Appendix B: SENIC 2016 Publications

Internal Journal Publications


Maurizio Biso, Roberta Colombo, Jamal Uddin Md, Milena Stanga, and Sung-Jin Cho, "A Rheological Behavior of Various Polyvinylidene Difluoride Binders for High Capacity LiNi0.6Mn0.2Co0.2O2,” *Polymer Engineering & Science*, 2016.


Yo Han Kwon, Matthew Huie, Dalsu Choi, Mincheol Chang, Amy C. Marschilok, Kenneth J. Takeuchi, Esther S. Takeuchi, and Elsa Reichmanis, “Towards Uniformly Dispersed Battery Electrode


Li, J.; Sun, X.; and Qin, D., “Ag-enriched Ag-Pd nanoframes and their catalytic properties”, *ChemNanoMat*, vol. 2, pp. 494–499, 2016.


Catherine A. Rivet, Ariel S. Kniss-James, Margaret A. Gran, Anish Potnis, Abby Hill, Hang Lu, and Melissa L. Kemp, “Calcium Dynamics of Ex Vivo Long-Term Cultured CD8+ T Cells Are Regulated by Changes in Redox Metabolism,” *PLoS One*, vol. 11, pp. e0159248, 2016. doi: 10.1371/journal.pone.0159248. eCollection 2016. PMID: 27526200


Gang Wang, Ping-Hsun Chu, Boyi Fu, Zhongyuan He, Nabil Kleihnenz, Zhibo Yuan, Yimin Mao, Hongzhi Wang, and Elsa Reichmanis, “Conjugated Polymer Alignment: Synergism Derived Microfluidic Shear and UV Irradiation,” *ACS Applied Materials and Interfaces*, vol. 8, pp. 24761-24772, 2016. DOI: 10.1021/acsami.6b07548


Zhibo Yuan, Boyi Fu, Siyuan Zhang, Giovanni DeLuca, Rui Chang, Lauren Lopez, Chaker Fares, Guoyan Zhang, and Elsa Reichmanis, “Unipolar electron transport polymers: a thiazole based all electron acceptor approach,” *Chemistry of Materials*, 2016. DOI: 10.1021/acs.chemmater.6b01929


Guoyan Zhang, Ho Yee Hui, Ping-Hsun Chu, Zhibo Yuan, Rui Chang, Bailey Risteen, Huai Yang, and Elsa Reichmanis, “From staple food to calligraphic substrate to electronics: Rice as a biocompatible precursor for flexible electronic components,” *Chemistry of Materials*, 2016. DOI: 10.1021/acs.chemmater.6b04306.


**External Journal Publications**


**Internal Conference Presentations**


B. C. Chou, B. Sawyer, W. Vis, R. Furuya, F. Liu, V. Sundaram, and R. Tummala, “Co-Design and Demonstration of a Fully Integrated Optical Transceiver Package Featuring Optical, Electrical, and


P. J. Hesketh, “Ultra-low power MEMS gas sensors and efficient preconcentration using microfluidic devices for Salmonella” Biological and Chemical Sensors Summit, La Jolla, CA, Dec. 5-7th, 2016.

D. W. Hess, “Control of Wetting and Adhesion of Liquid Drops on Cellulose-based and Stainless Steel Surfaces,” Symposium on Contemporary Engineering Topics, Jackson, MS, August 26, 2016.


Mi-Hee Ji, Jeomoh Kim, Theeradetch Detchprohm, Russell D. Dupuis, Ashok Sood, Nibir Dhar and Jay Lewis, “Demonstration of Uniform and Reliable GaN p-i-n Ultraviolet Avalanche Photodiode Arrays


A. Mahdavifar, M. Navaei, P. J. Hesketh “Ultra low power gas sensor for detection of low ppb levels of ammonia,” IMCS, Jeju Island, Korea, July 2016.


J. R. Reynolds et al. “Conjugated Polymers in Redox Active Devices: Charge Storage as a Case Study” SERC Conference, Raleigh, NC, October 2016.


