## Journal Articles

### ⎯ 2007 ⎯

1. Banerjee, R., A. Puthucode, S. Bose, and P. Ayyub. "[Nanoscale phase separation in amorphous immiscible copper-niobium alloy thin films](http://dx.doi.org/10.1063/1.2429017)." *Applied physics letters* 90, no. 2 (2007): 021904.
2. Brostow, Witold, Brian P. Gorman, and Oscar Olea-Mejia. "[Focused ion beam milling and scanning electron microscopy characterization of polymer+ metal hybrids](http://dx.doi.org/10.1016/j.matlet.2006.07.026)." *Materials Letters* 61, no. 6 (2007): 1333-1336.
3. Brostow, W., and T. Datashvili. "[Miscibility and thermal properties of blends of melamine–formaldehyde resin with low density polyethylene](http://dx.doi.org/10.1179/143307507X225669)." *Materials Research Innovations* 11, no. 3 (2007): 127-132.
4. Gorman, Brian P., Andrew G. Norman, and Yanfa Yan. "[Atom probe analysis of III–V and Si-based semiconductor photovoltaic structures](http://dx.doi.org/10.1017/S1431927607070894)." *Microscopy and Microanalysis* 13, no. 06 (2007): 493-502.
5. Kelly, Thomas F., David J. Larson, Keith Thompson, Roger L. Alvis, Joseph H. Bunton, Jesse D. Olson, and Brian P. Gorman. "[Atom probe tomography of electronic materials](http://dx.doi.org/10.1146/annurev.matsci.37.052506.084239)." *Annu. Rev. Mater. Res.* 37 (2007): 681-727.
6. Stallcup, R. E., Y. Mo, T. W. Scharf, and J. M. Perez. "[Formation of nanometer-size high-density pits on epitaxial diamond (100) films](http://dx.doi.org/10.1016/j.diamond.2007.06.001)." *Diamond and Related Materials* 16, no. 9 (2007): 1727-1731.
7. Thompson, K., D. Lawrence, D. J. Larson, J. D. Olson, T. F. Kelly, and B. Gorman. "[In situ site-specific specimen preparation for atom probe tomography](http://dx.doi.org/10.1016/j.ultramic.2006.06.008)." *Ultramicroscopy* 107, no. 2 (2007): 131-139.

### ⎯ 2008 ⎯

1. Alshareef, H. N., M. Quevedo-Lopez, H. C. Wen, C. Huffman, M. El-Bouanani, and B. E. Gnade. "[Impact of carbon incorporation on the effective work function of WN and TaN metal gate electrodes](http://dx.doi.org/10.1149/1.2908579)." *Electrochemical and Solid-State Letters* 11, no. 7 (2008): H182-H184.
2. Banerjee, Rajarshi, Sangita Bose, Arda Genc, and Pushan Ayyub. "[The microstructure and electrical transport properties of immiscible copper-niobium alloy thin films](http://dx.doi.org/10.1063/1.2836970)." *Journal of Applied Physics* 103, no. 3 (2008): 033511.
3. Choppali, Uma, and Brian P. Gorman. "[Effect of annealing on room temperature photoluminescence of polymeric precursor derived ZnO thin films on sapphire substrates](http://dx.doi.org/10.1016/j.optmat.2008.02.004)." *Optical Materials* 31, no. 2 (2008): 143-148.
4. Choppali, Uma, and Brian P. Gorman. "[Nanocrystalline ZnO thin film synthesis using glycerol in aqueous polymeric precursor processing](http://dx.doi.org/10.1111/j.1551-2916.2008.02523.x)." *Journal of the American Ceramic Society* 91, no. 8 (2008): 2553-2558.
5. Choppali, Uma, and Brian P. Gorman. "[Preferentially oriented ZnO thin films on basal plane sapphire substrates derived from polymeric precursors](http://dx.doi.org/10.1016/j.matchemphys.2008.07.007)." *Materials Chemistry and Physics* 112, no. 3 (2008): 916-922.
6. Choppali, Uma, and Brian P. Gorman. "[Structural and optical properties of nanocrystalline ZnO thin films synthesized by the citrate precursor route](http://dx.doi.org/10.1016/j.jlumin.2008.03.013)." *Journal of Luminescence* 128, no. 10 (2008): 1641-1648.
7. Gorman, B. P., A. Puthucode, D. R. Diercks, and M. J. Kaufman. "[Cross-correlative TEM and atom probe analysis of partial crystallisation in NiNbSn metallic glasses](http://dx.doi.org/10.1179/174328408X293595)." *Materials Science and Technology* 24, no. 6 (2008): 682-688.
8. Gorman, B. P., D. Diercks, N. Salmon, E. Stach, G. Amador, and C. Hartfield. "[Hardware and techniques for cross-correlative TEM and atom probe analysis](http://www.microscopy-today.com/jsp/print_archive/print_archive.jsf)." *Microscopy Today* 16, no. 4 (2008): 42-47.
9. Hwang, J. Y., H. W. Doty, and M. J. Kaufman. "[The effects of Mn additions on the microstructure and mechanical properties of Al–Si–Cu casting alloys](http://dx.doi.org/10.1016/j.msea.2007.12.026)." *Materials Science and Engineering: A* 488, no. 1 (2008): 496-504.
10. Hwang, J. Y., A. Neira, T. W. Scharf, J. Tiley, and R. Banerjee. "[Laser-deposited carbon nanotube reinforced nickel matrix composites](http://dx.doi.org/10.1016/j.scriptamat.2008.04.032)." *Scripta Materialia* 59, no. 5 (2008): 487-490.
11. Puthucode, Anantha, Michael J. Kaufman, and Rajarshi Banerjee. "[Early Stages of Crystallization in Phase-Separated Amorphous Copper-Niobium Alloy Thin Films](http://dx.doi.org/10.1007/s11661-007-9337-9)." *Metallurgical and Materials Transactions A* 39, no. 7 (2008): 1578-1584.
12. Puthucode, Anantha, Rajarshi Banerjee, Suman Vadlakonda, Reza Mirshams, and Michael J. Kaufman. "[Incipient plasticity and shear band formation in bulk metallic glass studied using indentation](http://dx.doi.org/10.1007/s11661-007-9338-8)." *Metallurgical and Materials Transactions A* 39, no. 7 (2008): 1552-1559.
13. Romanes, Maia C., Nandika A. D'Souza, Decio Coutinho, Kenneth J. Balkus, and Thomas W. Scharf. "[Surface and subsurface characterization of epoxy-mesoporous silica composites to clarify tribological properties](http://dx.doi.org/10.1016/j.wear.2007.08.022)." *Wear* 265, no. 1 (2008): 88-96.
14. Samuel, Sonia, Soumya Nag, Thomas W. Scharf, and Rajarshi Banerjee. "[Wear resistance of laser-deposited boride reinforced Ti-Nb–Zr–Ta alloy composites for orthopedic implants](http://dx.doi.org/10.1016/j.msec.2007.04.029)." *Materials Science and Engineering: C* 28, no. 3 (2008): 414-420.
15. Scharf, T. W., M. C. Romanes, K. C. Mahdak, J. Y. Hwang, R. Banerjee, R. D. Evans, and G. L. Doll. "[Atomic-scale structure and composition of tungsten carbide reinforced diamondlike carbon films](http://dx.doi.org/10.1063/1.2995860)." *Applied Physics Letters* 93, no. 15 (2008): 1909.

### ⎯ 2009 ⎯

1. Bose, Sangita, Anantha Puthucode, Rajarshi Banerjee, and Pushan Ayyub. "[The influence of nanoscale phase separation and devitrification on the electrical transport properties of amorphous Cu–Nb alloy thin films](http://dx.doi.org/10.1088/0953-8984/21/28/285305)." *Journal of Physics: Condensed Matter* 21, no. 28 (2009): 285305.
2. Brostow, Witold, Wunpen Chonkaew, Tea Datashvili, and Kevin P. Menard. "[Tribological properties of epoxy+ silica hybrid materials](http://dx.doi.org/10.1166/jnn.2009.368)." *Journal of nanoscience and nanotechnology* 9, no. 3 (2009): 1916-1922.
3. Devaraj, A., R. E. A. Williams, S. Nag, R. Srinivasan, H. L. Fraser, and R. Banerjee. "[Three-dimensional morphology and composition of omega precipitates in a binary titanium–molybdenum alloy](http://dx.doi.org/10.1016/j.scriptamat.2009.06.006)." *Scripta Materialia* 61, no. 7 (2009): 701-704.
4. Diercks, David, Michael Kaufman, and Alan Needleman. "[Convergent beam electron diffraction measurements of relaxation in strained silicon using higher order Laue zone line splitting](http://dx.doi.org/10.1063/1.3093693)." *Journal of Applied Physics* 105, no. 6 (2009): 063526.
5. Genç, Arda, Rajarshi Banerjee, Gregory B. Thompson, Dennis M. Maher, Andrew W. Johnson, and Hamish L. Fraser. "[Complementary techniques for the characterization of thin film Ti/Nb multilayers](http://dx.doi.org/10.1016/j.ultramic.2009.05.015)." *Ultramicroscopy* 109, no. 10 (2009): 1276-1281.
6. Giannuzzi, Lucille A., and Brian P. Gorman. "[Particle-induced x-ray emission in stainless steel using 30 keV Ga {sup+} focused ion beams](http://dx.doi.org/10.1116/1.3136852)." *Journal of Vacuum Science and Technology. A, International Journal Devoted to Vacuum, Surfaces, and Films* 27, no. 4 (2009).
7. Hwang, J. Y., S. Nag, A. R. P. Singh, R. Srinivasan, J. Tiley, G. B. Viswanathan, H. L. Fraser, and R. Banerjee. "[Compositional variations between different generations of γ′ precipitates forming during continuous cooling of a commercial nickel-base superalloy](http://dx.doi.org/10.1007/s11661-009-0075-z)." *Metallurgical and Materials Transactions A* 40, no. 13 (2009): 3059-3068.
8. Hwang, J. Y., S. Nag, A. R. P. Singh, R. Srinivasan, J. Tiley, H. L. Fraser, and R. Banerjee. "[Evolution of the γ/γ′ interface width in a commercial nickel base superalloy studied by three-dimensional atom probe tomography](http://dx.doi.org/10.1016/j.scriptamat.2009.03.011)." *Scripta Materialia* 61, no. 1 (2009): 92-95.
9. Hwang, J. Y., R. Banerjee, J. Tiley, R. Srinivasan, G. B. Viswanathan, and H. L. Fraser. "[Nanoscale characterization of elemental partitioning between gamma and gamma prime phases in René 88 DT nickel-base superalloy](http://dx.doi.org/10.1007/s11661-008-9691-2)." *Metallurgical and Materials Transactions A* 40, no. 1 (2009): 24-35.
10. Hwang, J. Y., R. Banerjee, H. W. Doty, and M. J. Kaufman. "[The effect of Mg on the structure and properties of type 319 aluminum casting alloys](http://dx.doi.org/10.1016/j.actamat.2008.11.021)." *Acta Materialia* 57, no. 4 (2009): 1308-1317.
11. Jones, J. D., P. A. Ecton, Y. Mo, and J. M. Perez. "[Comment on “Modification of graphene properties due to electron-beam irradiation”[Appl. Phys. Lett. 94, 013101 (2009)]](http://dx.doi.org/10.1063/1.3272954)." *Appl. Phys. Lett* 95 (2009): 246101.
12. Li, Minghang, Wei-Hsuan Chen, Ming-Te Lin, Mohammad A. Omary, and Nigel D. Shepherd. "[Near-white and tunable electrophosphorescence from bis [3, 5-bis (2-pyridyl)-1, 2, 4-triazolato] platinum (II)-based organic light emitting diodes](http://dx.doi.org/10.1016/j.orgel.2009.04.010)." *Organic Electronics* 10, no. 5 (2009): 863-870.
13. Maneshian, Mohammad H., Ming-Te Lin, David Diercks, and Nigel D. Shepherd. "[Structural and electrical characterization of ohmic contacts to graphitized silicon carbide](http://dx.doi.org/10.1088/0957-4484/20/49/495703)." *Nanotechnology* 20, no. 49 (2009): 495703.
14. .Nag, Soumya, Sonia Samuel, Anantha Puthucode, and Rajarshi Banerjee. "[Characterization of novel borides in Ti–Nb–Zr–Ta+ 2B metal-matrix composites](http://dx.doi.org/10.1016/j.matchar.2008.07.011)." *Materials Characterization* 60, no. 2 (2009): 106-113.
15. Nag, S., R. Banerjee, J. Y. Hwang, M. Harper, and H. L. Fraser. "[Elemental partitioning between α and β phases in the Ti–5Al–5Mo–5V–3Cr–0.5 Fe (Ti-5553) alloy](http://dx.doi.org/10.1080/14786430802613158)." *Philosophical Magazine* 89, no. 6 (2009): 535-552.
16. Nag, S., R. Banerjee, and H. L. Fraser. "[Intra-granular alpha precipitation in Ti–Nb–Zr–Ta biomedical alloys](http://dx.doi.org/10.1007/s10853-008-3148-2)." *Journal of Materials Science* 44, no. 3 (2009): 808-815.
17. Nag, S., R. Banerjee, R. Srinivasan, J. Y. Hwang, M. Harper, and H. L. Fraser. "[ω-Assisted nucleation and growth of α precipitates in the Ti–5Al–5Mo–5V–3Cr–0.5 Fe β titanium alloy](http://dx.doi.org/10.1016/j.actamat.2009.01.007)." *Acta Materialia* 57, no. 7 (2009): 2136-2147.
18. Nag, Soumya, Kristopher C. Mahdak, Arun Devaraj, Smita Gohil, Pushan Ayyub, and Rajarshi Banerjee. "[Phase separation in immiscible silver–copper alloy thin films](http://dx.doi.org/10.1007/s10853-009-3449-0)." *Journal of Materials Science* 44, no. 13 (2009): 3393-3401.
19. Prasad, Somuri V., Thomas W. Scharf, Paul G. Kotula, Joseph R. Michael, and Todd R. Christenson. "[Application of diamond-like nanocomposite tribological coatings on LIGA microsystem parts](http://dx.doi.org/10.1109/JMEMS.2009.2016284)." *Microelectromechanical Systems, Journal of* 18, no. 3 (2009): 695-704.
20. Scharf, T. W., D. R. Diercks, B. P. Gorman, S. V. Prasad, and M. T. Dugger. "[Atomic layer deposition of tungsten disulphide solid lubricant nanocomposite coatings on rolling element bearings](http://dx.doi.org/10.1080/10402000802369747)." *Tribology Transactions* 52, no. 3 (2009): 284-292.
21. Scharf, T. W., A. Rajendran, R. Banerjee, and F. Sequeda. "[Growth, structure and friction behavior of titanium doped tungsten disulphide (Ti-WS 2) nanocomposite thin films](http://dx.doi.org/10.1016/j.tsf.2009.02.103)." *Thin Solid Films* 517, no. 19 (2009): 5666-5675.
22. Scharf, T. W., and I. L. Singer. "[Role of the transfer film on the friction and wear of metal carbide reinforced amorphous carbon coatings during run-in](http://dx.doi.org/10.1007/s11249-009-9457-z)." *Tribology letters* 36, no. 1 (2009): 43-53.
23. Scharf, T. W., Alderson Neira, J. Y. Hwang, Jay Tiley, and Rajarshi Banerjee. "[Self-lubricating carbon nanotube reinforced nickel matrix composites](http://dx.doi.org/10.1063/1.3158360)." *Journal of Applied Physics* 106, no. 1 (2009): 013508.
24. Srinivasan, R., R. Banerjee, J. Y. Hwang, G. B. Viswanathan, J. Tiley, D. M. Dimiduk, and H. L. Fraser. "[Atomic scale structure and chemical composition across order-disorder interfaces](http://dx.doi.org/10.1103/PhysRevLett.102.086101)." *Physical review letters* 102, no. 8 (2009): 086101.
25. Tiley, J., G. B. Viswanathan, R. Srinivasan, R. Banerjee, D. M. Dimiduk, and H. L. Fraser. "[Coarsening kinetics of γ′ precipitates in the commercial nickel base Superalloy René 88 DT](http://dx.doi.org/10.1016/j.actamat.2009.02.010)." *Acta Materialia* 57, no. 8 (2009): 2538-2549.
26. Wang, Gonghua, Joseph R. Brewer, Jie Ying Chan, David R. Diercks, and Chin Li Cheung. "[Morphological evolution of neodymium boride nanostructure growth by chemical vapor deposition](http://dx.doi.org/10.1021/jp901717h)." *The Journal of Physical Chemistry C* 113, no. 24 (2009): 10446-10451.
27. Yuan, Qiuhua, and Teresa Diane Golden. "[Electrochemical study of hydroxyapatite coatings on stainless steel substrates](http://dx.doi.org/10.1016/j.tsf.2009.06.029)." *Thin Solid Films* 518, no. 1 (2009): 55-60.

### ⎯ 2010 ⎯

1. Choppali, Uma, Elias Kougianos, Saraju P. Mohanty, and Brian P. Gorman. "[Polymeric precursor derived nanocrystalline ZnO thin films using EDTA as chelating agent](http://dx.doi.org/10.1016/j.solmat.2010.08.012)." *Solar Energy Materials and Solar Cells* 94, no. 12 (2010): 2351-2357.
2. Das, Santanu, Raghunandan Seelaboyina, Ved Verma, Indranil Lahiri, Jun Yeon Hwang, Rajarshi Banerjee, and Wonbong Choi. "[Synthesis and characterization of self-organized multilayered graphene–carbon nanotube hybrid films](http://dx.doi.org/10.1039/C1JM10316D)." *Journal of Materials Chemistry* 21, no. 20 (2011): 7289-7295.
3. Diercks, David, Andrey V. Svalov, Michael Kaufman, Vladimir O. Vaskovskiy, and Galina V. Kurlyandskaya. "[Structure and Electrical Resistivity of Sputtered Tb/Ti and Tb/Si Magnetic Multilayers.](http://dx.doi.org/10.1109/TMAG.2009.2039700)" *Magnetics, IEEE Transactions on* 46, no. 6 (2010): 1515-1518.
4. Diercks, D. R., M. J. Kaufman, R. B. Irwin, A. Jain, L. Robertson, J. W. Weijtmans, and R. Wise. "[Using a< 670> zone axis for convergent beam electron diffraction measurements of lattice strain in strained silicon.](http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2818.2010.03364.x/full)" *Journal of Microscopy* 239, no. 2 (2010): 154-158.
5. Doll, G. L., B. A. Mensah, H. Mohseni, and T. W. Scharf. "[Chemical vapor deposition and atomic layer deposition of coatings for mechanical applications.](http://dx.doi.org/10.1007/s11666-009-9364-8)" *Journal of Thermal Spray Technology* 19, no. 1-2 (2010): 510-516.
6. Ghosh, Santaneel, Somesree GhoshMitra, Tong Cai, David R. Diercks, Nathaniel C. Mills, and DiAnna L. Hynds. "[Alternating magnetic field controlled, multifunctional nano-reservoirs: intracellular uptake and improved biocompatibility.](http://dx.doi.org/10.1007/s11671-009-9465-9)" *Nanoscale Research Letters* 5, no. 1 (2010): 195-204.
7. Giannuzzi, Lucille A., and Brian P. Gorman. "[FIB Induced X-rays (FIBIX) Using 30 keV Ga+ Ions†.](http://pubs.acs.org/doi/abs/10.1021/jp906224b)" *The Journal of Physical Chemistry C* 114, no. 12 (2010): 5551-5554.
8. Hossain, K., V. C. Kummari, O. W. Holland, B. Rout, J. L. Duggan, and F. D. McDaniel. "[Compositional and Strain Characterization of Ion-Beam-Synthesized Ge x Si1− x Thin Films.](http://link.springer.com/article/10.1007/s11664-009-1042-6)" *Journal of Electronic Materials* 39, no. 2 (2010): 174-177.
9. Hwang, Jun Y., Antariksh RP Singh, Mrunalkumar Chaudhari, Jaimie Tiley, Yuntian Zhu, Jincheng Du, and Rajarshi Banerjee. "[Templated growth of hexagonal nickel carbide nanocrystals on vertically aligned carbon nanotubes.](http://dx.doi.org/10.1021/jp102571g)" *The Journal of Physical Chemistry C* 114, no. 23 (2010): 10424-10429.
10. Jones, J. D., K. K. Mahajan, W. H. Williams, P. A. Ecton, Y. Mo, and J. M. Perez. "[Formation of graphane and partially hydrogenated graphene by electron irradiation of adsorbates on graphene.](http://dx.doi.org/10.1016/j.carbon.2010.03.010)" *Carbon* 48, no. 8 (2010): 2335-2340.
11. Jones, Jason D., William D. Hoffmann, Aaron V. Jesseph, Christopher Morris, Guido F. Verbeck, and José M. Pérez. "[On the mechanism for plasma hydrogenation of graphene.](http://dx.doi.org/10.1063/1.3524517)" *Applied Physics Letters* 97 (2010).
12. Kovarik, L., F. Yang, A. Garg, D. Diercks, M. Kaufman, R. D. Noebe, and M. J. Mills. "[Structural analysis of a new precipitate phase in high-temperature TiNiPt shape memory alloys.](http://dx.doi.org/10.1016/j.actamat.2010.04.039)" *Acta Materialia* 58, no. 14 (2010): 4660-4673.
13. Kuo, Fang Ling, Ming‐Te Lin, Benedict A. Mensah, Thomas W. Scharf, and Nigel D. Shepherd. "[A comparative study of the photoluminescence and conduction mechanisms of low temperature pulsed laser deposited and atomic layer deposited zinc oxide thin films.](http://dx.doi.org/10.1002/pssa.201026152)" *Physica Status Solidi (a)* 207, no. 11 (2010): 2487-2491.
14. Lahiri, Indranil, Sung-Woo Oh, Jun Y. Hwang, Sungjin Cho, Yang-Kook Sun, Rajarshi Banerjee, and Wonbong Choi. "[High capacity and excellent stability of lithium ion battery anode using interface-controlled binder-free multiwall carbon nanotubes grown on copper.](http://dx.doi.org/10.1021/nn100400r)" *ACS Nano* 4, no. 6 (2010): 3440-3446.
15. Lahiri, Indranil, Raghunandan Seelaboyina, Jun Y. Hwang, Raj Banerjee, and Wonbong Choi. "[Enhanced field emission from multi-walled carbon nanotubes grown on pure copper substrate.](http://dx.doi.org/10.1016/j.carbon.2009.11.064)" *Carbon* 48, no. 5 (2010): 1531-1538.
16. Lee, K. M., T. Y. Choi, S. K. Lee, and D. Poulikakos. "[Focused ion beam-assisted manipulation of single and double β-SiC nanowires and their thermal conductivity measurements by the four-point-probe 3-ω method.](http://dx.doi.org/10.1088/0957-4484/21/12/125301)" *Nanotechnology* 21, no. 12 (2010): 125301.
17. Lee, K. M., A. Neogi, J. M. Perez, and T. Y. Choi. "[Focused-ion-beam-assisted selective control of graphene layers: acquisition of clean-cut ultra thin graphitic film.](http://dx.doi.org/10.1088/0957-4484/21/20/205303)" *Nanotechnology* 21, no. 20 (2010): 205303.
18. Li, Minghang, Ming‐Te Lin, Wei‐Hsuan Chen, Roy McDougald, Ravi Arvapally, Mohammad Omary, and Nigel D. Shepherd. "[High efficiency orange‐red phosphorescent organic light emitting diodes based on a Pt (II)‐pyridyltriazolate complex from a structure optimized for charge balance and reduced efficiency roll‐off.](http://dx.doi.org/10.1002/pssa.201127023)" *Physica Status Solidi (a)* 209, no. 1 (2012): 221-225.
19. Maneshian, M. H., K. C. Mahdak, F. L. Kuo, J. Y. Hwang, R. Banerjee, and N. D. Shepherd. "[Atomic scale characterization of titanium Ohmic contacts to SiC using three dimensional atom probe tomography and high resolution transmission electron microscopy.](http://dx.doi.org/10.1063/1.3464322)" *Applied Physics Letters* 97, no. 2 (2010): 024103.
20. Mohseni, Hamidreza, and Thomas W. Scharf. "[Tribological Improvement of Carbon/Carbon Composites by Infiltration of ZnO/Al2O3/ZrO2 Solid Lubricant Coatings.](http://search.proquest.com/openview/7e788496b6d66d310716a7bb6f49ea52/1?pq-origsite=gscholar)" *Tribology & Lubrication Technology* 66, no. 8 (2010): 20.
21. Ruiz-Serrano, D., M. Flores-Acosta, E. Conde-Barajas, D. Ramírez-Rosales, J. M. Yáñez-Limón, and R. Ramírez-Bon. "[Study by XPS of different conditioning processes to improve the cation exchange in clinoptilolite.](http://dx.doi.org/10.1016/j.molstruc.2010.07.007)" *Journal of Molecular Structure* 980, no. 1 (2010): 149-155.
22. Samuel, Sonia, Soumya Nag, Seifollah Nasrazadani, Vaishali Ukirde, Mohamed El Bouanani, Arunesh Mohandas, Kytai Nguyen, and Rajarshi Banerjee. "[Corrosion resistance and in vitro response of laser‐deposited Ti‐Nb‐Zr‐Ta alloys for orthopedic implant applications.](http://dx.doi.org/10.1002/jbm.a.32782)" *Journal of Biomedical Materials Research Part A* 94, no. 4 (2010): 1251-1256.
23. Shaito, Ali, Debora Fairbrother, Jerry Sterling, and Nandika Anne D'Souza. "[Maleated amorphous ethylene propylene compatibilized polyethylene nanocomposites: room temperature nonlinear creep response.](http://onlinelibrary.wiley.com/doi/10.1002/pen.21589/pdf)" *Polymer Engineering & Science* 50, no. 8 (2010): 1620-1632.
24. Singh, A. R. P., J. Y. Hwang, T. W. Scharf, J. Tiley, and R. Banerjee. "[Bulk nickel–carbon nanotube nanocomposites by laser deposition.](http://dx.doi.org/10.1179/174328409X411899)" *Materials Science and Technology* 26, no. 11 (2010): 1393-1400.
25. Srinivasan, R., R. Banerjee, G. B. Viswanathan, S. Nag, J. Y. Hwang, J. Tiley, and H. L. Fraser. "[The use of advanced characterization to study transitions across solid state interfaces.](http://dx.doi.org/10.1007/s11837-010-0183-7)" *JOM* 62, no. 12 (2010): 64-69.
26. Tiley, J., G. B. Viswanathan, J. Y. Hwang, A. Shiveley, and R. Banerjee. "[Evaluation of gamma prime volume fractions and lattice misfits in a nickel base superalloy using the external standard X-ray diffraction method.](http://dx.doi.org/10.1016/j.msea.2010.07.036)" *Materials Science and Engineering: a* 528, no. 1 (2010): 32-36.
27. Tiley, J. S., G. B. Viswanathan, A. Shiveley, M. Tschopp, R. Srinivasan, R. Banerjee, and H. L. Fraser. "[Measurement of γ′ precipitates in a nickel-based superalloy using energy-filtered transmission electron microscopy coupled with automated segmenting techniques.](http://dx.doi.org/10.1016/j.micron.2010.03.003)" *Micron* 41, no. 6 (2010): 641-647.
28. Vidhate, Shailesh, Jaycee Chung, Vijay Vaidyanathan, and Nandika Anne D'Souza. "[Resistive–conductive transitions in the time-dependent piezoresponse of PVDF-MWCNT nanocomposites.](http://www.nature.com/pj/journal/v42/n7/abs/pj201044a.html)" *Polymer journal* 42, no. 7 (2010): 567-574.

### ⎯ 2011⎯

1. Babu, R. Jayachandra, Witold Brostow, Oladiran Fasina, Ioannis M. Kalogeras, Sateeshkumar Sathigari, and Aglaia Vassilikou‐Dova. "[Encapsulation of hydrophobic drugs in a copolymer: glass transition behavior and miscibility evaluation.](http://onlinelibrary.wiley.com/doi/10.1002/pen.21949/full)" *Polymer Engineering & Science* 51, no. 8 (2011): 1456-1465.
2. Bermúdez, M. D., F. J. Carrión, C. Espejo, E. Martínez-López, and J. Sanes. "[Abrasive wear under multiscratching of polystyrene+ single-walled carbon nanotube nanocomposites. Effect of sliding direction and modification by ionic liquid](http://dx.doi.org/10.1016/j.apsusc.2011.05.103)." *Applied Surface Science* 257, no. 21 (2011): 9073-9081.
3. Brewer, Joseph R., Robert M. Jacobberger, David R. Diercks, and Chin Li Cheung. "[Rare earth hexaboride nanowires: general synthetic design and analysis using atom probe tomography.](http://pubs.acs.org/doi/abs/10.1021/cm200258h)" *Chemistry of Materials* 23, no. 10 (2011): 2606-2610.
4. Brostow, Witold, Martina Brozynski, Tea Datashvili, and Oscar Olea-Mejía. "[Strong thermoplastic elastomers created using nickel nanopowder.](http://link.springer.com/article/10.1007/s00289-011-0571-3)" *Polymer Bulletin* 67, no. 8 (2011): 1671-1696.
5. Brostow, Witold, Tea Datashvili, James Geodakyan, and Jesse Lou. "[Thermal and mechanical properties of EPDM/PP+ thermal shock-resistant ceramic composites](http://dx.doi.org/10.1007/s10853-010-5091-2)." *Journal of Materials Science* 46, no. 8 (2011): 2445-2455.
6. Choppali, Uma, Elias Kougianos, Saraju P. Mohanty, and Brian P. Gorman. "[Maskless deposition of ZnO films](http://dx.doi.org/10.1016/j.solmat.2010.11.004)." *Solar Energy Materials and Solar Cells* 95, no. 3 (2011): 870-876.
7. Conrad, Heidi, John Corbett, and Teresa D. Golden. "[Electrochemical deposition of γ-phase zinc-nickel alloys from alkaline solution.](http://jes.ecsdl.org/content/159/1/C29.short)" *Journal of the Electrochemical Society* 159, no. 1 (2011): C29-C32.
8. Das, Santanu, Raghunandan Seelaboyina, Ved Verma, Indranil Lahiri, Jun Yeon Hwang, Rajarshi Banerjee, and Wonbong Choi. "[Synthesis and characterization of self-organized multilayered graphene–carbon nanotube hybrid films.](http://pubs.rsc.org/en/content/articlehtml/2011/jm/c1jm10316d)" *Journal of Materials Chemistry* 21, no. 20 (2011): 7289-7295.
9. DeLeon, Vallerie, and Teresa D. Golden. "[Effect of electrochemical parameters on the morphology and Ca/P ratios of deposited apatite coatings on metal and alloy substrates](http://dx.doi.org/10.1149/1.3557570)." *ECS Transactions* 33, no. 21 (2011): 43-50.
10. Devaraj, A., S. Nag, B. C. Muddle, and R. Banerjee. "[Competing Martensitic, Bainitic, and Pearlitic Transformations in a Hypoeutectoid Ti-5Cu Alloy.](http://link.springer.com/article/10.1007/s11661-011-0656-5)" *Metallurgical and Materials Transactions A* 42, no. 5 (2011): 1139-1143.
11. Diercks, D., G. Lian, J. Chung, and M. Kaufman. "[Comparison of convergent beam electron diffraction and geometric phase analysis for strain measurement in a strained silicon device.](http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2818.2010.03423.x/full)" *Journal of Microscopy* 241, no. 2 (2011): 195-199.
12. Gali, Pradeep, Fang-Ling Kuo, Nigel Shepherd, and U. Philipose. "[Role of oxygen vacancies in visible emission and transport properties of indium oxide nanowires](http://dx.doi.org/10.1088/0268-1242/27/1/015015)." *Semiconductor Science and Technology* 27, no. 1 (2011): 015015.
13. GhoshMitra, Somesree, Tong Cai, David Diercks, Zhibing Hu, James Roberts, Jai Dahiya, Nathaniel Mills, DiAnna Hynds, and Santaneel Ghosh. "[Evaluation of the Biological Effects of Externally Tunable, Hydrogel Encapsulated Quantum Dot Nanospheres in Escherichia coli.](http://dx.doi.org/10.3390/polym3031243)" *Polymers* 3, no. 3 (2011): 1243-1254.
14. GhoshMitra, Somesree, David R. Diercks, Nathaniel C. Mills, DiAnna L. Hynds, and Santaneel Ghosh. "[Excellent biocompatibility of semiconductor quantum dots encased in multifunctional poly (N-isopropylacrylamide) nanoreservoirs and nuclear specific labeling of growing neurons.](http://dx.doi.org/10.1063/1.3562036)" *Applied Physics Letters* 98, no. 10 (2011): 103702.
15. Gopagoni, Sundeep, J. Y. Hwang, A. R. P. Singh, B. A. Mensah, N. Bunce, J. Tiley, T. W. Scharf, and R. Banerjee. "[Microstructural evolution in laser deposited nickel–titanium–carbon in situ metal matrix composites.](http://dx.doi.org/10.1016/j.jallcom.2010.09.208)" *Journal of Alloys and Compounds* 509, no. 4 (2011): 1255-1260.
16. Harris, Alesha N., Barbara R. Hinojosa, Montaleé D. Chavious, and Robby A. Petros. "[Beyond platinum: synthesis, characterization, and in vitro toxicity of Cu (II)-releasing polymer nanoparticles for potential use as a drug delivery vector.](http://link.springer.com/article/10.1186/1556-276X-6-445)" *Nanoscale research letters* 6, no. 1 (2011): 1-10.
17. Kuo, Fang-Ling, Mohammad H. Maneshian, and Nigel D. Shepherd. "[Electrical and chemical analysis of zinc oxide interfaces with high dielectric constant barium tantalate and aluminum oxide in metal-insulator-semiconductor structures fabricated at Low temperatures.](http://dx.doi.org/10.1016/j.tsf.2011.06.071)" *Thin Solid Films* 520, no. 1 (2011): 475-480.
18. Lahiri, Indranil, Ved Prakash Verma, and Wonbong Choi. "[An all-graphene based transparent and flexible field emission device](http://dx.doi.org/10.1016/j.carbon.2010.12.044)." *Carbon* 49, no. 5 (2011): 1614-1619.
19. Lahiri, Indranil, Seung-Min Oh, Jun Y. Hwang, Chiwon Kang, Mansoo Choi, Hyeongtag Jeon, Rajarshi Banerjee, Yang-Kook Sun, and Wonbong Choi. "[Ultrathin alumina-coated carbon nanotubes as an anode for high capacity Li-ion batteries](http://dx.doi.org/10.1039/C1JM11474C)." *Journal of Materials Chemistry* 21, no. 35 (2011): 13621-13626.
20. Lawrence, Neil J., Joseph R. Brewer, Lu Wang, Tai-Sing Wu, Jamie Wells-Kingsbury, Marcella M. Ihrig, Gonghua Wang, Yun-Liang Soo, Wai-Ning Mei, and Chin Li Cheung. "[Defect engineering in cubic cerium oxide nanostructures for catalytic oxidation](http://dx.doi.org/10.1021/nl200722z)." *Nano letters* 11, no. 7 (2011): 2666-2671.
21. Lee, Kyung-Min, Arup Neogi, Purnima Basu Neogi, Minjung Kim, Bongsoo Kim, Rafal Luchowski, Zygmunt Gryczynski, Nils Calander, and Tae-Youl Choi. "[Silver nanostructure sensing platform for maximum-contrast fluorescence cell imaging.](http://biomedicaloptics.spiedigitallibrary.org/article.aspx?articleid=1166865)" *Journal of Biomedical Optics* 16, no. 5 (2011): 056008-056008.
22. Li, Minghang, Wei-Hsuan Chen, Ming-Te Lin, Iain Oswald, Mohammad Omary, and Nigel D. Shepherd. "[High efficiency electrophosphorescence from bilayer organic light emitting diodes.](http://iopscience.iop.org/article/10.1088/0022-3727/44/36/365103/meta)" *Journal of Physics D: Applied Physics* 44, no. 36 (2011): 365103.
23. Lin, Ming-Te, Minghang Li, Wei-Hsuan Chen, Mohammad A. Omary, and Nigel D. Shepherd. "[Transient electroluminescence determination of carrier mobility and charge trapping effects in heavily doped phosphorescent organic light-emitting diodes.](http://dx.doi.org/10.1016/j.sse.2010.10.018)" *Solid-State Electronics* 56, no. 1 (2011): 196-200.
24. Maneshian, Mohammad H., Fang-Ling Kuo, Kristopher Mahdak, Junyeon Hwang, Rajarshi Banerjee, and Nigel D. Shepherd. "[The influence of high dielectric constant aluminum oxide sputter deposition on the structure and properties of multilayer epitaxial graphene.](http://iopscience.iop.org/article/10.1088/0957-4484/22/20/205703/meta;jsessionid=2CB21AFAC3D95A525B6008D64332BDB5.ip-10-40-2-108)" *Nanotechnology* 22, no. 20 (2011): 205703.
25. Nag, S., A. Devaraj, R. Srinivasan, R. E. A. Williams, N. Gupta, G. B. Viswanathan, J. S. Tiley et al. "[Novel mixed-mode phase transition involving a composition-dependent displacive component.](http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.106.245701)" *Physical Review Letters* 106, no. 24 (2011): 245701.
26. Ng, Hoi Pang, Arun Devaraj, Soumya Nag, C. J. Bettles, Mark Gibson, H. L. Fraser, B. C. Muddle, and Rajarshi Banerjee. "[Phase separation and formation of omega phase in the beta matrix of a Ti–V–Cu alloy.](http://dx.doi.org/10.1016/j.actamat.2011.01.038)" *Acta Materialia* 59, no. 8 (2011): 2981-2991.
27. Paital, Sameer R., Nancy Bunce, Peeyush Nandwana, Chinmay Honrao, Soumya Nag, Wei He, Rajarshi Banerjee, and Narendra B. Dahotre. "[Laser surface modification for synthesis of textured bioactive and biocompatible Ca–P coatings on Ti–6Al–4V.](http://link.springer.com/article/10.1007/s10856-011-4321-8)" *Journal of Materials Science: Materials in Medicine* 22, no. 6 (2011): 1393-1406.
28. Poudel, P. R., B. Rout, D. R. Diercks, J. A. Paramo, Y. M. Strzhemechny, and F. D. Mcdaniel. "[Effects of thermal annealing on the formation of buried β-SiC by ion implantation.](http://link.springer.com/article/10.1007/s11664-011-1695-9)" *Journal of Electronic Materials* 40, no. 9 (2011): 1998-2003.
29. Poudel, P. R., B. Rout, D. R. Diercks, Y. M. Strzhemechny, and F. D. Mcdaniel. "[Fluence dependant formation of β-SiC by ion implantation and thermal annealing.](http://link.springer.com/article/10.1007/s00339-010-6099-9)" *Applied Physics A* 104, no. 1 (2011): 183-188.
30. Singh, A. R. P., S. Nag, J. Y. Hwang, G. B. Viswanathan, J. Tiley, R. Srinivasan, H. L. Fraser, and R. Banerjee. "[Influence of cooling rate on the development of multiple generations of γ′ precipitates in a commercial nickel base superalloy.](http://dx.doi.org/10.1016/j.matchar.2011.06.002)" *Materials Characterization* 62, no. 9 (2011): 878-886.
31. Svalov, A. V., G. V. Kurlyandskaya, V. O. Vas’kovskiy, A. N. Sorokin, and D. Diercks. "[Magnetoresistance in nanostructured Tb/Ti and Tb/Si multilayers.](http://dx.doi.org/10.1063/1.3544043)" *Journal of Applied Physics* 109, no. 2 (2011): 023914.
32. Viswanathan, G. B., R. Banerjee, A. Singh, S. Nag, J. Tiley, and H. L. Fraser. "[Precipitation of ordered phases in metallic solid solutions: A synergistic clustering and ordering process.](http://dx.doi.org/10.1016/j.scriptamat.2011.06.002)" *Scripta Materialia* 65, no. 6 (2011): 485-488.
33. Wang, Gonghua, Guangfu Luo, Yun Liang Soo, Renat F. Sabirianov, Hong-Ji Lin, Wai-Ning Mei, Fereydoon Namavar, and Chin Li Cheung. "[Phase stabilization in nitrogen-implanted nanocrystalline cubic zirconia.](http://dx.doi.org/10.1039/C1CP22132A)" *Physical Chemistry Chemical Physics* 13, no. 43 (2011): 19517-19525.

