Scientist
University at Buffalo

Job Title	Scientist
Department	Institute for Lasers Photonics and Biophotonics
Institution	University at Buffalo Buffalo, New York
Date Posted	Mar. 19, 2025
Application Deadline	04/01/2025
Position Start Date	Available immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Physics - Atomic/Molecular/Optical/Plasma Physics - General Materials Sciences/Polymer Sciences
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Job Description	

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Research Scientist, Institute for Lasers Photonics and Biophotonics

Position Information

Position Title: Research Scientist, Institute for Lasers Photonics and Biophotonics
Department: Institute for Lasers Photonics and Biophotonics
Posting Link: https://www.ubjobs.buffalo.edu/postings/56317
Job Type:

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Full-Time

Posting Detail Information

Position Summary

The **Institute for Lasers Photonics and Biophotonics** at the University at Buffalo is seeking a **Research Scientist** to conduct multidisciplinary research in the Nanomaterials and Nanotechnologies for Electronics, and Chiral Photonics.

Job duties will include:

- Conduct independent research in the field of chiral photonics, which involves experimental design by developing and synthesizing advanced chiral polymers such as poly-fluorenes, thiophenes, and diacetylenes for photonic and optoelectronic applications, as well as designing stimuli-responsive polymeric systems for dynamic chiroptical switches to enable high-efficiency devices through chemical fine-tuning.
- Primary responsibilities include data analysis, drafting and preparing manuscripts with the PI and presentation of data at national and international scientific meetings.
- Mentor and work closely with multiple Ph.D. and M.S. students as well as four principal investigators from different disciplines.
- Frequent oral and written reporting will be required.

Outstanding Benefits Package
Working at UB comes with benefits that exceed salary alone. There are personal rewards including comprehensive health and retirement plan options. We also focus on creating and sustaining a healthy mix of work, personal and academic pursuit - all in an effort to support your work-life effectiveness. Visit our benefits website to learn about our **benefit packages**.

About The University at Buffalo
The University at Buffalo (UB) #ubuffalo is one of Americas leading public research universities and a flagship of the State University of New York system, recognized for our excellence and our impact. UB is a premier, research-intensive public university dedicated to academic excellence. Our research, creative activity and people positively impact the world. Like the city we call home, UB is distinguished by a culture of resilient optimism, resourceful thinking and pragmatic dreaming that enables us to reach others every day. Visit our website to learn more about the **University at Buffalo**.

As an Equal Opportunity / Affirmative Action employer, the Research Foundation will not discriminate

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in its employment practices due to an applicants race, color, religion, sex, sexual orientation, gender identity, national origin and veteran or disability status.

Minimum Qualifications

- Ph.D. in a related field

Preferred Qualifications

The proposed research involves the development and synthesis of advanced polymeric materials, focusing on designing donor-acceptor chiral polymers with stimuli-responsive backbones for applications in optoelectronics and spintronics. Fabrication techniques include thin-film deposition, lithographic processing, and the creation of vitrimer-based self-standing films to enhance material performance and functionality. Characterization methods such as circular dichroism spectroscopy, magneto-optical Kerr effect (MOKE), and terahertz spectroscopy are employed to investigate chiral phonon modes and optical properties. Additionally, the study explores the integration of 0D and 2D magnetic and excitonic additive systems to develop in-situ heterostructures with chiral polymers, enabling enhanced circular dichroism responses. These efforts contribute to the advancement of hybrid material systems with tailored optical and magnetic properties for next-generation photonic and electronic applications.

- Basic professional knowledge of the disciplinary field and the ability to relate this knowledge to various phenomena under study. Requires the ability to apply the theory, concepts and principles in the field of study or discipline
- Demonstrated outstanding performance throughout their previous studies with their own publications.
- Highly motivated and exceptionally organized team player with good communication skills.
- Strong language and writing English skills are also important.

Salary Range
$60,000

Special Instructions Summary

Is a background check required for this posting?

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No

Contact Information

Contact's Name: Timothy Cryan
Contact's Pronouns:
Contact's Title: Executive Officer
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Posting Dates

Posted: 03/18/2025
Deadline for Applicants: 04/01/2025
Date to be filled:

jeid-cb49617cb746fd4284e19426a4e49c62

Contact Information

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

Contact

N/A
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