J. R. Reynolds et al. “Redox-Active Polymers for Electrorchromism and Charge Storage”, Annual Executive Conference, Renewable Bioproducts Institute, Georgia Institute of Technology, April 2016. (oral presentation)


Sei Y.J. and Kim Y., “Propagating microvortices to engineer drug loaded high-density lipoprotein mimetic nanomaterials,” Annual Fall Meeting of Biomedical Engineering Society (BMES), 2016.


N. Shahane, K. Mohan, R. Behera, A. Antoniou, P. R. Markondeya, V. Smet, et al., "Novel High-
Temperature, High-Power Handling All-Cu Interconnections through Low-Temperature Sintering of
Nanocopper Foams," in 66th IEEE Electronic Components and Technology Conference, (ECTC)

interaction through mode engineering in plasmonic nanoantenna arrays," 2016 Progress in

S. H. Shams-Mousavi, H. Taheri, A. H. Hosseinnia, A. A. Eftekhari and A. Adibi, "Large enhancement of
FW4A.3, San Jose, CA, 2016.

Manish Sharma, Md Rezaul Karim, Pavan Kasanaboina, and Shanthi Iyer, "Growth Model for Self-
Assisted Growth of Patterned axial GaAs(Sb) Nanowire," MRS/ASM/AVS, Raleigh, NC, Nov 4,
2016.

Growth of Axial GaAsSbN Nanowires by Molecular Beam Epitaxy,” Material Research Society Fall
Meeting, Boston, MA, 2016.

Manish Sharma, Pavan Kasanaboina, Md Rezaul Karim and Shanthi Iyer, “Patterned Growth of Self-
Catalyzed GaAs(Sb) Nanowires by Molecular Beam Epitaxy”, 32nd NAMBE Conference 2016,
Saratoga Spring, New York, Sep 18-21, 2016.

Manish Sharma, Pavan Kasanaboina, Prithviraj Deshmukh, Jia Li, Abhishek Motayed and Shanthi Iyer,
“Enhancement in Photoluminescence Intensity of GaAs/GaAsSb Core-Shell Nanowires with Nitride

T. Shi, B. Chou, T. C. Huang, T. Ogawa, Y. Sato, H. Matsuura, et al., "Design, Demonstration and
Characterization of Ultra-Thin Low-Warpage Glass BGA Packages for Smart Mobile Application

D. Shin, C. Meredith, “Bioinspired multiphase humidity- and rate-dependent capillary adhesives,” AIChe

B. Singh, T.-C. Huang, S. Kawamoto, V. Sundaram, R. Pulugurthva, V. Smet, et al., "Demonstration of
Enhanced System-Level Reliability of Ultra-Thin BGA Packages with Circumferential Polymer
Collars and Doped Solder Alloys," in 66th IEEE Electronic Components and Technology Conference,

Sub-Eutectic Vapor-Liquid-Solid Semiconductor Nanowire Growth,” 63rd International Symposium of the American Vacuum Society, Nashville,
TN, Nov. 6-11, 2016.

Sub-Eutectic Vapor-Liquid-Solid Semiconductor Nanowire Growth,” Annual Meeting of the American Institute of Chemical Engineers, San Francisco,

Song, Y., Abbaspour, R., Bakir, M., and Sitaraman, S. K., “Thermal Annealing Effects on Copper
Microstructure in Through-Silicon-Vias,” IThERM 2016 The Intersociety Conference on Thermal

As Long-Term Cycleability Anode Material for Lithium Ion Batteries,” The 18th International Meeting on Lithium Batteries, June, 2016.


Md-Jamal Uddin, Pankaj Alaboina, Sung-Jin Cho, “High Molecular Weight Polyvinilidene Difluoride Binders for High Capacity Ni-Rich NMC (LiNi0.6Mn0.2Co0.2O2): Rheological Behavior,” ACS Poster Competition 2016, North Carolina Region, NC, April 2016.

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.


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


**External Conference Presentations**


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.


Books and Book Chapters


Patents Awarded, Patent Applications, and Invention Disclosures


“Improved Method for Preparing GaAsSb Axial and GaAsSb Core Shell Nanowires”. NCA&T Ref: EN0095 0915 PRV-2, Provisional Application U.S. Serial No. 62/396,403, Filed: 9/19/2016.