### ⎯ 2012 ⎯

1. Berhe, Seare A., Joy Y. Zhou, Keith M. Haynes, Marco T. Rodriguez, and W. Justin Youngblood. "[Electron Transport in Acceptor-Sensitized Polymer–Oxide Solar Cells: The Importance of Surface Dipoles and Electron Cascade Effects.](http://dx.doi.org/10.1021/am300282d)" *ACS Applied Materials & Interfaces* 4, no. 6 (2012): 2955-2963.
2. Borkar, Tushar, Sundeep Gopagoni, Soumya Nag, J. Y. Hwang, Peter C. Collins, and Rajarshi Banerjee. "[In situ nitridation of titanium–molybdenum alloys during laser deposition.](http://dx.doi.org/10.1007/s10853-012-6656-z)" *Journal of Materials Science* 47, no. 20 (2012): 7157-7166.
3. Borkar, Tushar, Won Seok Chang, Jun Yeon Hwang, Nigel D. Shepherd, and Rajarshi Banerjee. "[Microstructural and optical properties of nanocrystalline ZnO deposited onto vertically aligned carbon nanotubes by physical vapor deposition.](http://dx.doi.org/10.1016/j.materresbull.2012.04.047)" *Materials Research Bulletin* 47, no. 10 (2012): 2756-2759.
4. Brostow, Witold, Tea Datashvili, Haley E. Hagg Lobland, Travis Hilbig, Lisa Su, Carolina Vinado, and John White. "[Bismuth telluride-based thermoelectric materials: Coatings as protection against thermal cycling effects](http://dx.doi.org/10.1557/jmr.2012.335)." *Journal of Materials Research* 27, no. 22 (2012): 2930-2936.
5. Brostow, Witold, Tea Datashvili, and James Geodakyan. "[Tribological properties of ethylene–propylene–diene rubber+ polypropylene+ thermal‐shock‐resistant ceramic composites](http://dx.doi.org/10.1002/pi.4282)." *Polymer International* 61, no. 9 (2012): 1362-1370.
6. Chaudhari, M., A. Singh, P. Gopal, S. Nag, G. B. Viswanathan, J. Tiley, R. Banerjee, and J. Du. "[Site occupancy of chromium in the γ′-Ni3Al phase of nickel-based superalloys: a combined 3D atom probe and first-principles study](http://dx.doi.org/10.1080/09500839.2012.690904)." *Philosophical Magazine Letters* 92, no. 9 (2012): 495-506.
7. Cheng, Jiangtao, Aref Vandadi, and Chung-Lung Chen. "[Condensation heat transfer on two-tier superhydrophobic surfaces](http://dx.doi.org/10.1063/1.4756800)." *Applied Physics Letters* 101, no. 13 (2012): 131909.
8. DeLeon, Vallerie H., Thanh D. Nguyen, Mangesh Nar, Nandika A. D'Souza, and Teresa D. Golden. "[Polymer nanocomposites for improved drug delivery efficiency](http://dx.doi.org/10.1016/j.matchemphys.2011.11.046)." *Materials Chemistry and Physics* 132, no. 2 (2012): 409-415.
9. Devaraj, A., S. Nag, R. Srinivasan, R. E. A. Williams, S. Banerjee, R. Banerjee, and H. L. Fraser. "[Experimental evidence of concurrent compositional and structural instabilities leading to ω precipitation in titanium–molybdenum alloys.](http://dx.doi.org/10.1016/j.actamat.2011.10.008)" *Acta Materialia* 60, no. 2 (2012): 596-609.
10. Du, Baoshuai, Sameer R. Paital, and Narendra B. Dahotre. "[Pulsed Laser Surface Modification of AZ31B with Al-Si](http://dx.doi.org/10.1142/s0218625x12500151)." *Surface Review and Letters* 19, no. 02 (2012): 1250015.
11. Du, Baoshuai, Sameer R. Paital, and Narendra B. Dahotre. "[Synthesis of TiB 2–TiC/Fe nano-composite coating by laser surface engineering](http://dx.doi.org/10.1016/j.optlastec.2012.05.017)." *Optics & Laser Technology* 45 (2013): 647-653.
12. Gernhart, Zane C., Robert M. Jacobberger, Lu Wang, Joseph R. Brewer, Mushtaq A. Dar, David R. Diercks, Wai Ning Mei, and Chin Li Cheung. "[Existence of Erbium Hexaboride Nanowires.](http://dx.doi.org/10.1111/j.1551-2916.2012.05427.x)" *Journal of the American Ceramic Society* 95, no. 12 (2012): 3992-3996.
13. GhoshMitra, Somesree, David R. Diercks, Nathaniel C. Mills, DiAnna L. Hynds, and Santaneel Ghosh. "[Role of engineered nanocarriers for axon regeneration and guidance: current status and future trends.](http://dx.doi.org/10.1016/j.addr.2011.12.013)" *Advanced Drug Delivery Reviews* 64, no. 1 (2012): 110-125.
14. Hu, Wen, and Xun Yu. "[Encapsulation of bio-based PCM with coaxial electrospun ultrafine fibers](http://dx.doi.org/10.1039/c2ra20532g)." *RSC Advances* 2, no. 13 (2012): 5580-5584.
15. Jones, Jason D., Rakesh K. Shah, Guido F. Verbeck, and Jose M. Perez. "[The Removal of Single Layers from Multi‐layer Graphene by Low‐Energy Electron Stimulation.](http://dx.doi.org/10.1002/smll.201290044)" *Small* 8, no. 7 (2012): 1066-1072.
16. Katakam, Shravana, S. Santhanakrishnan, and Narendra B. Dahotre. "[Fe-Based amorphous coatings on AISI 4130 structural steel for corrosion resistance](http://dx.doi.org/10.1007/s11837-012-0338-9)." *JOM* 64, no. 6 (2012): 709-715.
17. Katakam, Shravana, Jun Y. Hwang, Sameer Paital, Rajarshi Banerjee, Hitesh Vora, and Narendra B. Dahotre. "[In situ laser synthesis of Fe-based amorphous matrix composite coating on structural steel](http://dx.doi.org/10.1007/s11661-012-1312-4)." *Metallurgical and Materials Transactions A* 43, no. 13 (2012): 4957-4966.
18. Katakam, Shravana, Jun Y. Hwang, Hitesh Vora, Sandip P. Harimkar, Rajarshi Banerjee, and Narendra B. Dahotre. "[Laser-induced thermal and spatial nanocrystallization of amorphous Fe–Si–B alloy.](http://dx.doi.org/10.1016/j.scriptamat.2011.12.028)" *Scripta Materialia* 66, no. 8 (2012): 538-541.
19. Katakam, Shravana, S. Santhanakrishnan, Hitesh Vora, Jun Y. Hwang, Rajarshi Banerjee, and Narendra B. Dahotre. "[Stress-induced selective nano-crystallization in laser-processed amorphous Fe–Si–B alloys](http://dx.doi.org/10.1080/09500839.2012.704416)." *Philosophical Magazine Letters* 92, no. 11 (2012): 617-624.
20. Kumar, Nilesh, and R. S. Mishra. "[Thermal stability of friction stir processed ultrafine grained Al Mg Sc alloy](http://dx.doi.org/10.1016/j.matchar.2012.09.003)." *Materials Characterization* 74 (2012): 1-10.
21. Kuo, Fang-Ling, Yun Li, Marvin Solomon, Jincheng Du, and Nigel D. Shepherd. "[Workfunction tuning of zinc oxide films by argon sputtering and oxygen plasma: an experimental and computational study](http://dx.doi.org/10.1088/0022-3727/45/6/065301)." *Journal of Physics D: Applied Physics* 45, no. 6 (2012): 065301.
22. Li, Minghang, Ming‐Te Lin, Wei‐Hsuan Chen, Roy McDougald, Ravi Arvapally, Mohammad Omary, and Nigel D. Shepherd. "[High efficiency orange‐red phosphorescent organic light emitting diodes based on a Pt (II)‐pyridyltriazolate complex from a structure optimized for charge balance and reduced efficiency roll‐off](http://dx.doi.org/10.1002/pssa.201127023)." *Physica Status Solidi (a)* 209, no. 1 (2012): 221-225.
23. Lutkenhaus, Jeff, Franz Aguirre Farro, David George, Kris Ohlinger, Hualiang Zhang, Zsolt Poole, Kevin P. Chen, and Yuankun Lin. "[Holographic fabrication of 3D photonic crystals using silicon based reflective optics element](http://dx.doi.org/10.1364/ome.2.001236)." *Optical Materials Express* 2, no. 9 (2012): 1236-1241.
24. Meher, S., H-Y. Yan, S. Nag, D. Dye, and R. Banerjee. "[Solute partitioning and site preference in γ/γ′ cobalt-base alloys.](http://dx.doi.org/10.1016/j.scriptamat.2012.08.006)" *Scripta Materialia* 67, no. 10 (2012): 850-853.
25. Mohseni, H., and T. W. Scharf. "[Atomic layer deposition of ZnO/Al2O3/ZrO2 nanolaminates for improved thermal and wear resistance in carbon-carbon composites.](http://dx.doi.org/10.1116/1.3669518)" *Journal of Vacuum Science & Technology A* 30, no. 1 (2012): 01A149.
26. Mohseni, H., P. C. Collins, and T. W. Scharf. "[Nanocrystalline orientation and phase mapping of textured coatings revealed by precession electron diffraction.](http://dx.doi.org/10.1680/nme.12.00023)" *Nanomaterials and Energy* 1, no. 6 (2012): 318-323.
27. Moncayo, Marco A., Soundarapandian Santhanakrishnan, Hitesh D. Vora, and Narendra B. Dahotre. "[Computational modeling and experimental based parametric study of multi-track laser processing on alumina](http://dx.doi.org/10.1016/j.optlastec.2012.11.019)." *Optics & Laser Technology* 48 (2013): 570-579.
28. Nag, Soumya, Yuefeng Zheng, R. E. A. Williams, Arun Devaraj, Andrew Boyne, Yunzhi Wang, P. C. Collins et al. "[Non-classical homogeneous precipitation mediated by compositional fluctuations in titanium alloys.](http://dx.doi.org/10.1016/j.actamat.2012.07.033)" *Acta Materialia* 60, no. 18 (2012): 6247-6256.
29. Nandwana, P., J. Y. Hwang, M. Y. Koo, J. Tiley, S. H. Hong, and R. Banerjee. "[Formation of equiaxed alpha and titanium nitride precipitates in spark plasma sintered TiB/Ti–6Al–4V composites.](http://dx.doi.org/10.1016/j.matlet.2012.05.132)" *Materials Letters* 83 (2012): 202-205.
30. Nandwana, P., S. Nag, D. Hill, J. Tiley, H. L. Fraser, and R. Banerjee. "[On the correlation between the morphology of α and its crystallographic orientation relationship with TiB and β in boron-containing Ti–5Al–5Mo–5V–3Cr–0.5 Fe alloy.](http://dx.doi.org/10.1016/j.scriptamat.2012.01.011)" *Scripta Materialia* 66, no. 8 (2012): 598-601.
31. Nicholas, Robert, David Diercks, and Matthew Kane. "[Atom probe tomography study of GaMnN thin films.](http://dx.doi.org/10.1002/pssc.201100344)" *Physica Status Solidi (c)* 9, no. 3‐4 (2012): 723-726.
32. Nukala, Prathyusha, Gopal Sapkota, Pradeep Gali, and U. Philipose. "[Transport properties of Sb-doped Si nanowires](http://dx.doi.org/10.1016/j.jcrysgro.2012.05.024)." *Journal of Crystal Growth* 353, no. 1 (2012): 140-144.
33. Olea-Mejía, Oscar, Witold Brostow, Luis Escobar-Alarcón, and Enrique Vigueras-Santiago. "[Tribological properties of polymer nanohybrids containing gold nanoparticles obtained by laser ablation](http://dx.doi.org/10.1166/jnn.2012.5737)." *Journal of Nanoscience and Nanotechnology* 12, no. 3 (2012): 2750-2755.
34. Paital, Sameer R., Ananya Bhattacharya, Marco Moncayo, Yee Hsien Ho, Kristopher Mahdak, Soumya Nag, Rajarshi Banerjee, and Narendra B. Dahotre. "[Improved corrosion and wear resistance of Mg alloys via laser surface modification of Al on AZ31B](http://dx.doi.org/10.1016/j.surfcoat.2011.10.009)." *Surface and Coatings Technology* 206, no. 8 (2012): 2308-2315.
35. Pandey, Bimal, Prakash R. Poudel, and Duncan L. Weathers. "[Formation of ZnO Nanoparticles by ZnO-and O-Dual Beam Ion Implantation and Thermal Annealing.](http://dx.doi.org/10.1143/jjap.51.11pg03)" *Japanese Journal of Applied Physics* 51, no. 11S (2012): 11PG03.
36. Poudel, P. R., P. P. Poudel, B. Rout, M. El Bouanani, and F. D. McDaniel. "[An XPS study to investigate the dependence of carbon ion fluences in the formation of buried SiC.](http://dx.doi.org/10.1016/j.nimb.2012.04.017)" *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 283 (2012): 93-96.
37. Poudel, P. R., J. A. Paramo, P. P. Poudel, D. R. Diercks, Y. M. Strzhemechny, B. Rout, and F. D. McDaniel. "[Effects of thermal annealing on the structural and optical properties of carbon-implanted SiO2](http://dx.doi.org/10.1166/jnn.2012.5711)." *Journal of nanoscience and nanotechnology* 12, no. 3 (2012): 1835-1842.
38. Poudel, P. R., P. P. Poudel, B. P. Sharma, J. Y. Hwang, M. El Bouanani, B. Rout, and F. D. McDaniel. "[Synthesis of buried layers of β-SiC in Si by multiple energy carbon ion implantations and post thermal annealing.](http://dx.doi.org/10.1016/j.tsf.2012.09.061)" *Thin Solid Films* 524 (2012): 35-38.
39. Rapheal, G., Subodh Kumar, Carsten Blawert, and Narendra B. Dahotre. "[Improving Corrosion Resistance of MRI 230D Mg Alloy by Hybrid Coating of Laser Surface Alloying and Plasma Electrolytic Oxidation](http://dx.doi.org/10.4028/www.scientific.net/MSF.706-709.1209)." In *Materials Science Forum*, vol. 706, pp. 1209-1214. Trans Tech Publications, 2012.
40. Santhanakrishnan, S., Y. H. Ho, and N. B. Dahotre. "[Laser coating of hydroxyapatite on Mg for enhanced physiological corrosion resistance and biodegradability](http://dx.doi.org/10.1179/1753555712y.0000000022)." *Materials Technology* 27, no. 4 (2012): 273-277.
41. Sapkota, Gopal, Karol Gryczynski, Roy Mcdougald, Arup Neogi, and U. Philipose. "[Low-Temperature Synthesis of Fe-Doped ZnO Nanotubes.](http://dx.doi.org/10.1007/s11664-012-2127-1)" *Journal of Electronic Materials* 41, no. 8 (2012): 2155-2161.
42. Scappucci, G., W. M. Klesse, A. R. Hamilton, G. Capellini, D. L. Jaeger, M. R. Bischof, R. F. Reidy, B. P. Gorman, and M. Y. Simmons. "[Stacking of 2D electron gases in Ge probed at the atomic level and its correlation to low-temperature magnetotransport.](http://dx.doi.org/10.1021/nl302558b)" *Nano Letters* 12, no. 9 (2012): 4953-4959.
43. Schmucker, Scott W., Navneet Kumar, John R. Abelson, Scott R. Daly, Gregory S. Girolami, Maia R. Bischof, David L. Jaeger, Richard F. Reidy, Brian P. Gorman, Justin Alexander, Joshua B. Ballard, John N. Randall, and Joseph W. Lyding. "[Field-directed sputter sharpening for tailored probe materials and atomic-scale lithography.](http://dx.doi.org/10.1038/ncomms1907)" *Nature Communications* 3 (2012): 935.
44. Singh, Ashish, Sameer R. Paital, Abhinay Andapally, Narendra B. Dahotre, and Sandip P. Harimkar. "[Densification Behavior and Wear Response of Spark Plasma Sintered Iron‐Based Bulk Amorphous Alloys](http://dx.doi.org/10.1002/adem.201100322)." *Advanced Engineering Materials* 14, no. 6 (2012): 400-407.
45. Srivastava, A., S. Gopagoni, A. Needleman, V. Seetharaman, A. Staroselsky, and R. Banerjee. "[Effect of specimen thickness on the creep response of a Ni-based single-crystal superalloy](http://dx.doi.org/10.1016/j.actamat.2012.06.043)." *Acta Materialia* 60, no. 16 (2012): 5697-5711.
46. Vidhate, Shailesh, Lucia Innocentini‐Mei, and Nandika Anne D'Souza. "[Mechanical and electrical multifunctional poly (3‐hydroxybutyrate‐co‐3‐hydroxyvalerate)—multiwall carbon nanotube nanocomposites](http://dx.doi.org/10.1002/pen.23084)." *Polymer Engineering & Science* 52, no. 6 (2012): 1367-1374.

### ⎯ 2013 ⎯

1. Ageh, V., H. Mohseni, and T. W. Scharf. "[Lubricious zinc titanate coatings for high temperature applications.](http://dx.doi.org/10.1016/j.surfcoat.2013.06.082)" *Surface and Coatings Technology* 237 (2013): 241-247.
2. Ageh, Victor, Ravi Rajamure, Yee H. Ho, and Thomas W. Scharf. "[Nanocrystalline zinc titanate coatings for corrosion protection.](http://dx.doi.org/10.1680/nme.13.00029)" *Nanomaterials and Energy* 3, no. 2 (2013): 47-52.
3. Antoinette, C., W. T. Bigbee, W. Brostow, G. Granowski, H. E. Hagg Lobland, N. Hnatchuk, R. Pahler et al. "[External wire coatings: extant and modified](http://dx.doi.org/10.1179/1433075x13y.0000000109)." *Materials Research Innovations* 17, no. 7 (2013): 537-545.
4. Arora, Harpreet Singh, Quan Xu, Zhenhai Xia, Yee-Hsien Ho, Narendra B. Dahotre, Jan Schroers, and Sundeep Mukherjee. "[Wettability of nanotextured metallic glass surfaces](http://dx.doi.org/10.1016/j.scriptamat.2013.08.014)." *Scripta Materialia* 69, no. 10 (2013): 732-735.
5. Atta, Ayman M., Witold Brostow, Haley E. Hagg Lobland, Abdul‐Raheim M. Hasan, and Jose Perez. "[Porous crosslinked copolymers of octadecyl acrylate with acrylic acid as sorbers for crude petroleum spills.](http://dx.doi.org/10.1002/pi.4413)" *Polymer International* 62, no. 8 (2013): 1225-1235.
6. Atta, Ayman M., Witold Brostow, Haley E. Hagg Lobland, Abdul-Raheim M. Hasan, and Jose M. Perez. "[Porous polymer oil sorbents based on PET fibers with crosslinked copolymer coatings.](http://dx.doi.org/10.1039/C3RA44759F)" *RSC Advances* 3, no. 48 (2013): 25849-25857.
7. Behera, A., S. Nag, K. Mahdak, H. Mohseni, J. Tiley, and R. Banerjee. "[Influence of oxygen ingress on fine scale precipitation of α-Ti during oxidation of Beta21S β-Ti alloy.](http://dx.doi.org/10.1007/s10853-013-7470-y)" *Journal of Materials Science* 48, no. 19 (2013): 6700-6706.
8. Berhe, Seare A., Soumya Nag, Zachary Molinets, and W. Justin Youngblood. "[Influence of Seeding and Bath Conditions in Hydrothermal Growth of Very Thin (∼ 20 nm) Single-Crystalline Rutile TiO2 Nanorod Films.](http://dx.doi.org/10.1021/am302315q)" *ACS Applied Materials & Interfaces* 5, no. 4 (2013): 1181-1185.
9. Chonkaew, Wunpen, Narongrit Sombatsompop, and Witold Brostow. "[High impact strength and low wear of epoxy modified by a combination of liquid carboxyl terminated poly (butadiene-co-acrylonitrile) rubber and organoclay.](http://dx.doi.org/10.1016/j.eurpolymj.2013.03.022)" *European Polymer Journal* 49, no. 6 (2013): 1461-1470.
10. Choppali, Uma, Elias Kougianos, Saraju P. Mohanty, and Brian P. Gorman. "[Influence of annealing on polymeric precursor derived ZnO thin films on sapphire](http://dx.doi.org/10.1016/j.tsf.2013.07.085)." *Thin Solid Films* 545 (2013): 466-470.
11. Choudhuri, D., S. Meher, S. Nag, N. Dendge, J. Y. Hwang, and R. Banerjee. "[Evolution of a honeycomb network of precipitates in a hot-rolled commercial Mg–Y–Nd–Zr alloy.](http://dx.doi.org/10.1080/09500839.2013.791751)" *Philosophical Magazine Letters* 93, no. 7 (2013): 395-404.
12. Choudhuri, Deep, Nilesh Dendge, Soumya Nag, Mark A. Gibson, and Rajarshi Banerjee. "[Precipitation in Uniaxially Stressed Mg-Nd Alloys During Creep Testing.](http://dx.doi.org/10.1007/s11661-013-1792-x)" *Metallurgical and Materials Transactions A* 44, no. 7 (2013): 2905-2909.
13. Collins, Peter C., Santhosh Koduri, Brian Welk, Jaimie Tiley, and Hamish L. Fraser. "[Neural Networks Relating Alloy Composition, Microstructure, and Tensile Properties of α/β-Processed TIMETAL 6-4](http://dx.doi.org/10.1007/s11661-012-1498-5)." *Metallurgical and Materials Transactions A* 44, no. 3 (2013): 1441-1453.
14. Dagnon, Koffi L., Clark Robinson, Hua H. Chen, David C. Garrett, Lucia H. Innocentini‐Mei, and Nandika A. D'Souza. "[Layer double hydroxides for enhanced poly (3‐hydroxybutyrate‐co‐3‐hydroxyvalerate) crystallization.](http://dx.doi.org/10.1002/app.37646)" *Journal of Applied Polymer Science* 127, no. 5 (2013): 3395-3406.
15. Dagnon, Kofi, Mark Pickens, Vijay Vaidyanathan, and Nandika D’Souza. "[Validation of an Automated Multiunit Composting System](http://dx.doi.org/10.1007/s10924-013-0596-9)." *Journal of Polymers and the Environment* 22, no. 1 (2014): 9-16.
16. Dahotre, Sanket N., Hitesh D. Vora, K. Pavani, and Rajarshi Banerjee. "[An integrated experimental and computational approach to laser surface nitriding of Ti–6Al–4V.](http://dx.doi.org/10.1016/j.apsusc.2013.01.151)" *Applied Surface Science* 271 (2013): 141-148.
17. Dahotre, Narendra B. "[Multiscale laser materials engineering: energy-efficient processing and materials performance.](http://dx.doi.org/10.1680/nme.13.00003)" *Nanomaterials and Energy* 2, no. 2 (2013): 64-70.
18. Devaraj, Arun, Soumya Nag, and Rajarshi Banerjee. "[Alpha phase precipitation from phase-separated beta phase in a model Ti–Mo–Al alloy studied by direct coupling of transmission electron microscopy and atom probe tomography.](http://dx.doi.org/10.1016/j.scriptamat.2013.06.011)" *Scripta Materialia* 69, no. 7 (2013): 513-516.
19. Drachev, Vladimir P., Viktor A. Podolskiy, and Alexander V. Kildishev. "[Hyperbolic metamaterials: new physics behind a classical problem](http://dx.doi.org/10.1364/oe.21.015048)." *Optics express* 21, no. 12 (2013): 15048-15064.
20. Gali, Pradeep, Gopal Sapkota, A. J. Syllaios, Chris Littler, and U. Philipose. "[Stoichiometry dependent electron transport and gas sensing properties of indium oxide nanowires](http://dx.doi.org/10.1088/0957-4484/24/22/225704)." *Nanotechnology* 24, no. 22 (2013): 225704.
21. Gao, Hongyu, Samir M. Aouadi, Thomas W. Scharf, and Ashlie Martini. "[High-Temperature Tribological Properties of Silver Tantalate](http://dx.doi.org/10.1016/j.surfcoat.2014.01.046)." *Tribology & Lubrication Technology* 69, no. 10 (2013): 22.
22. Gao, H., D. S. Stone, H. Mohseni, S. M. Aouadi, T. W. Scharf, and A. Martini. "[Mechanistic studies of high temperature friction reduction in silver tantalate](http://dx.doi.org/10.1063/1.4798555)." *Applied Physics Letters* 102, no. 12 (2013): 121603.
23. Hoffmann, William, and Guido Verbeck. "[Toward a reusable surface-enhanced Raman spectroscopy (SERS) substrate by soft-landing ion mobility.](http://dx.doi.org/10.1366/12-06922)" *Applied Spectroscopy* 67, no. 6 (2013): 656-660.
24. Hwang, Jun Yeon, Rajarshi Banerjee, David R. Diercks, and Michael J. Kaufman. "[Direct Observation of Heterogeneous Nucleation in Al-Si-Cu-Mg Alloy Using Transmission Electron Microscopy and Three-dimensional Atom Probe Tomography.](http://dx.doi.org/10.9729/AM.2013.43.3.122)" *Korean Society of Microscopy* 43, no. 3 (2013): 122-126.
25. Hu, Wen, Donley Antoine, and Xun Yu. "[Optically transparent poly (methyl methacrylate) composite reinforced by polyacylonitrile hollow nanofibers](http://dx.doi.org/10.1177/0021998313504324)." *Journal of Composite Materials* 48, no. 24 (2014): 3019-3024.
26. Hwang, J. Y., B. K. Lim, J. Tiley, R. Banerjee, and S. H. Hong. "[Interface analysis of ultra-high strength carbon nanotube/nickel composites processed by molecular level mixing](http://dx.doi.org/10.1016/j.carbon.2013.01.075)." *Carbon* 57 (2013): 282-287.
27. Ishii, Satoshi, Alexander V. Kildishev, Evgenii Narimanov, Vladimir M. Shalaev, and Vladimir P. Drachev. "[Sub‐wavelength interference pattern from volume plasmon polaritons in a hyperbolic medium](http://dx.doi.org/10.1002/lpor.201200095)." *Laser & Photonics Reviews* 7, no. 2 (2013): 265-271.
28. Jones, J. D., C. F. Morris, G. F. Verbeck, and J. M. Perez. "[Oxidative pit formation in pristine, hydrogenated and dehydrogenated graphene.](http://dx.doi.org/10.1016/j.apsusc.2012.10.161)" *Applied Surface Science* 264 (2013): 853-863.
29. Katakam, Shravana, Arun Devaraj, Mark Bowden, S. Santhanakrishnan, Casey Smith, Raju V. Ramanujan, Suntharampillai Thevuthasan, Rajarshi Banerjee, and Narendra B. Dahotre. "[Laser assisted crystallization of ferromagnetic amorphous ribbons: A multimodal characterization and thermal model study.](http://dx.doi.org/10.1063/1.4829279)" *Journal of Applied Physics* 114, no. 18 (2013): 184901.
30. Katakam, Shravana, Nana Asiamah, Soundarapandian Santhanakrishnan, and Narendra Dahotre. "[Laser in-situ synthesis of TiB2–Al composite coating for improved wear performance.](http://dx.doi.org/10.1016/j.surfcoat.2013.09.047)" *Surface and Coatings Technology* 236 (2013): 200-206.
31. Kim, Hyoung Soo, Venu Varanasi, Garima Mehta, Hualiang Zhang, Tae-Youl Choi, Kamesh Namuduri, Jakob Vingren, Nandika Anne D'Souza, and Robert Kowal. "[Circuits, Systems, and Technologies for Detecting the Onset of Sudden Cardiac Death Through EKG Analysis](http://dx.doi.org/10.1109/mcas.2013.2283960)." *Circuits and Systems Magazine, IEEE* 13, no. 4 (2013): 10-25.
32. Lee, Kyung-Min, and Tae-Youl Choi. "[Focused Ion Beam-Assisted Nanoscale Processing and Thermoelectrical Characterization.](http://dx.doi.org/10.1007/978-3-319-02874-3_14)" In *FIB Nanostructures*, pp. 359-371. Springer International Publishing, 2013.
33. Lutkenhaus, Jeff, David George, David Garrett, Hualiang Zhang, and Yuankun Lin. "[Holographic formation of compound photonic crystal and nano-antenna templates through laser interference](http://dx.doi.org/10.1063/1.4795119)." *Journal of Applied Physics* 113, no. 10 (2013): 103103.
34. Marin, Chris M., Lu Wang, Joseph R. Brewer, Wai-Ning Mei, and Chin Li Cheung. "[Crystalline α-Sm 2 S 3 nanowires: Structure and optical properties of an unusual intrinsically degenerate semiconductor](http://dx.doi.org/10.1016/j.jallcom.2013.02.082)." *Journal of Alloys and Compounds* 563 (2013): 293-299.
35. Meher, S., S. Nag, J. Tiley, A. Goel, and R. Banerjee. "[Coarsening kinetics of γ′ precipitates in cobalt-base alloys.](http://dx.doi.org/10.1016/j.actamat.2013.03.052)" *Acta Materialia* 61, no. 11 (2013): 4266-4276.
36. Meher, S., T. Rojhirunsakool, J. Y. Hwang, S. Nag, J. Tiley, and R. Banerjee. "[Coarsening behaviour of gamma prime precipitates and concurrent transitions in the interface width in Ni-14 at.% Al-7 at.% Cr](http://dx.doi.org/10.1080/09500839.2013.816446)." *Philosophical Magazine Letters* 93, no. 9 (2013): 521-530.
37. Moncayo, Marco A., Soundarapandian Santhanakrishnan, Hitesh D. Vora, and Narendra B. Dahotre. "[Computational modeling and experimental based parametric study of multi-track laser processing on alumina](http://dx.doi.org/10.1016/j.optlastec.2012.11.019)." *Optics & Laser Technology* 48 (2013): 570-579.
38. Moncayo, Marco A., Soundarapandian Santhanakrishnan, Hitesh D. Vora, Sameer R. Paital, and Narendra B. Dahotre. "[Laser surface modification of alumina: integrated computational and experimental analysis](http://dx.doi.org/10.1016/j.ceramint.2013.01.040)." *Ceramics International* 39, no. 6 (2013): 6207-6213.
39. Mukherjee, Tamal, Sirish Rimal, Simon Koskey, Oliver Chyan, Kanwal Jit Singh, and Alan M. Myers. "[Bonding Structure of Model Fluorocarbon Polymer Residue Determined by Functional Group Specific Chemical Derivatization.](http://dx.doi.org/10.1149/2.008303ssl)" *ECS Solid State Letters* 2, no. 3 (2013): N11-N14.
40. Nag, Soumya, Sameer R. Paital, Peeyush Nandawana, Kristopher Mahdak, Yee Hsien Ho, Hitesh D. Vora, Rajarshi Banerjee, and Narendra B. Dahotre. "[Laser deposited biocompatible Ca–P coatings on Ti–6Al–4V: Microstructural evolution and thermal modeling.](http://dx.doi.org/10.1016/j.msec.2012.08.024)" *Materials Science and Engineering: C* 33, no. 1 (2013): 165-173.
41. Palanivel, S., R. S. Mishra, B. Davis, R. DeLorme, K. J. Doherty, and K. C. Cho. "[Effect of initial microstructure on the microstructural evolution and joint efficiency of a WE43 alloy during friction stir welding](http://dx.doi.org/10.1002/9781118658345.ch26)." *Friction Stir Welding and Processing VII* (2013): 253-261.
42. Pandey, B., P. R. Poudel, A. K. Singh, A. Neogi, and D. L. Weathers. "[Ion beam synthesis and carrier dynamics of ZnO nanoparticles embedded in a SiO2 matrix](http://dx.doi.org/10.1007/s00339-013-7692-5)." *Applied Physics A* 112, no. 3 (2013): 801-806.
43. Philipose, U., and Gopal Sapkota. "[Defect formation in InSb nanowires and its effect on stoichiometry and carrier transport](http://dx.doi.org/10.1007/s11051-013-2129-9)." *Journal of nanoparticle research* 15, no. 12 (2013): 1-11.
44. Polley, Craig M., Warrick R. Clarke, Jill A. Miwa, Giordano Scappucci, Justin W. Wells, David L. Jaeger, Maia R. Bischof, Richard F. Reidy, Brian P. Gorman, and Michelle Simmons. "[Exploring the limits of n-type ultra-shallow junction formation.](http://dx.doi.org/10.1021/nn4016407)" *ACS Nano* 7, no. 6 (2013): 5499-5505.
45. Ravnikar, Dunja, Narendra B. Dahotre, and Janez Grum. "[Laser coating of aluminum alloy EN AW 6082-T651 with TiB2 and TiC: microstructure and mechanical properties](http://dx.doi.org/10.1016/j.apsusc.2013.06.089)." *Applied Surface Science* 282 (2013): 914-922.
46. Rojhirunsakool, T., S. Meher, J. Y. Hwang, S. Nag, J. Tiley, and R. Banerjee. "[Influence of composition on monomodal versus multimodal γ′ precipitation in Ni–Al–Cr alloys.](http://dx.doi.org/10.1007/s10853-012-6802-7)" *Journal of Materials Science* 48, no. 2 (2013): 825-831.
47. Santhanakrishnan, S., N. Kumar, N. Dendge, D. Choudhuri, S. Katakam, S. Palanivel, H. D. Vora, R. Banerjee, R. S. Mishra, and Narendra B. Dahotre. "[Macro-and Microstructural Studies of Laser-Processed WE43 (Mg-Y-Nd) Magnesium Alloy](http://dx.doi.org/10.1007/s11663-013-9896-7)." *Metallurgical and Materials Transactions B* 44, no. 5 (2013): 1190-1200.
48. Santos-Ortiz, Reinaldo, Vyacheslav Volkov, Stefan Schmid, Fang-Ling Kuo, Kim Kisslinger, Soumya Nag, Rajarshi Banerjee, Yimei Zhu, and Nigel D. Shepherd. "[Microstructure and electronic band structure of pulsed laser deposited iron fluoride thin film for battery electrodes.](http://dx.doi.org/10.1021/am3017569)" *ACS Applied Materials & Interfaces* 5, no. 7 (2013): 2387-2391.
49. Singh, A. R. P., S. Nag, S. Chattopadhyay, Y. Ren, J. Tiley, G. B. Viswanathan, H. L. Fraser, and R. Banerjee. "[Mechanisms related to different generations of γ′ precipitation during continuous cooling of a nickel base superalloy.](http://dx.doi.org/10.1016/j.actamat.2012.09.058)" *Acta Materialia* 61, no. 1 (2013): 280-293.
50. Singh, Ashish, Shravana Katakam, Jan Ilavsky, Narendra B. Dahotre, and Sandip P. Harimkar. "[Nanocrystallization in spark plasma sintered Fe48Cr15Mo14Y2C15B6 bulk amorphous alloy.](http://dx.doi.org/10.1063/1.4817379)" *Journal of Applied Physics* 114, no. 5 (2013): 054903.
51. Sondhi, A., C. Morandi, R. F. Reidy, and T. W. Scharf. "[Theoretical and experimental investigations on the mechanism of carbothermal reduction of zirconia](http://dx.doi.org/10.1016/j.ceramint.2012.11.043)." *Ceramics International* 39, no. 4 (2013): 4489-4497.
52. Stone, D. S., S. Harbin, H. Mohseni, J-E. Mogonye, T. W. Scharf, C. Muratore, A. A. Voevodin, A. Martini, and S. M. Aouadi. "[Lubricious silver tantalate films for extreme temperature applications](http://dx.doi.org/10.1016/j.surfcoat.2012.12.004)." *Surface and Coatings Technology* 217 (2013): 140-146.
53. Su, Jianqing, Jiye Wang, Rajiv S. Mishra, Ray Xu, and John A. Baumann. "[Microstructure and mechanical properties of a friction stir processed Ti–6Al–4V alloy](http://dx.doi.org/10.1016/j.msea.2013.02.025)." *Materials Science and Engineering: A* 573 (2013): 67-74.
54. Thompson, Brian, Kevin Doherty, Jianqing Su, and Rajiv Mishra. "[Nano‐Sized Grain Refinement Using Friction Stir Processing](http://dx.doi.org/10.1002/9781118658345.ch2)." *Friction Stir Welding and Processing VII* (2013): 9-19.
55. Tientong, Jeerapan, Casey R. Thurber, Nandika D’Souza, Adel Mohamed, and Teresa D. Golden. "[Influence of Bath Composition at Acidic pH on Electrodeposition of Nickel-Layered Silicate Nanocomposites for Corrosion Protection](http://dx.doi.org/10.1155/2013/853869)." *International Journal of Electrochemistry* 2013 (2013): 1-8.
56. Tiley, Jaimie S., O. Senkov, G. Viswanathan, S. Nag, J. Hwang, and R. Banerjee. "[A Methodology for Determination of γ′ Site Occupancies in Nickel Superalloys Using Atom Probe Tomography and X-ray Diffraction.](http://dx.doi.org/10.1007/s11661-012-1456-2)" *Metallurgical and Materials Transactions A* 44, no. 1 (2013): 31-38.
57. Vora, Hitesh D., Ravi Shanker Rajamure, Santhanakrishnan Soundarapandian, S. G. Srinivasan, and Narendra B. Dahotre. "[Design and optimization of microstructure for improved corrosion resistance in laser surface alloyed aluminum with molybdenum.](http://dx.doi.org/10.1007/s12541-013-0192-x)" *International Journal of Precision Engineering and Manufacturing* 14, no. 8 (2013): 1421-1432.
58. Vora, Hitesh D., Ravi Shanker Rajamure, Santhanakrishnan Soundarapandian, S. G. Srinivasan, and Narendra B. Dahotre. "[Dilution of molybdenum on aluminum during laser surface alloying.](http://dx.doi.org/10.1016/j.jallcom.2013.03.115)" *Journal of Alloys and Compounds* 570 (2013): 133-143.
59. Vora, Hitesh, and Narendra Dahotre. "[Laser machining of structural alumina: influence of moving laser beam on the evolution of surface topography](http://dx.doi.org/10.1111/ijac.12223)." *International Journal of Applied Ceramic Technology* 12, no. 3 (2015): 665-678.
60. Wu, Zhiwei, Chunlei Qiu, V. Venkatesh, Hamish L. Fraser, R. E. A. Williams, G. B. Viswanathan, Matthew Thomas, S. Nag, Rajarshi Banerjee, and Michael H. Loretto. "[The Influence of Precipitation of Alpha2 on Properties and Microstructure in TIMETAL 6-4](http://dx.doi.org/10.1007/s11661-012-1530-9)." *Metallurgical and Materials Transactions A* 44, no. 4 (2013): 1706-1713.
61. Xu, Quan, Mingtao Li, Jianbing Niu, and Zhenhai Xia. "[Dynamic enhancement in adhesion forces of microparticles on substrates](http://dx.doi.org/10.1021/la4023757)." *Langmuir* 29, no. 45 (2013): 13743-13749.

