexcited conjugated molecular donors used in organic conjugated materials" Energy and Environmental Science: 7, 1175 C2012A0016

Ondarse-Alvarez, D., Oldani, N., Tretiak, S., Fernandez-Alberti, S. (2014) "Computational study of photoexcited dynamics in bichromophoric cross-shaped oligofluorene" Journal of Physical Chemistry A: 118, 10742 C2012A0016

Palapati, N.K.R., Muth, A., Zhu, Y., Wang, C., Subramanian, A. (2014) "Elastic modulus measurements on large diameter nanowires using a nano-assembled platform" ASME Journal of Nanotechnology in Engineering and Medicine: 5, 2 C2012B0030

Paul, J., Dey, P., Tokumoto, T., Reno, J.L., Hilton D.J., Karaiskaj, D. (2014) "Exploring two-dimensional electron gases with two-dimensional fourier transform spectroscopy" Journal of Chemical Physics: 141, 13 U2013B0016

Perillo, E.P., De Haro, L., Phipps, M.E., Martinez, J.S., Yeh, H.C., Dunn, A.K., Shepherd, D.P., Werner, J.H. (2014) “Enhanced 3D localization of individual RNA transcripts via astigmatic imaging” Proceedings of SPIE: 8950 U2010A916

Perng, Y., Cho, J., Sun, Y., Membreno, D., Cirigliano, N., Dunn, B., Chang, J.P. (2014) “Synthesis of ion conducting Li_xAl_ySi_zO thin films by atomic layer deposition” Journal of Materials Chemistry A: 2, 9566 U2013B0077

Peteanu, L.A., Hong, J., Jeon, S., Kim, J., Devi, D., Wildeman, J., Sfeir, M.Y., Werner, J.H., Shreve, A.P. (2014) “The optical properties of conjugated materials and their aggregates: Towards imaging of films and devices” SPIE Nanoscience and Engineering: 13, 91650 C2011A1006

Ribaudo, T., Taylor, A., Nguyen, B.M., Bethke, D., Shaner, E.A. (2014) “High efficiency reflective waveplates in the midwave infrared” Optics Express: 22, 3 C2013B0114

Sanders, C. E., Zhang, C., Kellogg, G.L., Shih, C. K. (2014) “Role of thermal processes in dewetting of epitaxial Ag(111) film on Si(111)” Surface Science: 630, 168-173

Scherbakov, M.R., Neshev, D.N., Hopkins, B., Shorokhov, A.S., Staude, I., Melik-Gaykazyan, E.V., Decker, M., Ezhov, A.A., Miroshnichenko, A.E., Brener, I., Fedyanin, A.A., Kivshar, Y.S. (2014) “Enhanced third-harmonic generation in silicon nanoparticles driven by magnetic response” Nano Letters: 14, 6488-6492 U2012A0053

Schoeppner, R.L., Abdolrahim, N., Salehinia, I., Zbib, H.M., Bahr, D.F. (2014) “Elevated temperature dependence of hardness in tri-metallic nano-scale metallic multilayer systems” Thin Solid Films: 10.1016 U2013A0056

Scott, B.L., Joyce, J.J., Durakiewicz, T.D., Martin, R.L., McCleskey, T.M., Bauer, E., Luo, H., Jia, Q.X. (2014) “High quality epitaxial thin films of actinide oxides, carbides, and nitrides: Advancing understanding of electronic structure of f-element materials” Elsevier: 266-267, 137-154 U2012B0011

Sharma, Y.D., Jun, Y.C., Kim, J.O., Brener, I., Krishna, S. (2014) “Polarization-dependent photocurrent enhancement in metamaterial-coupled quantum dots-in-a-well infrared detectors” Optics Communications: 312, 31-34 U2011B90

Shu, J., Gao, W., Reichel, K., Nickel, D., Dominguez, J., Brener, I., Mittleman, D.M., Xu, Q. (2014) “High-Q terahertz Fano resonance with extraordinary transmission in concentric ring apertures” Optics Express: 22, 4 C2012A0030

Singh, S., Haraldsen, J.T., Xiong, J., Choi, E.M., Lu, P., Yi, D., Wen, X.D., Liu, J., Wang, H., Bi, Z., Yu, P., Fitzsimmons, M.R., MacManus-Driscoll, J.L., Ramesh, R., Balatsky, A.V., Zhu, J.X., Jia, Q.X. (2014) "Induced Magnetization in La_{0.7}Sr_{0.3}MnO₃/BiFeO₃ Superlattices" Physical Review Letters: 113, 047204 U2013B0009

Soler, M.A., Nelson, T., Roitberg, A.E., Tretiak, S., Fernandez-Alberti, S. (2014) "Signature of nonadiabatic coupling in unique excited-state vibrational modes" Journal of Physical Chemistry A: 118, 10372 C2012A0016

