Lehrstuhl für Biogene Funktionswerkstoffe
TUM Campus Straubing für Biotechnologie und Nachhaltigkeit
Technische Universität München

Opportunities for Talents

The Chair of Biogenic Functional Materials at TUM Campus Straubing for Biotechnology and Sustainability is looking for a

Researcher (f/m/d) on spectroscopy and optics for optoelectronics

The Chair of Biogenic Functional Materials at the Technical University of Munich is seeking an engineer, materials scientist, or physicist to bolster research activities in thin-film optoelectronics and advanced spectroscopic and optical techniques and methodologies. Our research focuses on designing protein materials for energy-related optoelectronic technologies, such as lighting and photovoltaics. We also teach protein engineering, materials science, optics, electronic spectroscopy, mechanical and thermal analysis, and optoelectronics at the bachelor's and master's levels. The TUM Campus Straubing for Biotechnology and Sustainability is our home since 2020. It provides an excellent, dynamic environment with top-notch research facilities, modern teaching spaces, and a welcoming, open, multicultural atmosphere that fosters growth for students, scientists, and teachers alike.

Your tasks

- Research on thin-film optoelectronics and advanced spectroscopic and optical techniques and methodologies.
- Participation on courses in the Bachelor's and Master's degree programs and implementation of Bachelor's and Master's theses (English).
- Development and operation of scientific equipment and methodologies focused on thin-film optoelectronics and advanced spectroscopic and optical techniques and methodologies.
- Assistance in the supervision of PhDs (English).
- Assistance on the organizational and administrative tasks (e.g. laboratory planning).
- Collaboration in research projects and involvement in the application for third-party funding.

Qualification

- High motivation and commitment to scientific excellence.
- University degree in natural sciences or engineering, preferably with a focus on physics/optics/spectroscopy as well as thin films devices for lighting and photovoltaic purposes.
- Practical experience in the aforementioned fields as well as in electronics and vacuum technology, glove-box operation, thin-film, time-resolved emission and absorption spectroscopy, non-linear spectroscopy, circularly polarized spectroscopy, etc.
- Practical experience with DSC, TGA, DMA, SEM, TEM, AFM, SAXS/WAXS, GISAX/GIWAX and/or SANS will be positively evaluated.
- Ability to convey practical and theoretical knowledge in a didactically suitable form.
- Good teamwork and communication skills, as well as a sense of professionalism and responsibility.
- Experience in planning, organizational and coordination activities.

- Willingness to work in research and development projects as well as to apply for funding.
- Excellent command of the English language (fully fluent in writing and speech). No knowledge of German is totally fine (free lessons will be provided).

Offer

We offer a deep immersion in bio-based energy technologies; the candidate will learn and live the translational perspective of designing biomaterials for sustainable energy-related applications every day. Situated on the Bavarian Forest gate, Straubing as the old ducal town on the Danube, is the intellectual hub for renewable raw materials and technologies for sustainability in Germany. TUM Campus Straubing for Biotechnology and Sustainability offers scientific and academic excellence in a student-friendly and fresh environment. The successful applicant will hold a 2-year contract with the possibility to expand it. We offer a competitive salary and benefits depending on work experience and seniority in accordance with the public service wage agreement of the Free State of Bavaria - TV-L E13. As an equal opportunity and affirmative action employer, TUM explicitly encourages applications from women, as well as from all people who would bring additional diversity dimensions to the university's research and teaching strategies. Preference will be given to disabled candidates with essentially the same qualifications.

Application

We are looking forward to receiving your comprehensive application, including your letter of motivation (1 page), CV (with complete contact information for two references), complete list of publications, participation in projects, and awards/recognitions in English in a single PDF file, via email to biofunmat@cs.tum.de . Please indicate only "PD opto" in the subject line.

The position will be open until the candidate is selected. Publication date: 23.07.2025

For further information, please contact:

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