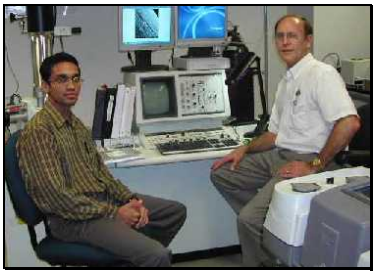
November 2004
College of William and Mary
Applied Research Center Student Newsletter

Lab Visitors!

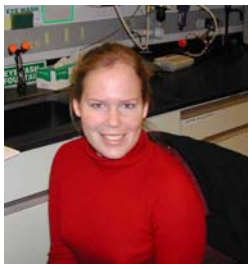


Siemens VDO

Anurag Chandorkar (left) and Rod Linekin, from Siemens VDO, came in to inspect their samples using the SEM

Norfolk State University

Michael Kelley is pictured here with Sean L. Jones, an Optical Engineering Professor at Norfolk State Universitv.



The College of William and Mary

Laurel Averett, a senior physics major at William and Mary, is using the AFM to characterize samples for her honors thesis.

Materials Research 2004

North Carolina Symposium

November 5, 2004

Dee Dee is pictured here with Fred A. Stevie, a Senior Researcher for the Analytical Instrumentation Facility at NC State University, and Guy Messenger, the Southeast Regional Sales Manager for Physical Electronics.

Natalie and Dee Dee present their ToF-SIMS poster at the symposium's poster competition

On November 5th, Amy Wilkerson, Dee Dee Hopkins and Natalie Pearcy attended the North Carolina Materials Research Symposium in Research Triangle Park, North Carolina. Topics at the symposium included materials synthesis, processing, characterization, biomaterials and modeling. Natalie and Dee Dee participated in the poster competition with a presentation on ToF-SIMS.

Editor: Kelly Sullivan Photos: Olga Trofimova

Featured Researcher

Hui Tian

Hui Tian is a graduate student in the Applied Science department at William and Mary, and is a frequent visitor to our lab, as well as to the XPS lab in Small Hall on campus. Her research involves the study of Niobium chemistry. The impact of Nb chemistry on SRF performance has led to several characterization studies using angle-resolved XPS, but with inconsistent results. The considerable roughness also raises questions as to how the results of the angle-resolved XPS experiments should be interpreted. Seeking improved understanding of how surface roughness affects the XPS results, we subjected polycrystalline Nb and single crystal Nb to Buffered Chemical Polishing (BCP), then measured surface roughness by stylus profilometry and AFM, surface composition by the vary photon energy XPS, which was carried at Beamline X1B at the National Synchrotron Light Source (NSLS).