Soni, S.K., Sheldon, B.W., Hearne, S.J (2014). "Origins of saccharin-induced stress reduction based on observed fracture behavior of electrodeposited Ni films" Journal of Materials Science 49 (3)1399-1407

Su, Q., Gong, W., Yoon, D., Jacob, C., Jia, Q.X., Manthiram, A., Jacobson, A.J., Wang, H. (2014) "Interlayer Effects on Oxygen Reduction Kinetics in Porous Electrodes of La_{0.5}Sr_{0.5}CoO₃" Journal of the Electrochemical Society: 161, 398-404 C2013A0005

Subbaiyan, N.K., Cambre, S., Parra-Vasquez, N.G., Haroz, E.H., Doorn, S.K., Duque, J.G. (2014) "Role of surfactants and salt in aqueous two-phase separation of carbon nanotubes toward simple chirality isolation" ACS Nano: 8, 1619-1628 U2012B0014

Subramanian, A., Hudak, N.S., Huang, J.Y., Zhan, Y., Lou, J., Sullivan, J.P. (2014) "On-chip lithium cells for electrical and structural characterization of single nanowire electrodes" Nanotechnology: 25, 265402 C2012B0030

Sun, C., Bufford, D., Chen, Y., Kirk, M.A., Wang, Y.Q., Li, M., Wang, H., Maloy, S., Zhang, X. (2014) "In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance" Nature Scientific Report: 4, 3737 C2012A0017

Tang, W., Nguyen, B.M., Chen, R., Dayeh, S.A. (2014) "Solid-state reaction of nickel silicide and germanide contacts to semiconductor nanochannels" Semiconductor Science and Technology: 29, 5

Telg, H., Haroz, E.H., Duque, J.G., Tu, X., Khripin, C.Y., Fagan, J., Zheng, M., Kono, J., Doorn, S.K. (2014) "Diameter dependence of TO phonon frequencies and the Kohn anomaly in armchair metallic single-wall carbon nanotubes" Physical Review B: 90, 245422 C2011B100

Thomas, J.C., Mirecki Millunchick, J., Van der Ven, A., Modine, N.A. (2014) "Phase stability analysis of the InAs/GaAs (001) Wetting Layer from first principles" Physical Review B: 89, 205306

C2012A0028

Vanderhoef, L.R., Azad, A.K., Boomerger, C.C., Chowdhury, D.R., Chase, D.B., Taylor, A.J., Zide, J.M.O., Doty, M.F. (2014) "Charge carrier relaxation processes in TbAs nano-inclusions in GaAs measured by optical-pump THz-probe transient absorption spectroscopy" Physical Review B: 89, 045418 C2008A087

Vasilev, C., Johnson, M., Gonzales, E., Wang, L., Ruban, A., Montano, G.A., Cadby, A., Hunter, C.N. (2014) "Reversible switching between non-quenched and quenched states in nanoscale linear arrays of plant light harvesting antenna (LHCII) complexes" Langmuir: 30, 8481 U2011A1024

Vetterick, G., Baldwin, J.K., Misra, A., Taheri, M.L. (2014) "Texture evolution in nanocrystalline iron films deposited using biased magnetron sputtering" Journal of Applied Physics: 116, 233503

Wan, J., Bao, W., Liu, Y., Dai, J., Shen, F., Zhou, L., Cai, X., Urban, D., Li, Y., Jungjohann, K., Fuhrer, M.S., Hu, L. (2014) "Rapid first-cycle lithiation strategy for enhanced performance of Li-MoS₂ batteries as identified by in situ studies" Advanced Energy Materials: 1401742 U2012A0007

Wang, J., Fan, F., Liu, Y., Jungjohann, K.L., Lee, S.W., Mao, S.X., Liu, X., Zhu, T. (2014) "Structural evolution and pulverization of tin nanoparticles during lithiation-delithiation cycling" Journal of Electrochemical Society: 161, 11 U2012B0018

White, A.J., Tretiak, S., Galperin, M. (2014) "Raman Scattering in Molecular Junctions: A Pseudoparticle Formulation" Nano Letters: 14, 699-703

Whitcomb, K.J., Geisenhoff, J.Q., Ryan, D.P., Gelfand, M.P., Van Orden, A.K. (2014) "Photon antibunching in small clusters of CdSe/ZnS core/shell quantum dots" Journal of Physical Chemistry B: 10.1021 C2012B0078

Wood, R.M., Saha, D., McCarthy, L.A., Tokarski, J.T., Sanders, G.D., Kuhns, P.L., McGill, S.A., Reyes, A.P., Reno, J.L., Stanton, C.J., Bowers, C.R. (2014) "Effects of strain and quantum confinement in optically pumped nuclear magnetic resonance in GaAs: Interpretation guided by spin-dependent band structure calculations" Physical Review B: 90, 15 U2013B0045

