



Dr. Corey Oses
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Job: Postdoc Opportunity in Materials Informatics at Johns Hopkins University, USA

Position: Postdoctoral Researcher

Open Date: December 5, 2025

Location: Baltimore, MD 21218

URL: <https://apply.interfolio.com/178526>

Description

The Entropy for Energy (*S4E*) Laboratory at Johns Hopkins University (PI Corey Oses) has openings for postdoctoral researchers in the data-driven discovery of energy materials. Projects focus on fundamental research innovating clean hydrogen production, waste-heat conversion, power generation, and energy storage.

Qualifications

- A. Doctorate in materials science, physics, chemistry, computer science or related fields.
- B. Ability to move to and work at Johns Hopkins University, USA.
- C. Proven track-record of first-author publications and presentations. A minimum of three peer-reviewed, first-author publications must be accessible by the *S4E* team.
- D. Proven experience with VASP, Quantum ESPRESSO, LAMMPS, or other *ab-initio* codes.
- E. Strong programming skills in C++ and Python and proficiency with Unix systems.
- F. Ability to lead research projects and collaborate with experimentalists.
- G. Fundamental understanding of thermodynamics of materials, solid-state physics, inorganic chemistry, and metallurgy at the level of theory/implementation.
- H. Expertise in any of the following areas: high-entropy materials, disorder, phonons, magnetism, catalysis, machine learning/artificial intelligence, database/API development, aflow.org repositories.

Graduate students near the completion of their Ph.D. are welcome to apply. Please provide your anticipated defense date and expected graduation date under Qualification B.

Application Instructions

Submit a single PDF file via Interfolio named “*Lastname_Firstname_S4E_202512.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, …). Provide ample examples and details where possible. Applications without explicit responses will not be reviewed.

OPTIONAL: DOIs for 3 recent and relevant publications can be included at the end of the packet. Questions can be sent to the *S4E* team ([entropy4energy](mailto:entropy4energy@jhu.edu) at 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.