

Meeting Agenda

- 8:30-9:15AM** Registration and Coffee (poster and vendor setup)
- Morning Session**
9:15-9:30AM Chairperson: **Nadia El-Masry** (NCSU)
Prof. Dieter Griffis (Analytical Instrumentation Facility, College of Engineering, NCSU)
Welcome and opening remarks
- 9:30-10:00** *INVITED:* **Charter Stinespring** (West Virginia University)
"Gas Source Molecular Beam Epitaxy SiC/Si"
- 10:00-10:15** Student Paper: **Shreya Paul** (NCSU)
"Improving Adhesion of Polypropylene to Elastomers: Part 1"
- 10:15-10:30** Student Paper: **Tim Kennedy** (NCSU)
"Characterization of Ductile Regime Machining of Silicon"
- 10:30-10:50** **Break**
- 10:50-11:20** *INVITED:* **Vincent Chiang** (NCSU)
"Transgenic Wood for Bioethanol"
- 11:20-11:50** *INVITED:* **John Hammond** (Physical Electronics)
"Surface Analysis of Biological Materials: Status and Future Promise"
- 11:50-12:30** **Lunch**
12:30-1:45 **Poster Session/Vendor Exhibits**
- Afternoon Session**
1:45-2:15 Chairperson: **Shanti Iyer** (NC A&T Univ.)
INVITED: **Jay Gaillard** (Clemson, Univ.)
"Deducing the Bending Modulus in Carbon Nanotubes Using the Harmonic Detection of Resonance Method"
- 2:15-2:30** Student Paper: : **Sudhakar Bharatan** (NC A&T Univ.)
"Structural, optical and vibrational properties of lattice-matched GaAsSbN/GaAs grown by molecular beam epitaxy and their annealing effects"
- 2:30-3:00** *INVITED:* **William Lampert** (ARO)
"Overview of the Materials Design Program at US Army Research Office"
- 3:00-4:00** **Poster Session Final Judging / Vendor Exhibits**

Student Posters

D.N. Leonard	Table Top SEM, Duke TIP Nanotechnology Students and a Sense of Scale	ASU
Michelle D. Casper	Deposition Methods of BiFeO ₃ Thin Films	NCSU
Mark Losego	Surface Plasmon Resonance in Conductive Oxides for Molecular Sensing	NCSU
H. Spalding Craft	Band offsets and stability of rocksalt oxides on GaN (0002) investigated via X-ray photoelectron spectroscopy	NCSU
Elizabeth Paisley	Deposition of PZT thin films on Cu and GaN substrates by RF magnetron sputtering	NCSU
Judith Grenko	Charge and Mobility in AlGaIn Heterostructures Grown Homoepitaxially	NCSU
Curt Progl	Characterization of V-defects in InGaIn LEDs by STEM-EBIC	NCSU
Kalyan Nunna	GaAsSbN Single Quantum Well LED and Lasers in the 1.55 um wavelength region	NC A&T
Stephane Henrion	Atomic-scale characterization of GaP grown on Si with chemical vapor deposition	NCSU
Trinity Biggerstaff	Characterization of the origin of band states in the SiC/SiO ₂ interface	NCSU
Eric Jones	Characterization of Si/SiGe nanorods electron energy loss spectroscopy and convergence beam electron diffraction	NCSU
Jinmei Du	Preparation and Characterization of Catalyst- Loaded Nanofibers for Use in Fuel Cells	NCSU
Debasish Kuila	In Situ Synthesis and Characterization of Bimetallic Mesoporous Silica	NC A&T
Ryan McClellan	TEM Characterization of Nano Crystalline Diamond Particles	NCSU
Zhongqiao(Joe) Ren	Photoluminescence Spectra of Rubrene and Diphenyl-Anthracene	UNC
A. Doraiswamy	Two Photon Polymerization of Microstructured Medical Devices	UNC
Guang Yang	Novel Gantry-Free Digital Breast Tomosynthesis (DBT) System using a Stationary Multibeam Field Emission X-Ray Source Array Based on Carbon Nanotubes	UNC



A. Newell	Pre-Collage Materials Science and Engineering Outreach: Materials Camp 2007	NCSU
S. Iyer	Effects of N incorporation on the structural and photoluminescence characteristics of GaSbN/GaSb single quantum wells	NC A&T
Matt Puster	Quinacridone-TiO ₂ bonding in dye-sensitized TiO ₂ nanotubes.	UNC
Sigen Wang	Development of carbon nanotube field emission Micro-RT system for radiotherapy	UNC
T. Bradley	The Influence of Processing Parameters on the Properties of Self Assembled Monolayers	NC A&T
L. Wu	Surface morphology and optical properties of low- temperature growth of III-V nitrides for organic/inorganic devices in flexible display applications	NC A&T
S. Iyer	GaSbN/GaSb Single Quantum Wells Grown by Molecular Beam Epitaxy	NC A&T