ADAM MICKIEWICZ UNIVERSITY, POZNAŃ

Faculy of Chemistry

Ph.D. Positions in Material Sciences

Subject: Luminescent Nanomaterials

Requirements:

1. Master's degree in chemistry obtained between 2021 – 2023.
2. Experience in the synthesis of nanomaterials or inorganic materials is welcome.
3. English level that allows reading literature on the project subject and preparing publications.

Description of tasks:

The planned research concerns nanoparticles showing luminescence under irradiation with infrared light. What is unusual, these nanoparticles will show a persistent (long-lasting) luminescence, i.e., one that can last up to several hours after exposure. Currently available materials with long-lasting luminescence must be irradiated with ultraviolet or visible light. The nanoparticles resulting from the project are essential for developing imaging techniques for cancer diagnosis and treatment. The modified nanoparticles can be irradiated before being placed in the living organism, which eliminates the need for irradiation during the investigation and analysis. An important feature of the studied nanoparticles is the possibility of "recharging" in the organism, as infrared radiation is largely transmitted through the tissue.

Doctoral tasks include:

1. Synthesis of luminescent nanomaterials.
2. Measurements of physicochemical properties of nanomaterials.
3. Elaboration of research results.
4. Preparation of scientific publications in English.

Conditions of employment:

Ph.D. student will join prof. Tomasz Grzyb group at Faculty of Chemistry, Adam Mickiewicz University in Poznań, Poland. Our laboratory is well-equipped and uses modern techniques to analyze and prepare nanoparticles.

The doctoral student will be involved in the project full-time and receive a scholarship for 48 months. The scholarship will be paid based on an agreement between the university and the scholarship holder. The scholarship amount is 5,000 PLN gross (~3,800 PLN net).

Additional information:

1. Adam Mickiewicz University in Poznań is one of the best academic centers in Poland and a research university.
2. The doctoral student will be trained in synthesizing and working with the apparatus.
3. We offer the possibility of further training during the implementation of a doctorate in English.
4. The doctoral student will become a member of a young and dynamic team, open to ideas and initiatives.
5. Employment in the AMU allows applying for the financing of internships and workshops abroad and participation in international conferences beyond those provided by the project.
6. In our group, doctoral students have a high success rate in obtaining NCN Preludium grants that allow them to conduct their own research and receive an additional salary.
7. The project is ongoing in cooperation with three partners: the Institute of Low Temperature and Structural Research, Polish Academy of Sciences in Wrocław, Universidad de La Laguna in Spain, and Université Paris-Saclay in France. For this reason, short visits to these institutions are planned during the doctorate.
8. Please send a CV, copy of your Master's thesis, names of two references, and a motivation letter stating your research interests to tgrzyb@amu.edu.pl, subject: "Ph.D. application – pers_lumi." The positions are open until filled. Link to website: http://lanasylum.amu.edu.pl/