

2 PhD positions available for light-matter interactions in quantum materials and devices

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Two Graduate Research Assistant positions are available in **Prof. Jun Xiao's research group** in the Department of Materials Science and Engineering at the University of Wisconsin-Madison. Prof. Xiao's research focuses on uncovering fundamental structure-property relationships and exploring optical-to-terahertz (THz) light-matter interactions in low-dimensional quantum materials, with the goal of advancing next-generation information and energy technologies. Group members receive interdisciplinary training in a broad range of optical and electrical characterization techniques, device fabrication, and experimental engineering. Students are encouraged to pursue innovative research directions beyond their primary projects, develop independent research skills, and engage in collaborative research within and beyond the group. The group aims to provide a supportive and intellectually stimulating research environment that prepares students for diverse career paths, including academic positions at leading universities and research opportunities in the quantum technology, photonics, semiconductor, and electronics industries.

Our Materials Science and Engineering (MS&E) graduate program is ranked **#13 nationally and #8 among public universities** ([UW–Madison Engineering Rankings](#)). The application deadline for Fall 2027 admission is **December 15, 2026**.

Prospective students are also strongly encouraged to consider applying through the **Physics PhD** or **Electrical and Computer Engineering (ECE) PhD** programs, both of which I am affiliated with and through which I can recruit graduate students.

Academic background in materials science, physics, electrical engineering or a related field is required. The group welcome motivated students interested in the frontier of quantum materials science, ultrafast and THz spectroscopy technologies, and nanoscale electronic devices. Applicants are strongly encouraged to contact Prof. Jun Xiao at jun.xiao@wisc.edu with their CVs and start the application accordingly.

Bio: Dr. Xiao is an assistant professor in the Department of Materials Science and Engineering at the University of Wisconsin-Madison from August 2021. He is the prestigious NSF CAREER award receipt. Prior to joining Madison, Dr. Jun Xiao worked as a postdoctoral scholar with Prof. Aaron Lindenberg and Prof. Tony Heinz at Stanford University and SLAC National Accelerator Laboratory. He earned his Ph.D. in Applied Science and Technology from UC Berkeley (2018) under Prof. Xiang Zhang's supervision. He received his bachelor's degree in Physics from Nanjing University (2012). His research experience and interests focus on structure-property relationships and light-matter interactions in quantum materials for robust quantum computing, efficient energy conservation and THz optoelectronics. His group website is <https://xiaolab.wisc.edu/>.