

## Nano and Micro Manufacturing Workshop Poster List

**Wednesday, May 22, 2013**

Scalable Nanomanufacturing Using Layer-by-Layer Nanoassembly	<u>Mangilal Agarwal</u> , Sudhir Shrestha, and Kody Varahramyan
Paramagnetic Nanoparticle for Non-Invasive Detection of Glioma	<u>Meser Ali</u> , Janic Branislava, Nadimpalli Varma, and Ali Arbab
Closed-Loop Particle and Drop Generators using Morphometric Image Feedback	Razieh Kebriaei and <u>Amar S. Basu</u>
Templated Evaporative Lithography for High Throughput Fabrication of Nanopatterned Films	<u>Roger T. Bonnecaze</u> and Talha Arshad
A SPICE-Compatible Model of Graphene Nano-Ribbon Field-Effect Transistors	<u>Ying-Yu Chen</u> , Artem Rogachev, Amit Sangai, Giuseppe Iannaccone, Gianluca Fiori, and Deming Chen
Scalable Laser Nano-Manufacturing of Multi-Dimensional Nanomaterials and Nanostructure	<u>Gary Cheng</u>
Synthesis of Carbon Nanotube (CNTs)/Polymer Nanocomposite	<u>A. Dissanayake</u> , Muralidhar K. Ghantasala, Valery N. Bliznyuk, and A. Kayani
Miniaturization Engineering: Development and Application of Advanced Optical Metrology Systems	<u>Cosme Furlong</u> , Ivo Dobrev, Ellery Harrington, Peter Hefti, and Morteza Khaleghi
Tip-Based Chemical Vapor Deposition With a Scanning Nano-Heater	<u>Angelo Gaitas</u>
Commercialization of Gecko-Inspired Adhesives	<u>Paul Glass</u> , Theodore F. Novitsky, and Metin Sitti
Micro Laser Sintering	<u>Joachim Goebner</u> , Jessy Nehro, and Andrew Snow
Structural Health Monitoring Using a Micro-Fabricated Fatigue Sensor	<u>Subash Gokanakonda</u> , Muralidhar K. Ghantasala and Daniel Kujawski
A Low-Cost Process for Manufacturing Thin Film Carbon Nanotube Based Composites	<u>Vikrant J. Gokhale</u> and Mina Rais-Zadeh
Whispering Gallery Mode Resonator: Potential Applications to Defense/Homeland Security and Biomedical Devices	<u>Tindaro Ioppolo</u> , Edoardo Rubino, Maurizio Manzo
Plasma-Assisted Transfer-Printing of Ordered Arrays of Two-Dimensional Nanocrystal Features for Nanoelectronic Applications	Hongsuk Nam, Sungjin Wi, Hossein Rokni, Mikai Chen, Greg Priessnitz, Wei Lu, and <u>Xiaogan Liang</u>
Rapid Assembly of Nanostructure Electrodes for Energy Storage	Lin Shao and <u>Jodie L. Lutkenhaus</u>
Multi-scale Manufacturing with Polymer Materials	<u>Joey L. Mead</u> and Carol Barry
Manufacturing of Metal-Based Micro/Nano Parts: Fabrication Strategies and Surface Engineering Applications	<u>W.J. Meng</u> , Bin Lu, Ke Chen, Yang Mu
Layer-By-Layer 3D Printing of Silicon Micro- and Nanostructures	<u>Frank Niklaus</u> , Andreas C. Fischer, Kristinn B. Gylfason, Göran Stemme, B. Gunnar Malm, Mohammadreza Kolahdouz, and Lyubov M. Belova
Synthesis of Crystalline ZnO Nanorods and Nanoflakes on Arbitrary Substrates at Ambient Conditions	Phani K. Vabbina, <u>Nezih Pala</u> , and Wonbong Choi
Developments in Additive Microfabrication Using Inkjet Printed Gold	<u>Robert C. Roberts</u> and Norman C. Tien
Contact Manipulation and Assembly of Nanostructures for Assembly-Based Nanomanufacturing	<u>Laxman Saggere</u> and Christopher A. Pelzmann
Manipulation and Characterization of Nanomaterials Inside Scanning Electron Microscope	Brandon K. Chen and <u>Yu Sun</u>
Novel Nano-Metal Polymeric Composites Fabricated via In-Situ Self Assembly	<u>Terrence G. Vargo</u>
A Versatile Microplasma-Based Patterning Technology for Large-Scale, High Throughput Micro- and Nanomanufacturing	<u>Christian A. Zorman</u> , Mohan Sankaran, Philip X.L. Feng, and Joao Maia