### ⎯ 2014 ⎯

1. Ageh, Victor, Ravi Rajamure, Yee H. Ho, and Thomas W. Scharf. "[Nanocrystalline zinc titanate coatings for corrosion protection](http://dx.doi.org/10.1680/nme.13.00029)." *Nanomaterials and Energy* 3, no. 2 (2014): 47-52.
2. Ageh, V. A., H. Mohseni, and T. W. Scharf. "[Processing–structure–tribological property interrelationships of zinc titanate coatings grown by atomic layer deposition.](http://dx.doi.org/10.1016/j.surfcoat.2013.10.057)" *Surface and Coatings Technology* 241 (2014): 112-117.
3. Ahmad, Yahia H., Jeerapan Tientong, Mangesh Nar, Nandika D'Souza, A. M. A. Mohamed, and Teresa D. Golden. "[Characterization and corrosion resistance of electrodeposited Ni–Mo–silicate platelet nanocomposite coatings](http://dx.doi.org/10.1016/j.surfcoat.2014.10.036)." *Surface and Coatings Technology* 259 (2014): 517-525.
4. Alam, Talukder, Pavani Kami, Lingfei Cao, Soumya Nag, Colleen Bettles, Xinhua Wu, and Rajarshi Banerjee. "[On the Role of C Addition on α Precipitation in a β Titanium Alloy.](http://dx.doi.org/10.1007/s11661-013-2174-0)" *Metallurgical and Materials Transactions A* 45, no. 3 (2014): 1089-1095.
5. Aouadi, S. M., H. Gao, A. Martini, T. W. Scharf, and C. Muratore. "[Lubricious oxide coatings for extreme temperature applications: A review.](http://dx.doi.org/10.1016/j.surfcoat.2014.05.064)" *Surface and Coatings Technology* 257 (2014): 266-277.
6. Arora, Harpreet Singh, Sanghita Mridha, Harpreet Singh Grewal, Harpreet Singh, Douglas C. Hofmann, and Sundeep Mukherjee. "[Controlling the length scale and distribution of the ductile phase in metallic glass composites through friction stir processing](http://dx.doi.org/10.1088/1468-6996/15/3/035011)." *Science and Technology of Advanced Materials* 15, no. 3 (2014): 035011.
7. Arora, Harpreet Singh, Harpreet Singh Grewal, Harpreet Singh, Brij Kumar Dhindaw, David McPhail, Barbara Shollock, Richard Chater, and Sundeep Mukherjee. "[Microstructure‐Property Relationship for Friction Stir Processed Magnesium Alloy](http://dx.doi.org/10.1002/adem.201300205)." *Advanced Engineering Materials* 16, no. 1 (2014): 94-102.
8. Ballard, Joshua B., James HG Owen, William Owen, Justin R. Alexander, Ehud Fuchs, John N. Randall, James R. Von Ehr et al. "[Pattern transfer of hydrogen depassivation lithography patterns into silicon with atomically traceable placement and size control](http://dx.doi.org/10.1116/1.4890484)." *Journal of Vacuum Science & Technology B* 32, no. 4 (2014): 041804.
9. Batouli, Seyed Mostafa, Yimin Zhu, Mangesh Nar, and Nandika Anne D'Souza. "[Environmental performance of kenaf-fiber reinforced polyurethane: a life cycle assessment approach](http://dx.doi.org/10.1016/j.jclepro.2013.11.064)." *Journal of Cleaner Production* 66 (2014): 164-173.
10. Berhe, Seare A., Habtom B. Gobeze, Sundari D. Pokharel, Eunsol Park, and W. Justin Youngblood. "[Solid-State Photogalvanic Dye-Sensitized Solar Cells.](http://dx.doi.org/10.1007/s11661-013-2174-0)" *ACS Applied Materials & Interfaces* 6, no. 13 (2014): 10696-10705.
11. Blake, Deanne, Mangesh Nar, Nandika Anne D’Souza, J. Brad Glenn, Stephen J. Klaine, and Aaron P. Roberts. "[Treatment with Coated Layer Double Hydroxide Clays Decreases the Toxicity of Copper-Contaminated Water](http://dx.doi.org/10.1007/s00244-013-9986-1)." *Archives of environmental contamination and toxicology* 66, no. 4 (2014): 549-556.
12. Borkar, Tushar, and Rajarshi Banerjee. "[Influence of spark plasma sintering (SPS) processing parameters on microstructure and mechanical properties of nickel.](http://dx.doi.org/10.1016/j.msea.2014.08.070)" *Materials Science and Engineering: A* 618 (2014): 176-181.
13. Borkar, Tushar, John Sosa, Jun Yeon Hwang, Thomas W. Scharf, Jaimie Tiley, Hamish Fraser, and Rajarshi Banerjee. "[Laser-Deposited In Situ TiC-Reinforced Nickel Matrix Composites: 3D Microstructure and Tribological Properties](http://dx.doi.org/10.1007/s11837-014-0907-1)." *JOM* 66, no. 6 (2014): 935-942.
14. Borkar, Tushar, Soumya Nag, Yang Ren, Jaimie Tiley, and Rajarshi Banerjee. "[Reactive spark plasma sintering (SPS) of nitride reinforced titanium alloy composites](http://dx.doi.org/10.1016/j.jallcom.2014.08.049)." *Journal of Alloys and Compounds* 617 (2014): 933-945.
15. Borkar, Tushar, Jaewon Hwang, Jun Yeon Hwang, Thomas W. Scharf, Jaimie Tiley, Soon Hyung Hong, and Rajarshi Banerjee. "[Strength versus ductility in carbon nanotube reinforced nickel matrix nanocomposites.](http://dx.doi.org/10.1557/jmr.2014.53)" *Journal of Materials Research* 29, no. 06 (2014): 761-769.
16. Boyne, A., D. Wang, R. P. Shi, Y. Zheng, A. Behera, S. Nag, J. S. Tiley, H. L. Fraser, R. Banerjee, and Y. Wang. "[Pseudospinodal mechanism for fine α/β microstructures in β-Ti alloys.](http://dx.doi.org/10.1016/j.actamat.2013.10.026)" *Acta Materialia* 64 (2014): 188-197.
17. Brostow, Witold, and Tayfun Uygunoğlu. "[Influence of chemical admixture content particle and grade on viscosity of self-leveling mortar.](http://www.unt.edu/LAPOM/publications/pdf%20articles/9-80-1-PBEl-Cezeri.pdf)" *El-Cezeri J. Sci. Eng.* 1, no. 2 (2014): 12-21.
18. Choudhary, Nitin, Juhong Park, Jun Yeon Hwang, and Wonbong Choi. "[Growth of Large-Scale and Thickness-Modulated MoS2 Nanosheets](http://dx.doi.org/10.1021/am506198b)." *ACS applied materials & interfaces* 6, no. 23 (2014): 21215-21222.
19. Choudhuri, D., N. Dendge, S. Nag, S. Meher, T. Alam, M. A. Gibson, and R. Banerjee. "[Homogeneous and heterogeneous precipitation mechanisms in a binary Mg–Nd alloy.](http://dx.doi.org/10.1007/s10853-014-8404-z)" *Journal of Materials Science* 49, no. 20 (2014): 6986-7003.
20. Choudhuri, Deep, Soumya Nag, Nilesh Dendge, Mark A. Gibson, and Rajarshi Banerjee. "[Precipitate Formation in Uniaxially Stressed High Pressure Die Cast Binary Mg-Nd Alloy during Creep Testing.](http://dx.doi.org/10.1002/9781118888179.ch14)" *Magnesium Technology 2014* (2014): 55-57.
21. Choudhuri, Deep, Nilesh Dendge, Soumya Nag, Mark A. Gibson, and Rajarshi Banerjee. "[Role of applied uniaxial stress during creep testing on precipitation in Mg–Nd alloys.](http://dx.doi.org/10.1016/j.msea.2014.06.035)" *Materials Science and Engineering: A* 612 (2014): 140-152.
22. Choudhuri, Deep, David Jaeger, Mark A Gibson, Rajarshi Banerjee. "[Role of Zn in enhancing the creep resistance of Mg–RE alloys.](http://dx.doi.org/10.1016/j.scriptamat.2014.04.026)" *Scripta Materialia* 86 (2014): 32-35.
23. Collins, P. C., C. V. Haden, I. Ghamarian, B. J. Hayes, T. Ales, G. Penso, V. Dixit, and G. Harlow. "[Progress Toward an Integration of Process–Structure–Property–Performance Models for “Three-Dimensional (3-D) Printing” of Titanium Alloys.](http://dx.doi.org/10.1007/s11837-014-1007-y)" *JOM* 66, no. 7 (2014): 1299-1309.
24. Contieri, R. J., E. S. N. Lopes, R. Caram, A. Devaraj, S. Nag, and R. Banerjee. "[Effects of cooling rate on the microstructure and solute partitioning in near eutectoid Ti–Cu alloys.](http://dx.doi.org/10.1080/14786435.2014.913113)" *Philosophical Magazine* 94, no. 21 (2014): 2350-2371.
25. Dagnon, Kofi, Mark Pickens, Vijay Vaidyanathan, and Nandika D’Souza. "[Validation of an Automated Multiunit Composting System](http://dx.doi.org/10.1007/s10924-013-0596-9)." *Journal of Polymers and the Environment* 22, no. 1 (2014): 9-16.
26. Dahotre, Sanket N., Hitesh D. Vora, Ravi Shanker Rajamure, Lu Huang, Rajarshi Banerjee, Wei He, and Narendra B. Dahotre. "[Laser induced nitrogen enhanced titanium surfaces for improved osseo-integration.](http://dx.doi.org/10.1007/s10439-013-0898-z)" *Annals of Biomedical Engineering* 42, no. 1 (2014): 50-61.
27. Davis, James W., Michael S. Kahl, and Teresa D. Golden. "[Mechanistic study of cationic dye interactions with clay‐polymer dispersions via metachromatic effect, aggregation, and surface charge](http://dx.doi.org/10.1002/app.40141)." *Journal of Applied Polymer Science* 131, no. 8 (2014).
28. Gao, Hongyu, Alberto Otero-de-la-Roza, Samir M. Aouadi, Ashlie Martini, and Erin R. Johnson. "[Chemical Basis of the Tribological Properties of AgTaO3 Crystal Surfaces.](http://dx.doi.org/10.1021/jp503673k)" *The Journal of Physical Chemistry C* 118, no. 31 (2014): 17577-17584.
29. Gencel, Osman, Juan Jose del Coz Diaz, Mucahit Sutcu, Fuat Koksal, FP Alvarez Rabanal, Gonzalo Martinez-Barrera, and Witold Brostow. "[Properties of gypsum composites containing vermiculite and polypropylene fibers: Numerical and experimental results.](http://dx.doi.org/10.1016/j.enbuild.2013.11.047)" *Energy and Buildings* 70 (2014): 135-144.
30. Ghamarian, Iman, Yue Liu, Peyman Samimi, and Peter C. Collins. "[Development and application of a novel precession electron diffraction technique to quantify and map deformation structures in highly deformed materials—as applied to ultrafine-grained titanium](http://dx.doi.org/10.1016/j.actamat.2014.06.063)." *Acta Materialia* 79 (2014): 203-215.
31. Goswami, Arindom, Simon Koskey, Tamal Mukherjee, and Oliver Chyan. "[Study of Pyrazole as Copper Corrosion Inhibitor in Alkaline Post Chemical Mechanical Polishing Cleaning Solution.](http://dx.doi.org/10.1149/2.0011410jss)" *ECS Journal of Solid State Science and Technology* 3, no. 10 (2014): P293-P297.
32. Haynes, Keith M., Collin M. Perry, Marlene Rivas, Teresa D. Golden, Antony Bazan, Maria Quintana, Vladimir N. Nesterov et al. "[Templated Electrodeposition and Photocatalytic Activity of Cuprous Oxide Nanorod Arrays.](http://dx.doi.org/10.1021/am507244q)" *ACS Applied Materials & Interfaces* 7, no. 1 (2014): 830-837.
33. Ho, Yee-Hsien, Hitesh D. Vora, and Narendra B. Dahotre. "[Laser surface modification of AZ31B Mg alloy for bio-wettability](http://dx.doi.org/10.1177/0885328214551156)." *Journal of biomaterials applications* (2014): 0885328214551156.
34. Hu, Wen, and Xun Yu. "[Thermal and mechanical properties of bio-based PCMs encapsulated with nanofibrous structure](http://dx.doi.org/10.1016/j.renene.2013.07.047)." *Renewable Energy* 62 (2014): 454-458.
35. Jha, Jitendra Kumar, Reinaldo Santos-Ortiz, Jincheng Du, and Nigel D. Shepherd. "[Semiconductor to metal transition in degenerate ZnO: Al films and the impact on its carrier scattering mechanisms and bandgap for OLED applications](http://dx.doi.org/10.1007/s10854-014-1758-9)." *Journal of Materials Science: Materials in Electronics* 25, no. 3 (2014): 1492-1498.
36. Kahl, Michael, and Teresa D. Golden. "[Electrochemical determination of phenolic acids at a Zn/Al layered double hydroxide film modified glassy carbon electrode.](http://dx.doi.org/10.1002/elan.201400156)" *Electroanalysis* 26, no. 8 (2014): 1664-1670.
37. Katakam, Shravana, Vivek Kumar, S. Santhanakrishnan, Ravishankar Rajamure, P. Samimi, and Narendra B. Dahotre. "[Laser assisted Fe-based bulk amorphous coating: Thermal effects and corrosion](http://dx.doi.org/10.1016/j.jallcom.2014.03.137)." *Journal of Alloys and Compounds* 604 (2014): 266-272.
38. Katakam, Shravana, Sameehan S. Joshi, Sanghita Mridha, Sundeep Mukherjee, and Narendra B. Dahotre. "[Laser assisted high entropy alloy coating on aluminum: Microstructural evolution.](http://dx.doi.org/10.1063/1.4895137)" *Journal of Applied Physics* 116, no. 10 (2014): 104906.
39. Katakam, Shravana, and Narendra Dahotre. "[Laser patterning of Fe–Si–B amorphous ribbons in magnetic field.](http://dx.doi.org/10.1007/s00339-014-8512-2)" *Applied Physics A* 117, no. 3 (2014): 1241-1247.
40. Komarasamy, M., and R. S. Mishra. "[Serration behavior and shear band characteristics during tensile deformation of an ultrafine-grained 5024 Al alloy](http://dx.doi.org/10.1016/j.msea.2014.08.027)." *Materials Science and Engineering: A* 616 (2014): 189-195.
41. Kumar, N., N. Dendge, R. Banerjee, and R. S. Mishra. "[Effect of microstructure on the uniaxial tensile deformation behavior of Mg–4Y–3RE alloy](http://dx.doi.org/10.1016/j.msea.2013.10.009)." *Materials Science and Engineering: A* 590 (2014): 116-131.
42. Kummari, Venkata C., Tilo Reinert, Weilin Jiang, Floyd D. McDaniel, and Bibhudutta Rout. "[Characterization of defects in n-type 4H-SiC after high-energy N ion implantation by RBS-channeling and Raman spectroscopy.](http://dx.doi.org/10.1016/j.nimb.2014.02.023)" *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 332 (2014): 28-32.
43. Lakshantha, Wickramaarachchige J., Venkata C. Kummari, Tilo Reinert, Floyd D. McDaniel, and Bibhudutta Rout. "[Depth profile investigation of β-FeSi 2 formed in Si (100) by high fluence implantation of 50keV Fe ion and post-thermal vacuum annealing.](http://dx.doi.org/10.1016/j.nimb.2014.02.024)" *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 332 (2014): 33-36.
44. McDougald Jr, Roy N., Bhaskar Chilukuri, Huiping Jia, Michael R. Perez, Hassan Rabaâ, Xiaoping Wang, Vladimir N. Nesterov, Thomas R. Cundari, Bruce E. Gnade, and Mohammad A. Omary. "[Molecular and Electronic Structure of Cyclic Trinuclear Gold (I) Carbeniate Complexes: Insights for Structure/Luminescence/Conductivity Relationships.](http://dx.doi.org/10.1021/ic500808q)" *Inorganic chemistry* 53, no. 14 (2014): 7485-7499.
45. Meher, S., and R. Banerjee. "[Partitioning and site occupancy of Ta and Mo in Co-base γ/γ′ alloys studied by atom probe tomography.](http://dx.doi.org/10.1016/j.intermet.2014.01.020)" *Intermetallics* 49 (2014): 138-142.
46. Mirshams, Reza A., and Ashish K. Srivastava. "[Effect of Pile-Up on Nanoindentation Measurements of Polycrystalline Bulk Metals](http://dx.doi.org/10.4028/www.scientific.net/amr.853.143)." In *Advanced Materials Research*, vol. 853, pp. 143-150. 2014.
47. Nar, Mangesh, Gerrit Staufenberg, Bing Yang, Lesli Robertson, Rinkesh H. Patel, Venu G. Varanasi, and Nandika Anne D'Souza. "[Osteoconductive bio-based meshes based on Poly (hydroxybutyrate-co-hydroxyvalerate) and poly (butylene adipate-co-terephthalate) blends](http://dx.doi.org/10.1016/j.msec.2014.01.047)." *Materials Science and Engineering: C* 38 (2014): 315-324.
48. Nar, Mangesh, Charles Webber, and Nandika Anne D'Souza. "[Rigid polyurethane and kenaf core composite foams](http://dx.doi.org/10.1002/pen.23868)." *Polymer Engineering & Science* 55, no. 1 (2015): 132-144.
49. Neogi, A., S. Karna, R. Shah, U. Phillipose, J. Perez, R. Shimada, and Z. M. Wang. "[Surface plasmon enhancement of broadband photoluminescence emission from graphene oxide](http://dx.doi.org/10.1039/c4nr03055a)." *Nanoscale* 6, no. 19 (2014): 11310-11315.
50. Novak, Travis G., Hitesh D. Vora, Rajiv S. Mishra, Marcus L. Young, and Narendra B. Dahotre. "[Synthesis of Al0. 5CoCrCuFeNi and Al0. 5CoCrFeMnNi High-Entropy Alloys by Laser Melting.](http://dx.doi.org/10.1007/s11663-014-0170-4)" *Metallurgical and Materials Transactions B* 45, no. 5 (2014): 1603-1607.
51. Ogbomo, Sunny M., Brian Ayre, Charles L. Webber, and Nandika A. D'Souza. "[Effect of kenaf fiber age on PLLA composite properties](http://dx.doi.org/10.1002/pc.22735)." *Polymer Composites* 35, no. 5 (2014): 915-924. DOI: 10.1002/pc.22735
52. Orozco, Victor H., Andres F. Vargas, Witold Brostow, Tea Datashvili, Betty L. López, Kevin Mei, and Lisa Su. "[Tribological Properties of Polypropylene Composites with Carbon Nanotubes and Sepiolite.](http://dx.doi.org/10.1166/jnn.2014.8289)" *Journal of Nanoscience and Nanotechnology* 14, no. 7 (2014): 4918-4929.
53. Pandey, B., and D. L. Weathers. "[Temperature dependent formation of ZnO and Zn 2 SiO 4 nanoparticles by ion implantation and thermal annealing.](http://dx.doi.org/10.1016/j.nimb.2014.02.096)" *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 332 (2014): 359-363.
54. Rajamure, Ravi Shanker, Hitesh D. Vora, Niraj Gupta, Shivraj Karewar, S. G. Srinivasan, and Narendra B. Dahotre. "[Laser surface alloying of molybdenum on aluminum for enhanced wear resistance](http://dx.doi.org/10.1016/j.surfcoat.2014.08.074)." *Surface and Coatings Technology* 258 (2014): 337-342.
55. Ravnikar, D., N. B. Dahotre, and J. Grum. "[Microstructure and Mechanical Properties of a Laser Coated TiB 2/TiC/Al Layer on an Aluminium Alloy Substrate](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwial7P_lNLLAhUpsIMKHZ0TCgMQFgggMAE&url=http%3A%2F%2Fwww.sv-jme.eu%2Fdata%2Fupload%2F2013%2F05%2F01_2012_904_Ravnikar_03.pdf&usg=AFQjCNEARta6fsjlRnJbz8QQzdaHMgjJ4A)." *Lasers in Engineering (Old City Publishing)* 29 (2014): 53-68.
56. Rimal, Sirish, Tamal Mukherjee, Jafar Abdelghani, Arindom Goswami, Oliver Chyan, Joshua Stillahn, Yuki Chiba, and Kaoru Maekawa. "[Evaluation of Plasma Damage to Low-k Dielectric Trench Structures by Multiple Internal Reflection Infrared Spectroscopy.](http://dx.doi.org/10.1149/2.001403ssl)" *ECS Solid State Letters* 3, no. 3 (2014): N1-N4.
57. Rojhirunsakool, Tanaporn, Soumya Nag, and Rajarshi Banerjee. "[Discontinuous Precipitation of γ′ Phase in Ni-Co-Al Alloys.](http://dx.doi.org/10.1007/s11837-014-0998-8)" *JOM* 66, no. 8 (2014): 1465-1470.
58. Rojhirunsakool, T., A. R. P. Singh, S. Nag, J. Y. Hwang, J. Tiley, and R. Banerjee. "[Temporal evolution of non-equilibrium γ'precipitates in a rapidly quenched nickel base superalloy.](http://dx.doi.org/10.1016/j.intermet.2014.06.011)" *Intermetallics* 54 (2014): 218-224.
59. Samimi, P., Y. Liu, I. Ghamarian, and P. C. Collins. "[A novel tool to assess the influence of alloy composition on the oxidation behavior and concurrent oxygen-induced phase transformations for binary Ti–xMo alloys at 650° C.](http://dx.doi.org/10.1016/j.corsci.2014.09.010)" *Corrosion Science* 89 (2014): 295-306.
60. Samimi, P., Y. Liu, I. Ghamarian, J. Song, and P. C. Collins. "[New observations of a nanoscaled pseudomorphic bcc Co phase in bulk Co–Al–(W, Ta) superalloys.](http://dx.doi.org/10.1016/j.actamat.2014.01.056)" *Acta Materialia* 69 (2014): 92-104.
61. Santos-Ortiz, Reinaldo, Jitendra Kumar Jha, Wei Sun, Gilbert Nyandoto, Jincheng Du, and Nigel D. Shepherd. "[Defect structure and chemical bonding of p-type ZnO: Sb thin films prepared by pulsed laser deposition](http://dx.doi.org/10.1088/0268-1242/29/11/115019)." *Semiconductor Science and Technology* 29, no. 11 (2014): 115019.
62. Sapkota, Gopal, and U. Philipose. "[Synthesis of metallic, semiconducting, and semi-metallic nanowires through control of InSb growth parameters](http://dx.doi.org/10.1088/0268-1242/29/3/035001)." *Semiconductor Science and Technology* 29, no. 3 (2014): 035001.
63. Shaikh, Vasim, Nourredine Boubekri, and Thomas W. Scharf. "[Analyzing the effectiveness of microlubrication using a vegetable oil-based metal working fluid during end milling AISI 1018 steel.](http://dx.doi.org/10.1155/2014/261349)" *International Journal of Manufacturing Engineering* 2014 (2014): 261349.
64. Shrestha, K., V. C. Lopes, A. J. Syllaios, and C. L. Littler. "[Raman spectroscopic investigation of boron doped hydrogenated amorphous silicon thin films](http://dx.doi.org/10.1016/j.jnoncrysol.2014.07.013)." *Journal of Non-Crystalline Solids* 403 (2014): 80-83.
65. Smith, Casey, Shravana Katakam, Soumya Nag, Y. R. Zhang, J. Y. Law, Raju V. Ramanujan, Narendra B. Dahotre, and Rajarshi Banerjee. "[Comparison of the crystallization behavior of Fe-Si-B-Cu and Fe-Si-B-Cu-Nb-based amorphous soft magnetic alloys.](http://dx.doi.org/10.1007/s11661-014-2239-8)" *Metallurgical and Materials Transactions A* 45, no. 7 (2014): 2998-3009.
66. Smith, Casey, Shravana Katakam, Soumya Nag, Xi Chen, Raju V. Ramanujan, Narendra B. Dahotre, and Rajarshi Banerjee. "[Improved soft magnetic properties by laser de-vitrification of Fe–Si–B amorphous magnetic alloys.](http://dx.doi.org/10.1016/j.matlet.2014.02.002)" *Materials Letters* 122 (2014): 155-158.
67. Smith, T. S., K. M. Lynch, C. M. Cooper, O. Okobiah, E. Osei-Yiadom, M. Bischof, A. Kouloumpis, M. Baikousi, K. Dimos, and R. F. Reidy. "[Wetting behavior of plasma treated low-k films in dHF cleans solutions](http://dx.doi.org/10.1016/j.mee.2014.05.006)." *Microelectronic Engineering* 128 (2014): 79-84.
68. Sondhi, A., O. Okobiah, S. Chattopadhyay, T. Shibata, T. W. Scharf, and R. F. Reidy. "[X-ray absorption spectroscopy studies on the carbothermal reduction reaction products of 3 mol% yttria-stabilized zirconia.](http://dx.doi.org/10.1107/S1600576714014642)" *Journal of Applied Crystallography* 47, no. 5 (2014): 1512-1519.
69. Srirangam, P., Subir Chattopadhyay, A. Bhattacharya, S. Nag, J. Kaduk, S. Shankar, R. Banerjee, and T. Shibata. "[Probing the local atomic structure of Sr-modified Al–Si alloys](http://dx.doi.org/10.1016/j.actamat.2013.10.060)." *Acta Materialia* 65 (2014): 185-193.
70. Stephenson, Leigh T., Anna V. Ceguerra, Tong Li, Tanaporn Rojhirunsakool, Soumya Nag, Rajarshi Banerjee, Julie M. Cairney, and Simon P. Ringer. "[Point-by-point compositional analysis for atom probe tomography](http://dx.doi.org/10.1016/j.mex.2014.02.001)." *MethodsX* 1 (2014): 12-18.
71. Stone, D. S., H. Gao, C. Chantharangsi, C. Paksunchai, M. Bischof, D. Jaeger, A. Martini, T. W. Scharf, and S. M. Aouadi. "[Load-dependent high temperature tribological properties of silver tantalate coatings.](http://dx.doi.org/10.1016/j.surfcoat.2014.01.046)" *Surface and Coatings Technology* 244 (2014): 37-44.
72. Stone, D. S., H. Gao, C. Chantharangsi, C. Paksunchai, M. Bischof, A. Martini, and S. M. Aouadi. "[Reconstruction mechanisms of tantalum oxide coatings with low concentrations of silver for high temperature tribological applications.](http://dx.doi.org/10.1063/1.4901817)" *Applied Physics Letters* 105, no. 19 (2014): 191607.
73. Sun, W., V. Ageh, H. Mohseni, T. W. Scharf, and J. Du. "[Experimental and computational studies on stacking faults in zinc titanate.](http://dx.doi.org/10.1063/1.4883747)" *Applied Physics Letters* 104, no. 24 (2014): 241903.
74. Thurber, Casey R., Margaret C. Calhoun, Yahia H. Ahmad, Nandika D'Souza, Adel Mohamed, and Teresa D. Golden. "[Electrodeposition of Cu-Ni Incorporated with Layered Silicates for Corrosion Protection](http://dx.doi.org/10.1149/06120.0049ecst)." *ECS Transactions* 61, no. 20 (2014): 49-60.
75. Tientong, J., Y. H. Ahmad, M. Nar, N. D'Souza, A. M. A. Mohamed, and T. D. Golden. "[Improved mechanical and corrosion properties of nickel composite coatings by incorporation of layered silicates](http://dx.doi.org/10.1016/j.matchemphys.2014.01.025)." *Materials Chemistry and Physics* 145, no. 1 (2014): 44-50
76. Tientong, Jeerapan, Stephanie Garcia, Casey R. Thurber, and Teresa D. Golden. "[Synthesis of nickel and nickel hydroxide nanopowders by simplified chemical reduction](http://dx.doi.org/10.1155/2014/193162)." *Journal of Nanotechnology* 2014 (2014): 1-6.
77. Vora, Hitesh D., Ravi Shanker Rajamure, Sanket N. Dahotre, Yee-Hsien Ho, Rajarshi Banerjee, and Narendra B. Dahotre. "[Integrated experimental and theoretical approach for corrosion and wear evaluation of laser surface nitrided, Ti–6Al–4V biomaterial in physiological solution.](http://dx.doi.org/10.1016/j.surfcoat.2014.01.046)" *Journal of the Mechanical Behavior of Biomedical Materials* 37 (2014): 153-164.
78. Walton, Barbara L., William D. Hoffmann, and Guido F. Verbeck. "[Sub-eV ion deposition utilizing soft-landing ion mobility for controlled ion, ion cluster, and charged nanoparticle deposition.](http://dx.doi.org/10.1016/j.ijms.2014.06.031)" *International Journal of Mass Spectrometry* 370 (2014): 66-74.
79. Yang, Bing, Mangesh Nar, David K. Visi, Michael Allen, Brian Ayre, Charles L. Webber, Hongbing Lu, and Nandika Anne D’Souza. "[Effects of chemical versus enzymatic processing of kenaf fibers on poly (hydroxybutyrate-co-valerate)/poly (butylene adipate-co-terephthalate) composite properties](http://dx.doi.org/10.1016/j.compositesb.2013.09.022)." *Composites Part B: Engineering* 56 (2014): 926-933.

