

Appendix B: SENIC 2016 Publications

Internal Journal Publications

- P.P.S.S. Abadi, M.R. Maschmann, S.L. Hodson, T.S. Fisher, J.W. Baur, S. Graham, and B.A. Cola, "Mechanical Behavior of Carbon Nanotubes Forests Grown with Plasma Enhanced Chemical Vapor Deposition: Pristine and Coated," *ASME Journal of Engineering Materials and Technology*, 2017
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- Estiak Ahmad, Pavan Kasanaboina, Rezaul Karim Md, Manish Sharma, C.L. Reynolds Jr., Yang Liu, and Shanthi Iyer, "Te Incorporation in GaAs_{1-x}Sbx Nanowires and P-I-N Axial Structure," *Sem. Science & Tech. Sem. Science & Tech.*, vol. 31, pp. 125001, 2016.
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- N. Aizawa, C. Fuentes-Hernandez, V. A. Kolesov, T. M. Khan, J. Kido, and B. Kippelen, "Simultaneous cross-linking and p-doping of a polymeric semiconductor film by immersion into a phosphomolybdic acid solution for use in organic solar cells" *Chem. Comm.*, vol. 52, pp. 5825-5827, 2016. Doi: 10.1039/c6cc01022a
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- Roy, K., "Barriers and Opportunities in Stem Cell Biomanufacturing: A Roadmap from the National Cell Manufacturing Consortium," Perinatal Stem Cell Society Meeting, Aspen CO
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- D. Struk, C. Buch, P. J. Hesketh, K. Wolter, “Stereo and mono cameras for collision avoidance,” Packaging Research Center Workshop, May 2016.
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- Suryawanshi, V.B., Kimbro, E.T. and Kelkar, A.D., “Life Prediction and Stiffness Degradation Modeling of Glass/Epoxy Composites Subjected to Flexural Fatigue Loading,” ASME 2016 International Mechanical Engineering Congress and Exposition (pp. V001T03A014-V001T03A014), American Society of Mechanical Engineers, November, 2016.
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- Toth M.J., and Kim Y., "Parallelized microfluidics for large-scale synthesis of multicomponent nanoparticles," Annual Fall Meeting of Biomedical Engineering Society (BMES), 2016.
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- Meng-Yen Tsai, Alexey Tarasov, Zohreh R. Hesabi, Philip Campbell, Corey Joiner, Erin Flynn, Robert Taylor and Eric Vogel "2D Materials based Transistors for Piezoresistive and Potentiometric Sensors", EMN Meetings on Field-Effect Transistors, Kaohsiung, Taiwan, March 14, 2016.
- R. R. Tummala, "System scaling for new era of automotive electronics: An ultimate system integration opportunity for RD and supply-chain Mfg consortium," in IMAPS 12th International Conference and Exhibition on Device Packaging, Fountain Hills, AZ, United States, March 14, 2016 - March 17, 2016
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- A. D. Upadhyaya, Y.-W. Ok, A. Rohatgi, "Solar Cells Research at the Georgia Institute of Technology" at Sungkyunkwan University, Suwon, South Korea, Sept. 30, 2016.
- Eric M. Vogel, "Large Area Synthesis of 2D Materials," APS March Meeting, Baltimore, MD, March 18, 2016.
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- A. O. Watanabe, S. Jeong, S. Kim, Y. Kim, J. Min, D. Wong, R. Mullapudi, P. M. Raj, Ra. Tummala, Y. Kim, and J. Kim, "Highly-Effective Integrated EMI Shields with Graphene and Nanomagnetic Multilayered Composites," in 66th IEEE Electronic Components and Technology Conference, (ECTC) 2016, pp. 206-210, Las Vegas, NV, United States, May 31, 2016 - June 3, 2016.
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- Smith Woosley, Md-Jamal Uddin, Sung-Jin Cho, Shyam Aravamudhan, “Functional 3D Printing with Thermoplastic Nanocomposites: Fabrication of Thermoplastic/Carbon Composite Anodes for Lithium Ion Batteries via 3D Printing”, Additive Manufacturing 3D Printing Conference, Sep. 2016.
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- N. Xia and R.A. Gerhardt, “All-printed Liquid Crystal Display Devices Made from Sol-gel Indium Tin Oxide Ink,” 2016 Nanotech Conference Proceedings, 2016.
- Xiu, S., Boakye-Boaten, N.A. and Shahbazi, A., “Separate Hydrolysis and Fermentation of Untreated and Pretreated Alfalfa Cake to Produce Ethanol,” Proceedings of the 2013 National Conference on Advances in Environmental Science and Technology (pp. 233-240), 2016.
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- B. Zaribaf, K.E. Kurtis, “Effect of Admixture Chemistry on Hydration and Microstructure in MK-PLS Cement Systems,” 7th Advances in Cement-based Materials: Characterization, Processing, Modeling and Sensing Meeting, July 10-13 2016, Evanston, Illinois, 2016.
- B. Zaribaf, K.E. Kurtis, “Mitigating Shrinkage in Metakaolin Limestone Blended Cements,” American Concrete Institute (ACI) Convention, Oct 23-27, 2016, Philadelphia, Pennsylvania, 2016.
- Z. Zeng, J. Wei, “A Versatile Nano-biosensor for Blood Biomarkers: Analysis of surface plasmon (SP) generation and an optimal nano-optofluidic device for sensing applications”, The 16th Annual Poster & Vendor Night, Central NC ACS, Greensboro, NC, April 12, 2016.
- X. Zhang, M. H. Nasr, D. C. Woodrum, C. E. Green, P. A. Kottke, T. E. Sarvey, Y. K. Joshi, S. K. Sitaraman, A. G. Fedorov, and M. S. Bakir, "Design, microfabrication and thermal characterization of the hotspot cooler testbed for convective boiling experiments in extreme-micro-gap with integrated micropin-fins and heat loss minimization," in IEEE Intersociety Conf. on Thermal and Thermomechanical Phenomena in Electronic Systems (ITHERM), Las Vegas, NV, pp. 85-90, May 30 – June 3, 2016.
- C. Zhao, A.S. Jariwala and D.W. Rosen, “Real Time Monitoring of Exposure Controlled Projection Lithography with Time-varying Scanning Points”, Proceedings of the 27th Solid Freeform Fabrication Symposium, Austin, Texas, pp. 1126-1144, 2016.
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- Y. Zhang, T. E. Sarvey, Y. Zhang, M. Zia and M. S. Bakir, "Numerical and experimental exploration of thermal isolation in 3D systems using air gap and mechanically flexible interconnects," in IEEE International Interconnect Technology Conf. / Advanced Metallization Conf. (IITC/AMC), San Jose, CA, May. 2016.
- Y. Zhang, X. Zhang, W. Wahby, and M. S. Bakir, "Design considerations for 2.5-D and 3-D integration accounting for thermal constraints," in Proc. IEEE Int. 3D Systems Integration Conf. (3DIC), San Francisco, CA, Nov. 2016
- Fangyuan Zhou, Cheng Zhu, and Hang Lu, "Gapless protein patterning in microfluidic devices enabling mechanistic studies of pre-activation of type-1 diabetic platelets", the Proceedings of the 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (MicroTAS), Dublin, Ireland, 2016.
- Weipeng Zhuo, Patrick McGrath, and Hang Lu, "Microfluidic system with spatiotemporally controlled micro-environment for studying C. elegans developmental arrest responses", the Proceedings of the 20th International Conference on Miniaturized Systems for Chemistry and Life Sciences (MicroTAS), Dublin, Ireland, 2016.

