

## **Research Assistant Professor Elmore Family School of Electrical and Computer Engineering Purdue University**

The Elmore Family School of Electrical and Computer Engineering in the College of Engineering at Purdue University is seeking highly qualified applicants for a Research Assistant Professor position to work with Prof. Theresa S. Mayer in the area of scalable nanofabrication of manufacturable gradient refractive index (M-GRIN) optical devices and coatings for high performance and extreme environment applications. This use-inspired research supported by industry and involves early stage work through prototypes. The project will be conducted in the Birck Nanotechnology Center, which includes the state-of-the-art Scrfes Nanofabrication Laboratory and associated characterization labs.

This research work will advance the field of high-performance M-GRIN optical devices and coatings by leveraging advanced nanofabrication techniques to create customizable 2D and 3D nanostructures in a wide variety of bulk and deposited materials. Specific skills include experience in nanofabrication of advanced devices that require integration of multiple complex unit process steps, including optical and electron-beam lithography, physical and chemical vapor deposition, wet and dry etching. Experience in optical and GRIN material design, structural and optical device characterization, and technology transition is strongly recommended. Other duties outside of the lab include interfacing with industry and federal sponsors, ensuring program milestones and deliverables are met, mentoring Ph.D. students and post-docs, leading research team meetings, preparing proposals, manuscripts and presentations and managing a research budget. The successful candidate will also receive support and mentoring on ways to work with industry and federal sponsors, preparing proposals, and responsible research practices.

**QUALIFICATIONS:** A Ph.D. degree in an engineering or science discipline with training in advanced nanofabrication and characterization of optical nanostructures or related devices is required by the start date. Research experience in optical materials and device design and modeling is preferred. Outstanding interpersonal, written, and verbal communication, and analytic skills are required. The candidate must be able to work in a nanofabrication cleanroom environment and remotely from home, as necessary. US Citizenship or Permanent Residency required.

**APPLICATION PROCEDURE:** Inquiries and applications (including CV, name/email address of 2-3 referees, and reprints of 2 most significant publications) should be directed to:

Theresa S. Mayer, Ph.D.  
Professor, Elmore Family School of Electrical and Computer Engineering, Purdue University  
Email: [tsmayer@purdue.edu](mailto:tsmayer@purdue.edu)

This is a two-year appointment that may be renewed for up to two additional one-year terms, contingent upon available funding and satisfactory performance.

For more information on the benefits available to Research Faculty at Purdue, visit this [LINK](#).

**APPLICATION DEADLINE:** Review of applications will be ongoing and the posting will remain open until filled.

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply. The University will perform background checks on all new hires prior to employment.