



Institute of Physics of the Polish Academy of Sciences

OPEN POSITION



Job ID: #JOB 49/2022

Job Description

Job Title: Post-Doc in time resolved x-ray diffraction

Job Summary:

A successful candidate will have an opportunity to work on fundamental problems of condensed matter physics using a unique combination of state-of-the-art experimental techniques and advanced computational methods. The work aims to understand the ultrafast structural transformations at conditions far from thermodynamic equilibrium - in deeply superheated and undercooled metals. The planned research involves the use of rapid annealing methods with fs lasers, combined with time-resolved structural characterization by a variety of experimental techniques involving optical, X-ray and/or electron scattering. The Post-Doc will be responsible for the preparation and execution of experiments, data analysis and interpretation. She/He will provide experimental data and analysis significant for the of the fundamental mechanisms responsible for melting and solidification - glass formation and/or crystallisation - in metals.

Job Description:

General work description:

A successful candidate will have an opportunity to work on fundamental problems of condensed matter physics using a unique combination of state-of-the-art experimental techniques and advanced computational methods. The work aims to understand the ultrafast structural transformations at conditions far from thermodynamic equilibrium - in deeply superheated and undercooled metals. Pure elements and alloys in form of nanostructures (mostly thin layers) will be studied. The planned research involves the use of rapid annealing methods with fs lasers. It will be combined with structural characterization by a variety of experimental techniques involving optical, X-ray and/or electron scattering (including time-resolved measurements on ultrashort time scales of ps-ns), both with the use of laboratory equipment available at IP PAS (optical and electron microscopy, SEM, TEM) and large scale facilities (x-ray diffraction on synchrotron sources and free electron lasers). The candidate will be responsible for the preparation and execution of experiments, data analysis and interpretation. She/He will provide experimental data and analysis significant for the understanding of the fundamental mechanisms responsible for melting and solidification - glass formation and/or crystallisation - in metals. The project will be carried out on in the international environment, in particular in collaboration with European XFEL and Universitaet Duisburg-Essen, Germany. A short description of the general aims and the scope of the NCN project is available here: <https://ncn.gov.pl/sites/default/files/listy-rankingu/2021-09-15okipi34a/streszczenia/539373-en.pdf>

Requirements:

We are looking for a highly motivated young scientist with a keen interest in experimental science and good skills in data analysis, but also to some extent in theoretical work. Applicants must hold a PhD diploma in Physics, Materials Science, or a related research field. Experience with fs lasers and/or electron/X-ray-based techniques, in particular, electron/X-ray diffraction is required. Experience in time-resolved experiments would be an asset. Good programming skills in Matlab and/or Python are desired. Good communication skills in written and spoken English are required, given the international environment in which the

project will be carried out. Experience in teaching students at M.Sc. and/or PhD level would be an asset.

Main research field: Physics

Sub Research Field: Solid state physics

Career Stage: Experienced researcher or 4-10 yrs (Post-Doc)

Research Profile ([details](#)): at least Recognized Researcher (R2)

Type of Contract: Temporary, 24 months

Status: Full-time

Salary: 10 000,- PLN per month (employer costs), approx. 6 200 PLN per month net.

Contact

More information can be obtained from dr hab. Ryszard Sobierajski (e-mail: ryszard.sobierajski@ifpan.edu.pl).

Application details

Application deadline: 18.11. 2022 Applications sent after the deadline will not be considered.

Required materials:

- Curriculum Vitae
- List of publications
- Motivation letter related to this position
- Two reference letters with contact data (e-mail) to the authors.
- Consent to process your personal data (expressed on the form attached to this announcement)
- On the day of employment , certificate of obtaining a doctorate issued by an institution recognised in Poland . In the case of institutions not recognised in Poland, the doctorate will have to be nostrified before employment.

All materials should be submitted in electronic form to the address:

rekrutacja@ifpan.edu.pl with Job ID in the subject.

DATA PROCESSING UNDER CONSENT FOR THE PURPOSES OF RECRUITMENT

Under Art. 13 sections 1 and 2 of the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Resolution), EU OJ L 119 of 04.05.2016, page 1, as amended, hereinafter referred to as "GDPR", we hereby inform as follows:

1. The Data Controller of the provided personal data is the Institute of Physics of the Polish Academy of Sciences, Al. Lotników 32/46, 02-668 Warsaw, phone (22) 116-2111, e-mail director@ifpan.edu.pl.
2. Contact details to the Data Protection Officer are as follows: e-mail iodo@ifpan.edu.pl
3. Your personal data shall be processed for the purpose of carrying out the recruitment process for the position of
4. Processing of your personal data in scope of: full name, date of birth, correspondence address, information about education and course of past employment shall take place under Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code. In the scope in which you sent to us more personal data than indicated above, we process your data under the consent granted by you.
5. Your personal data shall be stored for 1 month from completion of the recruitment process. If you grant consent for processing of personal data for future recruitments, we shall process your data until withdrawal of the consent by you, however, no longer than for the period of 6 months from the day of submittal of the application by you.
6. Provision of the abovementioned data in the scope indicated above is a statutory requirement resulting from Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code, in the remaining scope it is voluntary. Failure to provide the data referred to in Art. 22¹ § 1 of the Act of 26 June 1974 - Labour Code precludes consideration of your candidacy for the offered position.
7. You have the right to access your personal data, to rectify them, erase them, restrict their processing.
8. You may submit a complaint to the Inspector General for the Protection of Personal Data.
9. You have the right to withdraw the consent to process your personal data in the scope in which they were provided at any time. Withdrawing the consent does not affect the lawfulness of processing carried out on the basis of consent before its withdrawal.

Consent content:

I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents for the purpose of carrying out the recruitment process for the position ofPost-Doc..... .

If you want us to consider your candidacy also in the future recruitment processes, please grant the additional consent:

I grant my consent to the Institute of Physics of the Polish Academy of Sciences to process my personal data contained in the sent recruitment documents in future recruitment processes taking place during 6 months from the day of appearance of this job advertisement.