### ⎯ 2015 ⎯

1. Ageh, V., D. Choudhuri, and T. W. Scharf. "[High frequency reciprocating sliding wear behavior and mechanisms of quaternary metal oxide coatings.](http://dx.doi.org/10.1016/j.wear.2015.02.037)" *Wear* 330 (2015): 390-399.
2. Aghyarian, Shant, Xiaobang Hu, Isador H. Lieberman, Victor Kosmopoulos, Harry KW Kim, and Danieli C. Rodrigues. "[Two novel high performing composite PMMA-CaP cements for vertebroplasty: An ex vivo animal study.](http://dx.doi.org/10.1016/j.jmbbm.2015.06.022)" *Journal of the Mechanical Behavior of Biomedical Materials* 50 (2015): 290-298.
3. Al Khateeb, Shadi, Aaron G. Lind, Reinaldo Santos-Ortiz, Nigel D. Shepherd, and K. S. Jones. "[Effects of Steel Cell Components on Overall Capacity of Pulsed Laser Deposited FeF2 Thin Film Lithium Ion Batteries](http://dx.doi.org/10.1149/2.0021509jes)." *Journal of The Electrochemical Society* 162, no. 8 (2015): A1667-A1674.
4. Alam, Talukder, Tushar Borkar, Sameehan S. Joshi, Shravan Katakam, X. Chen, Narendra B. Dahotre, Raju V. Ramanujan, and Rajarshi Banerjee. "[Influence of niobium on laser de-vitrification of Fe–Si–B based amorphous magnetic alloys.](http://dx.doi.org/10.1016/j.jnoncrysol.2015.08.001)" *Journal of Non-Crystalline Solids* 428 (2015): 75-81.
5. Arora, Harpreet Singh, Ayyagari V. Aditya, and Sundeep Mukherjee. "[Structural relaxation driven increase in elastic modulus for a bulk metallic glass](http://dx.doi.org/10.1063/1.4905145)." *Journal of Applied Physics* 117, no. 1 (2015): 014902.
6. Ballard, Josh B., Don D. Dick, Stephen J. McDonnell, Maia Bischof, Joseph Fu, James H. G. Owen, William R. Owen, Justin D. Alexander, David L. Jaeger, Pradeep Namboodiri, Ehud Fuchs, Yves J. Chabal, Robert M. Wallace, Richard Reidy, Richard M. Silver, John N. Randall, James Von Her. "[Atomically Traceable Nanostructure Fabrication.](http://dx.doi.org/10.3791/52900)" Journal of Visualized Experiments (101), e52900, (2015).
7. Borkar, Tushar, Hamidreza Mohseni, Junyeon Hwang, Thomas W. Scharf, Jaimie S. Tiley, Soon H. Hong, Rajarshi Banerjee. “[Excellent strength–ductility combination in nickel-graphite nanoplatelet (GNP/Ni) nanocomposites](http://dx.doi.org/10.1016/j.jallcom.2015.06.013)”, *Journal of Alloys and Compounds*, 646, (2015):135-144.
8. Brostow, Witold, Nonso Chetuya, Nathalie Hnatchuk, and Tayfun Uygunoglu. "[Reinforcing concrete: comparison of filler effects.](http://dx.doi.org/10.1016/j.jclepro.2015.09.105)" *Journal of Cleaner Production* 445, pt. 4 (2016):2243-2248.
9. Choudhary, Nitin, Mumukshu Patel, Yee-Hsien Ho, Narendra B. Dahotre, Wonki Lee, Jun Yeon Hwang, and Wonbong Choi. "[Directly deposited MoS 2 thin film electrodes for high performance supercapacitors](http://dx.doi.org/10.1039/C5TA08095A)." *Journal of Materials Chemistry A* 3, no. 47 (2015): 24049-24054.
10. Choudhuri, D., T. Alam, T. Borkar, B. Gwalani, A. S. Mantri, S. G. Srinivasan, M. A. Gibson, and R. Banerjee. "[Formation of a Huesler-like L2 1 phase in a CoCrCuFeNiAlTi high-entropy alloy.](http://dx.doi.org/10.1016/j.scriptamat.2014.12.006)" *Scripta Materialia* 100 (2015): 36-39.
11. Conrad, Heidi A., Michael R. McGuire, Ting Zhou, M. Ibrahim Coskun, and Teresa D. Golden. "[Improved corrosion resistant properties of electrochemically deposited zinc-nickel alloys utilizing a borate electrolytic alkaline solution.](http://dx.doi.org/10.1016/j.surfcoat.2015.04.025)" *Surface and Coatings Technology* 272 (2015): 50-57.
12. Das, Santanu, Seth Garrison, and Sundeep Mukherjee. "[Bi‐Functional Mechanism in Degradation of Toxic Water Pollutants by Catalytic Amorphous Metals.](http://dx.doi.org/10.1002/adem.201500239)" *Advanced Engineering Materials* (2015).
13. Das, Santanu, Reinaldo Santos‐Ortiz, Harpreet Singh Arora, Sanghita Mridha, Nigel D. Shepherd, and Sundeep Mukherjee. "[Electromechanical behavior of pulsed laser deposited platinum‐based metallic glass thin films.](http://dx.doi.org/10.1002/pssa.201532639)" *Physica Status Solidi (a)* (2015).
14. Das, Santanu, Venugopal Bandi, Harpreet Singh Arora, Medha Veligatla, Seth Garrison, Francis D'Souza, and Sundeep Mukherjee. "[Synergistic catalytic effect of iron metallic glass particles in direct blue dye degradation.](http://dx.doi.org/10.1557/jmr.2015.90)" *Journal of Materials Research* 30, no. 08 (2015): 1121-1127.
15. de Silva, Vashista C., Piotr Nyga, and Vladimir P. Drachev. "[Scattering suppression in epsilon-near-zero plasmonic fractal shells.](http://dx.doi.org/10.1364/ome.5.002491)" *Optical Materials Express* 5, no. 11 (2015): 2491-2500.
16. Determan, John J., Pankaj Sinha, Angela K. Wilson, and Mohmammad A. Omary. "[Bonding and Phosphorescence Trends in 1-D, 2-D, and 3-D Oligomers and Extended Excimers of Group 12 Metals: Validation of Cooperativity in Both Metallophilic and Excimeric Bonding.](http://dx.doi.org/10.1021/jp5034189)" *The Journal of Physical Chemistry C* 119, no. 4 (2015): 2015-2028.
17. Gao, Hongyu, Alberto Otero-de-la-Roza, Jingjing Gu, D’Arcy Stone, Samir M. Aouadi, Erin R. Johnson, and Ashlie Martini. "[(Ag, Cu)–Ta–O Ternaries As High-Temperature Solid-Lubricant Coatings](http://dx.doi.org/10.1021/acsami.5b03543)." *ACS applied materials & interfaces* 7, no. 28 (2015): 15422-15429.
18. Ghamarian, Iman, Peyman Samimi, Yue Liu, Behrang Poorganji, Vijay K. Vasudevan, and Peter C. Collins. "[Characterizing the nano-structure and defect structure of nano-scaled non-ferrous structural alloys](http://dx.doi.org/10.1016/j.matchar.2015.10.002)." *Materials Characterization*, vol. 113 (2015): 222-231.
19. Haynes, Keith M., Kaci C. Kratch, Sean D. Stovall, Christopher O. Obondi, Casey R. Thurber, and W. Justin Youngblood. "[Tuning Interfacial Electron Transfer in Nanostructured Cuprous Oxide Photoelectrochemical Cells with Charge-Selective Molecular Coatings.](http://dx.doi.org/10.1021/acsami.5b03094)" *ACS Applied Materials & Interfaces* 7, no. 30 (2015): 16133-16137.
20. Hornbuckle, B. C., T. Rojhirunsakool, M. Rajagopalan, T. Alam, GP Purja Pun, R. Banerjee, K. N. Solanki, Y. Mishin, L. J. Kecskes, and K. A. Darling. "[Effect of Ta Solute Concentration on the Microstructural Evolution in Immiscible Cu-Ta Alloys.](http://dx.doi.org/10.1007/s11837-015-1643-x)" *JOM* 67, no. 12 (2015): 2802-2809.
21. Huynh, V., K. C. Williams, T. D. Golden, and G. F. Verbeck. "[Investigation of falsified documents via direct analyte-probed nanoextraction coupled to nanospray mass spectrometry, fluorescence microscopy, and Raman spectroscopy](http://dx.doi.org/10.1039/c5an01026h)." *Analyst* 140, no. 19 (2015): 6553-6562.
22. Jha, Jitendra Kumar, Reinaldo Santos-Ortiz, Jincheng Du, and Nigel D. Shepherd. "[The influence of MoOx gap states on hole injection from aluminum doped zinc oxide with nanoscale MoOx surface layer anodes for organic light emitting diodes](http://dx.doi.org/10.1063/1.4928171)." *Journal of Applied Physics* 118, no. 6 (2015): 065304.
23. Joshi, Sameehan S., Anna V. Gkriniari, Shravana Katakam, and Narendra B. Dahotre. "[Dynamic crystallization during non-isothermal laser treatment of Fe–Si–B metallic glass.](http://dx.doi.org/10.1088/0022-3727/48/49/495501)" *Journal of Physics D: Applied Physics* 48, no. 49 (2015): 495501.
24. Joshi, Sameehan S., Peyman Samimi, Iman Ghamarian, Shravana Katakam, Peter C. Collins, and Narendra B. Dahotre. "[Tensile behavior of laser treated Fe-Si-B metallic glass.](http://dx.doi.org/10.1063/1.4934639)" *Journal of Applied Physics* 118, no. 16 (2015): 164904.
25. Komarasamy, M., N. Kumar, Z. Tang, R. S. Mishra, and P. K. Liaw. "[Effect of microstructure on the deformation mechanism of friction stir-processed Al0.1CoCrFeNi high entropy alloy](http://dx.doi.org/10.1080/21663831.2014.958586)." *Materials Research Letters* 3, no. 1 (2015): 30-34.
26. Komarasamy, Mageshwari, Rajiv S. Mishra, Sundeep Mukherjee, and Marcus L. Young. "[Friction Stir-Processed Thermally Stable Immiscible Nanostructured Alloys.](http://dx.doi.org/10.1007/s11837-015-1641-z)" *JOM* 67, no. 12 (2015): 2820-2827.
27. Kumar, N., M. Komarasamy, P. Nelaturu, Z. Tang, P. K. Liaw, and R. S. Mishra. "[Friction stir processing of a high entropy alloy Al0.1CoCrFeNi](http://dx.doi.org/10.1007/s11837-015-1385-9)." *JOM* 67, no. 5 (2015): 1007-1013.
28. Kumar, N., Q. Ying, X. Nie, R. S. Mishra, Z. Tang, P. K. Liaw, R. E. Brennan, K. J. Doherty, and K. C. Cho. "[High strain-rate compressive deformation behavior of the Al 0.1 CrFeCoNi high entropy alloy.](http://dx.doi.org/10.1016/j.matdes.2015.07.161)" *Materials & Design* 86 (2015): 598-602.
29. Kumar, N., D. Choudhuri, R. Banerjee, and R. S. Mishra. "[Strength and ductility optimization of Mg–Y–Nd–Zr alloy by microstructural design](http://dx.doi.org/10.1016/j.ijplas.2014.11.003)." *International Journal of Plasticity* 68 (2015): 77-97.
30. Lakshantha, Wickramaarachchige J., Mangal S. Dhoubhadel, Tilo Reinert, Floyd D. McDaniel, and Bibhudutta Rout. "[Investigation of various phases of Fe–Si structures formed in Si by low energy Fe ion implantation.](http://dx.doi.org/10.1016/j.nimb.2015.07.037)" *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 365, pt. A (2015): 114-119.
31. Lee, K. M., J. Y. Hwang, B. Urban, A. Singh, A. Neogi, S. K. Lee, and T. Y. Choi. "[Origin of broad band emissions of 3C-silicon carbide nanowire by temperature and time resolved photoluminence study.](http://dx.doi.org/10.1016/j.ssc.2014.11.020)" *Solid State Communications* 204 (2015): 16-18.
32. Liu, Y., P. Samimi, I. Ghamarian, D. A. Brice, D. E. Huber, Z. Wang, V. Dixit, S. Koduri, H. L. Fraser, and P. C. Collins. "[Discovery via Integration of Experimentation and Modeling: Three Examples for Titanium Alloys](http://dx.doi.org/10.1007/s11837-014-1197-3)." *JOM* 67, no. 1 (2015): 164-178.
33. Makineni, S. K., A. Samanta, T. Rojhirunsakool, T. Alam, B. Nithin, A. K. Singh, R. Banerjee, and K. Chattopadhyay. "[A new class of high strength high temperature Cobalt based γ–γ′ Co–Mo–Al alloys stabilized with Ta addition.](http://dx.doi.org/10.1016/j.actamat.2015.06.034)" *Acta Materialia* 97 (2015): 29-40.
34. Mantri, S. A., D. Choudhuri, A. Behera, J. D. Cotton, N. Kumar, and R. Banerjee. "[Influence of Fine-Scale Alpha Precipitation on the Mechanical Properties of the Beta Titanium Alloy Beta-21S.](http://dx.doi.org/10.1007/s11661-015-2944-y)" *Metallurgical and Materials Transactions A* 46, no. 7 (2015): 2803-2808.
35. Martínez-López, Miguel, Gonzalo Martínez-Barrera, Carlos Barrera-Díaz, Fernando Ureña-Núñez, and Witold Brostow. "[Waste Materials from Tetra Pak Packages as Reinforcement of Polymer Concrete.](http://dx.doi.org/10.1155/2015/763917)" *International Journal of Polymer Science* 2015 (2015).
36. Meher, S., T. Rojhirunsakool, P. Nandwana, J. Tiley, and R. Banerjee. "[Determination of solute site occupancies within γ′ precipitates in nickel-base superalloys via orientation-specific atom probe tomography.](http://dx.doi.org/10.1016/j.ultramic.2015.04.015)" *Ultramicroscopy* 159, pt. 2 (2015): 272-277.
37. Meher, S., P. Nandwana, T. Rojhirunsakool, J. Tiley, and R. Banerjee. "[Probing the crystallography of ordered Phases by coupling of orientation microscopy with atom probe tomography.](http://dx.doi.org/10.1016/j.ultramic.2014.09.001)" *Ultramicroscopy* 148 (2015): 67-74.
38. Mohseni, H., B. A. Mensah, N. Gupta, S. G. Srinivasan, and T. W. Scharf. "[Exceptional Friction Mitigation via Subsurface Plastic Shear in Defective Nanocrystalline Ceramics.](http://dx.doi.org/10.1080/21663831.2014.935968)" *Materials Research Letters* 3, no. 1 (2015): 23-29.
39. Mohseni, H., P. Nandwana, A. Tsoi, R. Banerjee, and T. W. Scharf. "[In situ nitrided titanium alloys: Microstructural evolution during solidification and wear.](http://dx.doi.org/10.1016/j.actamat.2014.09.026)" *Acta Materialia* 83 (2015): 61-74.
40. Mohseni, H., and T. W. Scharf. "[Role of atomic layer deposited solid lubricants in the sliding wear reduction of carbon–carbon composites at room and higher temperatures.](http://dx.doi.org/10.1016/j.wear.2015.01.061)" *Wear* 332 (2015): 1303-1313.
41. Mridha, Sanghita, David L. Jaeger, Harpreet Singh Arora, Rajarshi Banerjee, and Sundeep Mukherjee. "[Atomic Distribution in Catalytic Amorphous Metals](http://dx.doi.org/10.1155/2015/632138)." *Journal of Nanomaterials* 2015 (2015): Article ID 632138, 7 pages.
42. Mridha, Sanghita, David L. Jaeger, Harpreet Singh Arora, Rajarshi Banerjee, and Sundeep Mukherjee. "[Evolution of atomic distribution during devitrification of bulk metallic glass investigated by atom probe microscopy.](http://dx.doi.org/10.1016/j.matlet.2015.05.034)" *Materials Letters* 158 (2015): 99-103.
43. Mridha, Sanghita, Santanu Das, Samir Aouadi, Sundeep Mukherjee, and Rajiv S. Mishra. "[Nanomechanical Behavior of CoCrFeMnNi High-Entropy Alloy](http://dx.doi.org/10.1007/s11837-015-1566-6)." *JOM* 67, no. 10 (2015): 2296-2302.
44. Mukherjee, Sundeep, Harpreet Singh Arora, and Medha Veligatla. "[Crystallization kinetics and fragility of a metallic glass composite](http://dx.doi.org/10.1016/j.scriptamat.2014.09.030)." *Scripta Materialia* 95 (2015): 62-65.
45. Mukherjee, Sundeep, Harpreet Singh Arora, and Sanghita Mridha. "[Surface Modification of Metallic Glass Composites Through Severe Plastic Deformation](http://dx.doi.org/10.1007/s11661-014-2712-4)." *Metallurgical and Materials Transactions A* 46, no. 3 (2015): 1030-1034.
46. Mukherjee, Tamal, Seare A. Berhe, Arindom Goswami, Oliver Chyan, Kanwal Jit Singh, and Ian Brown. "[UV-Assisted Modification and Removal Mechanism of a Fluorocarbon Polymer Film on Low-k Dielectric Trench Structure.](http://dx.doi.org/10.1021/am508734b)" *ACS Applied Materials & Interfaces* 7, no. 9 (2015): 5051-5055.
47. Ng, H. P., P. Nandwana, A. Devaraj, M. Samblanet, S. Nag, P. N. H. Nakashima, S. Meher et al. "[Conjugated precipitation of twin-related α and Ti 2 Cu phases in a Ti–25V–3Cu alloy.](http://dx.doi.org/10.1016/j.actamat.2014.10.053)" *Acta Materialia* 84 (2015): 457-471.
48. Palanivel, S., P. Nelaturu, B. Glass, and R. S. Mishra. "[Friction stir additive manufacturing for high structural performance through microstructural control in an Mg based WE43 alloy.](http://dx.doi.org/10.1016/j.matdes.2014.09.082)" *Materials & Design* 65 (2015): 934-952.
49. Park, Juhong, Nitin Choudhary, Jesse Smith, Gilsik Lee, Moonkyung Kim, and Wonbong Choi. "[Thickness modulated MoS2 grown by chemical vapor deposition for transparent and flexible electronic devices](http://dx.doi.org/10.1063/1.4905476)." *Applied Physics Letters* 106, no. 1 (2015): 012104.
50. Poudel, P. R., P. P. Poudel, J. A. Paramo, Y. M. Strzhemechny, B. Rout, and F. D. McDaniel. "[Structural and optical properties of 70-keV carbon ion beam synthesized carbon nanoclusters in thermally grown silicon dioxide.](http://dx.doi.org/10.1007/s00339-014-8784-6)" *Applied Physics A* 118, no. 2 (2015): 717-723.
51. Qiu, Ying, Marcus L. Young, and Xu Nie. "[High Strain Rate Compression of Martensitic NiTi Shape Memory Alloys.](http://dx.doi.org/10.1007/s40830-015-0035-y)" *Shape Memory and Superelasticity* 1, no. 3 (2015): 310-318.
52. Qiu, Ying, Marcus L. Young, and Xu Nie. "[Influence of dynamic compression on phase transformation of martensitic NiTi shape memory alloys.](http://dx.doi.org/10.1007/s11661-015-3063-5)" *Metallurgical and Materials Transactions A* 46, no. 10 (2015): 4661-4668.
53. Qiu, Ying, Hao Yu, and Marcus L. Young. "[Mechanical Properties of NiTi-Based Foam with High Porosity for Implant Applications.](http://dx.doi.org/10.1007/s40830-015-0040-1)" *Shape Memory and Superelasticity* 1, no.4 (2015): 479-485.
54. Rojhirunsakool, Tanaporn, Kristopher A. Darling, Mark A. Tschopp, Ganga P. Purja Pun, Yuri Mishin, Rajarshi Banerjee, and Laszlo J. Kecskes. "[Structure and thermal decomposition of a nanocrystalline mechanically alloyed supersaturated Cu–Ta solid solution.](http://dx.doi.org/10.1557/mrc.2015.34)" *MRS Communications* 5, no. 02 (2015): 333-339.
55. Samimi, Peyman, Yue Liu, Iman Ghamarian, David A. Brice, and Peter C. Collins. "[A new combinatorial approach to assess the influence of alloy composition on the oxidation behavior and concurrent oxygen-induced phase transformations for binary Ti–xCr alloys at 650° C.](http://dx.doi.org/10.1016/j.corsci.2015.05.002)" *Corrosion Science* 97, (2015): 150-160.
56. Samimi, P., D. A. Brice, I. Ghamarian, Y. Liu, and P. C. Collins. “[Systematic Assessment of the Influence of Mo Concentration on the Oxygen Ingress in Ti–Mo System During High Temperature Oxidation.](http://dx.doi.org/10.1007/s11085-015-9600-1)” *Oxidation of Metals* (December 12, 2015): 1-12.
57. Santos-Ortiz, Reinaldo, Jitendra Kumar Jha, Tanaporn Rojhirunsakool, Nilesh Dendge, Rajarshi Banerjee, and Nigel D. Shepherd. "[Effect of deposition energy on the microstructure and phase purity of pulsed laser deposited iron fluoride thin films.](http://dx.doi.org/10.1007/s00339-015-9334-6)" *Applied Physics A* 120, no. 3 (2015): 863-868.
58. Scappucci, Giordano, Wolfgang M. Klesse, LaReine A. Yeoh, Damien J. Carter, Oliver Warschkow, Nigel A. Marks, David L. Jaeger, Giovanni Capellini, Michelle Y. Simmons, and Alexander R. Hamilton. “[Bottom-up Assembly of Metallic Germanium.](http://dx.doi.org/10.1038/srep12948)” *Scientific Reports* 5 (2015): 12948.
59. Seifi, Mohsen, Peyman Samimi, Iman Ghamarian, Peter C. Collins, and John J. Lewandowski. "[Grain orientation effects on delamination during fatigue of a sensitized Al–Mg alloy](http://dx.doi.org/10.1080/14786435.2015.1110630)." *Philosophical Magazine Letters* 95, no. 11 (2015): 526-533.
60. Shon, Youkang, Sameehan S. Joshi, Shravana Katakam, Ravi Shanker Rajamure, and Narendra B. Dahotre. "[Laser additive synthesis of high entropy alloy coating on aluminum: Corrosion behavior.](http://dx.doi.org/10.1016/j.matlet.2014.11.161)" *Materials Letters* 142 (2015): 122-125.
61. Singh, H., K. C. Mutyala, H. Mohseni, T. W. Scharf, R. D. Evans, and G. L. Doll. "[Tribological Performance and Coating Characteristics of Sputter-Deposited Ti-Doped MoS2 in Rolling and Sliding Contact](http://dx.doi.org/10.1080/10402004.2015.1015758)." *Tribology Transactions* 58, no. 5 (2015): 767-777.
62. Stephenson, Leigh T., Anna V. Ceguerra, Tong Li, Tanaporn Rojhirunsakool, Soumya Nag, Rajarshi Banerjee, Julie M. Cairney, and Simon P. Ringer. "[Point-by-point compositional analysis for atom probe tomography](http://dx.doi.org/10.1016/j.mex.2014.02.001)." MethodsX 1 (2014): 12-18.
63. Toboła, Daniel, Witold Brostow, Kazimierz Czechowski, Piotr Rusek, and Iwona Wronska. "[Structure and Properties of Burnished and Nitrided AISI D2 Tool Steel.](http://dx.doi.org/10.5755/j01.ms.21.4.7224)" *Materials Science* 21, no. 4 (2015): 511-516.
64. Veligatla, Medha, Shravana Katakam, Santanu Das, Narendra Dahotre, R. Gopalan, D. Prabhu, D. Arvindha Babu, Haein Choi-Yim, and Sundeep Mukherjee. "[Effect of Iron on the Enhancement of Magnetic Properties for Cobalt-Based Soft Magnetic Metallic Glasses](http://dx.doi.org/10.1007/s11661-014-2714-2)." *Metallurgical and Materials Transactions A* 46, no. 3 (2015): 1019-1023.
65. Vora, Hitesh D., and Narendra B. Dahotre. "[Multiphysics theoretical evaluation of thermal stresses in laser machined structural alumina](http://dx.doi.org/10.1007/s40516-014-0004-x)." *Lasers in Manufacturing and Materials Processing* 2, no. 1 (2015): 1-23.
66. Vora, Hitesh D., and Narendra B. Dahotre. "[Surface topography in three-dimensional laser machining of structural alumina](http://dx.doi.org/10.1016/j.jmapro.2015.04.002)." *Journal of Manufacturing Processes* 19 (2015): 49-58.
67. Walton, Barbara L., William D. Hoffmann, and Guido F. Verbeck. "[Re-print of “Sub-eV Ion Deposition Utilizing Soft-Landing Ion Mobility for Controlled Ion, Ion Cluster, and Charged Nanoparticle Deposition](http://dx.doi.org/10.1016/j.ijms.2014.08.016)." *International Journal of Mass Spectrometry* 370 (2014): 66-74.

### ⎯ 2016 ⎯

1. Ayyagari, Aditya, Thomas W. Scharf, and Sundeep Mukherjee. "[Dry Reciprocating Sliding Wear Behavior and Mechanisms of Bulk Metallic Glass Composites](http://dx.doi.org/10.1016/j.wear.2016.01.003)." *Wear* 350-351 (2016): 56-62.
2. Borkar, T., B. Gwalani, D. Choudhuri, C. V. Mikler, C. J. Yannetta, X. Chen, R. V. Ramanujan, M. J. Styles, M. A. Gibson, and R. Banerjee. "[A combinatorial assessment of AlxCrCuFeNi2 (0< x< 1.5) complex concentrated alloys: Microstructure, microhardness, and magnetic properties](http://dx.doi.org/10.1016/j.actamat.2016.06.025)." *Acta Materialia* 116 (2016): 63-76.
3. Borkar, T., B. Gwalani, D. Choudhuri, T. Alam, A. S. Mantri, M. A. Gibson, and R. Banerjee. "[Hierarchical multi-scale microstructural evolution in an as-cast Al 2 CuCrFeNi 2 complex concentrated alloy](http://dx.doi.org/10.1016/j.intermet.2015.12.013)." *Intermetallics* 71 (2016): 31-42.
4. Brostow, Witold, Tea Datashvili, Peter Jiang, and Harrison Miller. "[Recycled HDPE reinforced with sol-gel silica modified wood sawdust](http://dx.doi.org/10.1016/j.eurpolymj.2016.01.015)." *European Polymer Journal* 76 (2016): 28-39.
5. Brostow, Witold, Nonso Chetuya, Nathalie Hnatchuk, and Tayfun Uygunoglu. "[Reinforcing concrete: comparison of filler effects](http://dx.doi.org/10.1016/j.jclepro.2015.09.105)." *Journal of Cleaner Production* 112 (2016): 2243-2248.
6. Carl, Matthew, and Marcus L. Young. "[Complementary analytical methods for analysis of Ag-plated cultural heritage objects](http://dx.doi.org/10.1016/j.microc.2015.12.019)." *Microchemical Journal* 126 (2016): 307-315.
7. Chattopadhyay, Soma, S. D. Kelly, Tomohiro Shibata, M. Balasubramanian, S. G. Srinivasan, Jincheng Du, Rajarshi Banerjee, and Pushan Ayyub. "[Local structure, composition, and crystallization mechanism of a model two-phase “composite nanoglass”](http://dx.doi.org/10.1063/1.4941334)." *The Journal of Chemical Physics* 144, no. 6 (2016): 064503.
8. Choudhary, Nitin, Juhong Park, Jun Yeon Hwang, Hee-Suk Chung, Kenneth H. Dumas, Saiful I. Khondaker, Wonbong Choi, and Yeonwoong Jung. "[Centimeter Scale Patterned Growth of Vertically Stacked Few Layer Only 2D MoS2/WS2 van der Waals Heterostructure](http://dx.doi.org/10.1038/srep25456)." *Scientific reports* 6 (2016): 25456.
9. Choudhuri, Deep, Srinivas Aditya Mantri, Talukder Alam, Srikumar Banerjee, and Rajarshi Banerjee. "[Precipitate-dislocation interaction mediated Portevin-Le Chatelier-like effect in a beta-stabilized Ti-Mo-Nb-Al alloy](http://dx.doi.org/10.1016/j.scriptamat.2016.06.043)." *Scripta Materialia* 124 (2016): 15-20.
10. Coşkun, M. İbrahim, İsmail H. Karahan, Yasin Yücel, and Teresa D. Golden. "[Computer-Assisted Optimization of Electrodeposited Hydroxyapatite Coating Parameters on Medical Alloys](http://dx.doi.org/10.1007/s11661-016-3341-x)." *Metallurgical and Materials Transactions A* 47, no. 4 (2016): 1828-1841.
11. Das, Santanu, Kamal Choudhary, Aleksandr Chernatynskiy, Haein Choi Yim, Asis K. Bandyopadhyay, and Sundeep Mukherjee. "[Spin-exchange interaction between transition metals and metalloids in soft-ferromagnetic metallic glasses](http://dx.doi.org/10.1088/0953-8984/28/21/216003)." *Journal of Physics: Condensed Matter* 28, no. 21 (2016): 216003.
12. Ecton, P. A., J. Beatty, G. Verbeck, W. Lakshantha, B. Rout, and J. M. Perez. "[Low-energy electron irradiation of preheated and gas-exposed single-wall carbon nanotubes](http://dx.doi.org/10.1016/j.apsusc.2016.06.111)." *Applied Surface Science* 387 (2016): 822-827.
13. Ghamarian, Iman, Peyman Samimi, Yue Liu, Behrang Poorganji, Vijay K. Vasudevan, and Peter C. Collins. "[Characterizing the nano-structure and defect structure of nano-scaled non-ferrous structural alloys](http://dx.doi.org/10.1016/j.matchar.2015.10.002)." *Materials Characterization* 113 (2016): 222-231.
14. Gwalani, B., T. Alam, C. Miller, T. Rojhirunsakool, Y. S. Kim, S. S. Kim, M. J. Kaufman, Yang Ren, and R. Banerjee. "[Experimental investigation of the ordering pathway in a Ni-33 at.% Cr alloy](http://dx.doi.org/10.1016/j.actamat.2016.06.014)." *Acta Materialia* 115 (2016): 372-384.
15. Gwalani, B., V. Soni, D. Choudhuri, M. Lee, J. Y. Hwang, S. J. Nam, H. Ryu, S. H. Hong, and R. Banerjee. "[Stability of ordered L12 and B2 precipitates in face centered cubic based high entropy alloys - Al0.3CoFeCrNi and Al0.3CuFeCrNi2](http://dx.doi.org/10.1016/j.scriptamat.2016.06.019)." *Scripta Materialia* 123 (2016): 130-134.
16. Kairy, Shravan K., Talukder Alam, Paul A. Rometsch, Chris HJ Davies, Raj Banerjee, and Nick Birbilis. "[Understanding the Origins of Intergranular Corrosion in Copper-Containing Al-Mg-Si Alloys](http://dx.doi.org/10.1007/s11661-015-3296-3)." *Metallurgical and Materials Transactions A* 47, issue 3 (2016): 985-989.
17. Komarasamy, Mageshwari, Nilesh Kumar, Rajiv S. Mishra, and Peter K. Liaw. "[Anomalies in the deformation mechanism and kinetics of coarse-grained high entropy alloy](http://dx.doi.org/10.1016/j.msea.2015.12.063)." *Materials Science and Engineering: A* 654 (2016): 256-263.
18. Meher, S., G. B. Viswanathan, S. Nag, H. L. Fraser, and R. Banerjee. "[Determination of the gamma prime/gamma interface width in a Co–Al–W alloy via coupled aberration-corrected scanning transmission electron microscopy and atom probe tomography.](http://dx.doi.org/10.1016/j.scriptamat.2016.04.037)" *Scripta Materialia* 121 (2016): 23-27.
19. Nar, Mangesh, Hussain R. Rizvi, Richard A. Dixon, Fang Chen, Adriana Kovalcik, and Nandika D'Souza. "[Superior plant based carbon fibers from electronspun poly-(caffeyl alcohol)](http://dx.doi.org/10.1016/j.carbon.2016.02.053)." *Carbon* (2016): In Press, Accepted Manuscript.
20. Niinomi, Mitsuo, Masaaki Nakai, Mandana Hendrickson, Peeyush Nandwana, Talukder Alam, Deep Choudhuri, and Rajarshi Banerjee. "[Influence of oxygen on omega phase stability in the Ti-29Nb-13Ta-4.6 Zr alloy](http://dx.doi.org/10.1016/j.scriptamat.2016.06.027)." *Scripta Materialia* 123 (2016): 144-148.
21. Okobiah, Oseoghaghare, and Richard F Reidy. "[Surface Interactions: Functionalization of Graphene Oxide and Wetting of Graphene Oxide and Graphene](http://dx.doi.org/10.2174/1385272819666150730220741)." *Current Organic Chemistry* 20, no. 6 (2016): 674-681.
22. Palanivel, S., A. K. Dutt, E. J. Faierson, and R. S. Mishra. "[Spatially dependent properties in a laser additive manufactured Ti–6Al–4V component](http://dx.doi.org/10.1016/j.msea.2015.12.021)." *Materials Science and Engineering: A* 654 (2016): 39-52.
23. Samimi, P., D. A. Brice, R. Banerjee, M. J. Kaufman, and P. C. Collins. "[On the influence of alloy composition on the oxidation performance and oxygen-induced phase transformations in Ti–(0–8) wt% Al alloys](http://dx.doi.org/10.1007/s10853-015-9681-x)." *Journal of Materials Science* 51, no. 8 (2016): 3684-3692.
24. Samimi, P., D. A. Brice, I. Ghamarian, Y. Liu, and P. C. Collins. "[Systematic Assessment of the Influence of Mo Concentration on the Oxygen Ingress in Ti–Mo System During High Temperature Oxidation.](http://dx.doi.org/10.1007/s11085-015-9600-1)" *Oxidation of Metals* 85, no. 3-4 (2016): 357-368.
25. Sidhar, Harpreet, Nelson Y. Martinez, Rajiv S. Mishra, and Juergen Silvanus. "[Friction stir welding of Al–Mg–Li 1424 alloy](http://dx.doi.org/10.1016/j.matdes.2016.05.111)." *Materials & Design* 106 (2016): 146-152.
26. Singh, Ashish, Tanaji Paul, Shravana Katakam, Narendra B. Dahotre, and Sandip P. Harimkar. "[In Situ Nanocrystallization-Induced Hardening of Amorphous Alloy Matrix Composites Consolidated by Spark Plasma Sintering](http://dx.doi.org/10.1007/s11837-016-1914-1)." *JOM* 68, no. 7 (2016): 1932-1937.
27. Thurber, Casey R., Yahia H. Ahmad, Stephen F. Sanders, Amaal Al-Shenawa, Nandika D'Souza, Adel MA Mohamed, and Teresa D. Golden. "[Electrodeposition of 70-30 Cu–Ni nanocomposite coatings for enhanced mechanical and corrosion properties](http://dx.doi.org/10.1016/j.cap.2015.12.022)." *Current Applied Physics* 16, no. 3 (2016): 387-396.
28. Tiley, J. S., D. W. Mahaffey, T. Alam, T. Rojhirunsakool, O. Senkov, T. Parthasarthy, and R. Banerjee. "[Strengthening Mechanisms in an Inertia Friction Welded Nickel-Base Superalloy](http://dx.doi.org/10.1016/j.msea.2016.03.030)." *Materials Science and Engineering: A* (2016): In Press, Accepted Manuscript.
29. Tinubu, O. O., S. Das, A. Dutt, J. E. Mogonye, V. Ageh, R. Xu, J. Forsdike, R. S. Mishra, and T. W. Scharf. "[Friction stir processing of A-286 stainless steel: Microstructural evolution during wear](http://dx.doi.org/10.1016/j.wear.2016.03.018)." *Wear* 356 (2016): 94-100.
30. Veligatla, Medha, Santanu Das, Won Ki Lee, Junyeon Hwang, Orathai Thumthan, Yaowu Hao, and Sundeep Mukherjee. "[Tuning the Magnetic Properties of Cobalt-Based Metallic Glass Nanocomposites](http://dx.doi.org/10.1007/s11837-015-1584-4)." *JOM* 68, no. 1 (2016): 336-340.
31. Vora, Hitesh D., Ravi Shanker Rajamure, Anurag Roy, S. G. Srinivasan, G. Sundararajan, Rajarshi Banerjee, and Narendra B. Dahotre. "[Laser Assisted Additively Manufactured Transition Metal Coating on Aluminum](http://dx.doi.org/10.1007/s11837-016-1956-4)." *JOM*: 1-11.
32. Vora, Hitesh D., Sanghita Mridha, Shravana Katakam, Harpreet Singh Arora, Sundeep Mukherjee, and Narendra B. Dahotre. "[Thermodynamics and kinetics of laser induced transformation in zirconium based bulk metallic glass](http://dx.doi.org/10.1016/j.jnoncrysol.2015.10.013)." *Journal of Non-Crystalline Solids* 432 (2016): 237-245.
33. Yu, Kyle Kai-Hung, Sirish Rimal, Muthappan Asokan, Praveen R. Nalla, Simon Koskey, Karthikeyan SM Pillai, Oliver Chyan, Kanwal Jit Singh, and Satyarth Suri. "[Micro-pattern Corrosion Screening on Bimetallic Corrosion for Microelectronic Application](http://dx.doi.org/10.1016/j.electacta.2016.05.189)." *Electrochimica Acta* 210 (2016): 512-519.
34. Zhang, Yu, Talukder Alam, Bharat Gwalani, Wei Rong, Rajarshi Banerjee, Li-Ming Peng, Jian-Feng Nie, and Nick Birbilis. "[On the role of Ag in enhanced age hardening kinetics of Mg–Gd–Ag–Zr alloys](http://dx.doi.org/10.1080/09500839.2016.1190040)." *Philosophical Magazine Letters* (2016): 1-8.
35. Zheng, Yufeng, Robert EA Williams, Soumya Nag, Rajarshi Banerjee, Hamish L. Fraser, and Dipankar Banerjee. "[The effect of alloy composition on instabilities in the β phase of titanium alloys](http://dx.doi.org/10.1016/j.scriptamat.2016.01.024)." *Scripta Materialia* 116 (2016): 49-52.
36. Zheng, Yufeng, Robert EA Williams, John M. Sosa, Talukder Alam, Yunzhi Wang, Rajarshi Banerjee, and Hamish L. Fraser. "[The indirect influence of the ω phase on the degree of refinement of distributions of the α phase in metastable β-Titanium alloys](http://dx.doi.org/10.1016/j.actamat.2015.09.053)." *Acta Materialia* 103 (2016): 165-173.
37. Zheng, Yufeng, Deep Choudhuri, Talukder Alam, Robert EA Williams, Rajarshi Banerjee, and Hamish L. Fraser. "[The role of cuboidal ω precipitates on α precipitation in a Ti-20V alloy](http://dx.doi.org/10.1016/j.scriptamat.2016.06.004)." *Scripta Materialia* 123 (2016): 81-85.
38. Zheng, Yufeng, Robert EA Williams, Dong Wang, Rongpei Shi, Soumya Nag, Pavani Kami, John M. Sosa, Rajarshi Banerjee, Yunzhi Wang, and Hamish L. Fraser. "[Role of ω phase in the formation of extremely refined intragranular α precipitates in metastable β-titanium alloys](http://dx.doi.org/10.1016/j.actamat.2015.11.020)." *Acta Materialia* 103 (2016): 850-858.
39. Algarni, Zaina, David George, Abhay Singh, Yuankun Lin, and U. Philipose. "[Hole-dominated transport in InSb nanowires grown on high-quality InSb films](https://doi.org/10.1007/s11051-016-3681-x)." *Journal of Nanoparticle Research* 18, no. 12 (2016): 361.
40. Arora, Harpreet Singh, and Sundeep Mukherjee. "[High temperature mechanics of nanomoulded amorphous metals](http://dx.doi.org/10.1080/09500839.2016.1232492)." *Philosophical Magazine Letters* 96, no. 10 (2016): 383-391.
41. Borkar, T., R. Conteri, X. Chen, R. V. Ramanujan, and R. Banerjee. "[Laser additive processing of functionally graded Fe-Si-B-Cu-Nb soft magnetic materials](http://dx.doi.org/10.1080/10426914.2016.1244849)." *Materials and Manufacturing Processes* just-accepted (2016).
42. Brice, D. A., P. Samimi, I. Ghamarian, Y. Liu, R. M. Brice, R. F. Reidy, J. D. Cotton, M. J. Kaufman, and P. C. Collins. "[Oxidation behavior and microstructural decomposition of Ti-6Al-4V and Ti-6Al-4V-1B sheet](http://dx.doi.org/10.1016/j.corsci.2016.07.032)." *Corrosion Science* 112 (2016): 338-346.
43. Carl, Matthew, Baozhuo Zhang, and Marcus L. Young. "[Texture and Strain Measurements from Bending of NiTi Shape Memory Alloy Wires](https://doi.org/10.1007/s40830-016-0073-0)." *Shape Memory and Superelasticity* 2, no. 3 (2016): 254-263.
44. Choudhuri, D., B. Gwalani, S. Gorsse, C. V. Mikler, R. V. Ramanujan, M. A. Gibson, and R. Banerjee. "[Change in the primary solidification phase from fcc to bcc-based B2 in high entropy or complex concentrated alloys](http://dx.doi.org/10.1016/j.scriptamat.2016.09.023)." *Scripta Materialia* 127 (2017): 186-190.
45. Coşkun, M. İbrahim, İsmail H. Karahan, Yasin Yücel, and Teresa D. Golden. "[Modeling the Effect of Temperature and Potential on the In Vitro Corrosion Performance of Biomedical Hydroxyapatite Coatings](https://doi.org/10.1007/s11661-016-3681-6)." *Metallurgical and Materials Transactions A* 47, no. 10 (2016): 5169-5180.
46. Das, Santanu, Seth Garrison, and Sundeep Mukherjee. "[Bi‐Functional Mechanism in Degradation of Toxic Water Pollutants by Catalytic Amorphous Metals](https://doi.org/10.1002/adem.201500239)." *Advanced Engineering Materials* 18, no. 2 (2016): 214-218.
47. Dong, Youming, Yutao Yan, Kaili Wang, Jianzhang Li, Shifeng Zhang, Changlei Xia, Sheldon Q. Shi, and Liping Cai. "[Improvement of water resistance, dimensional stability, and mechanical properties of poplar wood by rosin impregnation](https://doi.org/10.1007/s00107-015-0998-6)." *European Journal of Wood and Wood Products* 74, no. 2 (2016): 177-184.
48. Dutt, Aniket K., Somayeh Pasebani, Indrajit Charit, and Rajiv S. Mishra. "[On the creep behavior of dual-scale particle strengthened nickel based alloy](http://dx.doi.org/10.1016/j.msea.2016.09.008)." *Materials Science and Engineering: A* 676 (2016): 406-410.
49. George, David, Li Li, Yan Jiang, David Lowell, Michelle Mao, Safaa Hassan, Jun Ding et al. "[Localized surface plasmon polariton resonance in holographically structured Al-doped ZnO](http://dx.doi.org/10.1063/1.4960018)." *Journal of Applied Physics* 120, no. 4 (2016): 043109.
50. Hendrickson, M., S. A. Mantri, Y. Ren, T. Alam, V. Soni, B. Gwalani, M. Styles, D. Choudhuri, and R. Banerjee. "[The evolution of microstructure and microhardness in a biomedical Ti–35Nb–7Zr–5Ta alloy](https://doi.org/10.1007/s10853-016-0591-3)." *Journal of Materials Science*: 1-12.
51. Huynh, Vivian, Mandy S. Phelps, Teresa D. Golden, and Guido F. Verbeck. "[Direct analyte-probed nanoextraction (DAPNe) coupled to matrix-assisted laser desorption ionization (MALDI) for examination of the ink chemistry on documents](http://dx.doi.org/10.1016/j.forc.2016.10.007)." *Forensic Chemistry* 2 (2016): 86-92.
52. Jha, Jitendra Kumar, Wei Sun, Reinaldo Santos-Ortiz, Jincheng Du, and Nigel D. Shepherd. "[Electro-optical performance of molybdenum oxide modified aluminum doped zinc oxide anodes in organic light emitting diodes: A comparison to indium tin oxide](https://doi.org/10.1166/mex.2016.1308)." *Materials Express* 6, no. 3 (2016): 289-294.
53. Joshi, Sameehan S., Jonathan Z. Lu, and Narendra B. Dahotre. "[Optimization of laser thermal treatment of Fe–Si–B metallic glass](http://dx.doi.org/10.1016/j.jmapro.2016.07.004)." *Journal of Manufacturing Processes* 24 (2016): 31-37.
54. Kumar, N., R. S. Mishra, N. B. Dahotre, R. E. Brennan, K. J. Doherty, and K. C. Cho. "[Effect of friction stir processing on microstructure and mechanical properties of laser-processed Mg-4Y-3Nd alloy](http://dx.doi.org/10.1016/j.matdes.2016.08.039)." *Materials & Design* 110 (2016): 663-675.
55. Lowell, David, David George, Jeffrey Lutkenhaus, Chris Tian, Murthada Adewole, Usha Philipose, Hualiang Zhang, and Yuankun Lin. "[Flexible Holographic Fabrication of 3D Photonic Crystal Templates with Polarization Control through a 3D Printed Reflective Optical Element](https://doi.org/10.3390/mi7070128)." *Micromachines* 7, no. 7 (2016): 128.
56. Lu, Xiaonan, James J. Neeway, Joseph V. Ryan, and Jincheng Du. "[Influence of low concentration V and Co oxide doping on the dissolution behaviors of simplified nuclear waste glasses](http://dx.doi.org/10.1016/j.jnoncrysol.2016.08.026)." *Journal of Non-Crystalline Solids* 452 (2016): 161-168.
57. Mantri, S. A., D. Choudhuri, T. Alam, V. Ageh, F. Sun, F. Prima, and R. Banerjee. "[Change in the deformation mode resulting from beta-omega compositional partitioning in a Ti Mo alloy: Room versus elevated temperature](http://dx.doi.org/10.1016/j.scriptamat.2016.11.013)." *Scripta Materialia* 130 (2017): 69-73.
58. Mogonye, J. E., A. Srivastava, S. Gopagoni, R. Banerjee, and T. W. Scharf. "[Solid/Self-Lubrication Mechanisms of an Additively Manufactured Ni–Ti–C Metal Matrix Composite](https://doi.org/10.1007/s11249-016-0770-z)." *Tribology Letters* 64, no. 3 (2016): 37.
59. Mridha, Sanghita, Harpreet Singh Arora, Joseph Lefebvre, Sanjit Bhowmick, and Sundeep Mukherjee. "[High Temperature In Situ Compression of Thermoplastically Formed Nano-scale Metallic Glass](https://doi.org/10.1007/s11837-016-1961-7)." *JOM* (May 26, 2016): 1-6.
60. Palanivel, S., A. Arora, K. J. Doherty, and R. S. Mishra. "[A framework for shear driven dissolution of thermally stable particles during friction stir welding and processing](http://dx.doi.org/10.1016/j.msea.2016.10.015)." *Materials Science and Engineering: A* 678 (2016): 308-314.
61. Patel, Mumukshu D., Eunho Cha, Nitin Choudhary, Chiwon Kang, Wonki Lee, Jun Yeon Hwang, and Wonbong Choi. "[Vertically oriented MoS2 nanoflakes coated on 3D carbon nanotubes for next generation Li-ion batteries](http://dx.doi.org/10.1088/0957-4484/27/49/495401)." *Nanotechnology* 27, no. 49 (2016): 495401.
62. Qiu, Ying, Marcus L. Young, and Xu Nie. "[High Strain Rate Compression of Martensitic NiTi Shape Memory Alloy at Different Temperatures](https://doi.org/10.1007/s11661-016-3857-0)." *Metallurgical and Materials Transactions A* (2016): 1-8.
63. Sidhar, Harpreet, and Rajiv S. Mishra. "[Aging kinetics of friction stir welded Al-Cu-Li-Mg-Ag and Al-Cu-Li-Mg alloys](http://dx.doi.org/10.1016/j.matdes.2016.07.126)." *Materials & Design* 110 (2016): 60-71.
64. Xia, Changlei, Shifeng Zhang, Sheldon Q. Shi, Liping Cai, Andres C. Garcia, Hussain R. Rizvi, and Nandika A. D'Souza. "[Property enhancement of soy protein isolate-based films by introducing POSS](http://dx.doi.org/10.1016/j.ijbiomac.2015.11.024)." *International journal of biological macromolecules* 82 (2016): 168-173.

