

## Session Topic 12 -- Nano Materials and Nano Structures

Chairs: Earl Stromberg, Lockheed Martin

Hongyou Fan, Sandia National Lab

Carmen Lilley, University of Illinois at Chicago

### TUESDAY, Salon C

Paper ID	Time	Title	Authors & Affiliations
PID 549165	4:00 - 4:30	<i>Morphology and dynamics of polymer nanocomposites for varying polymer filler interactions</i>	Monojoy Goswami, Oak Ridge National Laboratory, USA; and Bobby Sumpter, Oak Ridge National Laboratory, USA

### WEDNESDAY, Room M11

PID 596454	3:00 - 3:30	<i>In Situ Mechanical Characterization of One Dimensional Nanoscale Building Blocks Using Novel Microfabricated Devices</i>	Yogeeswaran Ganesan, Rice University, USA; Yang Lu, Rice University, USA; Hao Lu, Rice University, USA; and Jun Lou, Rice University, USA
PID 544020	3:30 - 4:00	<i>Formation of Ni/NiO nanoparticles in Supermicroporous Silica-Based SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-NiO Materials: structural and magnetic studies</i>	Vladimir Bakhmutov, Texas A&M University, USA; Boris Shpeizer, Texas A&M University, USA; Andrey Prosvirin, Texas A&M University, USA; Kim Dunbar, Texas A&M University, USA; and Abraham Clearfield, Texas A&M University, USA
PID 549920	4:00 - 4:30	<i>Carbon Nanotube Synthesis on Stainless Steel for use in a Nanotube-Titanium Nitride Nanocomposite</i>	Carole Baddour, McGill University, Canada; and Jean-Luc Meunier, McGill University, Canada
PID 646688	4:30 - 5:00	<i>Variation of Oxygen-to-Carbon Ratio in Oxyacetylene Flame</i>	Laxmikant Saraf, Pacific Northwest National Laboratory, USA; Kyle Bunch, Pacific Northwest National Laboratory, USA; Mark Engelhard, Pacific Northwest National Laboratory, USA; and Paul Gassman, Pacific Northwest National Laboratory, USA

### THURSDAY, Salon C

PID 566100	9:00 - 9:25	<i>SiO<sub>2</sub> Nanorod Thin Film Encapsulated by Al<sub>2</sub>O<sub>3</sub> with Atomic Layer Deposition and its Optical Application</i>	Sangho Kim, University of Minnesota, United States; Nicholas Gabriel, University of Minnesota, United States; Woo-Bin Song, University of Minnesota, United States; and Joseph Talghader, University of Minnesota, United States
PID 553262	9:25 - 9:45	<i>Improving electrical properties of ZnO thin films by the combination of plasma treatment, post-annealing and doping</i>	Tsai-Yuan Shie, National Taiwan University, Taiwan; Jing-Shun Huang, National Taiwan University, Taiwan; and Ching-Fuh Lin, National Taiwan University, Taiwan
	<b>9:45 - 10:00</b>	<b>Break</b>	
PID 594463	10:00 - 10:30	<i>High Yield Magnetic Nanoparticles Filled Multiwalled Carbon Nanotubes Using Pulsed Laser Deposition.</i>	Dereje Seifu, Morgan State University, USA; and Shashi Karna, US Army Research Laboratory, USA
PID 570148	10:30 - 11:00	<i>Structural, Optical and Electrical Characterization of Nano-Structured ZnO Thin Films Deposited by Solution Growth Technique</i>	Ashok Singh, Defence Institute of Advanced Technology, India; Sharad Patil, Defence Institute of Advanced Technology, India; and Vikash Janu, Defence Institute of Advanced Technology, India
PID 576775	11:00 - 11:30	<i>A Novel Dual-Layered Electrolytic Resistance Memory with Enhanced Retention</i>	Rohit Soni, FZ Juelich, Germany; Christina Schindler, FZ Juelich, Germany; Martin Weides, FZ Juelich, Germany; Carsten Kügeler, FZ Juelich, Germany; Andreas Rüdiger, FZ Juelich, Germany; and Rainer Waser, FZ Juelich, Germany
PID 591274	11:30 - 12:00	<i>Microcrystalline Piezoresistive Polysilicon Film Obtained by Aluminum Induced Crystallization</i>	Suraj Patil, University of Texas at Arlington, USA; Zeynep Celik-Butler, University of Texas at Arlington, USA; and Donald Butler, University of Texas at Arlington, USA
	<b>12:00 - 2:00</b>	<b>Lunch</b>	
PID 592741	2:00 - 2:25	<i>Solution Processed Large Area Surface Textures Based on Dip Coating</i>	Yuehui Wang, University of Texas at Arlington, US; Hongjun Yang, University of Texas at Arlington, US; Li Chen, University of Texas at Arlington, US; Weidong Zhou, University of Texas at Arlington, US; Meng Tao, University of Texas at Arlington, US; and Qing Guo, ZT Solar, Inc., US
PID 594213	2:25 - 2:45	<i>A Two-step Hydrothermal Method for Preparing Titania Nanostructure with High Surface Area</i>	Patcharaporn Lorturn, Chulalongkorn University, Thailand; Nawin Viriya-empikul, National Nanotechnology Center, Thailand; Apinan Soottitantawat, Chulalongkorn University, Thailand; Gamolwan Tumchareem, National Nanotechnology Center, Thailand; Wiwut Tanthapanichakoon, National Nanotechnology Center, Thailand; and Tawatchai Charinpanitkul, Chulalongkorn University, Thailand
	<b>2:45 - 3:00</b>	<b>Break</b>	

PID 594535	3:00 - 3:30	<i>Fabrication of Bio-Inspired Elastomer Nanofiber Arrays with Spatulate Tips using Notching Effect</i>	Seok Kim, Carnegie Mellon University, USA; Ji-Hyun Jang, Massachusetts Institute of Technology, USA; Metin Sitti, Carnegie Mellon University, USA; and Edwin Thomas, Massachusetts Institute of Technology, USA
PID 595012 PID 637225	3:30 - 4:00	<i>Analysis of Photoelectric Property and Surface Morphology of Amorphous TiO<sub>2</sub> at Different Substrate Temperatures by Sputtering</i>	Ching-Hua Wei, Southern Taiwan University, Taiwan; Jih-Lian Ha, Far East University, Taiwan; Wu-Chung Sue, Southern Taiwan University, Taiwan; Chin-Tu Lu, Southern Taiwan University, Taiwan; Ching-Min Chang, Southern Taiwan University, Taiwan; Kuan-Yu Chen, Southern Taiwan University, Taiwan; and Kan-Rong Li, Southern Taiwan University, Taiwan
PID 596574	4:00 - 4:30	<i>Optical Properties of Closely Coupled Dilute Nitride Mid-Infrared InNSb Quantum Dots</i>	Seongsin Kim, University of Alabama, USA; Homan Yuen, Stanford University, USA; Fariba Hatami, Stanford University, USA; Patrick Kung, University of Alabama, USA; and James Harris, Stanford University, USA