

Sr. Research Associate

Position Information

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Working Title	Sr. Research Associate
Department	Nebr Ctr for Materials & Nanoscience-1319
Requisition Number	F 200025
Posting Open Date	02/14/2020
Application Review Date: (To ensure consideration, please submit all application materials before review date)	03/16/2020
Posting Close Date	
Open Until Filled	Yes

Description of Work Applications are invited for a Senior Research Associate position available immediately in the Nebraska Center for Materials and Nanoscience (NCMN) to lead all experimental studies related to Anomalous Hall measurements in Cr203 based heterostructures. The principal role of the Research Associate is to work on the project alongside the principal investigator. More specifically, the Research Associate will a) perform major research activities of the research project; b) prepare technical reports, conference presentations and manuscripts for publication based on the results of research activities; c) develop and write future research proposals; d) effectively pursue the operation of a laboratory; e) supervise graduate and undergraduate students; and f) assist in managing the NCMN and the Nebraska Nanoscale Facility (NNF). This position is for one year and contingent upon funding.

Minimum Required Qualifications

- Must have Ph.D. in Condensed Matter Physics or a field related to the job duties of this position.
- Several years of experience as a postdoctoral research associate with multiple publications. Proven experience in growth of B-doped Cr203 using Pulsed Laser Deposition. Deep understanding in the physics of magnetoelectric antiferromagnets and experience in the design of spintronic devices based on magnetoelectric materials are required.

Preferred Qualifications Research experience that emphasizes expertise in the following areas: Experience in growth of metals and oxides using MBE and sputtered-assisted deposition. Capable of handling and maintaining UHV equipment. Clean-room nanofabrication techniques including Photolithography, E-beam lithography, Dual-Column Focused Ion beam operation (material deposition using GIS), wet and dry etching techniques including Ar ion-assisted etching and RIE. Circuit designing using layout editor (or other CAD software), sample mounting and wiring/contact using cement epoxies. Electrical transport measurements at low and high temperatures using low-noise and high frequency equipment. Magnetic measurements using SQUID and VSM. Structural characterization using XRD analysis and surface studies using scanning probe studies including electrical characterization using EFM / C-AFM measurements. Project leadership, ability to function in a team of university and external researchers, and good communication skills are critical, as is the ability to work in the United States without delay.

Please apply on-line at: <https://employment.unl.edu/postings/search>