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Fluid Management in Roll-to-Roll Nanoimprint Lithography	<a href="#">Roger T. Bonnecaze</a> and <a href="#">Akhilesh Jain</a>
Detection of Cancer by Nano Sensors	<a href="#">Anjali Chatterjee</a> and <a href="#">A. Srinivasan</a>
Dielectric Properties of Three-Phase PZT-MWCNT-Epoxy Thick Film Composites with Graphene Electrodes	<a href="#">Sankha Banerjee</a> , <a href="#">Rajesh Kappera</a> , <a href="#">K.A. Cook-Chennault</a> , and <a href="#">Manish Chhowalla</a>
Transfer-Free, Wafer-Scale Manufacturing of Graphene-Based Nanoelectromechanical Resonant Devices	<a href="#">Michael Cullinan</a> and <a href="#">Jason Gorman</a>
Manufacturing Techniques to Improve Silicon Nanowire Repeatability	<a href="#">Thomas M. Daunais</a> and <a href="#">Paul L. Bergstrom</a>
Realization, Characterization, and Application of an Uncooled MEMS Sensor for Real-Time Infrared Imaging	<a href="#">Cosme Furlong</a> , <a href="#">Frank Pantuso</a> , <a href="#">Ivo Dobrev</a> , <a href="#">Morteza Khaleghi</a> , and <a href="#">Everett Tripp</a>
Manufacturing Thin Films With Controlled Stress for Micro- and Nanomechanical Devices	<a href="#">Cindy Harnett</a>
Salt Porogen for Synthesis of Porous Nanoparticles	<a href="#">Azhar Ilyas</a> , <a href="#">Jyothi U. Menon</a> , <a href="#">Kytai T. Nguyen</a> , and <a href="#">Samir M. Iqbal</a>
Ultra High-Speed Micromachining of Miniaturized Components	<a href="#">Said Jahanmir</a>
Fabrication of an Integrated Biosensing Device Based on the Surface Plasmon Resonance Effect	<a href="#">Alvaro Jiménez</a> , <a href="#">Dominic Lepage</a> , <a href="#">Jacques Beauvais</a> , and <a href="#">Jan J. Dubowski</a>
Multifunction 3D Electrode Arrays Based on a Simple Folding Process	<a href="#">Jessin John</a> , <a href="#">Eric Kim</a> , <a href="#">Hongen Tu</a> , <a href="#">Jinsheng Zhang</a> , <a href="#">Jeffrey Loeb</a> , and <a href="#">Yong Xu</a>
Hybrid Optical Neuromodulator for Optogenetics	<a href="#">Ki Yong Kwon</a> and <a href="#">Wen Li</a>
Wearable Autonomous Gas Sensor Array Microsystem for Real-Time Health and Safety Monitoring	<a href="#">Haitao Li</a> , <a href="#">Xiaoyi Mu</a> , <a href="#">Xiaowen Liu</a> , <a href="#">Yuning Yang</a> , and <a href="#">Andrew J. Mason</a>
Design of a New Micro Electromechanical Strain Sensor	<a href="#">Suryakala Majeti</a>
Commercially Competitive Scalable Batch Manufacturing of Polymer Microfluidic Laminates	<a href="#">Jason McDowell</a> , <a href="#">Said Ehrlich</a> , and <a href="#">Leanna Levine</a>
Improving Nano/Microporous Si Anode Properties by Atomic Layer Deposited (ALD) High-K Oxide Passivation for High Energy Density Storage Applications	<a href="#">Michael Lim</a> , <a href="#">Bongmook Lee</a> , and <a href="#">Veena Misra</a>
Fabrication of Novel Dissolvable Delivery Vehicle for Flexible Neural Probes Using Spin Casting	<a href="#">Rakesh Khilwani</a> , <a href="#">Peter J. Gilgunn</a> , and <a href="#">O. Burak Ozdoganlar</a>
Fabrication of Water-Soluble and Biodegradable Microneedle Arrays for Drug Delivery	<a href="#">Emrullah Korkmaz</a> , <a href="#">Bekir Bediz</a> , <a href="#">Rakesh Khilwani</a> , <a href="#">Geza Erdos</a> , <a href="#">Louis D. Faló Jr.</a> , and <a href="#">Burak Ozdoganlar</a>
Treatment and Processing of Low-Cost Graphite Nanomaterials Towards Enhancement of the Concrete-Based Infrastructure	<a href="#">Jue Lu</a> , <a href="#">Anagi Balachandra</a> , <a href="#">Amirpasha Peyvandi</a> , and <a href="#">Parviz Soroushian</a>
From Multi-Ring to Spider Web and Radial Spoke: Pattern Formation in Inkjet-Printed Nanoparticle Droplets	<a href="#">Xin Yang</a> , <a href="#">Christopher Li</a> , and <a href="#">Ying Sun</a>
Exploratory Study of Nano Ultrasonic Machining Process	<a href="#">M.M. Sundaram</a> , <a href="#">S. James</a> , and <a href="#">K.P. Rajurkar</a>
Fabrication of Highly Ordered Silicon Nano-Arrays With Controllable Sidewall Profiles	<a href="#">Ahad A. Syed</a> and <a href="#">Basil J. Chew</a>
Understanding and Mitigating the Wear of Probes in Tip-Based Metrology and Nanomanufacturing Processes	<a href="#">Kevin T. Turner</a> , <a href="#">David S. Grierson</a> , <a href="#">Tevis Jacobs</a> , <a href="#">Yijie Jiang</a> , <a href="#">Jingjing Liu</a> , <a href="#">Vahid Vahdat</a> , and <a href="#">Robert W. Carpick</a>
Sub-5 nm Patterning Using Helium Ion Beam Lithography and Nanoimprint Lithography	<a href="#">He Liu</a> , <a href="#">Wen-Di Li</a> , <a href="#">Ahmad N. Abbas</a> , <a href="#">Chongwu Zhou</a> , <a href="#">R. Stanley Williams</a> , and <a href="#">Wei Wu</a>