### ⎯ 2017 ⎯

1. Aditya, Ayyagari, H. Felix Wu, Harpreet Arora, and Sundeep Mukherjee. "Amorphous metallic alloys: pathways for enhanced wear and corrosion resistance." *JOM* 69, no. 11 (2017): 2150-2155.
2. Aghyarian, Shant, Elizabeth Bentley, Thao N. Hoang, Izabelle M. Gindri, Victor Kosmopoulos, Harry KW Kim, and Danieli C. Rodrigues. "In vitro and in vivo characterization of premixed PMMA-cap composite bone cements." *ACS Biomaterials Science & Engineering* 3, no. 10 (2017): 2267-2277.
3. Berman, Diana, Supratik Guha, Byeongdu Lee, Jeffrey W. Elam, Seth B. Darling, and Elena V. Shevchenko. "Sequential infiltration synthesis for the design of low refractive index surface coatings with controllable thickness." *ACS nano* 11, no. 3 (2017): 2521-2530.
4. Borkar, Tushar, Varun Chaudhary, Bharat Gwalani, Deep Choudhuri, Calvin V. Mikler, Vishal Soni, Talukder Alam, Raju V. Ramanujan, and Rajarshi Banerjee. "A combinatorial approach for assessing the magnetic properties of high entropy alloys: Role of Cr in AlCoxCr1–xFeNi." *Advanced Engineering Materials* 19, no. 8 (2017): 1700048.
5. Borkar, T., R. Conteri, X. Chen, R. V. Ramanujan, and R. Banerjee. "Laser additive processing of functionally-graded Fe–Si–B–Cu–Nb soft magnetic materials." *Materials and Manufacturing Processes* 32, no. 14 (2017): 1581-1587.
6. Brostow, Witold, I. Kang Chen, and John B. White. "Effects of polymeric coatings on the service life of bismuth telluride-based thermoelectric materials." *Sustainable Energy & Fuels* 1, no. 6 (2017): 1376-1380.
7. Butler, Sween, Hongxing Jiang, Jingyu Lin, and Arup Neogi. "Hyperspectral Nonlinear Optical Light Generation from a Monolithic GaN Microcavity." *Advanced Optical Materials* 5, no. 6 (2017): 1600804.
8. Carl, Matthew, Chris A. Smith, and Marcus L. Young. "Dual-Beam Scanning Electron Microscope (SEM) and Focused Ion Beam (FIB): A Practical Method for Characterization of Small Cultural Heritage Objects." *MRS Online Proceedings Library Archive* 1656 (2017): 355-369.
9. Carl, Matthew, Jesse D. Smith, Brian Van Doren, and Marcus L. Young. "Effect of Ni-content on the transformation temperatures in NiTi-20 at.% Zr high temperature shape memory alloys." *Metals* 7, no. 11 (2017): 511.
10. Choudhuri, D., B. Gwalani, S. Gorsse, C. V. Mikler, R. V. Ramanujan, M. A. Gibson, and Rajarshi Banerjee. "Change in the primary solidification phase from fcc to bcc-based B2 in high entropy or complex concentrated alloys." *Scripta Materialia* 127 (2017): 186-190.
11. Choudhuri, D., Y. Zheng, T. Alam, R. Shi, M. Hendrickson, S. Banerjee, Y. Wang, S. G. Srinivasan, H. Fraser, and R. Banerjee. "Coupled experimental and computational investigation of omega phase evolution in a high misfit titanium-vanadium alloy." *Acta Materialia* 130 (2017): 215-228.
12. Choudhuri, Deep, Srivilliputhur G. Srinivasan, Mark A. Gibson, Yufeng Zheng, David L. Jaeger, Hamish L. Fraser, and Rajarshi Banerjee. "Exceptional increase in the creep life of magnesium rare-earth alloys due to localized bond stiffening." *Nature communications* 8, no. 1 (2017): 1-9.
13. Conteri, R., T. Borkar, S. Nag, D. Jaeger, X. Chen, R. V. Ramanujan, and R. Banerjee. "Laser additive processing of Fe-Si-B-Cu-Nb magnetic alloys." *Journal of Manufacturing Processes* 29 (2017): 175-181.
14. Das, Santanu, Harpreet Singh Arora, and Sundeep Mukherjee. "Metallic glass nano-composite thin films for high-performance functional applications." *JOM* 69, no. 7 (2017): 1165-1169.
15. Daugherty, Ryan E., Madeline M. Zumbach, and Teresa D. Golden. "The influence of an aqueous-butanol plating bath on the microstructure and corrosion resistance of electrodeposited nickel coatings." *Journal of Applied Electrochemistry* 47, no. 4 (2017): 467-477.
16. Fortier, Aleksandra, Yue Liu, Iman Ghamarian, Peter C. Collins, and Eric Chason. "Investigation of Tin (Sn) Film Using an Aerosol Jet Additive Manufacturing Deposition Process." *Journal of Electronic Materials* 46, no. 8 (2017): 5174-5182.
17. George, David, Li Li, David Lowell, Jun Ding, Jingbiao Cui, Hualiang Zhang, Usha Philipose, and Yuankun Lin. "Electrically tunable diffraction efficiency from gratings in Al-doped ZnO." *Applied Physics Letters* 110, no. 7 (2017): 071110.
18. George, David, Safaa Hassan, Murthada Adewole, David Lowell, Li Li, Jun Ding, Jingbiao Cui, Hualiang Zhang, Usha Philipose, and Yuankun Lin. "Holographic fabrication of hole arrays in AZO for study of surface plasmon resonances." In *Advanced Fabrication Technologies for Micro/Nano Optics and Photonics X*, vol. 10115, p. 1011518. International Society for Optics and Photonics, 2017.
19. Ghamarian, Iman, P. Samimi, A. Telang, V. K. Vasudevan, and Peter C. Collins. "Characterization of the near-surface nanocrystalline microstructure of ultrasonically treated Ti-6Al-4V using ASTAR™/precession electron diffraction technique." *Materials Science and Engineering: A* 688 (2017): 524-531.
20. Gwalani, B., D. Choudhuri, V. Soni, Y. Ren, M. Styles, J. Y. Hwang, S. J. Nam, H. Ryu, Soon Hyung Hong, and R. Banerjee. "Cu assisted stabilization and nucleation of L12 precipitates in Al0. 3CuFeCrNi2 fcc-based high entropy alloy." *Acta Materialia* 129 (2017): 170-182.
21. Gwalani, B., Vishal Soni, Michael Lee, S. A. Mantri, Yang Ren, and R. Banerjee. "Optimizing the coupled effects of Hall-Petch and precipitation strengthening in a Al0. 3CoCrFeNi high entropy alloy." *Materials & Design* 121 (2017): 254-260.
22. Hayes, Brian J., Brian W. Martin, Brian Welk, Samuel J. Kuhr, Thomas K. Ales, David A. Brice, Iman Ghamarian et al. "Predicting tensile properties of Ti-6Al-4V produced via directed energy deposition." *Acta Materialia* 133 (2017): 120-133.
23. Hendrickson, M., S. A. Mantri, Y. Ren, T. Alam, V. Soni, B. Gwalani, M. Styles, D. Choudhuri, and R. Banerjee. "The evolution of microstructure and microhardness in a biomedical Ti–35Nb–7Zr–5Ta alloy." *Journal of Materials Science* 52, no. 6 (2017): 3062-3073.
24. Jha, Jitendra Kumar, Wei Sun, Jincheng Du, and Nigel D. Shepherd. "Mechanisms of AZO workfunction tuning for anode use in OLEDs: Surface dipole manipulation with plasma treatments versus nanoscale WOx and VOx interfacial layers." *Journal of Applied Physics* 121, no. 18 (2017): 185304.
25. Joshi, Sameehan S., Iman Ghamarian, Peyman Samimi, Shravana Katakam, Peter C. Collins, and Narendra B. Dahotre. "Crystallisation behaviour during tensile loading of laser treated Fe–Si–B metallic glass." *Philosophical Magazine* 97, no. 7 (2017): 497-514.
26. Kumar, N., M. Fusco, M. Komarasamy, R. S. Mishra, M. Bourham, and K. L. Murty. "Understanding effect of 3.5 wt.% NaCl on the corrosion of Al0. 1CoCrFeNi high-entropy alloy." *Journal of Nuclear Materials* 495 (2017): 154-163.
27. Lee, Jaesung, Anupama B. Kaul, and Philip X-L. Feng. "Carbon nanofiber high frequency nanomechanical resonators." *Nanoscale* 9, no. 33 (2017): 11864-11870.
28. Lee, Jihyung, Murooj Atmeh, and Diana Berman. "Effect of trapped water on the frictional behavior of graphene oxide layers sliding in water environment." *Carbon* 120 (2017): 11-16.
29. Lima, D. D., S. A. Mantri, C. V. Mikler, R. Contieri, C. J. Yannetta, K. N. Campo, E. S. Lopes et al. "Laser additive processing of a functionally graded internal fracture fixation plate." *Materials & Design* 130 (2017): 8-15.
30. Lu, Xiaonan, Lu Deng, Po-Hsuen Kuo, Mengguo Ren, Ian Buterbaugh, and Jincheng Du. "Effects of boron oxide substitution on the structure and bioactivity of SrO-containing bioactive glasses." *Journal of Materials Science* 52, no. 15 (2017): 8793-8811.
31. Lu, Xiaonan, Daniel K. Schreiber, James J. Neeway, Joseph V. Ryan, and Jincheng Du. "Effects of optical dopants and laser wavelength on atom probe tomography analyses of borosilicate glasses." *Journal of the American Ceramic Society* 100, no. 10 (2017): 4801-4815.
32. Makineni, Surendra Kumar, Sandeep Sugathan, Subhashish Meher, Rajarshi Banerjee, Saswata Bhattacharya, Subodh Kumar, and Kamanio Chattopadhyay. "Enhancing elevated temperature strength of copper containing aluminium alloys by forming L1 2 Al 3 Zr precipitates and nucleating θ ″precipitates on them." *Scientific reports* 7, no. 1 (2017): 1-9.
33. Mantri, S. A., D. Choudhuri, T. Alam, V. Ageh, F. Sun, F. Prima, and R. Banerjee. "Change in the deformation mode resulting from beta-omega compositional partitioning in a TiMo alloy: Room versus elevated temperature." *Scripta Materialia* 130 (2017): 69-73.
34. Mantri, S. A., T. Alam, D. Choudhuri, C. J. Yannetta, C. V. Mikler, P. C. Collins, and R. Banerjee. "The effect of boron on the grain size and texture in additively manufactured β-Ti alloys." *Journal of Materials Science* 52, no. 20 (2017): 12455-12466.
35. Martinez, N., N. Kumar, R. S. Mishra, and K. J. Doherty. "Effect of tool dimensions and parameters on the microstructure of friction stir welded aluminum 7449 alloy of various thicknesses." *Materials Science and Engineering: A* 684 (2017): 470-479.
36. Martinez, N., N. Kumar, R. S. Mishra, and K. J. Doherty. "Microstructural variation due to heat gradient of a thick friction stir welded aluminum 7449 alloy." *Journal of Alloys and Compounds* 713 (2017): 51-63.
37. Mikler, C. V., V. Chaudhary, T. Borkar, V. Soni, D. Jaeger, X. Chen, R. Contieri, R. V. Ramanujan, and R. Banerjee. "Laser additive manufacturing of magnetic materials." *Jom* 69, no. 3 (2017): 532-543.
38. Mondol, S., T. Alam, R. Banerjee, S. Kumar, and K. Chattopadhyay. "Development of a high temperature high strength Al alloy by addition of small amounts of Sc and Mg to 2219 alloy." *Materials Science and Engineering: A* 687 (2017): 221-231.
39. Murguia, Silvia Briseño, Joshua Barclay, Samir M. Aouadi, and Marcus L. Young. "SURFACE MODIFICATION OF TITANIUM FOAMS PRODUCED BY FREEZE-CASTING." *Processing, Properties, and Design of Advanced Ceramics and Composites II* 261 (2017): 179.
40. Nene, Saurabh Sanjay, Kaimiao Liu, Michael Frank, Rajiv S. Mishra, Raymond Edwin Brennan, Kyu C. Cho, Zhiming Li, and Dierk Raabe. "Enhanced strength and ductility in a friction stir processing engineered dual phase high entropy alloy." *Scientific reports* 7, no. 1 (2017): 1-7.
41. Nithin, B., Atanu Samanta, Surendra Kumar Makineni, Talukder Alam, Prafull Pandey, Abhishek K. Singh, Rajarshi Banerjee, and Kamanio Chattopadhyay. "Effect of Cr addition on γ–γ′ cobalt-based Co–Mo–Al–Ta class of superalloys: a combined experimental and computational study." *Journal of Materials Science* 52, no. 18 (2017): 11036-11047.
42. Patel, Mumukshu D., Eunho Cha, Chiwon Kang, Bharat Gwalani, and Wonbong Choi. "High performance rechargeable Li-S batteries using binder-free large sulfur-loaded three-dimensional carbon nanotubes." *Carbon* 118 (2017): 120-126.
43. Qiu, Ying, Marcus L. Young, and Xu Nie. "High strain rate compression of martensitic NiTi shape memory alloy at different temperatures." *Metallurgical and Materials Transactions A* 48, no. 2 (2017): 601-608.
44. Shaikh, Vasim A., Thomas W. Scharf, and Nourredine Boubekri. "Microlubrication machining of 1018 steel: the effect of a biodegradable lubricant on the microstructural integrity." *Lubrication Science* 29, no. 6 (2017): 357-376.
45. She, Yunlong, Jihyung Lee, Benjamin T. Diroll, Byeongdu Lee, Samir Aouadi, Elena V. Shevchenko, and Diana Berman. "Rapid synthesis of nanoporous conformal coatings via plasma-enhanced sequential infiltration of a polymer template." *ACS omega* 2, no. 11 (2017): 7812-7819.
46. Snir, Yoav, Matthew Carl, Nathan A. Ley, and Marcus L. Young. "Effects of hydrogen charging on the phase transformation of martensitic NiTi shape memory alloy wires." *Shape Memory and Superelasticity* 3, no. 4 (2017): 443-456.
47. Strickland, J. N., B. Ohl, G. Chitwood, K. Krishnan, G. Kohn, and M. L. Young. "Anisotropic Nature of Raw, Radially Strained, and Radially Strained and Aged Steel Tubes." *Materials Performance and Characterization* 6, no. 3 (2017): 346-361.
48. Sun, F., J. Y. Zhang, P. Vermaut, D. Choudhuri, T. Alam, S. A. Mantri, P. Svec et al. "Strengthening strategy for a ductile metastable β-titanium alloy using low-temperature aging." *Materials Research Letters* 5, no. 8 (2017): 547-553.
49. Wanga, Tianhao, Harpreet Sidhara, Rajiv S. Mishraa, Yuri Hovanskib, Piyush Upadhyayb, and Blair Carlson. "Friction stir scribe welding technique for dissimilar joining of aluminium and galvanized steel."
50. Wu, Tso-Chang, Yee-Hsien Ho, Sameehan S. Joshi, Ravi S. Rajamure, and Narendra B. Dahotre. "Microstructure and corrosion behavior of laser surface-treated AZ31B Mg bio-implant material." *Lasers in medical science* 32, no. 4 (2017): 797-803.

### ⎯ 2018 ⎯

1. Alam, T., B. Gwalani, G. Viswanathan, H. Fraser, and R. Banerjee. "Detailed Investigation of Core–Shell Precipitates in a Cu-Containing High Entropy Alloy." *JOM* 70, no. 9 (2018): 1771-1775.
2. Algarni, Zaina, Abhay Singh, and Usha Philipose. "Synthesis of Amorphous InSb Nanowires and a Study of the Effects of Laser Radiation and Thermal Annealing on Nanowire Crystallinity." *Nanomaterials* 8, no. 8 (2018): 607.
3. Atluri, Rohini, Rahul Atmaramani, Gamage Tharaka, Thomas McCallister, Jian Peng, David Diercks, Somesree GhoshMitra, and Santaneel Ghosh. "Photo-Magnetic Irradiation-Mediated Multimodal Therapy of Neuroblastoma Cells Using a Cluster of Multifunctional Nanostructures." *Nanomaterials* 8, no. 10 (2018): 774.
4. Argade, G. R., S. Shukla, K. Liu, and R. S. Mishra. "Friction stir lap welding of stainless steel and plain carbon steel to enhance corrosion properties." *Journal of Materials Processing Technology* 259 (2018): 259-269.
5. Ayyagari, Aditya, Vahid Hasannaeimi, Harpreet Arora, and Sundeep Mukherjee. "Electrochemical and friction characteristics of metallic glass composites at the microstructural length-scales." *Scientific reports* 8, no. 1 (2018): 1-10.
6. Ayyagari, Aditya V., Bharat Gwalani, Saideep Muskeri, Sundeep Mukherjee, and Rajarshi Banerjee. "Surface degradation mechanisms in precipitation-hardened high-entropy alloys." *NPJ Materials Degradation* 2, no. 1 (2018): 1-10.
7. Barclay, Joshua D., Oseoghaghare Okobiah, Lu Deng, Tina Sengphanlaya, Jincheng Du, and R. F. Reidy. "High temperature water as a clean and etch of low-k and SiO2 films." *Microelectronic Engineering* 196 (2018): 54-58.
8. Blackert, E., S. Bakkar, S. Briseño-Murguia, M. Kramer, J. Barclay, M. Carl, J. Smith, M. L. Young, and S. M. Aouadi. "Textured TNZT surfaces via hydrothermal treatments for bone implant applications." *Thin Solid Films* 667 (2018): 64-68.
9. Chaudhary, V., B. Gwalani, V. Soni, R. V. Ramanujan, and R. Banerjee. "Influence of Cr substitution and temperature on hierarchical phase decomposition in the AlCoFeNi high entropy alloy." *Scientific reports* 8, no. 1 (2018): 1-12.
10. Choudhuri, Deep, Shivakant Shukla, Whitley B. Green, Bharat Gwalani, Victor Ageh, Rajarshi Banerjee, and Rajiv S. Mishra. "Crystallographically degenerate B2 precipitation in a plastically deformed fcc-based complex concentrated alloy." *Materials Research Letters* 6, no. 3 (2018): 171-177.
11. Choudhuri, D., M. Komarasamy, V. Ageh, and R. S. Mishra. "Investigation of plastic deformation modes in Al0. 1CoCrFeNi high entropy alloy." *Materials Chemistry and Physics* 217 (2018): 308-314.
12. Dahotre, Narendra B., Soundarapandian Santhanakrishnan, Sameehan S. Joshi, Riaz JK Khan, Daniel P. Fick, William B. Robertson, Raymond K. Sheh, and Charlie N. Ironside. "Integrated experimental and computational approach to laser machining of structural bone." *Medical engineering & physics* 51 (2018): 56-66.
13. Daugherty, Ryan E., Madeline M. Zumbach, Stephen F. Sanders, and Teresa D. Golden. "Design challenges in electrodepositing metal-anionic clay nanocomposites: Synthesis, characterization, and corrosion resistance of nickel-LDH nanocomposite coatings." *Surface and Coatings Technology* 349 (2018): 773-782.
14. De-Giovanni, Mario, Talukder Alam, Rajarshi Banerjee, and Prakash Srirangam. "3D Atom Probe Tomography study on segregation of yttrium in modified Al-Si Alloys." *JOM* 70, no. 9 (2018): 1765-1770.
15. Drachev, Vladimir P., Alexander V. Kildishev, Joshua D. Borneman, Kuo-Ping Chen, Vladimir M. Shalaev, Konstantin Yamnitskiy, Robert A. Norwood et al. "Engineered nonlinear materials using gold nanoantenna array." *Scientific reports* 8, no. 1 (2018): 1-9.
16. Gangireddy, Sindhura, Bharat Gwalani, and Rajiv S. Mishra. "Grain size dependence of strain rate sensitivity in a single phase FCC high entropy alloy Al0. 3CoCrFeNi." *Materials Science and Engineering: A* 736 (2018): 344-348.
17. Gangireddy, S., E. J. Faierson, and R. S. Mishra. "Influences of Post-processing, Location, Orientation, and Induced Porosity on the Dynamic Compression Behavior of Ti–6Al–4V Alloy Built Through Additive Manufacturing." *Journal of Dynamic Behavior of Materials* 4, no. 4 (2018): 441-451.
18. Gangireddy, Sindhura, Liu Kaimiao, Bharat Gwalani, and Rajiv Mishra. "Microstructural dependence of strain rate sensitivity in thermomechanically processed Al0. 1CoCrFeNi high entropy alloy." *Materials Science and Engineering: A* 727 (2018): 148-159.
19. Gangireddy, Sindhura, Bharat Gwalani, Kaimiao Liu, Rajarshi Banerjee, and Rajiv S. Mishra. "Microstructures with extraordinary dynamic work hardening and strain rate sensitivity in Al0. 3CoCrFeNi high entropy alloy." *Materials Science and Engineering: A* 734 (2018): 42-50.
20. Gwalani, Bharat, Rizaldy M. Pohan, Junho Lee, Bin Lee, Rajarshi Banerjee, Ho Jin Ryu, and Soon Hyung Hong. "High-entropy alloy strengthened by in situ formation of entropy-stabilized nano-dispersoids." *Scientific reports* 8, no. 1 (2018): 1-9.
21. Gwalani, Bharat, Stephane Gorsse, Deep Choudhuri, Mark Styles, Yufeng Zheng, Rajiv S. Mishra, and Rajarshi Banerjee. "Modifying transformation pathways in high entropy alloys or complex concentrated alloys via thermo-mechanical processing." *Acta Materialia* 153 (2018): 169-185.
22. Hu, Xiaoli, Jihyung Lee, Diana Berman, and Ashlie Martini. "Substrate effect on electrical conductance at a nanoasperity-graphene contact." *Carbon* 137 (2018): 118-124.
23. Jeong, Jae Young, Kyle Horne, Bohung Kim, Dongsik Kim, and Tae-Youl Choi. "Characterization of interface thermal resistance between graphene and Cu film by using a micropipette thermography technique." *MRS Communications* 8, no. 4 (2018): 1463-1469.
24. Jones, Daniel C., Joshua M. Young, Wickramaarachchige J. Lakshantha, Satyabrata Singh, Todd A. Byers, Duncan L. Weathers, Floyd D. McDaniel, and Bibhudutta Rout. "Redistribution of Nickel Ions Embedded within Indium Phosphide Via Low Energy Dual Ion Implantations." (2018).
25. Joshi, Sameehan S., Deep Choudhuri, Srinivas Aditya Mantri, Rajarshi Banerjee, Narendra B. Dahotre, and Srikumar Banerjee. "Rationalizing surface hardening of laser glazed grey cast iron via an integrated experimental and computational approach." *Materials & Design* 156 (2018): 570-585.
26. Komarasamy, Mageshwari, Shivakant Shukla, Nathan Ley, Kaimiao Liu, Kyu Cho, Brandon McWilliams, Raymond Brennan, Marcus L. Young, and Rajiv S. Mishra. "A novel method to enhance CSL fraction, tensile properties and work hardening in complex concentrated alloys―Lattice distortion effect." *Materials Science and Engineering: A* 736 (2018): 383-391.
27. Lambert, Alexander, Goutham Issac, Ashish Salunke, Luwen Lu, and Oliver Chyan. "Optimization of Cupric Chloride Subtractive Etching for Cu High Density Interconnects." In *International Symposium on Microelectronics*, vol. 2018, no. 1, pp. 000640-000646. International Microelectronics Assembly and Packaging Society, 2018.
28. Lee, Jihyung, Xiaoli Hu, Andrey A. Voevodin, Ashlie Martini, and Diana Berman. "Effect of substrate support on dynamic graphene/metal electrical contacts." *Micromachines* 9, no. 4 (2018): 169.
29. Lee, Jihyung, and Diana Berman. "Inhibitor or promoter: Insights on the corrosion evolution in a graphene protected surface." *Carbon* 126 (2018): 225-231.
30. Li, Yalan, Yangyang Zhang, Dong Wanru, Jinquan Yue, Min Xu, and Sheldon Q. Shi. "Preparation and properties of pulp fibers treated with zinc oxide nanoparticles by in situ chemosynthesis." *Holzforschung* 72, no. 11 (2018): 923-931.
31. Liu, K., S. S. Nene, M. Frank, S. Sinha, and R. S. Mishra. "Metastability-assisted fatigue behavior in a friction stir processed dual-phase high entropy alloy." *Materials Research Letters* 6, no. 11 (2018): 613-619.
32. Lu, Xiaonan, Lu Deng, Caitlin Huntley, Mengguo Ren, Po-Hsuen Kuo, Ty Thomas, Jonathan Chen, and Jincheng Du. "Mixed network former effect on structure, physical properties, and bioactivity of 45S5 bioactive glasses: an integrated experimental and molecular dynamics simulation study." *The Journal of Physical Chemistry B* 122, no. 9 (2018): 2564-2577.
33. Mantri, S. A., T. Torgerson, E. Ivanov, T. W. Scharf, and R. Banerjee. "Effect of Boron Addition on the Mechanical Wear Resistance of Additively Manufactured Biomedical Titanium Alloy." *Metallurgical and Materials Transactions A* 49, no. 3 (2018): 806-810.
34. Mantri, S. A., D. Choudhuri, T. Alam, G. B. Viswanathan, J. M. Sosa, H. L. Fraser, and R. Banerjee. "Tuning the scale of α precipitates in β-titanium alloys for achieving high strength." *Scripta Materialia* 154 (2018): 139-144.
35. Martin, B. E., W. F. Heard, C. M. Loeffler, and X. Nie. "Specimen size and strain rate effects on the compressive behavior of concrete." *Experimental Mechanics* 58, no. 2 (2018): 357-368.
36. Mohammed, Sayeed, Ravi Shanker Rajamure, Zhe Zhang, Prabu Balu, Narendra B. Dahotre, and Radovan Kovacevic. "Tailoring corrosion resistance of laser-cladded Ni/WC surface by adding rare earth elements." *The International Journal of Advanced Manufacturing Technology* 97, no. 9-12 (2018): 4043-4054.
37. Murguia, Silvia Briseño, Arielle Clauser, Heather Dunn, Wendy Fisher, Yoav Snir, Raymond E. Brennan, and Marcus L. Young. "Low-pressure and low-temperature hydriding–pulverization–dehydriding method for producing shape memory alloy powders." *Shape Memory and Superelasticity* 4, no. 2 (2018): 313-326.
38. Nair, Rakesh Bhasakaran, Harpreet Singh Arora, Aditya Ayyagari, Sundeep Mukherjee, and Harpreet Singh Grewal. "High entropy alloys: prospective materials for tribo‐corrosion applications." *Advanced Engineering Materials* 20, no. 6 (2018): 1700946.
39. Nene, Saurabh S., Michael Frank, Kaimiao Liu, R. S. Mishra, B. A. McWilliams, and K. C. Cho. "Extremely high strength and work hardening ability in a metastable high entropy alloy." *Scientific reports* 8, no. 1 (2018): 1-8.
40. Nene, S. S., S. Zellner, B. Mondal, M. Komarasamy, R. S. Mishra, R. E. Brennan, and K. C. Cho. "Friction stir processing of newly-designed Mg-5Al-3.5 Ca-1Mn (AXM541) alloy: Microstructure evolution and mechanical properties." *Materials Science and Engineering: A* 729 (2018): 294-299.
41. Nene, S. S., M. Frank, K. Liu, S. Sinha, R. S. Mishra, B. McWilliams, and K. C. Cho. "Reversed strength-ductility relationship in microstructurally flexible high entropy alloy." *Scripta Materialia* 154 (2018): 163-167.
42. Nene, S. S., S. Sinha, M. Frank, K. Liu, R. S. Mishra, B. A. McWilliams, and K. C. Cho. "Unexpected strength–ductility response in an annealed, metastable, high-entropy alloy." *Applied Materials Today* 13 (2018): 198-206.
43. Palanivel, S., R. S. Mishra, R. E. Brennan, and K. C. Cho. "Accelerated age hardening response by in-situ ultrasonic aging of a WE43 alloy." *Materials and Manufacturing Processes* 33, no. 1 (2018): 104-108.
44. Pohan, Rizaldy M., Bharat Gwalani, Junho Lee, Talukder Alam, J. Y. Hwang, Ho Jin Ryu, Rajarshi Banerjee, and Soon Hyung Hong. "Microstructures and mechanical properties of mechanically alloyed and spark plasma sintered Al0. 3CoCrFeMnNi high entropy alloy." *Materials Chemistry and Physics* 210 (2018): 62-70.
45. Ramesh, Dinesh, and Nandika Anne D’Souza. "One-step fabrication of biomimetic PVDF-BaTiO3 nanofibrous composite using DoE." *Materials Research Express* 5, no. 8 (2018): 085308.
46. Ramanujan, Raju V., R. Banerjee, Varun Chaudhary, B. Gwalani, and V. Soni. "Influence of Cr substitution and temperature on hierarchical phase decomposition in the AlCoFeNi high entropy alloy." (2018).
47. Rathod, Urmila P., Justin Egede, Andrey A. Voevodin, and Nigel D. Shepherd. "Extrinsic p-type doping of few layered WS2 films with niobium by pulsed laser deposition." *Applied Physics Letters* 113, no. 6 (2018): 062106.
48. Rathod, Urmilaben P., Jitendra Kumar Jha, Andrey A. Voevodin, and Nigel D. Shepherd. "A photoelectron study of annealing induced changes to workfunction and majority carrier type in pulsed laser deposited few layer WS 2 films." *Journal of Materials Science: Materials in Electronics* 29, no. 23 (2018): 20051-20056.
49. Roccapriore, Kevin M., David P. Lyvers, Dean P. Brown, Ekaterina Poutrina, Augustine M. Urbas, Thomas A. Germer, and Vladimir P. Drachev. "Waveguide coupling via magnetic gratings with effective strips." *Applied Sciences* 8, no. 4 (2018): 617.
50. Shao, Dongwei, Min Xu, Liping Cai, and Sheldon Q. Shi. "Fabrication of Wood Fiber-rubber Composites with Reclaimed Rubber." *BioResources* 13, no. 2 (2018): 3300-3314.
51. She, Yunlong, Jihyung Lee, Benjamin T. Diroll, Thomas W. Scharf, Elena V. Shevchenko, and Diana Berman. "Accessibility of the pores in highly porous alumina films synthesized via sequential infiltration synthesis." *Nanotechnology* 29, no. 49 (2018): 495703.
52. Shukla, Shivakant, Mageshwari Komarasamy, and Rajiv S. Mishra. "Grain size dependence of fatigue properties of friction stir processed ultrafine-grained Al-5024 alloy." *International Journal of Fatigue* 109 (2018): 1-9.
53. Shukla, Shivakant, Deep Choudhuri, Tianhao Wang, Kaimiao Liu, Robert Wheeler, Sarah Williams, Bharat Gwalani, and Rajiv S. Mishra. "Hierarchical features infused heterogeneous grain structure for extraordinary strength-ductility synergy." *Materials Research Letters* 6, no. 12 (2018): 676-682.
54. Sirota, Benjamin, Nicholas Glavin, Sergiy Krylyuk, Albert V. Davydov, and Andrey A. Voevodin. "Hexagonal MoTe 2 with amorphous BN passivation layer for improved oxidation resistance and endurance of 2D field effect transistors." *Scientific reports* 8, no. 1 (2018): 1-8.
55. Soni, V., O. N. Senkov, B. Gwalani, D. B. Miracle, and Rajarshi Banerjee. "Microstructural design for improving ductility of an initially brittle refractory high entropy alloy." *Scientific reports* 8, no. 1 (2018): 1-10.
56. Soni, Vishal, Bharat Gwalani, Oleg N. Senkov, Babu Viswanathan, Talukder Alam, Daniel B. Miracle, and Rajarshi Banerjee. "Phase stability as a function of temperature in a refractory high-entropy alloy." *Journal of Materials Research* 33, no. 19 (2018): 3235-3246.
57. Thurber, Casey R., Yahia H. Ahmad, Margaret C. Calhoun, Amaal Al-Shenawa, Nandika D’Souza, Adel Mohamed, and Teresa D. Golden. "Metal matrix composite coatings of cupronickel embedded with nanoplatelets for improved corrosion resistant properties." *International Journal of Corrosion* 2018 (2018).
58. Tungala, Vedavyas, Amit Arora, Bharat Gwalani, Rajiv S. Mishra, Raymond E. Brennan, and Kyu C. Cho. "Microstructure and mechanical properties of friction stir processed cast Eglin steel (ES-1)." *Materials Science and Engineering: A* 709 (2018): 105-114.
59. Wang, Quanliang, Shengling Xiao, Sheldon Q. Shi, and Liping Cai. "Effect of light-delignification on mechanical, hydrophobic, and thermal properties of high-strength molded fiber materials." *Scientific reports* 8, no. 1 (2018): 1-10.
60. Wang, Quanliang, Shengling Xiao, Sheldon Q. Shi, and Liping Cai. "Mechanical strength, thermal stability, and hydrophobicity of fiber materials after removal of residual lignin." *BioResources* 13, no. 1 (2018): 71-85.
61. Wang, Quanliang, Shengling Xiao, Sheldon Q. Shi, and Liping Cai. "The effect of delignification on the properties of cellulosic fiber material." *Holzforschung* 72, no. 6 (2018): 443-449.
62. Wang, Tianhao, Mageshwari Komarasamy, Kaimiao Liu, and Rajiv S. Mishra. "Friction stir butt welding of strain-hardened aluminum alloy with high strength steel." *Materials Science and Engineering: A* 737 (2018): 85-89.
63. Wang, Tianhao, Harpreet Sidhar, Rajiv S. Mishra, Yuri Hovanski, Piyush Upadhyay, and Blair Carlson. "Friction stir scribe welding technique for dissimilar joining of aluminium and galvanised steel." *Science and Technology of Welding and Joining* 23, no. 3 (2018): 249-255.
64. Wang, Tianhao, Mageshwari Komarasamy, Shivakant Shukla, and Rajiv S. Mishra. "Simultaneous enhancement of strength and ductility in an AlCoCrFeNi2. 1 eutectic high-entropy alloy via friction stir processing." *Journal of Alloys and Compounds* 766 (2018): 312-317.
65. Wang, Tianhao, Shivakant Shukla, Saurabh S. Nene, Michael Frank, Robert W. Wheeler, and Rajiv S. Mishra. "Towards obtaining sound butt joint between metallurgically immiscible pure Cu and stainless steel through friction stir welding." *Metallurgical and Materials Transactions A* 49, no. 7 (2018): 2578-2582.
66. Wheeler, Robert W., Jesse Smith, Nathan A. Ley, Anit Giri, and Marcus L. Young. "Processing-induced strain glass states in a Ni49. 5Ti50. 5 shape memory alloy." *Applied Physics Letters* 113, no. 13 (2018): 131901.
67. Wu, Yingji, Changlei Xia, Liping Cai, and Sheldon Q. Shi. "Controlling pore size of activated carbon through self-activation process for removing contaminants of different molecular sizes." *Journal of colloid and interface science* 518 (2018): 41-47.
68. Wu, Yingji, Liping Cai, Chen Wang, Changtong Mei, and Sheldon Q. Shi. "Sodium hydroxide-free soy protein isolate-based films crosslinked by pentaerythritol glycidyl ether." *Polymers* 10, no. 12 (2018): 1300.
69. Jiang, Yan, Yuankun Lin, Jingbiao Cui, and Usha Philipose. "Effects of strategically placed water droplets on monolayer growth of molybdenum disulfide." *Journal of Nanomaterials* 2018 (2018).

