



**Institute of Molecular Physics
Polish Academy of Sciences**
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Director of Institute of Molecular Physics, Polish Academy of Sciences
announces recruitment for the assistant professor
at the Department of Nuclear Magnetic Resonance (Z8)

Institution: Institute of Molecular Physics Polish Academy of Sciences (IMP PAS)

(PL: Instytut Fizyki Molekularnej Polskiej Akademii Nauk /IFM PAN/)

City: Poznań, Poland

Position: assistant professor

Scientific discipline: physical sciences

Opening date: 24th August 2020

Application deadline: 4th September 2020, 15:00 CEST

Website: <http://www.ifmpan.poznan.pl>

Keywords: properties of condensed matter- thermal properties, crystallographic structure, structural changes, molecular dynamics, dielectric and nuclear relaxation, ionic conductivity

I. Offer description:

Title of the scientific project: Design and testing of physicochemical properties of new ion conductors: composites and gels based on biodegradable polymers.

Principal investigator: prof. Jadwiga Tritt-Goc

Project description: This project deals with the deployment of a new proton conducting material on the potential uses in a variety of electrochemical devices including hydrogen fuel cells which are of special interest because they permit clean and efficient technology for direct conversion from the chemical to electrical energy. We search for material that should be inexpensive, easy in production, flexible, solid-state, environmentally friendly, and exhibits high proton conductivity in unhydrated conditions. In this respect, for example, nanocomposites consist of nanocellulose or chitosan functionalized by nitrogen-containing heterocyclic molecules are highly interesting.

Research objectives: The main goal of the project is to obtain proton-conducting materials based on biodegradable polymers with designed properties, to determine and understand the impact of their physicochemical properties on proton transport and its correlation with conductivity, and to evaluate the possibility of using these materials. as solid proton conducting biopolymer electrolytes.

II. Requirements for candidates:

1. Research career stage:

R2: Recognised Researcher (PhD holders or equivalent who are not yet fully independent),

More information on career stages: <https://www.more3.eu/indicator-tool/career-stages-r1-to-r4>

2. Required education:

- **in the discipline:** physical sciences,
- **professional title, academic degree or academic title:** doctor of physical sciences

3. Required qualifications and skills:

- Documented scientific achievements in the form of publications in recognizable scientific journals (publications, conference presentations, managing grant projects, awards, etc.);
- Experience in the research of ion conductors in particular regarding molecular dynamics and ionic conductivity;
- Knowledge of the latest trends and achievements in the research of ionic conductors;
- Knowledge of basic measurement methods such as differential calorimetry, thermogravimetry, impedance spectroscopy and the ability to process the results of these measurements;
- Good knowledge of computer programs necessary for the development of research results (Microsoft Office, Origin, Mathematica, etc.).
- Employee creativity.

4. Special requirements:

- Experience in the research of ion conductors with the use of nuclear magnetic resonance (NMR) methods, in particular, high-resolution NMR spectroscopy, relaxometry, and diffusion measurement, and the ability to process these data;
- Experience in designing new ion conductors.

5. Knowledge of English: at least good

6. Scientific experience required:

- in the discipline: physical sciences;
- on the topic: of soft matter physics, properties of condensed matter, chemical physics, applied physics;
- in the method: nuclear magnetic resonance.

7. Professional experience required: 1-4 years

III. Duration of the employment: to be determined individually.

IV. Type of contract: full-time

V. Expected date of employment start: 1th October 2020

VI. Employment type: employment contract,

VII. Salary: in accordance with the Law (approximate gross salary 4600,00 PLN)

VIII. Number of positions offered: 1

IX. Job benefits: (for example excellent working conditions and opportunities for cooperation across disciplines, state-of-the-art technical facilities, balance between work and family life, flexible working hours, the opportunity to benefit from annual leave, a diverse and inclusive work environment)

X. Required documents:

1. Application;

2. CV including information on education and the course of scientific careers, internships and scientific training, conference presentations and seminars, prizes and awards, participation in research projects, acquired funds, organizational achievements, etc.;
3. list of scientific publications;
4. a scan or photocopy of the university diploma, PhD degree or academic title;
5. consent to the processing of personal data for recruitment purposes (Appendix No. 1);
6. statement that if the contest is won, Institute of Molecular Physics Polish Academy of Sciences will be the primary place of work within the meaning of the Act of 20 July 2018 Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended) - Appendix No. 2;
7. Supervisor opinion or reference letters in the case of young researchers - optional.

Documents in other languages than Polish or English should be translated into Polish or English.

XI. Method of submitting offers:

Applications with the annotation "Competition for an assistant professor Z8 - No. 08" should be delivered to the Institute's address or sent to the e-mail address director@ifmpan.poznan.pl.

Contact person:

Name: prof. dr hab. Jadwiga Tritt-Goc
e-mail: Jadwiga.tritt-goc@ifmpan.poznan.pl
phone: +48 (0)61-8695-226

XII. Qualification criteria:

1. The candidate's scientific achievements in the field of experimental research on new ion conductors (including scientific publications, awards, completed scientific internships, managing research projects);
2. Ability to conduct research with advanced NMR methods (high resolution spectroscopy, relaxometry, diffusion measurements).

XIII. Qualification process:

1. Job application competition;
2. Possibility of Skype interview with the best candidates,

The selection will be made by a contest committee: IFM PAN Scientific Council Committee for the Training of Young Scientific Staff or IFM PAN Scientific Council Committee for Professors

XIV. Expected date of the results announcement: 14th September 2020

XV. Additional information: IPM PAS does not provide accommodation.

DIRECTOR
of Institute of Molecular Physics
Polish Academy of Sciences

DISCLAIMER:

According to art. 13 1 and 2 of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (Journal of Laws UE L 119/1 of 4.5.2016), hereinafter referred to as RODO, we inform that:

1. The administrator of your personal data is the Institute of Molecular Physics Polish Academy of Sciences in Poznań, ul. Mariana Smoluchowskiego 17.
2. Your personal data will be processed for the duration of the recruitment process.
3. You have the right to request from the administrator access to personal data, the right to correct them, delete or limit processing, the right to object to the processing of personal data, as well as the right to transfer data.
4. You have the right to withdraw your consent at any time. The above does not affect the compliance with the law, which was made on the basis of your consent before it was withdrawn.
5. It is possible to lodge a complaint with the supervisory body - the President of the Office for Personal Data Protection.
6. Providing personal data is voluntary.
7. Your data will not be shared with entities other than entities authorized on the basis of applicable law.
8. The administrator will not transfer your personal data to recipients in third countries and international organizations.

Appendix 1

Consent for the processing of personal data for recruitment purposes

I agree to the processing of personal data provided in this document for realising the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council 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 Regulation).

.....
Name

.....
Date and signature

DECLARATION

I declare that if I win the Contest the Institute of Molecular Physics of the Polish Academy of Sciences will become my primary place of work within the meaning of the Act of 20 July 2018, Law on Higher Education and Science (Journal of Laws of 2018, item 1668, as amended).

.....
Name

.....
Date and signature