

## Schedule of Presentations by REU Students

Lewis Lab 316, July 24, 2009

### First Session: 8:45–9:45 am *Chair: Prof. Hickman*

8:45	Matthew Bross	(Kim)	Pulsed Plasma by Exploding Wire in Confined Space
9:00	Thomas Goldstein	(Kritz)	Transport Near the Edge of Tokamak Plasmas
9:15	Kara Richter	(Huennekens)	Bound Free Spectra in NaCs $5^3\Pi_0 \rightarrow 1^3\Sigma^+$ Transitions
9:30	Elizabeth Gould	(Hickman)	Theoretical Examination of $m$ -Mixing Collisions of NaK Molecules

### Second Session: 10:00 am–11:00 am *Chair: Prof. McSwain*

10:00	Kate Hessler	(McSwain)	Measuring and Analyzing Binary Star Spectra
10:15	Colleen Schmidt	(McSwain)	$\iota$ Orionis and the Auriga OB1 Association
10:30	Eric Coughlin	(McCluskey)	Ultraviolet Spectroscopic Analysis of $\gamma^2$ Velorum
10:45	Benjamin Esham	(Fowler)	Investigation of the Vibrational Frequencies of Carbon $H_2^*$ Defects in Silicon

### Third Session: 11:15 am–12:15 pm *Chair: Prof. Rotkin*

11:15	Enkhbayasgalan Gantsog	(Rotkin)	Numerical Analysis of Carbon Nanotube Nano-electromechanical Actuation
11:30	Adrienne LaFleur	(Rotkin)	Molecular Dynamics Modeling of Carbon Nanotubes with Organic Compounds
11:45	Jackline Koech	(Dierolf)	Temperature Dependence of Localized Emission in AlGaN Measured by Cathodoluminescence
12:00	Jana Stallman	(Dierolf)	Measuring Electric Fields on the Submicron Scale

### Lunch Break: 12:15–1:15 pm *Box lunches provided*

### Fourth Session: 1:15 pm–2:30 pm *Chair: Prof. Biaggio*

1:15	Amy Frantz	(Toulouse/ Biaggio)	Observation of the Change in Birefringence in Doped $KTaO_3$ Induced by Material Striations and Imbedded Dipoles
1:30	Elizabeth Bushong	(Toulouse/ Biaggio)	Tellurite Glasses for Infrared Fibers
1:45	Carolyn Kan	(Toulouse/ Biaggio)	Measuring the Linear Refractive Indices of Tellurite Glass Samples
2:00	Jennifer McKnight	(Misiolok/ Toulouse)	Viscosity and Birefringence Measurements of Tellurite Glass
2:15	Yuvraj Singh	(Cheng)	Optimization of Porosity Features of Bimodal Porous Glass Matrices for HIV Separations

### Fifth Session: 2:45–4:00 pm *Chair: Prof. Heffner*

2:45	Sarah Horst	(Heffner)	Crystallization in Sugar Glass using Home-built Laboratory Equipment
3:00	Jonathan Erb	(Koel)	Structural Features of Glass Fracture Surfaces by High Resolution XPS
3:15	Mark Regalla	(Kovalskyy)	New Chalcogenide Materials for Thin Film Fresnel Lenses
3:30	Max Kaplan	(Vinci)	Mechanical Analysis of Bioactive Glass
3:45	Therese Quinn	(Jedlicka)	Osteoblast Biology on Peptide-Decorated Sol-gel Derived Bioactive Glass

### Sixth Session: 4:15–5:30 pm *Chair: Prof. Hickman*

4:15	Mae Lynn Chan	(Ou-Yang)	How to Detect Metastasis by the Separation of Cancer Cells in Blood
4:30	Heidi Moreira	(Vavylonis)	Assembly of Myosin into the Contractile Ring During Mitosis in Fission Yeast
4:45	Stephen Abate	(White)	Automated SILC Measurement in MOSFET
5:00	Matthew Galligan	(White)	SONOS Memory
5:15	Alexander Hallden-Abberton	(Hwang)	Determining Pull-in and Release Voltages of RF MEMS Capacitive Switches