### ⎯ 2019 ⎯

1. Argade, G. R., S. Sanders, G. Mohandass, A. Alsaleh, F. D’Souza, T. D. Golden, and R. S. Mishra. "Corrosion Inhibition Study of Mg-Nd-Y High Strength Magnesium Alloy Using Organic Inhibitor." *Journal of Materials Engineering and Performance* 28, no. 2 (2019): 852-862.
2. Argade, Gaurav R., Sameehan S. Joshi, Aditya V. Ayyagari, Sundeep Mukherjee, Rajiv S. Mishra, and Narendra B. Dahotre. "Tribocorrosion performance of laser additively processed high-entropy alloy coatings on aluminum." *Applied Physics A* 125, no. 4 (2019): 272.
3. Arora, H. S., Aditya Ayyagari, J. Saini, K. Selvam, S. Riyadh, M. Pole, H. S. Grewal, and Sundeep Mukherjee. "High tensile Ductility and strength in Dual-phase Bimodal steel through stationary Friction stir processing." *Scientific reports* 9, no. 1 (2019): 1-6.
4. Bantounas, Ioannis, Bharat Gwalani, Talukder Alam, Rajarshi Banerjee, and David Dye. "Elemental partitioning, mechanical and oxidation behaviour of two high-γ′ W-free γ/γ′ polycrystalline Co/Ni superalloys." *Scripta Materialia* 163 (2019): 44-50.
5. Bhatta, Hari L., Ali E. Aliev, and Vladimir P. Drachev. "New mechanism of plasmons specific for spin-polarized nanoparticles." *Scientific reports* 9, no. 1 (2019): 1-8.
6. Brice, D. A., R. M. Rahimi, and D. F. Bahr. "Hardening Particulate Ti Media Through Controlled Oxidation." *Metallurgical and Materials Transactions A* 50, no. 9 (2019): 3980-3984.
7. Carl, Matthew, Jesse Smith, Robert W. Wheeler, Yang Ren, Brian Van Doren, and Marcus L. Young. "High-energy synchrotron radiation X-ray diffraction measurements during in situ aging of a NiTi-15 at.% Hf high temperature shape memory alloy." *Materialia* 5 (2019): 100220.
8. Choudhuri, Deep, Philip A. Jannotti, Saideep Muskeri, Shivakant Shukla, Sindhura Gangireddy, Sundeep Mukherjee, Brian E. Schuster, Jeffrey T. Lloyd, and Rajiv S. Mishra. "Ballistic Response of a FCC-B2 Eutectic AlCoCrFeNi 2.1 High Entropy Alloy." *Journal of Dynamic Behavior of Materials* 5, no. 4 (2019): 495-503.
9. Choudhuri, Deep, Shivakant Shukla, Philip A. Jannotti, Saideep Muskeri, Sundeep Mukherjee, Jeffrey T. Lloyd, and Rajiv S. Mishra. "Characterization of as-cast microstructural heterogeneities and damage mechanisms in eutectic AlCoCrFeNi2. 1 high entropy alloy." *Materials Characterization* 158 (2019): 109955.
10. Choudhuri, Deep, Shivakant Shukla, Bharat Gwalani, Rajarshi Banerjee, and Rajiv S. Mishra. "Deformation induced intermediate metastable lattice structures facilitate ordered B2 nucleation in a fcc-based high entropy alloy." *Materials Research Letters* 7, no. 1 (2019): 40-46.
11. Choudhuri, Deep, Bharat Gwalani, Stephane Gorsse, Mageshwari Komarasamy, Srinivas A. Mantri, Srivilliputhur G. Srinivasan, Rajiv S. Mishra, and Rajarshi Banerjee. "Enhancing strength and strain hardenability via deformation twinning in fcc-based high entropy alloys reinforced with intermetallic compounds." *Acta Materialia* 165 (2019): 420-430.
12. Clayton, J. D., W. S. Rubink, V. Ageh, D. Choudhuri, R. Recuero Chen, J. Du, and T. W. Scharf. "Deformation and Failure Mechanics of Boron Carbide–Titanium Diboride Composites at Multiple Scales." *JOM* 71, no. 8 (2019): 2567-2575.
13. Donthula, Harish, B. Vishwanadh, T. Alam, T. Borkar, R. J. Contieri, R. Caram, R. Banerjee, R. Tewari, G. K. Dey, and S. Banerjee. "Morphological evolution of transformation products and eutectoid transformation (s) in a hyper-eutectoid Ti-12 at% Cu alloy." *Acta Materialia* 168 (2019): 63-75.
14. Dutt, Aniket K., Bharat Gwalani, Vedavyas Tungala, Matthew Carl, Rajiv S. Mishra, Sesh A. Tamirisakandala, Marcus L. Young, Kyu C. Cho, and Raymond E. Brennan. "A novel nano-particle strengthened titanium alloy with exceptional specific strength." *Scientific reports* 9, no. 1 (2019): 1-9.
15. Gangireddy, Sindhura, Bharat Gwalani, Vishal Soni, Rajarshi Banerjee, and Rajiv S. Mishra. "Contrasting mechanical behavior in precipitation hardenable AlXCoCrFeNi high entropy alloy microstructures: Single phase FCC vs. dual phase FCC-BCC." *Materials Science and Engineering: A* 739 (2019): 158-166.
16. Gangireddy, Sindhura, Mageshwari Komarasamy, Eric J. Faierson, and Rajiv S. Mishra. "High strain rate mechanical behavior of Ti-6Al-4V octet lattice structures additively manufactured by selective laser melting (SLM)." *Materials Science and Engineering: A* 745 (2019): 231-239.
17. Gangireddy, S., B. Gwalani, R. Banerjee, and R. S. Mishra. "High Strain Rate Response of Al 0.7 CoCrFeNi High Entropy Alloy: Dynamic Strength Over 2 GPa from Thermomechanical Processing and Hierarchical Microstructure." *Journal of Dynamic Behavior of Materials* 5, no. 1 (2019): 1-7.
18. Gangireddy, Sindhura, Bharat Gwalani, Kaimiao Liu, Eric J. Faierson, and Rajiv S. Mishra. "Microstructure and mechanical behavior of an additive manufactured (AM) WE43-Mg alloy." *Additive Manufacturing* 26 (2019): 53-64.
19. Gangireddy, Sindhura, Daniel Whitaker, and Rajiv S. Mishra. "Significant Contribution to Strength Enhancement from Deformation Twins in Thermomechanically Processed Al 0.1 CoCrFeNi Microstructures." *Journal of Materials Engineering and Performance* 28, no. 3 (2019): 1661-1667.
20. Ghosh, Abhishek, Chen Zhang, Haifeng Zhang, and Sheldon Shi. "CO2 Sensing behavior of calcium-doped ZnO thin film: a study to address the cross-sensitivity of CO2 in H2 and CO Environment." *Langmuir* 35, no. 32 (2019): 10267-10275.
21. Gu, J. J., S. S. Joshi, Y-S. Ho, B. W. Wei, T. Y. Huang, J. Lee, D. Berman, N. B. Dahotre, and S. M. Aouadi. "Oxidation-induced healing in laser-processed thermal barrier coatings." *Thin Solid Films* 688 (2019): 137481.
22. Guo, Rui, Zechun Ren, Hongjie Bi, Min Xu, and Liping Cai. "Electrical and thermal conductivity of polylactic acid (PLA)-based biocomposites by incorporation of nano-graphite fabricated with fused deposition modeling." *Polymers* 11, no. 3 (2019): 549.
23. Guo, Rui, Zechun Ren, Xin Jia, Hongjie Bi, Haiying Yang, Tong Ji, Min Xu, and Liping Cai. "Preparation and Characterization of 3D Printed PLA-Based Conductive Composites Using Carbonaceous Fillers by Masterbatch Melting Method." *Polymers* 11, no. 10 (2019): 1589.
24. Gwalani, B., R. Salloom, T. Alam, S. G. Valentin, X. Zhou, G. Thompson, S. G. Srinivasan, and R. Banerjee. "Composition-dependent apparent activation-energy and sluggish grain-growth in high entropy alloys." *Materials Research Letters* 7, no. 7 (2019): 267-274.
25. Gwalani, Bharat, Sindhura Gangireddy, Shivakant Shukla, Christopher J. Yannetta, Sheena Grace Valentin, Rajiv S. Mishra, and Rajarshi Banerjee. "Compositionally graded high entropy alloy with a strong front and ductile back." *Materials Today Communications* 20 (2019): 100602.
26. Gwalani, Bharat, Sindhura Gangireddy, Yufeng Zheng, Vishal Soni, Rajiv S. Mishra, and Rajarshi Banerjee. "Influence of ordered L1 2 precipitation on strain-rate dependent mechanical behavior in a eutectic high entropy alloy." *Scientific reports* 9, no. 1 (2019): 1-13.
27. Gwalani, Bharat, Vishal Soni, Owais Ahmed Waseem, Srinivas Aditya Mantri, and Rajarshi Banerjee. "Laser additive manufacturing of compositionally graded AlCrFeMoVx (x= 0 to 1) high-entropy alloy system." *Optics & Laser Technology* 113 (2019): 330-337.
28. Gwalani, Bharat, Stéphane Gorsse, Vishal Soni, Matthew Carl, Nathen Ley, Jesse Smith, Aditya V. Ayyagari et al. "Role of copper on L12 precipitation strengthened fcc based high entropy alloy." *Materialia* 6 (2019): 100282.
29. Gwalani, Harsha, Bharat Gwalani, Marty O’Neill, Armin R. Mikler, and Rajarshi Banerjee. "Simulation of solute clusters in metallic systems." *Modelling and Simulation in Materials Science and Engineering* 27, no. 8 (2019): 085014.
30. Gwalani, Bharat, Rizaldy M. Pohan, Owais Ahmed Waseem, Talukder Alam, Soon Hyung Hong, Ho Jin Ryu, and Rajarshi Banerjee. "Strengthening of Al0. 3CoCrFeMnNi-based ODS high entropy alloys with incremental changes in the concentration of Y2O3." *Scripta Materialia* 162 (2019): 477-481.
31. Gwalani, Bharat, Stephane Gorsse, Deep Choudhuri, Yufeng Zheng, Rajiv S. Mishra, and Rajarshi Banerjee. "Tensile yield strength of a single bulk Al0. 3CoCrFeNi high entropy alloy can be tuned from 160 MPa to 1800 MPa." *Scripta Materialia* 162 (2019): 18-23.
32. Hasannaeimi, Vahid, and Sundeep Mukherjee. "Galvanic corrosion in a eutectic high entropy alloy." *Journal of Electroanalytical Chemistry* 848 (2019): 113331.
33. Hasannaeimi, Vahid, and Sundeep Mukherjee. "Highly Catalytic Amorphous Ni–P Synthesized via Pulsed Electrodeposition." *Advanced Engineering Materials* 21, no. 7 (2019): 1801122.
34. Hasannaeimi, Vahid, and Sundeep Mukherjee. "noble-Metal based Metallic Glasses as Highly catalytic Materials for Hydrogen oxidation Reaction in fuel cells." *Scientific reports* 9, no. 1 (2019): 1-8.
35. Hasannaeimi, Vahid, Aditya V. Ayyagari, Saideep Muskeri, Riyadh Salloom, and Sundeep Mukherjee. "Surface degradation mechanisms in a eutectic high entropy alloy at microstructural length-scales and correlation with phase-specific work function." *npj Materials Degradation* 3, no. 1 (2019): 1-8.
36. Jacques, Kelly, Tasha Joy, Asghar Shirani, and Diana Berman. "Effect of Water Incorporation on the Lubrication Characteristics of Synthetic Oils." *Tribology Letters* 67, no. 4 (2019): 105.
37. Komarasamy, Mageshwari, Ryan Tharp, Subhasis Sinha, Saket Thapliyal, and Rajiv Mishra. "Achieving Forced Mixing in Cu-Based Immiscible Alloys via Friction Stir Processing." In *Friction Stir Welding and Processing X*, pp. 199-208. Springer, Cham, 2019.
38. Komarasamy, Mageshwari, Tianhao Wang, Kaimiao Liu, Luis Reza-Nieto, and Rajiv S. Mishra. "Hierarchical multi-phase microstructural architecture for exceptional strength-ductility combination in a complex concentrated alloy via high-temperature severe plastic deformation." *Scripta Materialia* 162 (2019): 38-43.
39. Komarasamy, Mageshwari, Shivakant Shukla, Sarah Williams, Kumar Kandasamy, Shawn Kelly, and Rajiv S. Mishra. "Microstructure, fatigue, and impact toughness properties of additively manufactured nickel alloy 718." *Additive Manufacturing* 28 (2019): 661-675.
40. Korir, Daniel K., Bharat Gwalani, Abel Joseph, Brian Kamras, Ravi K. Arvapally, Mohammad A. Omary, and Sreekar B. Marpu. "Facile photochemical syntheses of conjoined nanotwin gold-silver particles within a biologically-benign chitosan polymer." *Nanomaterials* 9, no. 4 (2019): 596.
41. Kuo, Po‐Hsuen, Sameehan S. Joshi, Xiaonan Lu, Yee‐Hsien Ho, Ye Xiang, Narendra B. Dahotre, and Jincheng Du. "Laser coating of bioactive glasses on bioimplant titanium alloys." *International Journal of Applied Glass Science* 10, no. 3 (2019): 307-320.
42. Kwok, T. W. J., K. M. Rahman, X. Xu, I. Bantounas, J. F. Kelleher, S. Daswari, T. Alam, R. Banerjee, and D. Dye. "Design of a High Strength, High Ductility 12 wt% Mn Medium Manganese Steel With Hierarchical Deformation Behaviour." *arXiv preprint arXiv:1908.07258* (2019).
43. Lakshantha, Wickramaarachchige J., Floyd D. McDaniel, and Bibhudutta Rout. "Formation and characterization of embedded Fe3Si binary structures in Si." *Journal of Applied Physics* 125, no. 19 (2019): 195301.
44. Lee, Jihyung, Aditya Kuchibhotla, Debjyoti Banerjee, and Diana Berman. "Silica nanoparticles as copper corrosion inhibitors." *Materials Research Express* 6, no. 8 (2019): 0850e3.
45. Ley, Nathan A., Skye Segovia, Stéphane Gorsse, and Marcus L. Young. "Characterization and Modeling of NbNiTaTiW and NbNiTaTiW-Al Refractory High-Entropy Alloys." *Metallurgical and Materials Transactions A* 50, no. 10 (2019): 4867-4876.
46. Ley, Nathan A., Robert W. Wheeler, Othmane Benafan, and Marcus L. Young. "Characterization of Thermomechanically Processed High-Temperature Ni-Lean NiTi–20 at.% Hf Shape Memory Wires." *Shape Memory and Superelasticity* 5, no. 4 (2019): 476-485.
47. Liu, K., S. S. Nene, M. Frank, S. Sinha, and R. S. Mishra. "Extremely high fatigue resistance in an ultrafine grained high entropy alloy." *Applied Materials Today* 15 (2019): 525-530.
48. Liu, Kaimiao, Mageshwari Komarasamy, Bharat Gwalani, Shivakant Shukla, and Rajiv S. Mishra. "Fatigue behavior of ultrafine grained triplex Al0. 3CoCrFeNi high entropy alloy." *Scripta Materialia* 158 (2019): 116-120.
49. Lu, Xiaonan, Jessica Kolzow, Roberto R. Chen, and Jincheng Du. "Effect of solution condition on hydroxyapatite formation in evaluating bioactivity of B2O3 containing 45S5 bioactive glasses." *Bioactive materials* 4 (2019): 207-214.
50. Lu, Xiaonan, Ruofu Sun, Liping Huang, Joseph V. Ryan, John D. Vienna, and Jincheng Du. "Effect of vanadium oxide addition on thermomechanical behaviors of borosilicate glasses: Toward development of high crack resistant glasses for nuclear waste disposal." *Journal of Non-Crystalline Solids* 515 (2019): 88-97.
51. Lu, Jonathan Z., Sameehan S. Joshi, Mangesh V. Pantawane, Yee-Hsien Ho, Tso-Chang Wu, and Narendra B. Dahotre. "Optimization of biocompatibility in a laser surface treated Mg-AZ31B alloy." *Materials Science and Engineering: C* 105 (2019): 110028.
52. Mantri, S. A., F. Sun, D. Choudhuri, T. Alam, B. Gwalani, F. Prima, and R. Banerjee. "Deformation Induced Hierarchical twinning Coupled with omega transformation in a Metastable β-ti Alloy." *Scientific reports* 9, no. 1 (2019): 1-8.
53. Mantri, S. A., D. Choudhuri, A. Behera, M. Hendrickson, T. Alam, and R. Banerjee. "Role of isothermal omega phase precipitation on the mechanical behavior of a Ti-Mo-Al-Nb alloy." *Materials Science and Engineering: A* 767 (2019): 138397.
54. Mridha, Sanghita, Maryam Sadeghilaridjani, and Sundeep Mukherjee. "Activation volume and energy for dislocation nucleation in multi-principal element alloys." *Metals* 9, no. 2 (2019): 263.
55. Murguia, Silvia Briseño, Arielle Clauser, Heather Dunn, Wendy Fisher, Laura Mello, Yoav Snir, and Marcus L. Young. "NiTi shape memory alloy helixes through the hydriding–dehydring method." *Materialia* 5 (2019): 100210.
56. Nene, S. S., M. Frank, K. Liu, S. Sinha, R. S. Mishra, B. A. McWilliams, and K. C. Cho. "Corrosion-resistant high entropy alloy with high strength and ductility." *Scripta Materialia* 166 (2019): 168-172.
57. Ozigagu, Christopher, Ting Zhou, Stephen Sanders, and Teresa Golden. "CO2-saturated Salinity Environment Effects on Ni-Mo Alloys at Gas Hydrate Formation Temperatures." (2019).
58. Rathod, Urmilaben P., Bimin Cai, Chukwudi Iheomamere, Gilbert Nyandoto, Andrey A. Voevodin, and Nigel D. Shepherd. "Growth of pulsed laser deposited few-layer WS2 films." *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films* 37, no. 5 (2019): 051505.
59. Rindy, Jenna E., Alexandra G. Ponette-González, Tate E. Barrett, Rebecca J. Sheesley, and Kathleen C. Weathers. "Urban trees are sinks for soot: elemental carbon accumulation by two widespread oak species." *Environmental science & technology* 53, no. 17 (2019): 10092-10101.
60. Rizvi, Hussain R., Nandika D’Souza, Brian Ayre, and Dinesh Ramesh. "Bioinspired cellular sheath-core electrospun non-woven mesh." *Emergent Materials* 2, no. 2 (2019): 127-140.
61. Romsdahl, Trevor, Asghar Shirani, Robert E. Minto, Chunyu Zhang, Edgar B. Cahoon, Kent D. Chapman, and Diana Berman. "Nature-Guided Synthesis of Advanced Bio-Lubricants." *Scientific reports* 9, no. 1 (2019): 1-11.
62. Sadeghilaridjani, Maryam, and Sundeep Mukherjee. "Strain Gradient Plasticity in Multiprincipal Element Alloys." *JOM* 71, no. 10 (2019): 3466-3472.
63. Sadeghilaridjani, Maryam, Saideep Muskeri, Vahid Hasannaeimi, Mayur Pole, and Sundeep Mukherjee. "Strain rate sensitivity of a novel refractory high entropy alloy: Intrinsic versus extrinsic effects." *Materials Science and Engineering: A* 766 (2019): 138326.
64. Saini, Jaskaran, Harpreet S. Arora, Harpreet S. Grewal, Gopinath Perumal, Aditya Ayyagari, Riyadh Salloom, and Sundeep Mukherjee. "Excellent Corrosion Resistance of Dual‐Phase Bimodal Stainless Steel." *steel research international* 90, no. 5 (2019): 1800554.
65. Salloom, Riyadh, Aditya V. Ayyagari, and Sundeep Mukherjee. "Nanoengineered hypereutectoid steel with superior hardness and wear resistance." *Journal of Materials Engineering and Performance* 28, no. 4 (2019): 2202-2211.
66. She, Yunlong, Emmett D. Goodman, Jihyung Lee, Benjamin T. Diroll, Matteo Cargnello, Elena V. Shevchenko, and Diana Berman. "Block-co-polymer-assisted synthesis of all inorganic highly porous heterostructures with highly accessible thermally stable functional centers." *ACS applied materials & interfaces* 11, no. 33 (2019): 30154-30162.
67. She, Yunlong, Jihyung Lee, Byeongdu Lee, Benjamin Diroll, Thomas Scharf, Elena V. Shevchenko, and Diana Berman. "Effect of the micelle opening in self-assembled amphiphilic block Co-polymer films on the infiltration of inorganic precursors." *Langmuir* 35, no. 3 (2019): 796-803.
68. Singh, Abhay Pratap, Kevin Roccapriore, Zaina Algarni, Riyadh Salloom, Teresa D. Golden, and U. Philipose. "Structure and Electronic Properties of InSb Nanowires Grown in Flexible Polycarbonate Membranes." *Nanomaterials* 9, no. 9 (2019): 1260.
69. Sinha, Subhasis, Mageshwari Komarasamy, Saket Thapliyal, Bharat Gwalani, Shivakant Shukla, Kristopher A. Darling, and Rajiv S. Mishra. "Immiscible nanostructured copper-aluminum-niobium alloy with excellent precipitation strengthening upon friction stir processing and aging." *Scripta Materialia* 164 (2019): 42-47.
70. Sinha, S., S. S. Nene, M. Frank, K. Liu, R. S. Mishra, B. A. McWilliams, and K. C. Cho. "Microstructural evolution and deformation behavior of Ni-Si-and Co-Si-containing metastable high entropy alloys." *Metallurgical and Materials Transactions A* 50, no. 1 (2019): 179-190.
71. Sinha, S., R. A. Mirshams, T. Wang, S. S. Nene, M. Frank, K. Liu, and R. S. Mishra. "Nanoindentation behavior of high entropy alloys with transformation-induced plasticity." *Scientific reports* 9, no. 1 (2019): 1-11.
72. Sinha, Subhasis, Saurabh S. Nene, Michael Frank, Kaimiao Liu, Priyanka Agrawal, and Rajiv S. Mishra. "On the evolving nature of c/a ratio in a hexagonal close-packed epsilon martensite phase in transformative high entropy alloys." *Scientific reports* 9, no. 1 (2019): 1-14.
73. Sinha, S., S. S. Nene, M. Frank, K. Liu, R. S. Mishra, B. A. McWilliams, and K. C. Cho. "Revealing the microstructural evolution in a high entropy alloy enabled with transformation, twinning and precipitation." *Materialia* 6 (2019): 100310.
74. Shirani, Asghar, Qichan Hu, Yingchao Su, Tasha Joy, Donghui Zhu, and Diana Berman. "Combined Tribological and Bactericidal Effect of Nanodiamonds as a Potential Lubricant for Artificial Joints." *ACS applied materials & interfaces* 11, no. 46 (2019): 43500-43508.
75. Shirani, Asghar, Nicholas Nunn, Olga Shenderova, Eiji Osawa, and Diana Berman. "Nanodiamonds for improving lubrication of titanium surfaces in simulated body fluid." *Carbon* 143 (2019): 890-896.
76. Shirani, Asghar, Jingjing Gu, Bowen Wei, Jihyung Lee, Samir M. Aouadi, and Diana Berman. "Tribologically enhanced self-healing of niobium oxide surfaces." *Surface and Coatings Technology* 364 (2019): 273-278.
77. Torgerson, T. B., S. A. Mantri, R. Banerjee, and T. W. Scharf. "Room and elevated temperature sliding wear behavior and mechanisms of additively manufactured novel precipitation strengthened metallic composites." *Wear* 426 (2019): 942-951.
78. Tungala, Vedavyas, Aniket K. Dutt, Deep Choudhuri, Rajiv S. Mishra, Sesh A. Tamirisakandala, Kyu C. Cho, and Raymond E. Brennan. "Friction stir processing of beta C and Ti-185: A unique pathway to engineer microstructures for exceptional properties in β titanium alloys." *Metallurgical and Materials Transactions A* 50, no. 9 (2019): 4075-4084.
79. Wang, Tianhao, Bharat Gwalani, Shivakant Shukla, Michael Frank, and Rajiv S. Mishra. "Development of in situ composites via reactive friction stir processing of Ti–B4C system." *Composites Part B: Engineering* 172 (2019): 54-60.
80. Wang, Tianhao, Harpreet Sidhar, Rajiv S. Mishra, Yuri Hovanski, Piyush Upadhyay, and Blair Carlson. "Effect of hook characteristics on the fracture behaviour of dissimilar friction stir welded aluminium alloy and mild steel sheets." *Science and Technology of Welding and Joining* 24, no. 2 (2019): 178-184.
81. Wang, Tianhao, Shivakant Shukla, Bharat Gwalani, Mageshwari Komarasamy, Luis Reza-Nieto, and Rajiv S. Mishra. "Effect of reactive alloy elements on friction stir welded butt joints of metallurgically immiscible magnesium alloys and steel." *Journal of Manufacturing Processes* 39 (2019): 138-145.
82. Wang, Tianhao, Shivakant Shukla, Michael Frank, and Rajiv S. Mishra. "Evolution of bond formation and fracture process of ultrasonic spot welded dissimilar materials." *Science and Technology of Welding and Joining* 24, no. 2 (2019): 171-177.
83. Wang, Tianhao, Shivakant Shukla, Mageshwari Komarasamy, Kaimiao Liu, and Rajiv S. Mishra. "Towards heterogeneous AlxCoCrFeNi high entropy alloy via friction stir processing." *Materials Letters* 236 (2019): 472-475.
84. Wheeler, Robert W., Jesse Smith, Nathan A. Ley, Anit Giri, and Marcus L. Young. "Shape Memory Behavior of Ni 49.5 Ti 50.5 Processing-Induced Strain Glass Alloys." In *TMS 2019 148th Annual Meeting & Exhibition Supplemental Proceedings*, pp. 1411-1420. Springer, Cham, 2019.
85. Yaseen, Waleed K., Stephen F. Sanders, Ruaa M. Almotawa, Brooke M. Otten, Sonali Bhat, Domllermut C. Alamo, Sreekar B. Marpu, Teresa D. Golden, and Mohammad A. Omary. "Are Metal Complexes “Organic,” “Inorganic,” “Organometallic,” or “Metal-Organic” Materials? A case Study for the Use of Trinuclear Coinage Metal Complexes as “Metal-Organic Coatings” for Corrosion Suppression on Aluminum Substrates." *Comments on Inorganic Chemistry* 39, no. 1 (2019): 1-26.
86. Young, Avery W., Tyler Torgerson, Nathan A. Ley, Keirsten Gomez, Othmane Benafan, and Marcus L. Young. "Effects of Sn Addition on NiTi Shape Memory Alloys." *Shape Memory and Superelasticity* 5, no. 1 (2019): 125-135.
87. Young, Joshua M., Satyabrata Singh, Todd A. Byers, Daniel C. Jones, and Bibhudutta Rout. "Synthesis of crystalline phases in space silicate analogues with helium ion irradiation." *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 443 (2019): 79-83.
88. Young, Marcus L., Nathan A. Ley, Skye Segovia, Robert W. Wheeler, Omer Karakoc, Alexander Demblon, and Ibrahim Karaman. "Characterization and processing of high temperature shape memory alloys for aerospace applications." In *AIAA Scitech 2019 Forum*, p. 1196. 2019.
89. Zhang, Yinyin, Deep Choudhuri, Thomas W. Scharf, Sylvie Descartes, and Richard R. Chromik. "Tribologically induced nanolaminate in a cold-sprayed WC-reinforced Cu matrix composite: a key to high wear resistance." *Materials & Design* 182 (2019): 108009.

### ⎯ 2020 ⎯

1. Agrawal, P., S. Thapliyal, S. S. Nene, R. S. Mishra, B. A. MCwilliams, and K. C. Cho. "[Excellent strength-ductility synergy in metastable high entropy alloy by laser powder bed additive manufacturing.](https://doi.org/10.1016/j.addma.2020.101098)" *Additive Manufacturing* (2020): 101098.
2. Al Shenawa, Amaal, Seifollah Nasrazadani, and Nandika Ann D’Souza. "[Effects of Filler Type in Bismaleimide Matrix on Corrosion Resistance of Steel in Sea Salt.](https://doi.org/10.1007/s11668-020-00810-3)" *Journal of Failure Analysis and Prevention*: 1-8.
3. Argade, G. R., S. K. Panigrahi, and Rajiv S. Mishra. "[Aging response on the stress corrosion cracking behavior of wrought precipitation-hardened magnesium alloy.](https://doi.org/10.1007/s10853-019-03976-w)" *Journal of Materials Science* 55, no. 3 (2020): 1216-1230.
4. Bakkar, S., M. V. Pantawane, J. J. Gu, A. Ghoshal, M. Walock, M. Murugan, M. L. Young, N. Dahotre, D. Berman, and S. M. Aouadi. "[Laser surface modification of porous yttria stabilized zirconia against CMAS degradation.](https://doi.org/10.1016/j.ceramint.2019.11.061)" *Ceramics International* 46, no. 5 (2020): 6038-6045.
5. Chaudhary, Varun, Nartu Mohan Sai Kiran Kumar Yadav, Srinivas Aditya Mantri, Sriswaroop Dasari, Abhinav Jagetia, R. V. Ramanujan, and R. Banerjee. "[Additive manufacturing of functionally graded Co–Fe and Ni–Fe magnetic materials.](https://doi.org/10.1016/j.jallcom.2020.153817)" *Journal of Alloys and Compounds* (2020): 153817.
6. Choudhuri, Deep, Srivilliputhur G. Srinivasan, and Rajiv S. Mishra. "[Deformation of lamellar FCC-B2 nanostructures containing Kurdjumov-Sachs interfaces: Relation between interfacial structure and plasticity.](https://doi.org/10.1016/j.ijplas.2019.09.014)" *International Journal of Plasticity* 125 (2020): 191-209.
7. Cockerill, Irsalan, Yingchao Su, Subhasis Sinha, Yi-Xian Qin, Yufeng Zheng, Marcus L. Young, and Donghui Zhu. "[Porous zinc scaffolds for bone tissue engineering applications: A novel additive manufacturing and casting approach.](https://doi.org/10.1016/j.msec.2020.110738)" *Materials Science and Engineering: C* (2020): 110738.
8. Frank, M., Y. Chen, S. S. Nene, S. Sinha, K. Liu, K. An, and R. S. Mishra. "[Investigating the deformation mechanisms of a highly metastable high entropy alloy using in-situ neutron diffraction.](https://doi.org/10.1016/j.mtcomm.2019.100858)" *Materials Today Communications* 23 (2020): 100858.
9. Gwalani, B., D. Choudhuri, Kaimiao Liu, J. T. Lloyd, R. S. Mishra, and R. Banerjee. "[Interplay between single phase solid solution strengthening and multi-phase strengthening in the same high entropy alloy.](https://doi.org/10.1016/j.msea.2019.138620)" *Materials Science and Engineering: A* 771 (2020): 138620.
10. Ho, Yee-Hsien, Sameehan S. Joshi, Tso-Chang Wu, Chu-Mao Hung, New-Jing Ho, and Narendra B. Dahotre. "[In-Vitro Bio-Corrosion Behavior of Friction Stir Additively Manufactured AZ31B Magnesium Alloy-Hydroxyapatite Composites.](https://doi.org/10.1016/j.msec.2020.110632)" *Materials Science and Engineering: C* (2020): 110632.
11. Mantri, S. A., T. Alam, Y. Zheng, J. C. Williams, and R. Banerjee. "[Influence of Post Deposition Annealing on Microstructure and Properties of Laser Additively Manufactured Titanium Copper Alloys.](https://doi.org/10.1016/j.addma.2020.101067)" *Additive Manufacturing* (2020): 101067.
12. Muskeri, Saideep, Vahid Hasannaeimi, Riyadh Salloom, Maryam Sadeghilaridjani, and Sundeep Mukherjee. "[Small-scale mechanical behavior of a eutectic high entropy alloy.](https://doi.org/10.1038/s41598-020-59513-2)" *Scientific Reports* 10, no. 1 (2020): 1-12.
13. Nartu, Mohan Sai Kiran Kumar Yadav, Talukder Alam, Sriswaroop Dasari, Srinivas Aditya Mantri, Stephane Gorsse, Hector Siller, Narendra Dahotre, and Rajarshi Banerjee. "[Enhanced tensile yield strength in laser additively manufactured Al0. 3CoCrFeNi high entropy alloy.](https://doi.org/10.1016/j.mtla.2019.100522)" *Materialia* 9 (2020): 100522.
14. Nene, S. S., K. Liu, S. Sinha, M. Frank, S. Williams, and R. S. Mishra. "[Superplasticity in fine grained dual phase high entropy alloy.](https://doi.org/10.1016/j.mtla.2019.100521)" *Materialia* 9 (2020): 100521.
15. Ogunsona, Emmanuel O., Koffi L. Dagnon, and Nandika Anne D'Souza. "[Multi-Fold Enhancement in Compressive Properties of Polystyrene Foam Using Pre-delaminated Stearate Functionalized Layer Double Hydroxides.](https://doi.org/10.3390/polym12010008)" *Polymers* 12, no. 1 (2020): 8.
16. Pantawane, Mangesh V., Yee-Hsien Ho, William B. Robertson, Riaz JK Khan, Daniel P. Fick, and Narendra Dahotre. "[Thermal Assessment of Ex vivo Laser Ablation of Cortical Bone.](https://doi.org/10.1021/acsbiomaterials.9b01559)" *ACS Biomaterials Science & Engineering* (2020).
17. Sadeghilaridjani, Maryam, Aditya Ayyagari, Saideep Muskeri, Vahid Hasannaeimi, Jiechao Jiang, and Sundeep Mukherjee. "[Small-Scale Mechanical Behavior of Ion-Irradiated Bulk Metallic Glass.](https://doi.org/10.1007/s11837-019-03848-3)" *JOM* 72, no. 1 (2020): 123-129.
18. Sadeghilaridjani, Maryam, Saideep Muskeri, Mayur Pole, and Sundeep Mukherjee. "[High-Temperature Nano-Indentation Creep of Reduced Activity High Entropy Alloys Based on 4-5-6 Elemental Palette.](https://doi.org/10.3390/e22020230)" *Entropy* 22, no. 2 (2020): 230.
19. Sadeghilaridjani, Maryam, and Sundeep Mukherjee. "[High-Temperature Nano-Indentation Creep Behavior of Multi-Principal Element Alloys under Static and Dynamic Loads.](https://doi.org/10.3390/met10020250)" *Metals* 10, no. 2 (2020): 250.
20. Saideep, Muskeri, Hasannaeimi Vahid, Salloom Riyadh, Sadeghilaridjani Maryam, and Mukherjee Sundeep. "[Small-scale mechanical behavior of a eutectic high entropy alloy.](http://dx.doi.org/10.1038/s41598-020-59513-2)" *Scientific Reports (Nature Publisher Group)* 10, no. 1 (2020).
21. Salloom, R., S. S. Joshi, N. B. Dahotre, and S. G. Srinivasan. "[Laser surface engineering of B4C/Fe nano composite coating on low carbon steel: Experimental coupled with computational approach.](https://doi.org/10.1016/j.matdes.2020.108576)" *Materials & Design* (2020): 108576.
22. Senkov, O. N., J-P. Couzinie, S. I. Rao, V. Soni, and R. Banerjee. "[Temperature dependent deformation behavior and strengthening mechanisms in a low density refractory high entropy alloy Al10Nb15Ta5Ti30Zr40.](https://doi.org/10.1016/j.mtla.2020.100627)" *Materialia* (2020): 100627.
23. Shi, Jiangtao, Mumukshu D. Patel, Liping Cai, Wonbong Choi, and Sheldon Q. Shi. "[Self-support wood-derived carbon/polyaniline composite for high-performance supercapacitor electrodes.](https://doi.org/10.1007/s12034-019-1966-2)" *Bulletin of Materials Science* 43, no. 1 (2020): 5.
24. Shirani, Asghar, Tasha Joy, Ida Lager, Jenny Lindberg Yilmaz, Hong-Lei Wang, Simon Jeppson, Edgar B. Cahoon, Kent Chapman, Sten Stymne, and Diana Berman. "[Lubrication characteristics of wax esters from oils produced by a genetically-enhanced oilseed crop.](https://doi.org/10.1016/j.triboint.2020.106234)" *Tribology International* (2020): 106234.
25. Shukla, Shivakant, and Rajiv S. Mishra. "[Excellent high cyclic fatigue properties of a novel ultrafine-grained medium entropy alloy.](https://doi.org/10.1016/j.msea.2020.139122)" *Materials Science and Engineering: A* (2020): 139122.
26. Shukla, Shivakant, Tianhao Wang, Michael Frank, Priyanshi Agrawal, Subhasis Sinha, R. A. Mirshams, and Rajiv S. Mishra. "[Friction stir gradient alloying: A novel solid-state high throughput screening technique for high entropy alloys.](https://doi.org/10.1016/j.mtcomm.2019.100869)" *Materials Today Communications* 23 (2020): 100869.
27. Sinha, Subhasis, Mageshwari Komarasamy, Tianhao Wang, Ravi Sankar Haridas, Priyanka Agrawal, Shivakant Shukla, Saket Thapliyal, Michael Frank, and Rajiv S. Mishra. "[Notch-tensile behavior of Al0. 1CrFeCoNi high entropy alloy.](https://doi.org/10.1016/j.msea.2020.138918)" *Materials Science and Engineering: A* (2020): 138918.
28. Sinha, S., S. S. Nene, M. Frank, K. Liu, R. A. Lebensohn, and R. S. Mishra. "[Deformation mechanisms and ductile fracture characteristics of a friction stir processed transformative high entropy alloy.](https://doi.org/10.1016/j.actamat.2019.11.056)" *Acta Materialia* 184 (2020): 164-178.
29. Soni, V., B. Gwalani, T. Alam, S. Dasari, Y. Zheng, O. N. Senkov, D. Miracle, and R. Banerjee. "[Phase inversion in a two-phase, BCC+ B2, refractory high entropy alloy.](https://doi.org/10.1016/j.actamat.2019.12.004)" *Acta Materialia* 185 (2020): 89-97.
30. Soni, V., O. N. Senkov, J-P. Couzinie, Y. Zheng, B. Gwalani, and R. Banerjee. "[Phase stability and microstructure evolution in a ductile refractory high entropy alloy Al10Nb15Ta5Ti30Zr40.](https://doi.org/10.1016/j.mtla.2019.100569)" *Materialia* 9 (2020): 100569.
31. Thomas, J., J. E. Mogonye, S. A. Mantri, D. Choudhuri, R. Banerjee, and T. W. Scharf. "[Additive Manufacturing of Compositionally Graded Laser Deposited Titanium-Chromium Alloys.](https://doi.org/10.1016/j.addma.2020.101132)" *Additive Manufacturing* (2020): 101132.
32. Wall, Michael T., Mangesh V. Pantawane, Sameehan Joshi, Faith Gantz, Nathan A. Ley, Rob Mayer, Andy Spires, Marcus L. Young, and Narendra Dahotre. "[Laser-coated CoFeNiCrAlTi high entropy alloy onto a H13 steel die head.](https://doi.org/10.1016/j.surfcoat.2020.125473)" *Surface and Coatings Technology* (2020): 125473.
33. Wang, Tianhao, Subhasis Sinha, Mageshwari Komarasamy, Shivakant Shukla, Sarah Williams, and Rajiv S. Mishra. "[Ultrasonic spot welding of dissimilar Al 6022 and Al 7075 alloys.](https://doi.org/10.1016/j.jmatprotec.2019.116460)" *Journal of Materials Processing Technology* 278 (2020): 116460.

