WYDZIAŁ CHEMII
UNIWERSYTETU WARSZAWSKIEGO

JOB OFFER

Position in the project:	PhD Student
Scientific discipline:	Chemistry: Physical Chemistry, Inorganic Chemistry, Electrochemistry
Job type (employment contract/stipend):	stipend
Number of job offers:	1
Remuneration/stipend amount/month *("X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"):*	2000 PLN / month (total gross)
Position starts on:	01.03.2026
Maximum period of contract/stipend agreement:	12 months (possibility of extension after positive evaluation)
Institution:	Faculty of Chemistry, University of Warsaw
Project leader:	Magdalena Winkowska-Struzik, PhD
Project title:	*Tracking of potential post-recycling impurities in electrode materials.* ***The project is carried out within the SONATA 19 programme of the National Science Center (Poland)***
Project description:	This project aims to conduct an advanced study on the impact of possible post-recycling foreign-atom impurities in positive electrode materials for lithium-ion batteries (LIBs) by examining their structure and electrochemical properties. This project will investigate the influence of impurity levels on the physicochemical properties of electrode materials by intentionally co-doping pure positive electrode materials with elements such as Cu, Fe, F, C, Al, Zn, Na, etc. The research will determine the acceptable level of impurities that still have a negligible impact on the electrochemical performance of the Li-ion battery cells. Several classes of materials will be studied, including layered oxides, spinels, and olivines. The results will provide a comprehensive understanding of the attributes of foreign atoms or phases and their impact on electrochemical and mechanical stability, decomposition mechanisms, safety features, interaction with electrolytes, and more. https://www.ncn.gov.pl/sites/default/files/listy-rankingowe/2023-09-15-akizood8c/streszczenia/602472-en.pdf
Key responsibilities include:	1. Preparation of electrode materials; 2. Structural and morphological characterization of electrodes and electrochemical testing; 3. Sample preparation for ex-situ investigations; 4. Data analyses and writing reports and scientific articles; 5. Involvement in the project: 20h weekly.
Profile of candidates/requirements:	1. MSc degree in the field of chemistry, physics, or a related field at the time of employment in the project; 2. Candidate accepted to the doctoral school; 3. Laboratory work experience is required, especially in the field of energy storage, work in the glovebox, chemical synthesis, electrochemical and structural techniques, data analysis, etc. 4. A person having patience, being careful and precise in laboratory work;

	5. Advanced knowledge of English (verbal and writing); 6. A strong motivation to work in the laboratory, good teamwork, and collaborative skills; 7. Independence at work, problem-solving skills, and the ability to work in a team; full involvement in the project topic.
Required documents:	1. CV (in English) including (1) achievements: especially scientific achievements such as publications, patent applications, patents, conference presentations, or a brief description of MSc/BSc thesis findings; (2) information about awards, student stipends, internships, or summer school experiences; (3) participation in scientific grants at the university, national, and/or international levels; (4) list of synthesis methods and laboratory characterization techniques; (5) involvement in student science clubs and/or student councils; (6) work experience, collaboration with industry, and work internships. 2. Cover letter (in English) explaining why the candidate is interested in the project topic, what is his/her current laboratory experience (if he/she worked in the glovebox, knows any scientific equipment: spectroscopic, morphological and/or electrochemical techniques, knows any chemical synthesis), what is his/her best scientific achievement, why she/he thinks is a suitable person for this position; 3. Transcription of records from Master's degree programmes; 4. Copy of the most recent diploma. 5. Certification of acceptance to the doctoral school or enrollment as a PhD student in a Polish institution carrying the PhD studies; This certification is mandatory at the time of application. The candidate **must hold current PhD student status in doctoral studies at the University of Warsaw or another Polish scientific institution by March 1st, 2026**. 6. A PDF copy of the MSc thesis abstract (in Polish or English) and/or a PDF copy of the most important article/conference presentation published as a co-author. 7. Certification of English knowledge, or other proof (self-statement, grade from the MSc/BSc studies, studies in English (e.g., Erasmus, etc.); English level will be verified during the interview. 8. **1 reference letter from previous supervisor/mentor sent directly to m.winkowska-struzik@uw.edu.pl** ;
We offer:	A PhD position in a young, dynamic group working in the field of energy storage. We provide opportunities for personal and scientific self-improvement and the possibility to travel by attending conferences and gain international experience. Your work will be performed in a well-equipped laboratory for lithium technology research in collaboration with other scientific institutions in Poland and abroad.
For more details about the position, please visit (website/webpage address):	www.chem.uw.edu.pl
Please submit the following documents to:	m.winkowska-struzik@uw.edu.pl with the e-mail entitled: **SONATA 19 PhD Student Application – sent in one PDF file (except point 8)**
Application deadline:	19.02.2026 (12 PM – Warsaw (EU) time) Candidates will be informed about the decision by email/phone by 20.02.2026

To allow us to process your data, please include the following statement in your application:
https://www.chem.uw.edu.pl/wp-content/uploads/2022/08/Klauzula-informacyjna-przy-rekrutacji-do-pracy_11_2019_BP.pdf