

2014 CINT Publications

1. 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
2. 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
3. Bolintineanu, 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
4. Bolintineanu, 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
5. 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
6. 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
7. Efimov, A. (2014) "Intuitive model for the scintillations of a partially coherent beam" *Optics Express*: 22, 26
8. Efimov, A. (2014) "Spatial coherence at the output of multimode optical fibers" *Optics Express*: 22, 13
9. 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
10. Fransson, J., Ren, J., Zhu, J.X. (2014) "Electrical and thermal control of magnetic exchange interactions" *Physical Review Letters*: 113, 257201
11. 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
12. 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
13. 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
14. Hollingsworth, J.A. (2014) "Nanoscale engineering facilitated by controlled synthesis:

- From structure to function" *Coordin. Chem. Review*: 197, 263-264
15. 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
 16. Lane, J.M.D., Grest, G.S. (2014) "Aggregation of responsively-shaped coated nanoparticles at water/vapor interfaces" *Nanoscale*: 6, 5132
 17. 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
 18. Lee, J., Prasankumar, R.P. (2014) "Correlation between quantum charge fluctuations and magnetic ordering in multiferroic LuFe₂O₄" *European Physics Journal B*: 87, 267
 19. 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
 20. 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
 21. 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
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 25. Pietryga, J.M., Hollingsworth, J.A. (2014) "Mid-infrared emitting lead selenide nanocrystal quantum dots" *Inorganic Syntheses*: 36, 198
 26. Ren, J., Zhu, J.X. (2014) "Assymmetric Andreev reflection induced Hall-like effects in metal/anisotropic superconductor junctions" *Physics Review B*: 89, 064512
 27. Salerno, K.M., Bolintineanu, D.S., Lane, J.M., Grest, G.S. (2014) "High Strength,

- Molecularly Thin Nanoparticle Membranes” *Physical Review Letters*: 113, 258301
28. 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
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 30. 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
 31. Sista, P., Ghosh, K., Martinez, J.S., Rocha, R.C. (2014) “Polythiophenes in biological applications” *Journal of Nanoscience and Nanotechnology*: 14, 1
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 36. Watkins, E.B., Kashinath, A., Wang, P., Baldwin, J.K., Majewski, J., Demkowicz, M.J. (2014) “Characterization of a $\text{Fe}/\text{Y}_2\text{O}_3$ metal/oxide interface using neutron and x-ray scattering” *Applied Physics Letters*: 105, 041601
 37. White, A.J., Gorshkov, V.N., Wang, R., Tretiak, S., Mozysky, D. (2014) “Semiclassical monte-carlo: A first principles approach to nonadiabatic molecular dynamics” *Journal of Physical Chemistry*: 141, 184101
 38. Xiong, J., Matias, V., Tao, B.W., Li, Y.R., Jia, Q.X. (2014) “Ferroelectric and ferromagnetic properties of epitaxial BiFeO_3 - BiMnO_3 films on ion-beam-assisted deposited TiN buffered flexible Hastelloy” *Journal of Applied Physics*: 115, 17
 39. 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
 40. 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

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42. Zhang, P., Goodwin, P., Werner, J. (2014) "Fast, super resolution imaging via Bessel-beam stimulated emission depletion microscopy" *Optics Express*: 22, 10
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46. 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
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