Postdoctoral Employee - Photon Device Physics - Physics Department
University of California Berkeley

Job Title	Postdoctoral Employee - Photon Device Physics - Physics Department
Department	Physics
Institution	University of California Berkeley Berkeley, California
Date Posted	Jun. 17, 2025
Application Deadline	07/09/2025
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Physics - General
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Job Description

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Position overview

Position title: Postdoc
Salary range: The UC postdoc salary scales set the minimum pay determined by experience level at appointment. See the following table for the current salary scale for this position: https://www.ucop.edu/academic-personnel-programs/_files/2024-25/oct-2024-scales/t23.pdf. A reasonable estimate for this position is between $66,737 and $71,769.

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Percent time: 100%

Anticipated start: Summer 2025

Position duration: Two years with the possibility of renewal depending on performance and availability of funding

Application Window
Open date: May 8, 2025

Most recent review date: Monday, Jun 2, 2025 at 11:59pm (Pacific Time)
Applications received after this date will be reviewed by the search committee if the position has not yet been filled.

Final date: Wednesday, Jul 9, 2025 at 11:59pm (Pacific Time)
Applications will continue to be accepted until this date, but those received after the review date will only be considered if the position has not yet been filled.

Position description

The Ultrafast Nano-Optics Group at UC Berkeley is interested in probing and controlling light-matter interactions in condensed matter systems, with an emphasis on novel physical phenomena emerging in nanoscale structures and quantum phenomena in novel low dimensional materials. We develop and employ novel optical spectroscopy that simultaneously achieves ultrabroadband energy tunability, polarization control, nanometer spatial resolution, and femtosecond temporal resolution.

This position is to work on the project: "Nanoscale Hybrids: a new paradigm for energy efficient microelectronics". This is part of the DOE Microelectronics Energy Efficiency Research Center of Advanced Technologies. The work will use facilities at UC Berkeley and at Lawrence Berkeley National Lab. This is a multidisciplinary project involving materials science, particle physics instrumentation, and electrical engineering.

The postdoctoral scholar will work closely with Prof. Feng Wang and with Dr. Maurice Garcia Sciveres on development and testing of nanoscale hybrid demonstrator devices. The development will use existing, custom integrated circuits as substrates onto which optoelectronic nanomaterials will be added. Testing will be carried out through the integrated circuit functions as well as with external devices. The postdoctoral scholar will be responsible for understanding the functionality and limitations of the demonstrators, for example, related to single photon detection. The postdoctoral scholar will

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have the opportunity to propose and develop new techniques for variations to address issues found or pursue novel concepts. The postdoctoral scholar will present results in meetings and workshops and will collaborate on preparing them for publication.

Union: https://ucnet.universityofcalifornia.edu/resources/employment-policies-contracts/bargaining-units/postdoctoral-scholars/contract/

Lab: https://physics.berkeley.edu/research-faculty/ultrafast-nano-optics-group

Lab: https://nanohybrids.lbl.gov/

Qualifications

Basic qualifications (required at time of application)
PhD or equivalent international degree, or enrolled in a PhD or equivalent international degree granting program.

Additional qualifications (required at time of start)
Ph.D. or equivalent international degree
No more than three years of research experience post Ph.D.

Preferred qualifications

- PhD in Physics. Graduate study in physics. Familiarity with experimental techniques involving photon detection. Familiarity with electronics testing and/or custom integrated circuits for experimental physics applications. Familiarity with clean room microfabrication steps such as basic lithography. Computer programming skills sufficient to run and modify custom software to capture and analyze data from instruments, FPGA boards, etc.
- Advanced microfabrication skills. Theoretical knowledge of photonic devices. Integrated circuit design/simulation skills. Experience using photon sensors for scientific research. Experience with AI/ML. Publication record relevant to any of the mentioned qualifications.

Application Requirements

Document requirements

- Curriculum Vitae - Your most recently updated C.V.

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- Cover Letter
- Statement of Research

Reference requirements

- 3 required (contact information only)

Apply link: https://aprecruit.berkeley.edu/JPF04869

Help contact: emartinez24@berkeley.edu

About UC Berkeley

UC Berkeley is committed to diversity, equity, inclusion, and belonging in our public mission of research, teaching, and service, consistent with UC Regents Policy 4400 and University of California Academic Personnel policy (APM 210 1-d). These values are embedded in our Principles of Community , which reflect our passion for critical inquiry, debate, discovery and innovation, and our deep commitment to contributing to a better world. Every member of the UC Berkeley community has a role in sustaining a safe, caring and humane environment in which these values can thrive.

The University of California, Berkeley is an Equal Opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, or protected veteran status.

For more information, please refer to the University of California's Affirmative Action and Nondiscrimination in Employment Policy and the University of California's Anti-Discrimination Policy.

In searches when letters of reference are required all letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality prior to submitting their letter.

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

As a condition of employment, the finalist will be required to disclose if they are subject to any **final** administrative or judicial decisions within the last seven years determining that they committed any

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misconduct.

- "Misconduct" means any violation of the policies or laws governing conduct at the applicant's previous place of employment, including, but not limited to, violations of policies or laws prohibiting sexual harassment, sexual assault, or other forms of harassment or discrimination, as defined by the employer.
- UC Sexual Violence and Sexual Harassment Policy
- UC Anti-Discrimination Policy
- APM - 035: Affirmative Action and Nondiscrimination in Employment

Job location
Berkeley, CA

To apply, visit https://aprecruit.berkeley.edu/JPF04869

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

N/A
University of California Berkeley
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