



**Position Type:** Postdoc, First-principles calculations of properties of nanomaterials

**Job Opening Number:** 637706

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**Department Description:** The Materials Physics Department, 8656, is part of the Biological and Materials Sciences Center, 8600. The Department conducts a broad and coordinated array of experimental and theoretical research to identify and understand the fundamental physical mechanisms underlying the surface, interface and transport behavior of a variety of advanced materials. The department's materials physics and chemistry modeling/simulation expertise utilizes state-of-the-art density functional theory, molecular dynamics simulation techniques and quantum transport approaches. The department has experimental expertise and resources for nanofabrication, electronic, optoelectronic, and optical characterization, UHV technology, thin film preparation, nano-materials synthesis, and a wide range of advanced materials characterization techniques (e.g., AES, AFM, DRS, LEED, LEEM, LEIS, SIMS, and STM).

**Job Description:** The Materials Physics Department at Sandia National Laboratories in Livermore, California seeks a postdoctoral researcher to perform first-principles atomistic and electronic structure calculations of advanced materials. Topics of interest include the properties of nanoscale semiconductor-metal interfaces, nanostructured thermoelectric materials, and many-body effects in nanostructures. The postdoctoral researcher is expected to make intensive use of supercomputing facilities.

**Required/Desired Criteria:**

The successful candidate will have a PhD in Physics, Chemistry, Materials Science, or a closely related field. Published evidence of scientific contributions is expected as is the ability to work in teams and establish strong collaborations, particularly with experimentalists. Experience with first-principles density functional theory calculations is required. Familiarity with higher-level many-electron correlation effects is desirable. US citizenship or permanent lawful residency is required for this position.

Located in Livermore, California, we enjoy close proximity to San Francisco, Silicon Valley, several world-class educational institutions, and diverse cultural and year-round recreational opportunities. Sandia provides employees with a comprehensive benefits package including medical, dental, vision, 401K with company-match, and a retirement pension plan. Our culture values work-life balance—by offering programs such as flexible work schedules with alternate Fridays off, on-site fitness facilities, three weeks of vacation, and more.

**How to Apply:**

Interested applicants should apply **ONLINE** at [www.sandia.gov/employment/career-opp](http://www.sandia.gov/employment/career-opp). Click on “Search current job openings, View all” and select the job reference number for this position.

Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V. If this position requires a Department of Energy (DOE)-granted security clearance, U.S. citizenship and employee eligibility for clearance processing will be required at the time of hire. If you hold dual citizenship and accept a job offer for a position that requires a DOE-granted security clearance, you may be asked by DOE to renounce your foreign citizenship and retain only your U.S. citizenship.

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