Abstracts, Proceedings and Letters

1. Gorman, B., David Diercks, Michael Kaufman, Rob Ulfig, Dan Lawrence, Keith Thompson, and D. Larson. "[Atomic scale compositional and structural characterization of nanostructured materials using combined FIB, STEM, and LEAP](http://dx.doi.org/10.1017/S1431927606066979)." *Microscopy and Microanalysis* 12, no. S02 (2006): 1720-1721.
2. Lawrence, D., K. Thompson, D. J. Larson, and B. Gorman. "[Site-specific lift out sample preparation technique for atom probe analysis](http://dx.doi.org/10.1017/S1431927606064099)." *Microscopy and Microanalysis* 12, no. S02 (2006): 1742-1743.
3. Thompson, K., B. Gorman, D. Larson, Brandon van Leer, and Liang Hong. "[Minimization of Ga induced FIB damage using low energy clean-up](http://dx.doi.org/10.1017/S1431927606065457)." *Microscopy and Microanalysis* 12, no. S02 (2006): 1736-1737.
4. Fraser, H., and A. Genç. "[Use of Dark-field STEM Imaging to Reveal Phase Separation in a β-Stabilized Titanium Alloy](http://dx.doi.org/10.1017/S1431927607079317)." *Microscopy and Microanalysis* 13, no. S02 (2007): 1200-1201.
5. Genç, A. "[3D Atom Probe Tomography and High Resolution Electron Microscopy of Immiscible Copper/Niobium Metallic Multilayers](http://dx.doi.org/10.1017/S1431927607077975)." *Microscopy and Microanalysis* 13, no. S02 (2007): 192-193.
6. Genç, A. "[Use of Dark-field STEM Imaging to Reveal Phase Separation in a Beta-stabilized Titanium Alloy](http://dx.doi.org/10.1017/S1431927607077938)." *Microscopy and Microanalysis* 13, no. S02 (2007): 896-897.
7. Gorman, B. "[Atom probe reconstruction refinements by pre-and post-analysis TEM structure quantification](http://dx.doi.org/10.1017/S1431927607079408)." *Microscopy and Microanalysis* 13, no. S02 (2007): 1616-1617.
8. Nag, S., R. Banerjee, A. Puthucode, and A. Genç. "[Probing Elemental Partitioning between Alpha and Beta Phases in Titanium Alloys Using 3D Atom Probe Tomography](http://dx.doi.org/10.1017/S1431927607078014)." *Microscopy and Microanalysis* 13, no. S02 (2007): 1622-1623.
9. Genç, A. "[3D Atom Probe Tomography and High Resolution Electron Microscopy of Immiscible Copper/Niobium Metallic Multilayers](http://dx.doi.org/10.1017/S1431927607077975)." *Microscopy and Microanalysis* 13, no. S02 (2007): 192-193.
10. Ulfig, Robert M., Kieth Thompson, Roger Alvis, Joeseph Bunton, Brian Gorman, and David Larson. "[Three-Dimensional Compositional Characterization of High-k Gate Dielectrics with LEAP Atom Probe Tomography](http://dx.doi.org/10.1149/1.2728823)." *ECS Transactions* 6, no. 3 (2007): 607-620. 211th ECS Meeting, May 6-May 10, 2007 Chicago, Illinois, *Silicon Nitride, Silicon Dioxide, and Emerging Dielectrics 9*, Editor(s): R. Ekwal Sah, M. Deen, Y. Kamakura, J. Yota, J. Zhang
11. Genç, Arda, Rajarshi Banerjee, Andrew WS Johnson, and Hamish L. Fraser. "[Probing the Composition Variations in Nanoscale Multilayers](http://dx.doi.org/10.1017/S1431927608084870)." *Microscopy and Microanalysis* 14, no. S2 (2008): 1396-1397.
12. Gorman, B. P., D. R. Diercks, and D. Jaeger. "[3-D Cross-Correlation of Atom Probe and STEM Tomography](http://dx.doi.org/10.1017/S1431927608088417)." *Microscopy and Microanalysis* 14, no. S2 (2008): 1042-1043.
13. Hwang, J., R. Banerjee, and M. Kaufman. "[Characterization of Precipitation Behavior in a Spray-Formed Al-Zn-Mg Alloy Using a Combination of Transmission Electron Microscopy and Three Dimensional Atom Probe Tomography](http://dx.doi.org/10.1017/S1431927608088181)." *Microscopy and Microanalysis* 14, no. S2 (2008): 1240-1241.
14. Nag, S., A. Genç, R. Banerjee, and H. L. Fraser. "[Atomic Resolution Imaging of Solid State Phase Separation in a Beta-Stabilized Titanium Alloy](http://dx.doi.org/10.1017/S1431927608087345)." *Microscopy and Microanalysis* 14, no. S2 (2008): 848-849.
15. Poudel, Prakash R., K. Hossain, J. Li, B. Gorman, A. Neogi, B. Rout, J. L. Duggan, and F. D. McDaniel. "[Characterization and light emission properties of osmium silicides synthesized by low energy ion implantation](http://dx.doi.org/10.1557/PROC-1066-A07-11)." In *MRS Proceedings*, vol. 1066, pp. 1066-A07. Cambridge University Press, 2008.
16. Srinivasan, R., A. Genc, R. Banerjee, J. Y. Hwang, J. Tiley, G. B. Viswanathan, and H. L. Fraser. "[Coupling LEAP and HRSTEM to study the nanoscale structure and chemistry of interfaces](http://dx.doi.org/10.1017/S1431927608087291)." *Microscopy and Microanalysis* 14, no. S2 (2008): 376-377.
17. Devaraj, A., R. E. A. Williams, S. Nag, R. Srinivasan, H. L. Fraser, and R. Banerjee. "[Investigations of omega precipitation in titanium molybdenum alloys by coupling 3D atom probe tomography and high resolution (S) TEM](http://dx.doi.org/10.1017/S1431927609097086)." *Microscopy and Microanalysis* 15, no. S2 (2009): 268-269.
18. Diercks, D., B. P. Gorman, Chin Li Cheung, and G. Wang. "[Techniques for consecutive TEM and atom probe tomography analysis of nanowires](http://dx.doi.org/10.1017/S1431927609093398)." *Microscopy and Microanalysis* 15, no. S2 (2009): 254-255.
19. Evans, James E., Ilke Arslan, David L. Jaeger, Emmanuelle A. Marquis, Brian P. Gorman, and Nigel D. Browning. "[3-D Atom Probe Tomography of Resin Embedded Samples?](http://dx.doi.org/10.1017/S1431927609098973)." *Microscopy and Microanalysis* 15, no. S2 (2009): 274-275.
20. Giannuzzi, Lucille A., and Brian P. Gorman. "[30 keV Ga+ FIB Induced X-Rays (FIBIX) of Conductive Materials](http://dx.doi.org/10.1017/S1431927609093453)." *Microscopy and Microanalysis* 15, no. S2 (2009): 478-479.
21. Hwang, J. Y., S. Nag, A. R. P. Singh, G. B. Viswanathan, J. Tiley, R. Srinivasan, H. L. Fraser, and R. Banerjee. "[Study of Compositional Gradients Across the γ/γ Interface in Ni-base Superalloys Using 3D Atom Probe Tomography](http://dx.doi.org/10.1017/S1431927609097128)." *Microscopy and Microanalysis* 15, no. S2 (2009): 308-309.
22. Diercks, David, Guoda Lian, Jayhoon Chung, and Michael Kaufman. "[Direct Comparison of Convergent Beam Electron Diffraction and Geometric Phase Analysis for Local Strain Measurement.](http://dx.doi.org/10.1017/S143192761005645X)" *Microscopy and Microanalysis* 16, no. S2 (2010): 742-743.
23. Gorman, B. P., J. Ballard, M. Romanes, D. Jaeger, R. Reidy, and J. Randall. "[Mediation of electrostatic discharge induced morphological damage in atomically precise tips](http://dx.doi.org/10.1017/s1431927610059878)." *Microscopy and Microanalysis* 16, no. S2 (2010): 480-481.
24. Ballard, Joshua, Justin Alexander, Adrian Radocea, Maia Bischof, David Jaeger, John Randall, Brian Gorman, Jim Von Ehr, and Rick Reidy. "[Deterministic Single Atom STM Tip Technology for Atomically Precise Manufacturing](http://absimage.aps.org/image/MAR11/MWS_MAR11-2010-006285.pdf)." In *APS Meeting Abstracts*, vol. 1, p. 21005. 2011.
25. Bischof, Maia, David Jaeger, Joshua Ballard, Justin Alexander, John Randall, Richard Reidy, Brian Gorman, Jim Von Ehr, and Atomically Collaboration. "[Atmospheric Stability of Tungsten STM Tips for Atomically Precise Manufacturing (APM)](http://absimage.aps.org/image/MAR11/MWS_MAR11-2010-003338.pdf)." In *APS Meeting Abstracts*, vol. 1, p. 21006. 2011.
26. DeLeon, Vallerie, and Teresa D. Golden. "[Effect of electrochemical parameters on the morphology and Ca/P ratios of deposited apatite coatings on metal and alloy substrates.](http://ecst.ecsdl.org/content/33/21/43.short)" *ECS Transactions* 33, no. 21 (2011): 43-50.
27. Diercks, D., C. Cheung, and J. Brewer. "[Transmission Electron Microscopy and Atom Probe Tomography Analysis of Rare-Earth Hexaboride Nanowires.](http://dx.doi.org/10.1017/S1431927611004557)" *Microscopy and Microanalysis* 17, no. S2 (2011): 736-737.
28. Han, Kunhee, Lilly Q. Guo, Nigel D. Shepherd, and Meng Tao. "[Electrical and optical properties of yttrium-doped zinc oxide by spray pyrolysis for solar cell applications](http://dx.doi.org/10.1109/PVSC.2011.6186190)." In *Photovoltaic Specialists Conference (PVSC), 2011 37th IEEE*, pp. 001275-001279. IEEE, 2011.
29. Lahiri, Indranil, Sung-Woo Oh, Yang-Kook Sun, and Wonbong Choi. "[High specific capacity and excellent stability of interface-controlled MWCNT based anodes in lithium ion battery](http://dx.doi.org/10.1557/opl.2011.1392)." In *MRS Proceedings*, vol. 1313, pp. mrsf10-1313. Cambridge University Press, 2011.
30. McMurray, S., B. Gorman, and D. Diercks. "[TEM and atom probe investigation of calcium carbonate precipitation in seawater.](http://dx.doi.org/10.1017/S1431927611004661)" *Microscopy and Microanalysis* 17, no. S2 (2011): 758-759.
31. Philipose, U., Gopal Sapkota, Pradeep Gali, and Prathyusha Nukala. "[A Study of Point Defects and Cause of Nonstoichiometry in InSb Nanowires.](http://dx.doi.org/10.1557/opl.2011.215)" In *MRS Proceedings*, vol. 1302, pp. mrsf10-1302. Cambridge University Press, 2011.
32. Rimal, Sirish, Nick Ross, Karthikeyan S. Pillai, Kanwal Jit Singh, and Oliver Chyan. "[Characterization of Post Etch Residues on Patterned Porous Low-k Dielectric Using Multiple Internal Reflection Infrared Spectroscopy](http://dx.doi.org/10.1149/1.3630859)." *ECS Transactions* 41, no. 5 (2011): 315-322.
33. Lee, K. M., R. Shrestha, D. Ghanta, E. Cross, M. Londono, A. Dangol, and T-Y. Choi. "[Novel high-precision micropipette thermal sensor for materials thermal characterizations.](http://dx.doi.org/10.1109/itherm.2012.6231542)" In *Thermal and Thermomechanical Phenomena in Electronic Systems (ITherm), 2012 13th IEEE Intersociety Conference on*, pp. 1065-1069. IEEE, 2012.
34. Mohseni, Hamidreza, Benedict A. Mensah, Niraj Gupta, Srivilliputhur G. Srinivasan, and Thomas W. Scharf. "[On tailoring the nanocrystalline structure of ZnO to achieve low friction](http://search.proquest.com/openview/a3df5afc2ae919878be63dbd7d09532c/1?pq-origsite=gscholar)." *Tribology & Lubrication Technology* 68, no. 1 (2012): 17.
35. Ballard, J. B., J. H. G. Owen, Emmerich Fuchs, S. McDonnell, D. Dick, G. Mordi, A. Azcatl et al. "[Atomically-precise three-dimensional top down fabrication](http://dx.doi.org/10.1109/transducers.2013.6626878)." In *Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS & EUROSENSORS XXVII), 2013 Transducers & Eurosensors XXVII: The 17th International Conference on*, pp. 764-767. IEEE, 2013.
36. Barker, Gregory, Tre Welch, Nandika D’Souza, Alan Nugent, and Robert Eberhart. "[Influence of CO2 Blowing Agent on Porous Bioresorbable Stent Structure](http://dx.doi.org/10.1115/sbc2013-14073)." In *ASME 2013 Summer Bioengineering Conference*, Vol. 1B (June 26, 2013): V01BT53A001.
37. Lutkenhaus, Jeffrey, David George, David Garrett, Hualiang Zhang, and Yuankun Lin. "[Holographic fabrication of nano-optical devices using single reflective optical element](http://dx.doi.org/10.1117/12.2002622)." In *SPIE MOEMS-MEMS*, pp. 86130O-86130O. International Society for Optics and Photonics, 2013. Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VI (March 5, 2013).
38. Lutkenhaus, Jeffrey, David George, Kris Ohlinger, Hualiang Zhang, Zsolt Poole, Kevin P. Chen, and Yuankun Lin. "[Holographic fabrication of woodpile-type photonic crystal templates using silicon based single reflective optical element](http://dx.doi.org/10.1117/12.2002882)." In *SPIE MOEMS-MEMS*, pp. 86131C-86131C. International Society for Optics and Photonics, 2013. Advanced Fabrication Technologies for Micro/Nano Optics and Photonics VI (March 5, 2013).
39. Nag, S., A. Devaraj, N. Gupta, R. Williams, S. Srivilliputhur, H. L. Fraser, and R. Banerjee. "[Coupling Atom Probe Tomography with Aberration-Corrected Scanning Transmission Electron Microscopy and First-Principles Computations to Investigate Omega Precipitation in Titanium Alloys.](http://dx.doi.org/10.1017/S1431927613006727)" *Microscopy and Microanalysis* 19, no. S2 (2013): 946-947.
40. Rout, Bibhudutta, Mangal S. Dhoubhadel, Prakash R. Poudel, Venkata C. Kummari, Bimal Pandey, Naresh T. Deoli, Wickramaarachchige J. Lakshantha et al. "[An overview of the facilities, activities, and developments at the University of North Texas Ion Beam Modification and Analysis Laboratory (IBMAL)](http://dx.doi.org/10.1063/1.4813454)." In *Radiation Physics: IX International Symposium on Radiation Physics*, vol. 1544, no. 1, pp. 11-18. AIP Publishing, 2013.
41. Sondhi, R.F. Reidy, and T.W. Scharf, “Deciphering the Discipline - Understanding the Mechanism of Zirconia to Zirconium Carbide Conversion for Ultra-high Temperature Ceramic Applications,” *American Ceramics Society Bulletin,* 92(6), 56 (2013).
42. Hitesh D. Vora and Narendra B. Dahotre, “Laser Machining of Structural Ceramics” *American Ceramics Society Bulletin*, Vol. 92, No. 5, pp: 29-30, 2013
43. Rout, Bibhudutta, Mangal S. Dhoubhadel, Prakash R. Poudel, Venkata C. Kummari, Wickramaarachchige J. Lakshantha, Jack E. Manuel, Gyanendra Bohara, Szabolcs Z. Szilasi, Gary A. Glass, Floyd D. McDaniel, “[On beam materials analysis and modification at keV to MeV energies at the University of North Texas](http://dx.doi.org/10.1142/s2010194514601471).” *International Journal of Modern Physics: Conference Series Vol 27, 1460147 (2014): 1460147. Proceedings of the 2013 International Conference on Applications of Nuclear Techniques (CRETE13) Crete, Greece, June 23-29, 2013, Editors: George Vourvopoulos, Robert Hamm, and Marianne Hamm.*
44. Coker, Zachary, Henry Diaz, Nandika D'Souza, and Tae-Youl Choi. "[Boron Nitride Nanoparticles-based thermal adhesives for thermal management of high-temperature electronics](http://dx.doi.org/10.1109/itherm.2014.6892312)." In *Thermal and Thermomechanical Phenomena in Electronic Systems (ITherm), 2014 IEEE Intersociety Conference on*, pp. 421-425. IEEE, 2014.
45. Dhoubhadel, Mangal S., Bibhudutta Rout, Wickramaarachchige J. Lakshantha, Sushanta K. Das, Francis D’Souza, Gary A. Glass, and Floyd D. McDaniel. "[Investigation of structural and optical properties of Ag nanoclusters formed in Si (100) after multiple implantations of low energies Ag ions and post-thermal annealing at a temperature below the Ag-Si eutectic point](http://dx.doi.org/10.1063/1.4890698)." In *AIP Conf. Proc*, vol. 1607, pp. 16-23. 2014.
46. Carl, Matthew, Chris A. Smith, and Marcus L. Young. "[Dual-Beam Scanning Electron Microscope (SEM) and Focused Ion Beam (FIB): A Practical Method for Characterization of Small Cultural Heritage Objects](http://dx.doi.org/10.1557/opl.2014.873)." In *MRS Proceedings*, vol. 1656, pp. mrsf13-1656. Cambridge University Press, 2015.
47. Carl, Matthew, Victoria Garcia, Brian Van Doren, Scott Schlegel, and Marcus Young. "[Effect of Heat Treating on Precipitate Phases in NiTiHf](http://dx.doi.org/10.1115/smasis2015-8957)." In *ASME 2015 Conference on Smart Materials, Adaptive Structures and Intelligent Systems*, pp. V001T01A011-V001T01A011. American Society of Mechanical Engineers, 2015.
48. Choudhuri, Deep, David L Jaeger, Srinivasan Srivilliputhur, Mark A Gibson, and Rajarshi Baneijee. “[Creep Response of a Zn Containing Mg-Nd-La Alloy.](http://dx.doi.org/10.1002/9781119093428.ch10)” *Magnesium Technology 2015* (February 16, 2015): 35–39.
49. Dhoubhadel, Mangal S., Wickramaarachchige J. Lakshantha, Sherard Lightbourne, Francis D’Souza, Bibhudutta Rout, and Floyd D. McDaniel. "[Improvement in the photocurrent collection due to enhanced absorption of light by synthesizing staggered layers of silver nanoclusters in silicon.](http://dx.doi.org/10.1063/1.4927180)" In *Radiation Physics: XI International Symposium on Radiation Physics*, vol. 1671, p. 020003. AIP Publishing, 2015.
50. Rimal, Sirish, Tamal Mukherjee, Arindom Goswami, Nick Ross, and Oliver Chyan. "[Exploration of Chemical Bonding Transformation Mapping to Assist Low-k Dielectric Nanostructure Fabrication.](http://dx.doi.org/10.1149/06641.0001ecst)" *ECS Transactions* 66, no. 41 (2015): 1-13.
51. Shrestha, K., D. Whitfield, V. C. Lopes, A. J. Syllaios, and C. L. Littler. "[Electrical Conductivity and Structural Order of p-Type Amorphous Silicon Thin Films](http://dx.doi.org/10.1557/opl.2014.962)." In *MRS Proceedings*, vol. 1757, pp. mrsf14-1757. Cambridge University Press, 2015.
52. Borkar, Tushar, Soumya Nag, Jaimie Tiley, and Rajarshi Banerjee. "[Titanium Based Metal‐Matrix Composites via In‐Situ Nitridation](http://dx.doi.org/10.1002/9781119296126.ch222)." In *Proceedings of the 13th World Conference on Titanium*, pp. 1311-1316. John Wiley & Sons, Inc.
53. Choudhuri, D., T. Alam, Y. Zheng, R. Shi, S. G. Srivilliputhur, H. L. Fraser, and R. Banerjee. "[Morphological and Compositional Evolution of Omega Phase Precipitates and its Consequent Influence on Alpha Precipitation in Ti‐V Alloys](http://dx.doi.org/10.1002/9781119296126.ch85)." In *Proceedings of the 13th World Conference on Titanium*, pp. 535-538. John Wiley & Sons, Inc.
54. Hagag, Mohamed A., Vladimir Drachev, and Alex Kildishev. "[Characterizing NL response of metal-dielectric metasurfaces](https://www.osapublishing.org/abstract.cfm?uri=CLEO_QELS-2016-JW2A.31)." In *CLEO: QELS\_Fundamental Science*, pp. JW2A-31. Optical Society of America, 2016.
55. Mantri, S. A., D. Choudhuri, J. D. Cotton, and R. Banerjee. "[Influence of Fine Scale Alpha Precipitation on the Mechanical Properties of Beta‐21S Commercial Ti Alloy](http://dx.doi.org/10.1002/9781119296126.ch105)." In *Proceedings of the 13th World Conference on Titanium*, pp. 637-640. John Wiley & Sons, Inc.
56. Seifi, Mohsen, Iman Ghamarian, Peyman Samimi, P. C. Collins, and J. J. Lewandowski. "[Microstructure and mechanical properties of Ti-48Al-2Cr-2Nb manufactured via electron beam melting](http://dx.doi.org/10.1002/9781119296126.ch223)." In *Ti-2015: The 13th World Conference on Titanium*. 2016.
57. Zheng, Yufeng, John M. Sosa, Robert EA Williams, Yunzhi Wang, Rajarshi Banerjee, and Hamish L. Fraser. "[Development of Ultrafine α Microstructures in a Metastable β Titanium Alloy](http://dx.doi.org/10.1002/9781119296126.ch83)." In *Proceedings of the 13th World Conference on Titanium*, pp. 521-527. John Wiley & Sons, Inc.
58. Gwalani, Bharat, Talukder Alam, Mike Kaufman, and Raj Banerjee. "[Grain Boundary Precipitation in Ni Based Superalloy 690 Investigated via Site-specific Atom Probe Microscopy](https://doi.org/10.1017/S1431927616008345)." *Microscopy and Microanalysis* 22, no. S3 (2016): 1500-1501.
59. Gwalani, Bharat, Vishal Soni, Talukder Alam, and Raj Banerjee. "[Designing and characterizing a complex concentrated gamma/gamma prime ‘superalloy’](https://doi.org/10.1017/S1431927616004219)." *Microscopy and Microanalysis* 22, no. S3 (2016): 672-673.
60. Alam, Talukder, Rajarshi Banerjee, and Hamish L. Fraser. "Investigation of Novel Phase Transformation Mechanisms in Titanium Alloys Using Atom Probe and Aberration-Corrected Scanning Transmission Electron Microscope." *Microscopy and Microanalysis* 23, no. S1 (2017): 730-731.
61. Carl, Matthew, Chris A. Smith, and Marcus L. Young. "Dual-Beam Scanning Electron Microscope (SEM) and Focused Ion Beam (FIB): A Practical Method for Characterization of Small Cultural Heritage Objects." *MRS Online Proceedings Library Archive* 1656 (2017): 355-369.
62. Chyan, O., N. Ross, M. Asokan, A. Lambert, S. Berhe, M. Chowdhury, S. O. Connor, and L. Nguyen. "Mechanistic Investigation and Prevention of Al Bond Pad Corrosion in Cu Wire-Bonded Device Assembly." In *2017 IEEE 67th Electronic Components and Technology Conference (ECTC)*, pp. 1179-1186. IEEE, 2017.
63. Asokan, Muthappan, Josh Caperton, Zach Thompson, Oliver Chyan, Mahmud Chowdhury, Shawn O'Connor, and Luu Nguyen. "[Novel Corrosion Prevention Treatments for Cu Wire Bonded Device to Improve Bonding Reliability.](https://doi.org/10.1109/ECTC.2018.00029)" In *2018 IEEE 68th Electronic Components and Technology Conference (ECTC)*, pp. 139-143. IEEE, 2018.

Book Chapters

1. Banerjee, Rajarshi, and Soumya Nag. "[Laser Processing of Orthopedic Biomaterials](http://dx.doi.org/10.1002/9780470891315.ch9)", *Advanced Biomaterials: Fundamentals, Processing, and Applications* (eds B. Basu, D. S. Katti and A. Kumar), John Wiley & Sons, Inc., Hoboken, NJ, USA. (2009): 277-322.
2. Nag, Soumya and Rajarshi Banerjee, “[Fundamentals of Medical Implant Materials](http://www.asminternational.org/search/-/journal_content/56/10192/ASMHBA0005682/PUBLICATION;jsessionid=D798F8D8D6568B4056A4B449A326D124?p_p_id=56_INSTANCE_0000&p_p_lifecycle=0&p_p_state=maximized&p_p_mode=view)”, *ASM Handbook vol. 23, Materials for Medical Devices*, ed. R. Narayan, ASM International (2012): 6-14.
3. S. Santhanakrishnan Narendra B. Dahotre, “Laser Surface Hardening”, ASM Handbook, Volume 4A, Steel Heat Treating Fundamentals and Processes, Editors: Jon Dossett and George E. Totten, pp. 1-26, American Society for Materials (ASM) International, Materials Park, Ohio, 2013.
4. Decina, S. M., A. G. Ponette-González, and J. E. Rindy. "[Urban tree canopy effects on water quality via inputs to the urban ground surface.](https://doi.org/10.1007/978-3-030-26086-6_18)" In *Forest-Water Interactions*, pp. 433-457. Springer, Cham, 2020.

## Masters Theses & PhD Dissertations

### ⎯ 2007 ⎯

1. Diercks, David Robert. 2007. "[Measurement of Lattice Strain and Relaxation Effects in Strained Silicon using x-Ray Diffraction and Convergent Beam Electron Diffraction](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304814974?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3288256.)
2. Hwang, Junyeon. 2007. "[Characterization and Mechanical Properties of Nanoscale Precipitates in Modified Aluminum-Silicon-Copper Alloys using Transmission Electron Microscopy and Three-Dimensional Atom Probe Tomography.](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304829353?accountid=7113)" PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3276445.)
3. Maranon, Walter. 2007. “[Characterization of Boron Nitride Thin Films on Silicon (100) Wafer](http://digital.library.unt.edu/ark%3A/67531/metadc3942/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
4. Ogunsona, Emmanuel Olusegun. 2007. “[Supercritical CO2 foamed biodegradable polymer blends of polycaprolactone and Mater-Bi](http://digital.library.unt.edu/ark%3A/67531/metadc5136/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
5. Olea Mejia, Oscar Fernando. 2007. "[Micro and Nano Composites Composed of a Polymer Matrix and a Metal Disperse Phase](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304815285?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3300967.)
6. Puthucode Balakrishnan, Anantharamakrishnan. 2007. "[Amorphization and De-Vitrification in Immiscible Copper-Niobium Alloy Thin Films](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304829530?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1446613.)
7. Sahu, Laxmi Kumari. 2007. "[Bulk and Interfacial Effects on Density in Polymer Nanocomposites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304815264?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3276464.)
8. Samuel, Sonia. 2007. "[Surface Engineering and Characterization of Laser Deposited Metallic Biomaterials](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304817595?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1446615.)
9. Srivastava, Ashish Kumar. 2007. "[Orientation, Microstructure and Pile-Up Effects on Nanoindentation Measurements of FCC and BCC Metals](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304814990?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1458677.)
10. Ukirde, Vaishali. 2007. "[Trapping of Hydrogen in Hafnium-Based High Kappa Dielectric Thin Films for Advanced CMOS Applications](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304815223?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3300979.)
11. Venkataraman, Shyam S. 2007. “[Electrodeposition of Copper on Ruthenium Oxides and Bimetallic Corrosion of Copper/Ruthenium in Polyphenolic Antioxidants](http://digital.library.unt.edu/ark%3A/67531/metadc3908/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.

### ⎯ 2008 ⎯

1. Chonkaew, Wunpen. 2008. "[Modifications of Epoxy Resins for Improved Mechanical and Tribological Performances and their Effects on Curing Kinetics](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304544841?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3326786.)
2. Garner, Brett William. 2008. “[Multifunctional Organic-Inorganic Hybrid Nanophotonic Devices](http://digital.library.unt.edu/ark%3A/67531/metadc6108/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
3. Hagg Lobland, Haley E. 2008. "[Definition of Brittleness: Connections between Mechanical and Tribological Properties of Polymers](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304549550?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3352088.)
4. Kosuri, Divya. 2008. "[Polyethylene-Layered Double Hydroxides and Montmorillonite Nanocomposites: Thermal, Mechanical and Flame Retardance Properties](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304544767?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1458659.)
5. Kumar, Nakka Ravi. 2008. "[Flow Accelerated Corrosion Experience at Comanche Peak Steam Electric Station](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304552178?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1458669.)
6. Li, Jianyou. 2008. “[Oligonucleotide guanosine conjugated to gallium nitride nano-structures for photonics](http://digital.library.unt.edu/ark%3A/67531/metadc9065/)*.*” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
7. Romanes, Maia Castillo. 2008. "[Structure and Low-Temperature Tribology of Lubricious Nanocrystalline Zinc oxide/aluminium Oxide Nanolaminates and Zirconium Dioxide Monofilms Grown by Atomic Layer Deposition](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304552795?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3376050.)
8. Shaito, Ali Al-Abed. 2008. "[Long Term Property Prediction of Polyethylene Nanocomposites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304549626?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3376052.)
9. Srivastava, Ashish Kumar. 2008. “[Orientation, Microstructure and Pile-Up Effects on Nanoindentation Measurements of FCC and BCC Metals](http://digital.library.unt.edu/ark%3A/67531/metadc6050/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
10. Sudoi, Elias K. 2008. "[Factors Influencing Horizontal Cracking in Continuously Reinforced Concrete Pavements (CRCP)](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304554770?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1463575.)

### ⎯ 2009 ⎯

1. Cottier, Ryan James. 2009. "[Growth and Characterization of β-Iron Disilicide, β-Iron Silicon Germanide, and Osmium Silicides](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304962815?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3399406.)
2. Dagnon, Koffi Leonard. 2009. "[Thermophysical, Interfacial and Decomposition Analyses of Polyhydroxyalkanoates Introduced Against Organic and Inorganic Surfaces](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304964164?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3399410.)
3. Dutta, Madhuri. 2009. "[Modified Epoxy Coatings on Mild Steel: A Study of Tribology and Surface Energy](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304964007?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1481522.)
4. Martinez, Nelson. 2009. "[Wettability of Silicon, Silicon Dioxide, and Organosilicate Glass](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304964647?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1481547.)
5. Ogbomo, Sunny Minister. 2009. "[Processing, Structure Property Relationships in Polymer Layer Double Hydroxide Multifunctional Nanocomposites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304964257?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3399438.)
6. Tu, Wei-Lun. 2009. "[Processing, Structure, and Tribological Property Interrelationships in Sputtered Nanocrystalline Zinc Oxide Coatings](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304963338?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1481566.)
7. Yang, Fan. 2009. “[Study of Silver Deposition on Silicon (100) by IR Spectroscopy and Patina Formation Study of Oxygen Reduction Reaction on Ruthenium or Platinum](http://digital.library.unt.edu/ark%3A/67531/metadc12216/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
8. Zhou, Jun. 2009. "[Stimuli-Responsive Microgels for Self-Assembled Crystalline Structures and Controlled Drug Release](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/304963278?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3385819.)

### ⎯ 2010 ⎯

1. Gopagoni, Sundeep. 2010. "[Microstructure Evolution in Laser Deposited Nickel-Titanium-Carbon in Situ Metal Matrix Composite](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/863479178?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1492890.)
2. Huang, Shih-huang. 2010. “[Synthetic, Mechanistic, and Structural Studies of Polynuclear Metal Clusters and Hydrazido-Substituted Tantalum(V) Compounds](http://digital.library.unt.edu/ark%3A/67531/metadc33166/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
3. Mahendrakar, Sridhar. 2010. "[Maleic Anhydride Grafted Polypropylene Coatings on Steel: Adhesion and Wear](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/744523581?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1485555.)
4. Mensah, Benedict Anyamesem. 2010. "[Growth, Structure and Tribological Properties of Atomic Layer Deposited Lubricious Oxide Nanolaminates](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/863649369?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3452011.)
5. Osei-Yiadom, Eric. 2010. "[Effects of Plasma, Temperature and Chemical Reactions on Porous Low Dielectric Films for Semiconductor Devices](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/863649575?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3452014.)
6. Wilks, Justin. 2010. "[Free Radical Chemistries at the Surfaces of Electronic Materials](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/860122607?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3448602.)
7. Yang, Li. 2010. “[Syntheses, X-ray Diffraction Structures, and Kinetics on New Formamidinate-Substituted Triosmium Clusters](http://digital.library.unt.edu/ark%3A/67531/metadc33217/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.

### ⎯ 2011 ⎯

1. Determan, John J. 2011. “[Photophysics and Photochemistry of Copper(I) Phosphine and Collidine Complexes: An Experimental/Theoretical Investigation](http://digital.library.unt.edu/ark%3A/67531/metadc84199/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
2. Devaraj, Arun. 2011. "[Phase Separation and Second Phase Precipitation in Beta Titanium Alloys](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909879531?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3486523.)
3. Gali, Pradeep. 2011. "[Development of Indium Oxide Nanowires as Efficient Gas Sensors](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1046647703?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1520429.)
4. Harris, Alesha N. 2011. "[Synthesis and characterization of copper releasing polymer nanoparticles](http://digital.library.unt.edu/ark%3A/67531/metadc67990/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library.
5. Kuo, Fang-Ling. 2011. “[Electrical and Structure Properties of High-κ Barium Tantalite and Aluminum Oxide Interface with Zinc Oxide for Applications in Transparent Thin Film Transistors](http://digital.library.unt.edu/ark%3A/67531/metadc84233/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 20, 2016.
6. Lee, Kyung-Min. 2011. "[Nanoscale Materials Applications: Thermoelectrical, Biological, and Optical Applications with Nanomanipulation Technology](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1011651679?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3507011.)
7. Manandhar, Sandeep. 2011. "[Bioresorbable Polymer Blend Scaffold for Tissue Engineering](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909864145?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1504835.)
8. Maneshian, Mohammad Hassan. 2011. "[The Influence of Ohmic Metals and Oxide Deposition on the Structure and Electrical Properties of Multilayer Epitaxial Graphene on Silicon Carbide Substrates](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909879535?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3486529.)
9. Marpu, Sreekar B. 2011. "[Biocompatible Hybrid Nanomaterials Involving Polymers and Hydrogels Interfaced with Phosphorescent Complexes and Toxin-Free Metallic Nanoparticles for Biomedical Applications](http://digital.library.unt.edu/ark%3A/67531/metadc84243/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
10. Mohseni, Hamidreza. 2011. "[Tribological Improvements of Carbon-Carbon Composites by Infiltration of Atomic Layer Deposited Lubricious Nanostructured Ceramic Oxides](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1011651681?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3507018.)
11. Nukala, Prathyusha. 2011. "[Development of Silicon Nanowire Field Effect Transistors](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1069260420?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1520453.)
12. Poudel, Prakash Raj. 2011. "[Ion Beam Synthesis of Carbon Assisted Nanosystems in Silicon Based Substrates](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909899005?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3486535.)
13. Shrestha, Ramesh. 2011. “[High-Precision Micropipette Thermal Sensor for Measurement of Thermal Conductivity of Carbon Nanotubes Thin Film](http://digital.library.unt.edu/ark%3A/67531/metadc103393/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
14. Singh, Antariksh Rao Pratap. 2011. "[Mechanisms of Ordered Gamma Prime Precipitation in Nickel Base Superalloys](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909879526?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3486538.)
15. Springfield, Tyler. 2011. "[Application of FTIR for Quantification of Alkali in Cement](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1011467272?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1511459.)
16. Sundararaju Meenakshiah Pillai, Karthikeyan. 2011. “[Cu Electrodeposition on Ru-Ta and Corrosion of Plasma Treated Cu in Post Etch Cleaning Solution](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1011651652?accountid=7113).” PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3507022.)
17. Vidhate, Shailesh. 2011. "[Piezoresistive Polyvinylidene fluoride/carbon Filled Nanocomposites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/909889052?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1504859.)
18. Vidhate, Shailesh. 2011. "[Biodegradable Poly(Hydroxy Butyrate-Co-Valerate) Nanocomposites and Blends with Poly (Butylene Adipate Co-Terephthalate) for Sensor Applications](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1046661499?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3529278.)
19. Yu, Kyle Kai-Hung. 2011. "[Interfacial Electrochemistry of Copper and Spectro-Electrochemical Characterization of Oxygen Reduction Reaction](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1046678801?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3529273.)

### ⎯ 2012 ⎯

1. Blake, Deanne Renee. 2012. “[Effects of Layer Double Hydroxide Nanoclays on the Toxicity of Copper to Daphnia Magna](http://digital.library.unt.edu/ark%3A/67531/metadc115048/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
2. DeLeon, Vallerie H. 2012. “[Investigation of Novel Electrochemical Synthesis of Bioapatites and Use in Elemental Bone Analysis](http://digital.library.unt.edu/ark%3A/67531/metadc177191/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
3. Halbert, Jason Paul. 2012. “[A New Chromophoric Organic Molecule Toward Improved Molecular Optoelectronic Devices](http://digital.library.unt.edu/ark%3A/67531/metadc177207/).” MS thesis, University of North Texas. Denton, Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
4. Hoffmann, William Darryle. 2012. "[Study of Novel ion/surface Interactions using Soft-Landing Ion Mobility](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1437662763?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3573860.)
5. Jones, Jason David. 2012. "[Modification of Graphene Properties: Electron Induced Reversible Hydrogenation, Oxidative Etching and Layer-by-Layer Thinning](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1223343630?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3533624.)
6. Kaipa, Ushasree. 2012. “[Synthesis and Characterization of Two and Three Coordinate Gold (I) Conjugated and Rigid Metallodendrimers](http://digital.library.unt.edu/ark%3A/67531/metadc149678/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
7. Mogonye, Jon-Erik. 2012. "[Solid Lubrication Mechanisms in Laser Deposited Nickel-Titanium-Carbon Metal Matrix Composites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1506942490?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1524988.)
8. Moncayo, Marco Antonio. 2012. "[Laser Modified Alumina: A Computational and Experimental Analysis](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1437652808?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1523899.)
9. Okafor, Uzochukwu Chimezie. 2012. "[Mechanical Characterization of A2 and D2 Tool Steels by Nanoindentation](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1225820699?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1521527.)
10. Oswald, Iain William Herbert. 2012. “[Design, Synthesis and Screening of Homoleptic and Heteroleptic Platinum(ii) Pyridylazolate Complexes for N-type Semiconducting and Light-emitting Devices](http://digital.library.unt.edu/ark%3A/67531/metadc283853/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
11. Taylor, Daniel M. 2012. “[Electrochemical Depostion of Bismuth on Ruthenium and Ruthenium Oxide Surfaces](http://digital.library.unt.edu/ark%3A/67531/metadc115169/).” MS thesis, University of North Texas. Denton, Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.

