

Cheng Ching Kurt Chiang

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EDUCATION

The University of Akron, Akron, OH

Ph.D in progress in Polymer Science

Research: "Biosynthesis of Natural Rubber by Natural Living Carbocationic Polymerization"

The Pennsylvania State University, University Park, PA

B.S. in Materials Engineering and Science, Polymers Option, 2006

Thesis: "Preparation of Porous Xerogel-Metal Nanocomposites Through Sacrificial Dendrimer Templates"

RESEARCH EXPERIENCES

Department of Materials Science and Engineering, The Pennsylvania State University

Undergraduate Researcher

August 2003; August 2006

- Synthesized xerogels through sol-gel process.
- Templated metal nanoparticles in G4-PAMAM dendrimers.
- Applied dialysis to fractionate polymer samples.
- Analyzed pore volume through solvent intrusion porosimetry.
- Investigated nanoparticle size distribution with TEM.
- Characterized pores of xerogels with TEM, SEM and SAXS.
- Performed tensile testing with ASTM standards.

Undergraduate Researcher

January 2003; May 2003

- Analyzed crystallization kinetics of polyethylene oxide.
- Characterized PEO samples with polarized optical microscopy, DMA, and DSC.
- Verified molecular weights of fractionated polymer samples with GPC.

Institute of Atomic and Molecular Sciences, Academia Sinica

Summer Research Intern

May 2005; August 2005

- Designed and constructed a valve control panel for high vacuum systems.
- Collected data from multichannel scaler/averager.
- Prepared and tuned dye lasers to be monochromatic
- Assisted in high vacuum systems maintenance