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WEBINAR ANNOUNCEMENT

X-Ray Diffraction (XRD) for the Analysis of Thin Films

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Date: June 4, 2020
Time: 11:00 AM – 12:00 PM (EDT)

Abstract: XRD is a powerful technique to perform qualitative and quantitative analyses of materials and is most widely used for the identification of unknown crystalline materials. Determination of unknown solids is critical to studies in geology, environmental science, and material science to name but a few. When X-Rays contact a crystal, a series of reflections are produced that are unique and characteristic for each phase, similar to a fingerprint. It is a laboratory method that does not require large amounts of material, even very small amounts of material can be measured with special holders, and is non-destructive. Though often used as a technique to work with powders or bulk materials, this presentation will be focused on how thin films from nanometers to micrometers in thickness can be analyzed. Glancing Angle XRD is a technique to look at the chemistry and dislocation of thin films. Reflectivity is a technique that will allow us to measure the thickness of thin films, as well as its density and roughness.

Bio: David Tavakoli was born and raised in Birmingham, Alabama, though you wouldn't believe it if you have heard his accent. He earned his B.S. in chemistry from Northland College in Ashland, WI and his M.S in Environmental Science and Engineering from Oregon Health and Sciences University in Portland, Oregon. In 2005 he came to Atlanta to work at the Centers for Disease Control where he did not work on anything biological, but worked on understanding the addictive components of tobacco. In 2012 he came to work at Georgia Tech where he primarily manages the X-Ray Diffracting (XRD) tools in the Materials Characterization Facility (MCF) in the Marcus Nanotechnology Building. His hobbies include really bad southern accents, hiking, and rock climbing.

Who should attend: Faculty, scientists, engineers, researchers, and technical staff from university, company, or government labs who use, or are interested in learning material characterization techniques with reference to XRD, in particular, as part of their research efforts.

Join the Online Event June 4th at this link: **https://bluejeans.com/880565368**