

Postdoc Hire Search # 1

Materials Science and Technology Division (MST-8)

Los Alamos National Laboratory

Program Title: “Multi-scale study of the role of microstructure in the deformation behavior of hexagonal materials” (BES-E401)

Mentors: Carlos Tomé (PI of the program) and Jian Wang (participant)

E401 is a combined experimental and modeling program supported by Office of Basic Energy Science (OBES-DOE), which focuses on linking length scales in order to understand the mechanical behavior of HCP materials (Zr, Mg, Be) from the perspective of atomistic, crystallographic and structural mechanisms. The Program is now in its 9th year and has reached a high degree of maturity, integration among participants, and external recognition. The areas covered and linked by the Program are: Molecular Dynamics, Discrete Dislocation Dynamics, Crystal Plasticity models, TEM, SEM, neutron diffraction techniques, mechanical testing. Presently, 8 LANL staff members and 4 postdocs participate in the Program. In addition, there are ongoing collaborations with researchers on several Universities in USA and abroad.

The Program is looking for a Postdoc for performing Molecular Dynamics simulations of grain boundaries, twin boundaries, boundary mobility and dislocation-boundaries interactions. A background on Molecular Dynamics, Density Functional Theory (DFT) and dislocation theory is preferred. The postdoc will be expected to interact heavily with the other areas of the program, to be proactive with new research ideas, and to be enthusiastic about his/her research.

US citizenship is not required.

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