### ⎯ 2013 ⎯

1. Avasarala, Chandana. 2013. "[Laser Deposition, Heat-Treatment, and Characterization](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1667770632?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1691091.)
2. Baillio, Sarah S. 2013. "[Corrosion Protection of Aerospace Grade Magnesium Alloy Elektron 43(TM) for use in Aircraft Cabin Interiors](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1617577723?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1526836.)
3. Behera, Amit Kishan. 2013. "[A Study of Mechanisms to Engineer Fine Scale Alpha Phase Precipitation in Beta Titanium Alloy, Beta 21S](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1617577846?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1526837.)
4. Conrad, Heidi Ann. 2013. “[Electrochemically Deposited Metal Alloy-silicate Nanocomposite Corrosion Resistant Materials](http://digital.library.unt.edu/ark%3A/67531/metadc271794/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
5. Crislip, Peter S. 2013. "[A Quantitative Assessment of Site Formation at the Dmanisi Archaeological Site, Republic of Georgia](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1701628657?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1596754.)
6. Dangol, Ashesh. 2013. “[Thermal Characterization of Austenite Stainless Steel (304) and Cnt Films of Varying Thickness Using Micropipette Thermal Sensors](http://digital.library.unt.edu/ark%3A/67531/metadc271796/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
7. Das, Sushanta Kumar. 2013. “[Carbon Nanostructure Based Donor-acceptor Systems for Solar Energy Harvesting](http://digital.library.unt.edu/ark%3A/67531/metadc407823/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
8. Dendge, Nilesh Bajirao. 2013. "[Dynamic Precipitation of Second Phase Under Deformed Condition in mg-Nd Based Alloy](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1650589722?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1527120.)
9. Ho, YeeHsien. 2013. "[Laser Surface Modification of AZ31B mg Alloy for Bio-Wettability](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1650589702?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1527129.)
10. Kami, Pavani. 2013. "[Surface Modifications to Enhance the Wear Resistance and the Osseo-Integration Properties of Biomedical Ti-Alloy](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1668087639?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1691109.)
11. Kinkenon, Douglas. 2013. "[Tribological Behavior of Spark Plasma Sintered TiC/graphite/nickel Composites and Cobalt Alloys](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1650589600?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1527137.)
12. Kummari, Venkata Chandra Sekhar. 2013. "[A New Approach for Transition Metal Free Magnetic SiC: Defect Induced Magnetism after Self-Ion Implantation](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1506548282?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3579216.)
13. Lin, Chen-Hao. 2013. “[Synthetic and Structural Chemistry of Ligand-substituted Triosmium Clusters and a Rhenium(i) Complex](http://digital.library.unt.edu/ark%3A/67531/metadc283850/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
14. McDougald Jr., Roy N. 2013. “[Photochemical and Photophysical Properties of Mononuclear and Multinuclear Closed Shell D10 Coinage Metal Complexes and Their Metallo-organometallic Adducts](http://digital.library.unt.edu/ark%3A/67531/metadc407759/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
15. Nandwana, Peeyush. 2013. "[Titanium Boride Formation and its Subsequent Influence on Morphology and Crystallography of Alpha Precipitates in Titanium Alloys](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1649181099?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3648187.)
16. Nar, Mangesh. 2013. "[Interspecimen Study of Bone to Relate Macromechanical, Nanomechanical and Compositional Changes across the Femoral Cortex of Bone](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1506942630?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1524987.)
17. Pasquale, Frank L. 2013. “[Development of Novel Semi-conducting Ortho-carborane Based Polymer Films: Enhanced Electronic and Chemical Properties](http://digital.library.unt.edu/ark%3A/67531/metadc283826/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
18. Ramesh, Dinesh. 2013. "[Effect of Retting on Surface Chemistry and Mechanical Performance Interactions in Natural Fibers for High Performance Polymer Composites](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1506942797?accountid=7113)." MS thesis, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 1524998.)
19. Shaikh, Vasim. 2013. "[Mist and Microstructure Characterization in End Milling AISI 1018 Steel using Microlubrication](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1617956591?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3674089.)
20. Sharma, Bed P. 2013. "[Nano-Crystallization Inhibition in 5 Nm Ru Film Diffusion Barriers for Advanced Cu-Interconnect](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1646872171?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3648196.)
21. Vora, Hitesh D. 2013. "[Integrated Computational and Experimental Approach to Control Physical Texture during Laser Machining of Structural Ceramics](https://libproxy.library.unt.edu/login?url=http://search.proquest.com/docview/1646872302?accountid=7113)." PhD dissertation, University of North Texas. Ann Arbor: ProQuest/UMI. (Publication No. AAT 3648200.)
22. Xu, Quan. 2013. “[Dynamic Adhesion and Self-cleaning Mechanisms of Gecko Setae and Spatulae](http://digital.library.unt.edu/ark%3A/67531/metadc407812/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 21, 2016.

### ⎯ 2014 ⎯

1. Abdelghani, Jafar. 2014. "[Interfacial Characterization of Chemical Vapor Deposition (CVD) Grown Graphene and Electrodeposited Bismuth on Ruthenium Surface](http://digital.library.unt.edu/ark%3A/67531/metadc500095/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
2. Ageh, Victor. 2014. “[Processing, Structure and Tribological Property Relations of Ternary Zn-Ti-O and Quaternary Zn-Ti-Zr-O Nanocrystalline Coatings](http://digital.library.unt.edu/ark%3A/67531/metadc699894/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
3. Berhe, Seare Ahferom. 2014. "[Acceptor-Sensitizers for Nanostructured Oxide Semiconductor in Excitonic Solar Cells](http://digital.library.unt.edu/ark%3A/67531/metadc699927/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
4. Borkar, Tushar Murlidhar. 2014. "[Processing and Characterization of Nickel-Carbon Base Metal Matrix Composites](http://digital.library.unt.edu/ark%3A/67531/metadc500026/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
5. Harris, Alesha N. 2014. “[Targeted and Metal-loaded Polymeric Nanoparticles As Potential Cancer Therapeutics](http://digital.library.unt.edu/ark%3A/67531/metadc500025/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
6. Katakam, Shravana K. 2014. "[Laser Surface Treatment of Amorphous Metals](http://digital.library.unt.edu/ark%3A/67531/metadc500194/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
7. Koskey, Simon Kibet. 2014. "[Fundamental Studies of Copper Bimetallic Corrosion in Ultra Large Scale Interconnect Fabrication Process](http://digital.library.unt.edu/ark%3A/67531/metadc499992/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
8. Meher, Subhashish. 2014. "[Comparative Coarsening Kinetics of Gamma Prime Precipitates in Nickel and Cobalt Base Superalloys](http://digital.library.unt.edu/ark%3A/67531/metadc699871/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
9. Nar, Mangesh. 2014. "[Structural, Thermal, and Acoustic Performance of Polyurethane Foams for Green Buildings](http://digital.library.unt.edu/ark%3A/67531/metadc699971/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
10. Pandey, Bimal. 2014. "[Synthesis, Characterization, Structural, and Optical Properties of Zinc Oxide Nanostructures Embedded in Silicon Based Substrates](http://digital.library.unt.edu/ark%3A/67531/metadc500222/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
11. Rajamure, Ravi Shanker. 2014. "[Laser Surface Alloying of Refractory Metals on Aluminum for Enhanced Corrosion Resistance: Experimental and Computational Approaches](http://digital.library.unt.edu/ark%3A/67531/metadc700029/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
12. Rojhirunsakool, Tanaporn. 2014. "[Gamma Prime Precipitation Mechanisms and Solute Partitioning in Ni-Base Alloys](http://digital.library.unt.edu/ark%3A/67531/metadc700080/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
13. Sapkota, Gopal. 2014. “[Synthesis Strategies and a Study of Properties of Narrow and Wide Band Gap Nanowires](http://digital.library.unt.edu/ark%3A/67531/metadc499984/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 20, 2016.
14. Shah, Rakesh K. 2014. “[Enhancements of Mechanical, Thermal Stability, and Tribological Properties by Addition of Functionalized Reduced Graphene Oxide in Epoxy](http://digital.library.unt.edu/ark%3A/67531/metadc699889/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
15. Shrestha, Kiran. 2014. "[Electrical Conduction Mechanisms in the Disordered Material System p-Type Hydrogenated Amorphous Silicon](http://digital.library.unt.edu/ark%3A/67531/metadc700106/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
16. Sondhi, Anchal. 2014. "[Investigations in the Mechanism of Carbothermal Reduction of Yttria Stabilized Zirconia for Ultra-High Temperature Ceramics Application and its Influence on Yttria Contained in it](http://digital.library.unt.edu/ark%3A/67531/metadc500159/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
17. Stone, D'A. 2014. "[Silver Tantalate: A High Temperature Tribological Investigation](http://digital.library.unt.edu/ark%3A/67531/metadc700025/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
18. Tientong, Jeerapan. 2014. “[Electrodeposition of Nickel and Nickel Alloy Coatings with Layered Silicates for Enhanced Corrosion Resistance and Mechanical Properties](http://digital.library.unt.edu/ark%3A/67531/metadc699999/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
19. Veligatla, Medha. 2014. "[Glass Forming Ability, Magnetic Properties, and Mechanical Behavior of Iron-Based and Cobalt-Based Metallic Glasses](http://digital.library.unt.edu/ark%3A/67531/metadc699947/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
20. Walton, Barbara Lynn. 2014. "[A Study of Silver: An Alternative MALDI Matrix for Low Weight Compounds and Mass Spectrometry Imaging](http://digital.library.unt.edu/ark%3A/67531/metadc499981/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
21. Yang, Bing. 2014. “[Thermoplastic and Thermoset Natural Fiber Composite and Sandwich Performance](http://digital.library.unt.edu/ark%3A/67531/metadc500002/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.
22. Yang, Li. 2014. “[Kinetic Studies on C‐h Bond Activation in the Reaction of Triosmium Clusters with Diphosphine and Amidine Ligands](http://digital.library.unt.edu/ark%3A/67531/metadc699850/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 30, 2016.

### ⎯ 2015 ⎯

1. Ayyagari, Venkata Aditya. 2015. “[Effect of Alloy Composition, Free Volume and Glass Formability on the Corrosion Behavior of Bulk Metallic Glasses](http://digital.library.unt.edu/ark%3A/67531/metadc822824/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
2. Bo, Chong. 2015. “[Nanohybrids Based on Solid and Foam Polyurethanes](http://digital.library.unt.edu/ark%3A/67531/metadc799520/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
3. Brice, David. 2015. "[An Assessment of Uncommon Titanium Binary Systems: Ti-Zn, Ti-Cu, and Ti-Sb](http://digital.library.unt.edu/ark%3A/67531/metadc799482/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
4. Cloarec, Thomas. 2015. "[Processing and Characterization of Polycarbonate Foams with Supercritical Co2 and 5-Phenyl-1h-Tetrazole](http://digital.library.unt.edu/ark%3A/67531/metadc799500/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
5. Dhoubhadel, Mangal S. 2015. "[Synthesis and Characterization of Ion Beam Assisted Silver Nanosystems in Silicon Based Materials for Enhanced Photocurrent Collection Efficiency](http://digital.library.unt.edu/ark%3A/67531/metadc799502/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
6. Goswami, Arindom. 2015. “[Fundamental Studies of Copper Corrosion in Interconnect Fabrication Process and Spectroscopic Investigation of Low-k Structures](http://digital.library.unt.edu/ark%3A/67531/metadc822794/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
7. Gray, Alyn M. 2015. “[An Initial Study of Binary and Ternary Ti-based Alloys Manufactured Using Laser Engineered Net Shaping (Lenstm)](http://digital.library.unt.edu/ark%3A/67531/metadc822823/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
8. Gu, Jingjing. 2015. "[Ternary Oxide Structures for High Temperature Lubrication](http://digital.library.unt.edu/ark%3A/67531/metadc804963/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
9. Gullapalli, Vikranth. 2015. "[Study of Metal Whiskers Growth and Mitigation Technique Using Additive Manufacturing](http://digital.library.unt.edu/ark%3A/67531/metadc804972/)." MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
10. Hayes, Brian J. 2015. “[Characterization of Ti-6Al-4V Produced Via Electron Beam Additive Manufacturing*.*](http://digital.library.unt.edu/ark%3A/67531/metadc822771/)”MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
11. Haynes, Keith M. 2015. “[Molecules and Materials for Excitonic Solar Cells Using P-type Metal Oxide Semiconductors](http://digital.library.unt.edu/ark%3A/67531/metadc804970/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
12. He, Qinyue. 2015. “[The Study of Comprehensive Reinforcement Mechanism of Hexagonal Boron Nitride on Concrete](http://digital.library.unt.edu/ark%3A/67531/metadc804976/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
13. Kahl, Michael S. 2015. “[Electrochemical Synthesis and Applications of Layered Double Hydroxides and Derivatives](http://digital.library.unt.edu/ark%3A/67531/metadc804917/)”. PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
14. Keereetaweep, Jantana. 2015. “[Metabolism and Action of Polyunsaturated N-acylethanolamines in Arabidopsis Thaliana Seedlings](http://digital.library.unt.edu/ark%3A/67531/metadc804899/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 29, 2016.
15. Komarasamy, Mageshwari. 2015. “[Deformation Micro-mechanisms of Simple and Complex Concentrated Fcc Alloys](http://digital.library.unt.edu/ark%3A/67531/metadc822829/)*.*” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
16. Liu, Yue. 2015. “[Precession Electron Diffraction Assisted Characterization of Deformation in Α and Α+β Titanium Alloys](http://digital.library.unt.edu/ark%3A/67531/metadc804946/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
17. Mojekwu, Nneoma. 2015. “[The Role of Crystallographic Texture in Achieving Low Friction Zinc Oxide Nanolaminate Films](http://digital.library.unt.edu/ark%3A/67531/metadc822792/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
18. Nguyen, Duong Thuy. 2015. “[Self-assembly Polymeric Nanoparticles Composed of Polymers Crosslinked with Transition Metals for Use in Drug Delivery](http://digital.library.unt.edu/ark%3A/67531/metadc822738/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
19. Samimi, Peyman. 2015. "[Combinatorial Assessment of the Influence of Composition and Exposure Time on the Oxidation Behavior and Concurrent Oxygen-induced Phase Transformations of Binary Ti-x Systems](http://digital.library.unt.edu/ark%3A/67531/metadc801898/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
20. Santos-Ortiz, Reinaldo. 2015. "[Thin Films As a Platform for Understanding the Conversion Mechanism of Fef2 Cathodes in Lithium-ion Microbatteries](http://digital.library.unt.edu/ark%3A/67531/metadc804977/)." PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
21. Strickland, Julie N. 2015. “[Anisotropic Nature of Radially Strained Metal Tubes](http://digital.library.unt.edu/ark%3A/67531/metadc822747/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.
22. Tinubu, Olusegun Olukunle. 2015. “[Effect of Friction-stir Processing on the Wear Behavior of Titanium (Ti-1al-8v-5fe) and Stainless Steel (A-286) Alloys](http://digital.library.unt.edu/ark%3A/67531/metadc801955/).” MS thesis, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 15, 2016.
23. Upadhyay, Prabhat K. 2015. “[Design, Synthesis, and Characterization of Aqueous Polymeric Hybrid Composites and Nanomaterials of Platinum(ii) and Gold(i) Phosphorescent Complexes for Sensing and Biomedical Applications](http://digital.library.unt.edu/ark%3A/67531/metadc822788/).” PhD dissertation, University of North Texas. Denton, Texas. UNT Digital Library. Accessed March 25, 2016.

### ⎯ 2016 ⎯

1. Hoyt, Zachary. Compostable Soy-Based Polyurethane Foam with Kenaf Core Modifiers, thesis, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862866/](https://digital.library.unt.edu/ark%3A/67531/metadc862866/): accessed February 27, 2020), University of North Texas Libraries.
2. Kadhim, Dheyaa. Sliding Friction and Wear Behavior of High Entropy Alloys at Room and Elevated Temperatures, thesis, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955078/](https://digital.library.unt.edu/ark%3A/67531/metadc955078/): accessed February 27, 2020), University of North Texas Libraries.
3. Nichols, Leannah Marie. Feasibility Study of Consolidation by Direct Compaction and Friction Stir Processing of Commercially Pure Titanium Powder, thesis, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862720/](https://digital.library.unt.edu/ark%3A/67531/metadc862720/): accessed February 27, 2020), University of North Texas Libraries.
4. Poudel, Amir. Dissimilar Joining of Al (AA2139) – Mg (WE43) Alloys Using Friction Stir Welding, thesis, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955064/](https://digital.library.unt.edu/ark%3A/67531/metadc955064/): accessed February 27, 2020), University of North Texas Libraries.
5. Rizvi, Hussain R. Bioinspired & biocompatible coatings of poly(butylene adipate-co-terephthalate) and layer double hydroxide composites for corrosion resistance, thesis, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849647/](https://digital.library.unt.edu/ark%3A/67531/metadc849647/): accessed February 27, 2020), University of North Texas Libraries.
6. Thomas, Jonova. Microstructural Phase Evolution In Laser Deposited Compositionally Graded Titanium-Chromium Alloys, thesis, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849610/](https://digital.library.unt.edu/ark%3A/67531/metadc849610/): accessed February 27, 2020), University of North Texas Libraries.
7. Uddin, Md Salah. Modeling of Hexagonal Boron Nitride Filled Bismalemide Polymer Composites for Thermal and Electrical Properties for Electronic Packaging, thesis, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955120/](https://digital.library.unt.edu/ark%3A/67531/metadc955120/): accessed February 27, 2020), University of North Texas Libraries.
8. Warner, Nathaniel A. Investigation of the Effect of Particle Size and Particle Loading on Thermal Conductivity and Dielectric Strength of Thermoset Polymers, thesis, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849629/](https://digital.library.unt.edu/ark%3A/67531/metadc849629/): accessed February 27, 2020), University of North Texas Libraries.
9. Wu, Min. Adhesion and Surface Energy Profiles of Large-area Atomic Layers of Two-dimensional MoS2 on Rigid Substrates by Facile Methods, thesis, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849762/](https://digital.library.unt.edu/ark%3A/67531/metadc849762/): accessed February 27, 2020), University of North Texas Libraries.
10. Yang, Yu Chia. Improving the Long-term Performance of PVC Compositions, thesis, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955074/](https://digital.library.unt.edu/ark%3A/67531/metadc955074/): accessed February 27, 2020), University of North Texas Libraries.
11. Yao, Shulong. Highly Stretchable Miniature Strain Sensor for Large Dynamic Strain Measurement, thesis, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849674/](https://digital.library.unt.edu/ark%3A/67531/metadc849674/): accessed February 27, 2020), University of North Texas Libraries.
12. Das, Shamiparna. Microstructure for Enhanced Plasticity and Toughness, dissertation, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862825/](https://digital.library.unt.edu/ark%3A/67531/metadc862825/): accessed February 27, 2020), University of North Texas Libraries.
13. Dong, Bin. Chemical and Electronic Structure of Aromatic/Carborane Composite Films by PECVD for Neutron Detection, dissertation, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955065/](https://digital.library.unt.edu/ark%3A/67531/metadc955065/): accessed February 27, 2020), University of North Texas Libraries.
14. Ecton, Philip. Low-Energy Electron Irradiation of Preheated and Gas-Exposed Single-Wall Carbon Nanotubes, dissertation, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955114/](https://digital.library.unt.edu/ark%3A/67531/metadc955114/): accessed February 27, 2020), University of North Texas Libraries.
15. Hendrickson, Mandana. The Role of Misfit Strain and Oxygen Content on Formation and Evolution of Omega Precipitate in Metastable Beta-titanium Alloys, dissertation, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955080/](https://digital.library.unt.edu/ark%3A/67531/metadc955080/): accessed February 27, 2020), University of North Texas Libraries.
16. Ho, Yee Hsien. In Vitro Behavior of AZ31B Mg-Hydroxyapatite Metallic Matrix Composite Surface Fabricated via Friction Stir Processing, dissertation, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862762/](https://digital.library.unt.edu/ark%3A/67531/metadc862762/): accessed February 27, 2020), University of North Texas Libraries.
17. Huynh, Vivian. Forensic Analysis of Ink on Documents Using Direct Analyte-Probed Nanoextraction Coupled Techniques, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849635/](https://digital.library.unt.edu/ark%3A/67531/metadc849635/): accessed February 27, 2020), University of North Texas Libraries.
18. Jha, Jitendra. Workfunction tuning of AZO Films Through Surface Modification for Anode Application in OLEDs., dissertation, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862818/](https://digital.library.unt.edu/ark%3A/67531/metadc862818/): accessed February 27, 2020), University of North Texas Libraries.
19. Karna, Sanjay K. Enhancement of Light Emission from Metal Nanoparticles Embedded Graphene Oxide, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849637/](https://digital.library.unt.edu/ark%3A/67531/metadc849637/): accessed February 27, 2020), University of North Texas Libraries.
20. Lakshantha, Wickramaarachchige Jayampath. Ion Beam Synthesis of Binary and Ternary Transition Metal Silicide Thin Films, dissertation, December 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc955104/](https://digital.library.unt.edu/ark%3A/67531/metadc955104/): accessed February 27, 2020), University of North Texas Libraries.
21. Martinez, Nelson Y. Friction Stir Welding of Precipitation Strengthened Aluminum 7449 Alloys, dissertation, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862775/](https://digital.library.unt.edu/ark%3A/67531/metadc862775/): accessed February 27, 2020), University of North Texas Libraries.
22. Mogonye, Jon-Erik. Stable Nanocrystalline Au Film Structures for Sliding Electrical Contacts, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849672/](https://digital.library.unt.edu/ark%3A/67531/metadc849672/): accessed February 27, 2020), University of North Texas Libraries.
23. Mukherjee, Tamal. Investigation of Post-Plasma Etch Fluorocarbon Residue Characterization, Removal and Plasma-Induced Low-K Damage for Advanced Interconnect Applications, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849649/](https://digital.library.unt.edu/ark%3A/67531/metadc849649/): accessed February 27, 2020), University of North Texas Libraries.
24. Nelaturu, Phalgun. Fatigue Behavior of A356 Aluminum Alloy, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849720/](https://digital.library.unt.edu/ark%3A/67531/metadc849720/): accessed February 27, 2020), University of North Texas Libraries.
25. Palanivel, Sivanesh. Thermomechanical Processing, Additive Manufacturing and Alloy Design of High Strength Mg Alloys, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849628/](https://digital.library.unt.edu/ark%3A/67531/metadc849628/): accessed February 27, 2020), University of North Texas Libraries.
26. Qiu, Ying. Influence of High Strain Rate Compression on Microstructure and Phase Transformation of NiTi Shape Memory Alloys, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849732/](https://digital.library.unt.edu/ark%3A/67531/metadc849732/): accessed February 27, 2020), University of North Texas Libraries.
27. Rimal, Sirish. Characterization of Post-Plasma Etch Residues and Plasma Induced Damage Evaluation on Patterned Porous Low-K Dielectrics Using MIR-IR Spectroscopy, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849694/](https://digital.library.unt.edu/ark%3A/67531/metadc849694/): accessed February 27, 2020), University of North Texas Libraries.
28. Ross, Nick Mark. Interfacial Electrochemistry of Cu/Al Alloys for IC Packaging and Chemical Bonding Characterization of Boron Doped Hydrogenated Amorphous Silicon Films for Infrared Cameras, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849696/](https://digital.library.unt.edu/ark%3A/67531/metadc849696/): accessed February 27, 2020), University of North Texas Libraries.
29. Sidhar, Harpreet. Friction Stir Welding of High Strength Precipitation Strengthened Aluminum Alloys, dissertation, August 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc862787/](https://digital.library.unt.edu/ark%3A/67531/metadc862787/): accessed February 27, 2020), University of North Texas Libraries.
30. Thurber, Casey Ray. Electrodeposited Metal Matrix Composites for Enhanced Corrosion Protection and Mechanical Properties, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849736/](https://digital.library.unt.edu/ark%3A/67531/metadc849736/): accessed February 27, 2020), University of North Texas Libraries.
31. Xia, Changlei. Biomass-Derived Activated Carbon Through Self-Activation Process, dissertation, May 2016; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc849716/](https://digital.library.unt.edu/ark%3A/67531/metadc849716/): accessed February 27, 2020), University of North Texas Libraries.

### ⎯ 2017 ⎯

1. Egede, Eforma Justin. P-type Doping of Pulsed Laser Deposited WS2 with Nb, thesis, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062806/](https://digital.library.unt.edu/ark%3A/67531/metadc1062806/): accessed February 26, 2020), University of North Texas Libraries.
2. Garrison, Seth Thomas. Catalytic Properties and Mechanical Behavior of Metallic Glass Powders, thesis, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984273/](https://digital.library.unt.edu/ark%3A/67531/metadc984273/): accessed February 26, 2020), University of North Texas Libraries.
3. Mikler, Calvin. Laser Additive Manufacturing of Magnetic Materials, thesis, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1011873/](https://digital.library.unt.edu/ark%3A/67531/metadc1011873/): accessed February 26, 2020), University of North Texas Libraries.
4. Yannetta, Christopher James. Additive Manufacturing of Metastable Beta Titanium Alloys, thesis, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1011883/](https://digital.library.unt.edu/ark%3A/67531/metadc1011883/): accessed February 26, 2020), University of North Texas Libraries.
5. Al-Shenawa, Amaal Abdallah Ali. Effectiveness of Fillers for Corrosion Protection of AISI-SAE 1018 Steel in Sea Salt Solution, dissertation, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984141/](https://digital.library.unt.edu/ark%3A/67531/metadc984141/): accessed February 26, 2020), University of North Texas Libraries.
6. Ayyagari, Venkata A. Surface Degradation Behavior of Bulk Metallic Glasses and High Entropy Alloys, dissertation, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062863/](https://digital.library.unt.edu/ark%3A/67531/metadc1062863/): accessed February 26, 2020), University of North Texas Libraries.
7. Butler, Sween J. Nonlinear Light Generation from Optical Cavities and Antennae, dissertation, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984232/](https://digital.library.unt.edu/ark%3A/67531/metadc984232/): accessed February 26, 2020), University of North Texas Libraries.
8. De Silva, Vashista C. Core-Shell Based Metamaterials: Fabrication Protocol and Optical Properties, dissertation, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062904/](https://digital.library.unt.edu/ark%3A/67531/metadc1062904/): accessed February 26, 2020), University of North Texas Libraries.
9. Dutt, Aniket Kumar. Microstructural Evolution and Mechanical Response of Materials by Design and Modeling, dissertation, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984205/](https://digital.library.unt.edu/ark%3A/67531/metadc984205/): accessed February 26, 2020), University of North Texas Libraries.
10. George, David Ray. Fabrication of Photonic Crystal Templates through Holographic Lithography and Study of their Optical and Plasmonic Properties in Aluminium Doped Zinc Oxide, dissertation, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1011779/](https://digital.library.unt.edu/ark%3A/67531/metadc1011779/): accessed February 26, 2020), University of North Texas Libraries.
11. Gwalani, Bharat. Developing Precipitation Hardenable High Entropy Alloys, dissertation, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1011755/](https://digital.library.unt.edu/ark%3A/67531/metadc1011755/): accessed February 26, 2020), University of North Texas Libraries.
12. Joshi, Sameehan Shrikant. Non-Isothermal Laser Treatment of Fe-Si-B Metallic Glass, dissertation, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062821/](https://digital.library.unt.edu/ark%3A/67531/metadc1062821/): accessed February 26, 2020), University of North Texas Libraries.
13. Mantri, Srinivas Aditya. Evolution of Precipitates and Their Influence on the Mechanical Properties of β-Titanium Alloys, dissertation, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1011759/](https://digital.library.unt.edu/ark%3A/67531/metadc1011759/): accessed February 26, 2020), University of North Texas Libraries.
14. Mridha, Sanghita. Structure Evolution and Nano-Mechanical Behavior of Bulk Metallic Glasses and Multi-Principal Element Alloys, dissertation, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984260/](https://digital.library.unt.edu/ark%3A/67531/metadc984260/): accessed February 26, 2020), University of North Texas Libraries.
15. Patel, Mumukshu D. Three-Dimensional Carbon Nanostructure and Molybdenum Disulfide (MoS2) for High Performance Electrochemical Energy Storage Devices, dissertation, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062842/](https://digital.library.unt.edu/ark%3A/67531/metadc1062842/): accessed February 26, 2020), University of North Texas Libraries.
16. Rizvi, Syed Hussain Raza. Design of Bioinspired Conductive Smart Textile, dissertation, August 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062837/](https://digital.library.unt.edu/ark%3A/67531/metadc1062837/): accessed February 26, 2020), University of North Texas Libraries.
17. Tungala, Vedavyas. Exceptional Properties in Friction Stir Processed Beta Titanium Alloys and an Ultra High Strength Steel, dissertation, May 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc984167/](https://digital.library.unt.edu/ark%3A/67531/metadc984167/): accessed February 26, 2020), University of North Texas Libraries.
18. Yu, Hao. Modeling of High Strain Rate Compression of Austenitic Shape Memory Alloys, dissertation, December 2017; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1062835/](https://digital.library.unt.edu/ark%3A/67531/metadc1062835/): accessed February 26, 2020), University of North Texas Libraries.

### ⎯ 2018 ⎯

1. Barclay, Joshua David. High Temperature Water as an Etch and Clean for SiO2 and Si3N4, thesis, December 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1404614/](https://digital.library.unt.edu/ark%3A/67531/metadc1404614/): accessed February 26, 2020), University of North Texas Libraries.
2. Briseno Murguia, Silvia. Processing of NiTi Shape Memory Alloys through Low Pressure and Low Temperature Hydrogen Charging, thesis, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157656/](https://digital.library.unt.edu/ark%3A/67531/metadc1157656/): accessed February 26, 2020), University of North Texas Libraries.
3. Kim, Taehwan. Preventing Thermal Degradation of Pvc Insulation by Mixtures of Cross-Linking Agents and Antioxidants, thesis, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157547/](https://digital.library.unt.edu/ark%3A/67531/metadc1157547/): accessed February 26, 2020), University of North Texas Libraries.
4. Rubink, William S. Processing-Structure-Property Relationships of Spark Plasma Sintered Boron Carbide and Titanium Diboride Ceramic Composites, thesis, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157631/](https://digital.library.unt.edu/ark%3A/67531/metadc1157631/): accessed February 26, 2020), University of North Texas Libraries.
5. Torgerson, Tyler B. Room and Elevated Temperature Sliding Wear Behavior of Cold Sprayed Ni-WC Composite Coatings, thesis, August 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1248400/](https://digital.library.unt.edu/ark%3A/67531/metadc1248400/): accessed February 26, 2020), University of North Texas Libraries.
6. Adewole, Murthada Oladele. Electrically Tunable Absorption and Perfect Absorption Using Aluminum Doped Zinc Oxide and Graphene Sandwiched in Oxides, dissertation, December 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1404566/](https://digital.library.unt.edu/ark%3A/67531/metadc1404566/): accessed February 26, 2020), University of North Texas Libraries.
7. Aguilar Ayala, Roberto. Applications of Metallic Clusters and Nanoparticles via Soft Landing Ion Mobility, from Reduced to Ambient Pressures, dissertation, August 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1248434/](https://digital.library.unt.edu/ark%3A/67531/metadc1248434/): accessed February 27, 2020), University of North Texas Libraries.
8. Carl, Matthew A. Alloy Development and High-Energy X-Ray Diffraction Studies of NiTiZr and NiTiHf High Temperature Shape Memory Alloys, dissertation, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157525/](https://digital.library.unt.edu/ark%3A/67531/metadc1157525/): accessed February 26, 2020), University of North Texas Libraries.
9. Che, Hui. Surface Chemistry and Work Function of Irradiated and Nanoscale Thin Films Covered Indium Tin Oxides, dissertation, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157651/](https://digital.library.unt.edu/ark%3A/67531/metadc1157651/): accessed February 26, 2020), University of North Texas Libraries.
10. Jeong, Jae Young. Heat Transfer in Low Dimensional Materials Characterized by Micro/Nanoscale Thermometry, dissertation, August 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1248488/](https://digital.library.unt.edu/ark%3A/67531/metadc1248488/): accessed February 26, 2020), University of North Texas Libraries.
11. Lu, Xiaonan. Effects of Transition Metal Oxide and Mixed-Network Formers on Structure and Properties of Borosilicate Glasses, dissertation, December 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1404587/](https://digital.library.unt.edu/ark%3A/67531/metadc1404587/): accessed February 26, 2020), University of North Texas Libraries.
12. Roccapriore, Kevin M. Nanophotonics of Plasmonic and Two-Dimensional Metamaterials, dissertation, August 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1248498/](https://digital.library.unt.edu/ark%3A/67531/metadc1248498/): accessed February 26, 2020), University of North Texas Libraries.
13. Sirota, Benjamin. Investigation into the Semiconducting and Device Properties of MoTe2 and MoS2 Ultra-Thin 2D Materials, dissertation, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157626/](https://digital.library.unt.edu/ark%3A/67531/metadc1157626/): accessed February 26, 2020), University of North Texas Libraries.
14. Wang, Tianhao. Friction Stir Welding of Dissimilar Metals, dissertation, December 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1404577/](https://digital.library.unt.edu/ark%3A/67531/metadc1404577/): accessed February 26, 2020), University of North Texas Libraries.
15. Wu, Tso-chang. Laser Surface Modification of AZ31B Mg Alloy Bio-Implant Material, dissertation, August 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1248459/](https://digital.library.unt.edu/ark%3A/67531/metadc1248459/): accessed February 26, 2020), University of North Texas Libraries.
16. Zhou, Ting. Electrodeposition of Molybdenum-Based Coatings from Aqueous Alkaline Solutions for Enhanced Corrosion Resistance, dissertation, May 2018; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1157641/](https://digital.library.unt.edu/ark%3A/67531/metadc1157641/): accessed February 27, 2020), University of North Texas Libraries.

### ⎯ 2019 ⎯

1. Cai, Bimin. The Effect of Process Conditions on the Surface Morphology of Few-Layered WS2 Thin Films, thesis, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505277/](https://digital.library.unt.edu/ark%3A/67531/metadc1505277/): accessed February 26, 2020), University of North Texas Libraries.
2. Lide, Hunter. Processing-Structure-Property Relationships of Reactive Spark Plasma Sintered Boron Carbide-Titanium Diboride, thesis, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538698/](https://digital.library.unt.edu/ark%3A/67531/metadc1538698/): accessed February 26, 2020), University of North Texas Libraries.
3. Macdonald, Neil. Dynamic Deformation and Shear Localization in Friction-Stir Processed Al0.3CoCrFeNi and Fe50Mn30Co10Cr10 High-Entropy Alloys, thesis, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538737/](https://digital.library.unt.edu/ark%3A/67531/metadc1538737/): accessed February 26, 2020), University of North Texas Libraries.
4. Zellner, Samantha R. Charpy Impact Testing of Twinning Induced Plasticity and Transformation Induced Plasticity High Entropy Alloys, thesis, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538702/](https://digital.library.unt.edu/ark%3A/67531/metadc1538702/): accessed February 26, 2020), University of North Texas Libraries.
5. Bhatta, Hari Lal. UV Magnetic Plasmons in Cobalt Nanoparticles, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505221/](https://digital.library.unt.edu/ark%3A/67531/metadc1505221/): accessed February 26, 2020), University of North Texas Libraries.
6. Cha, Eunho. Carbon Nanotubes and Molybdenum Disulfide Protected Electrodes for High Performance Lithium-Sulfur Battery Applications, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538758/](https://digital.library.unt.edu/ark%3A/67531/metadc1538758/): accessed February 26, 2020), University of North Texas Libraries.
7. Chen, I Kang. Design of a Polymeric Coating for Protecting Thermoelectric Materials from Sublimation and Oxidation, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538763/](https://digital.library.unt.edu/ark%3A/67531/metadc1538763/): accessed February 26, 2020), University of North Texas Libraries.
8. Hasannaeimi, Vahid. Nano-Manufacturing of Catalytic Amorphous Alloys, dissertation, December 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1609096/](https://digital.library.unt.edu/ark%3A/67531/metadc1609096/): accessed February 26, 2020), University of North Texas Libraries.
9. Kamras, Brian Leon. Application-Focused Investigation of Monovalent Metal Complexes for Nanoparticle Synthesis, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538771/](https://digital.library.unt.edu/ark%3A/67531/metadc1538771/): accessed February 26, 2020), University of North Texas Libraries.
10. Korir, Daniel Kiplangat. Design, Synthesis and Characterization of Polymer and Protein Coated Hybrid Nanomaterials: Investigation of Prototypes for Antimicrobial and Anticancer Applications, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505197/](https://digital.library.unt.edu/ark%3A/67531/metadc1505197/): accessed February 26, 2020), University of North Texas Libraries.
11. Liu, Kaimiao. Linking Enhanced Fatigue Life to Design by Modifying the Microstructure, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538654/](https://digital.library.unt.edu/ark%3A/67531/metadc1538654/): accessed February 26, 2020), University of North Texas Libraries.
12. Mondal, Barnali. Process-Structure-Property Relationships in Friction Stir Welded Precipitation Strengthened Aluminum Alloys, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505263/](https://digital.library.unt.edu/ark%3A/67531/metadc1505263/): accessed February 26, 2020), University of North Texas Libraries.
13. Ngo, Ngan Kim. Electrochemical Deposition of Metal Organic-Modified-Ceramic Nanoparticles to Improve Corrosion and Mechanical Properties, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538778/](https://digital.library.unt.edu/ark%3A/67531/metadc1538778/): accessed February 26, 2020), University of North Texas Libraries.
14. Oyelade, Adeola O. Semiconducting Aromatic Boron Carbide Films for Neutron Detection and Photovoltaic Applications, dissertation, December 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1609161/](https://digital.library.unt.edu/ark%3A/67531/metadc1609161/): accessed February 26, 2020), University of North Texas Libraries.
15. Ozigagu, Christopher E. Method Development for Corrosion Testing of Carbon Steel and Ni-based Alloy Coatings Exposed to Gas Hydrate Formation Environments, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538777/](https://digital.library.unt.edu/ark%3A/67531/metadc1538777/): accessed February 26, 2020), University of North Texas Libraries.
16. Park, Juhong. Fabrication of Large-Scale and Thickness-Modulated Two-Dimensional Transition Metal Dichalcogenides [2D TMDs] Nanolayers, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505271/](https://digital.library.unt.edu/ark%3A/67531/metadc1505271/): accessed February 26, 2020), University of North Texas Libraries.
17. Poudel, Yuba R. Manipulation of Light-Matter Interaction in Molybdenum Disulfide (MoS2) Monolayer through Dressed Phonons (DP) and Plasmons, dissertation, December 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1609107/](https://digital.library.unt.edu/ark%3A/67531/metadc1609107/): accessed February 26, 2020), University of North Texas Libraries.
18. Rathod, Urmilaben Pradipsinh P. Extrinsic Doping of Few Layered Tungsten Disulfide Films by Pulsed Laser Deposition, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538673/](https://digital.library.unt.edu/ark%3A/67531/metadc1538673/): accessed February 26, 2020), University of North Texas Libraries.
19. Sanders, Stephen. Praseodymium Oxide and Organic Modified Cerium Oxide Nanoparticles for Electrodeposition of Nickel-Ceramic Nanocomposites to Enhance Corrosion Protection and Mechanical Properties, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505156/](https://digital.library.unt.edu/ark%3A/67531/metadc1505156/): accessed February 26, 2020), University of North Texas Libraries.
20. Shukla, Shivakant. Understanding the Micromechanism of Cyclic Loading of Ultrafine-Grained Alloys, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538796/](https://digital.library.unt.edu/ark%3A/67531/metadc1538796/): accessed February 26, 2020), University of North Texas Libraries.
21. Soni, Vishal. Phase Transformations in Refractory High Entropy Alloys, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538735/](https://digital.library.unt.edu/ark%3A/67531/metadc1538735/): accessed February 26, 2020), University of North Texas Libraries.
22. Wan, Yiyang. Bio-Inspired Material Surfaces with Self-cleaning, Micromanipulation and Water Collection, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505257/](https://digital.library.unt.edu/ark%3A/67531/metadc1505257/): accessed February 26, 2020), University of North Texas Libraries.
23. Wang, Kai. Substrate Nanotopography and Stiffness Modulation of Cell Behavior, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505286/](https://digital.library.unt.edu/ark%3A/67531/metadc1505286/): accessed February 26, 2020), University of North Texas Libraries.
24. Yaseen, Waleed Khaleel. Preparing and Using Hydrophobic Fluorinated Polymers for Corrosion Protection on Aluminum Substrate, dissertation, May 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1505285/](https://digital.library.unt.edu/ark%3A/67531/metadc1505285/): accessed February 26, 2020), University of North Texas Libraries.
25. Zhang, Chen. Piezoelectric-Based Gas Sensors for Harsh Environment Gas Component Monitoring, dissertation, August 2019; Denton, Texas. ([https://digital.library.unt.edu/ark:/67531/metadc1538769/](https://digital.library.unt.edu/ark%3A/67531/metadc1538769/): accessed February 26, 2020), University of North Texas Libraries.

### ⎯ 2020 ⎯

1. Ayyagari, Aditya, Thomas W. Scharf, and Sundeep Mukherjee. "[Dry Reciprocating Sliding Wear Behavior and Mechanisms of Bulk Metallic Glass Composites](http://dx.doi.org/10.1016/j.wear.2016.01.003)." *Wear* 350-351 (2016): 56-62.