Wright, J.B., Campione, S., Liu, S., Martinez, J.A., Xu, H., Luk, T.S., Li, Q., Wang, G.T., Swartzentruber, B.S., Lester, L.F., Brener, I. (2014) "Distributed feedback gallium nitride nanowire lasers" Applied Physics Letters: 104, 041107 U2012A0040

Wu, C., Arju, N., Kelp, G., Fan, J.A., Dominguez, J., Gonzales, E., Tutuc, E., Brener, I., Shvets, G. (2014) "Spectrally selective chiral silicon metasurfaces based on infrared Fano resonances" Nature Communications: 5, 3892 C2012A0095

Wu, Y., Zhang, C., Zhao, Y., Kim, J., Zhang, M., Mohammadi, N., Liu, Z., Pribil, G., Alu, A., Shih, C., Li, X., (2014) "Intrinsic optical properties and enhanced plasmonic response of epitaxial silver" Advanced Materials: 26, 6106 U2013B0015

Xing, Z., Shen, S., Wang, M., Ren, F., Liu, Y., Zheng, X., Liu, Y., Xiao, X., Wu, W., Jiang, C. (2014) "Efficient enhancement of solar-water-splitting by modified 'Z-scheme' structural WO₃-W-Si photoelectrodes" Applied Physics Letters: 105, 143902 C2013B0011

Yoo, J., Dayeh, S.A., Bartelt, N.C., Tang, W., Findikoglu, A.T., Picraux, S.T. (2014) "Size-dependent silicon epitaxy in mesoscale dimensions" Nano Letters: 14, 11

Zhao, R., Li, W., Lee, J.H., Choi, E.M., Liang, Y., Zhang, W., Tang, R., Wang, H., Jia, Q.X., MacManus-Driscoll, J.L., Yang, H. (2014) "Precise Tuning of (YBa₂Cu₃O_{7-δ})_{1-x}:(BaZrO₃)_x Thin Film Nanocomposite Structures" Advanced Functional Materials: 24, 5240-5245 U2011B13

Zhang, B., Hendrickson, J., Esfahani, N. N., Chen, H.-T., Guo, J. (2014) "Metasurface optical antireflection coating" Applied Physics Letters: 105, 241113

Zhang, H., Ren, F., Hong, M., Xiao, X., Cai, G., Jiang, C. (2014) "Structure and growth mechanism of V/Ag multilayers with different period fabricated by magnetron sputtering deposition" Journal of Material Science & Technology: 30, 1012 C2013B0011

Zhang, H., Ren, F., Wang, Y., Hong, M., Xiao, X., Liu, D., Qin, W., Zheng, X., Liu, Y., Jiang, C. (2014) "Enhanced radiation tolerance of nanochannel V films through defects release" Nuclear Instruments and Methods in Physics Research B: 334, 1-7 U2011B13

Zhang, Q., Arikawa, T., Kato, E., Reno, J.L., Pan, W., Watson, J.D., Manfra, M.J., Zudov, M.A., Tokman, M., Erukhimova, M., Belyanin, A., Kono, J. (2014) "Superradiant decay of cyclotron resonance of two-dimensional electron gases" Physical Review Letters: 113, 4 C2010B1057

Zhang, W., Chen, A., Bi, Z., Jia, Q.X., MacManus-Driscoll, J.L., Wang, H. (2014) "Interfacial coupling in heteroepitaxial vertically aligned nanocomposite thin films: From lateral to vertical control" Elsevier: 18, 6-18 C2013A0005

Zhang, W., Jian, J., Chen, A., Jiao, L., Khathatay, F., Li, L., Chu, F., Jia, Q.X., MacManus-Driscoll,

J.L., Wang, H. (2014) "Strain relaxation and enhanced perpendicular magnetic anisotropy in BiFeO₃:CoFe₂O₄ vertically aligned nanocomposite thin films" Applied Physics Letters: 104, 062402 C2013A0005

Zheng, X.D., Ren, F., Cai, G.X., Hong, M.Q., Xiao, X.H., Wu, W., Liu, Y.C., Li, W.Q., Ying, J.J., Jiang, C.Z. (2014) "Formation of TiO₂ Nanorods by Ion Irradiation" Journal of Applied Physics: 115, 184306 C2013B0011

Zhu, J.X., Wen, X.D., Haraldsen, J.T., He, M., Panagopoulos, C., Chia, E.M. (2014) "Induced ferromagnetism at BiFeO₃/YBa₂Cu₃O₇ interfaces" Scientific Reports: 4, 5368 U2013A0058

Zollner, C.J., Willett-Gies, T.I. Zollner, S., Choi, S. (2014) "Infrared to vacuum-ultraviolet ellipsometry studies of spinel (MgAl₂O₄)" Thin Solid Films: 571, 3 C2013A0028