

Postdoc Research Associate in Magnetoelectric Thin Films and Interfaces

Application is invited for a postdoc research associate position in [Dr. Xiaoshan Xu's Lab](#) in the Department of Physics and Astronomy in University of Nebraska-Lincoln (UNL).

Controlling a magnetic moment using an electric field has been a focus at the intersection between condensed matter physics and material engineering, for its promising applications in energy efficient and compact information processing and storage. This triggers great interests in searching for new materials and heterostructures to realize the desired magnetoelectric properties, especially above room temperature. Built on the strength of the [Condensed Matter and Material Physics Group in UNL](#) in the research of polarization and magnetization phenomena, Dr. Xu's Lab focuses on the multiferroic thin films and heterostructures.

The postdoc researcher is expected to work on exploring magnetoelectric effects in novel oxide thin films and their interface with organic semiconductors. This includes thin film growth using pulsed laser deposition (oxides) and thermal evaporation (organic); characterizations using synchrotron and neutron user facilities as well as lab-based measurements; and fabrication of prototypical devices.

The following qualifications are sought for the applicants: a strong academic background and knowledge in solid state physics and thin film materials, research experience with at least one or two of the experimental techniques described above, and good communication (oral and writing) skills. Excellent inter-personal skills are also desired since the postdoc researcher is expected to collaborate with a large number of research groups and work with/mentor graduate and undergraduate students.

To apply for the position, interested candidates should send CV, research statement (brief description of previous research) and arrange three letters of recommendation to Xiaoshan.xu@unl.edu.

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