Postdoctoral Scholar in Plasma Processing of Superhard Materials

The Department of Physics and the UAB Center for Nanoscale Materials & Biointegration (CNMB) at the University of Alabama at Birmingham (UAB) are pleased to announce the immediate availability of a National Science Foundation (NSF) supported postdoctoral position in superhard materials. The postdoctoral scholar will be involved in the study, development, and characterization of novel superhard materials using low-temperature plasma synthesis from the carbon, nitrogen, oxygen, boron (CNOB) system. Studies will involve synthesis of thin films (e.g. BC$_5$, B$_4$C, B$_3$O, B$_{13}$N$_2$, C$_3$N$_4$ and BCN) and in-situ investigation of critical plasma species as measured by optical emission spectroscopy (OES) and cavity ring down spectroscopy (CRDS). The postdoctoral scholar will have access to state of the art materials growth and characterization facilities at UAB including microwave plasma Chemical Vapor Deposition (CVD), XRD, SEM, XPS, AFM, nanoindentation, and Raman spectroscopy. The project will include implementation of a novel large-area microwave plasma CVD system and will be guided by modeling efforts involving density functional theory.

The position is available beginning November 1, 2017 and initial appointment will be for a period of one year with a salary range of $45,000 - $50,000/year. Based on satisfactory progress in meeting project milestones, this postdoctoral appointment can be extended for a period of up to two additional years.

A Ph.D. in physics or a related discipline is preferable with relevant experience in low-temperature plasmas used in thin film deposition.

For technical details about this position please contact Dr. Yogesh Vohra (ykvohra@uab.edu). Applicants should electronically submit a CV, a description of their past research accomplishments and publications, and the names (including address, tel. and email address) of at least three references to Program Coordinator Charita Cadenhead (charita@uab.edu) Tel: (205) 975-8076.

The applications received on or before October 31st, 2017 will be given full consideration. The Department of Physics and the University of Alabama at Birmingham are committed to building a culturally diverse workforce and strongly encourage applications from women and individuals from underrepresented groups. UAB is an Affirmative Action/Equal Employment Opportunity employer.