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WARSZAWSKI

Wydział Chemii



### **Job offer: Student – scholarship holder**

in the POLONEZ BIS project financed by



and entitled

*“Unraveling and optimizing the photoisomerization dynamics  
of light-driven molecular rotary motors, LightDynaMo”.*

Project contract number: DEC-2022/47/P/ST4/01418.

Project leader: Dr. Davide Accomasso.

#### **Research field:**

Quantum chemistry, Computational chemistry.

#### **Requirements:**

- status of a student of full-time or part-time second-cycle studies at universities in the territory of the Republic of Poland (at the time of starting work in the project),
- or the status of a student of at least the fourth year of full-time or part-time uniform master's studies conducted at universities in the territory of the Republic of Poland (at the time of starting work in the project),
- bachelor's degree in chemistry or physics (or related sciences),
- knowledge of the basics of quantum chemistry and molecular dynamics,
- good knowledge of English,
- strong motivation for scientific work and the desire to acquire new knowledge and skills.

#### **Description of tasks:**

The aim of the project is to perform a computational investigation on the photoisomerization reactions of light-driven molecular rotary motors, i.e. molecules capable of converting light and heat into unidirectional rotational motion. The student will carry out quantum-chemical calculations and nonadiabatic molecular dynamics simulations for selected molecular rotary motors. The main goal of the student's work will be to achieve a detailed understanding of the photoisomerization mechanisms in the investigated molecules. Unraveling the light-driven reactions of molecular rotary motors is of paramount importance to develop relationships between molecular structure and photo-induced behavior of rotary motors. This knowledge can be exploited to propose new strategies to improve the

photoisomerization efficiency in molecular motors, thereby reducing the undesired dissipation of light energy as heat.

**Conditions of employment:**

- the place where research tasks will be carried out will be the Faculty of Chemistry of the University of Warsaw,
- research scholarship of 1500 PLN payable for a period of up to 6 months (with a possibility of extension up to 18 months),
- possible financing of participation in a national or international scientific conference.

**Required documents:**

- cover letter (describing scientific interests and previously conducted research),
- curriculum vitae (CV),
- copy of the diploma of completion of the first-cycle studies (or other document confirming their completion),
- list of grades from the first-cycle studies,
- consent to the processing of personal data (according to the template attached to this document, see below).

**Deadline for receiving applications** via e-mail: November 15, 2023.

All interested candidates should send their application to the following e-mail address: [d.accomasso@chem.uw.edu.pl](mailto:d.accomasso@chem.uw.edu.pl) (topic: student scholarship opening).

**Deadline for the competition results:** December 1, 2023.

**Desired start date** of the scholarship: January 1, 2024.

**Contact:** Dr. Davide Accomasso, University of Warsaw, Faculty of Chemistry (room. 415),  
ul. Pasteura 1, 02-093 Warszawa, E-mail: [d.accomasso@chem.uw.edu.pl](mailto:d.accomasso@chem.uw.edu.pl)

#### DECLARATION OF CONSENT TO PROCESSING PERSONAL DATA

I consent to the processing of my personal data by the University of Warsaw, based at ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, in order to conduct the recruitment process and select the scholarship holder and conclude a scholarship agreement with the University of Warsaw. I have been informed about my rights and obligations.

I declare that providing my personal data is voluntary.

.....

(place and date)

.....

(signature of the person applying for the scholarship)

Information on the processing of personal data at the University of Warsaw is available at:

<https://www.uw.edu.pl/ogolne-rozporzadzenie-o-ochronie-danych-rodo-na-uw/>