

Job: Postdoc Opportunity in Materials Genomics at Johns Hopkins University

Position: Postdoctoral Researcher

Location: Baltimore, MD 21218

Open Date: May 20, 2022

URL: <http://apply.interfolio.com/106748>

Description

The Entropy for Energy Laboratory at Johns Hopkins University (PI Corey Osse) has openings for postdoctoral researchers in computational materials science. Projects will focus on the discovery of high-entropy materials for clean hydrogen production, waste-heat conversion, and electric grid technology. Postdocs will be expected to perform high-throughput *ab-initio* calculations and employ machine learning/artificial intelligence algorithms for the analysis of materials synthesizability, stability, and functional properties.

Qualifications

- A. Doctorate in Materials Science, Physics, Chemistry, Computer Science or related fields.
- B. Excellent communication skills in English, both written and verbal. The dissemination of research findings through peer-reviewed articles and presentations is mission critical.
- C. Ability to lead research projects and collaborate with experimentalists.
- D. Understanding of thermodynamics of materials, solid-state physics, inorganic chemistry, and metallurgy.
- E. Strong programming skills in C++ and Python and proficiency with Unix systems.
- F. Proven experience with VASP, Quantum ESPRESSO, LAMMPS, or other *ab-initio* codes.
- G. Expertise in any of the following areas: high-entropy materials, disorder, phonons, magnetism, catalysis, machine learning, database/API development, aflow.org repository.

Graduate students near the completion of their Ph.D. are welcome to apply.

Application Instructions

Submit a single PDF file via Interfolio named “*LASTNAME_FIRSTNAME_S4E_202205.pdf*” containing: a cover letter, CV, and contact information for 3 references. The cover letter should address each point of the qualifications list explicitly (*i.e.*, A, B, C, …). If you require sponsorship for work authorization, be sure to include this information in your cover letter.

OPTIONAL: DOIs for 3 recent and relevant publications can be included at the end of the packet. Questions can be sent to Prof. Osse (corey@jhu.edu); subject line must contain “S4E Post-Doc”.

Equal Employment Opportunity Statement

The Johns Hopkins University is committed to equal opportunity for its faculty, staff, and students. To that end, the university does not discriminate on the basis of sex, gender, marital status, pregnancy, race, color, ethnicity, national origin, age, disability, religion, sexual orientation, gender identity or expression, veteran status or other legally protected characteristic. The university is committed to providing qualified individuals access to all academic and employment programs, benefits and activities on the basis of demonstrated ability, performance and merit without regard to personal factors that are irrelevant to the program involved.