External Conference Presentations

- H. Abbott-Lyon, "Investigation of Prebiotic Molecule Adsorption on the Meteoritic Mineral Schreibersite by Infrared Reflection-Absorption Spectroscopy," Southeast Regional Meeting of the American Chemical Society, Columbia, SC, Oct. 2016.
- H. Abbott-Lyon, "Surface Characterization of Iron-Nickel Phosphides to Understand Their Role in Prebiotic Phosphorylation," Spring National Meeting of the American Chemical Society, San Diego, CA, March 2016.
- Beaty, R. E., Presentation in the "Neuroscience of Creativity" session, American Psychological Association Meeting, Denver, CO, 2016.
- Beaty, R. E., Presentation in the "Neuroscience of Creativity" session, Society for the Neuroscience of Creativity Meeting (SfN satellite conference), San Diego, CA, 2016.
- Phillip Broussard, Angela Hunziker, and Amy Davis, "Parallel Upper Critical Field Slope in Niobium Thin Films: Comparison to Theory," 83rd Annual Meeting of the APS Southeastern Section, Volume 61, Number 19, Charlottesville, Virginia, November 10–12, 2016.
- Ferhat Bayram, Digangana Khan, Soaram Kim and Goutam Koley, "AlGaIn/GaN HFET Embedded GaN Microcantilevers Based Potentiometric Sensor," Proceedings of the IEEE Sensors Conference, Orlando, FL, Oct 30 – Nov 2, 2016.
- Ifat Jahangir and Goutam Koley, "Dual channel microcantilever heaters for selective detection and quantification of a generic mixture of volatile organic compounds," Proceedings of the IEEE Sensors conference, Orlando, FL, Oct 30 – Nov 2, 2016.
- Y Kinsella, WC Hughes, L Royo-Romero, B Augustine, "Adhesion of Au thin Films on PMMA and Other Substrates," 83rd Annual Meeting of the APS Southeastern Section, Charlottesville, Virginia, November 10–12, 2016.
- D. Qasim, T. Beckman, A. Pital and H.L. Abbott-Lyon, "Multiple Surface-Science Techniques to Elucidate the Reactive Nature of a Metal Phosphide Mineral," PITTCON, Atlanta, GA, March 2016.
- D. Qasim, T. Beckman, A. Pital, J. Lu and H.L. Abbott-Lyon, "The Reaction of Water and Methanol with the Surface of a Meteoritic Mineral Surrogate," Gordon Research Conference on the Origin of Life,

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