

Research assistant (post-doc) in Cultural Heritage Research group

- Employer: Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Krakow, Poland
- Research field:
 - Mechanical engineering/material science > modelling of the mechanical failure in polymers,
 - Mechanical engineering/material science > determination of mechanical properties of polymers in works of art
- Researcher profile: R2
- Deadline for applications: 15.04.2022, 15:00 – CEST
- Place: Poland, Kraków
- Type of contract: temporary – 30 months
- Employment contract: full-time
- Working hours/week: 40
- Start of employment: 01.06.2022
- Key-words: PVC, modelling of stress field in polymers, polymer degradation, characterisation of mechanical properties of polymers, contemporary art.

Jerzy Haber Institute of Catalysis and Surface Chemistry PAS invites applications for an Research assistant (post-doc) position in the Cultural Heritage Research group for the implementation of the PVCare “Preventive Conservation Strategies for Poly(vinyl chloride) Objects” project funded by the National Science Centre.

The Candidates who meet the conditions stated in the act “Ustawa o Polskiej Akademii Nauk” dated 30 April 2010 (Dz.U. 2018 poz. 1475 z póź. zm.), art 89. ust 5 for the position of Research assistant are eligible to apply for the position.

The Research assistant supervised by the head of the CHR group will work on the development of a comprehensive mechanical model of works of art made of poly(vinyl chloride) based on material properties determined at late stages of material degradation.

The Research assistant will be responsible for:

- determination of the mechanical properties of PVC at various stages of degradation based on a set of samples obtained in the process of natural and accelerated aging using a universal testing machine (UTM) and a dynamic mechanical analyzer (DMA);
- development of a mechanical model of a representative object made of PVC, for the analysis of the stress / strain field and, consequently, permanent deformation and cracking based on modelling using COMSOL Multiphysics or ANSYS software;

- defining recommendations for the exposition, transport and storage of PVC objects.

Requirements

1. Education

Doctoral degree in one of the disciplines: material science, mechanical engineering, physics or mathematics.

2. Languages

English – fluent in speech and writing

Skills/qualifications

1. Experience in computer modeling of the stress and strain field in polymer systems confirmed by publications from the JRC list - 0-10 points;
2. Experience in determining the mechanical properties of polymers confirmed by publications from the JRC list - 0-10 points;
3. Experience in characterizing materials with a Dynamic Mechanical Analyzer DMA - 0-3 points;
4. Experience in research on polymer degradation - 0-3 points;
5. Experience as a leader (principal investigator) of a research project - 0-5 points.

Specific requirements

The application must contain:

1. An application.
2. Consent to the processing of personal data for the needs necessary to carry out the recruitment process in accordance with the Act of 29 August 1997 on the protection of personal data (t.j. Dz. U. z 2016 r. poz. 922, z 2018 r. poz. 138, 723.) and fill in the form „Obowiązek informacyjny dla osób mających podjąć pracę/współpracę” confirming acquainting with its content. The form is available on the institute website [\[FORM\]](#).
3. A copy of the PhD degree certificate.
4. Complete CV (including information on maternal leaves, voluntary work and periods of work in the industry).
5. At least one opinion on the Candidate given by a previous supervisor.
6. List of scientific achievements (scientific papers, patent, patent applications, grants etc.).

Additional information

Remuneration

The gross salary will be **7000-8000** PLN/month (approx. **1500-1750** Euro/month). depending on the Candidate's experience.

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Candidates at the time of receiving remuneration for the project implementation, shall not receive any other remuneration from funds allocated as direct costs under research projects funded in NCN call

Selection process

A ranking list of the Candidates will be created based on obtained points with the threshold value.

Eligibility criteria

- Candidates have been awarded a PhD degree within 7 years before joining the project. This period may be extended by the time of long-term (in excess of 90 days) evidenced sickness benefits or physiotherapy benefits on account of unfitness for work. This period may also be extended by the number of months of a child care leave granted pursuant to the Labour Code and in the case of women, by 18 months for each child born or adopted, whichever option is more advantageous.
- The candidate has obtained a doctoral degree in an entity other than IKiFP, or has completed at least a 10-month, continuous and documented postdoctoral fellowship in an entity other than the entity implementing the project and in a country other than the country of obtaining the doctoral degree.

Application procedure

Applications should be sent in the electronic form to: sekretariat@ikifp.edu.pl, with the message subject “CHR – asystent – KSN 4/2022”

Deadline for applications: 15.04.2022 at 3:00 pm CEST. The competition will be settled by 15.05.2022. The candidates will be notified of the results.

The employment will be proceeded with accordance to the rules of the Labour Code for 30 months.

Note

The Institute has been adapted to the needs of the disabled.

The Institute does not provide accommodation.

The recruitment process is conducted according to [OTM-R policy](#).