

FORM FOR EMPLOYERS

INSTITUTION: Institute of Organic Chemistry of the Polish Academy of Sciences

CITY: Warsaw

POSITION: Research Assistant - PhD student

DISCIPLINE: Chemistry

POSTED: 10.07.2026

EXPIRES: 21.08.2026

WEBSITE: <https://www.icho.edu.pl/en/>

KEY WORDS: *dyes, synthesis, absorption, π -systems, organic electronics*

Project title: MAB-CKCOM "Center for Quantum Digital Organic Memristors"

FENG.02.01-IP.05.-M005/25

The „Center for Quantum Digital Organic Memristors” project is carried out within the International Research Agendas (MAB FENG) programme of the Foundation for Polish Science co-financed by the European Union under the European Funds for Smart Economy 2021-2027 (FENG).

Number of positions available: 1

Researcher profile: R1

Job description:

The Quantum Digital Organic Memristor Center (CKCOM) project focuses on the development of a new generation of molecular memory and logic elements based on quantum proton tunneling. The objective is to advance energy-efficient memcomputing technologies that integrate information processing and storage within single molecular systems, with potential applications in nanoelectronics and artificial intelligence systems.

The successful candidate will be employed as a researcher at CKCOM and will prepare a doctoral dissertation in the extramural mode, while attending lectures at the Warsaw4PhD Doctoral School. The research will be conducted in Dr. Marek Grzybowski's group. The work



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will involve the synthesis of organic compounds—specifically aromatic amino acids—which, according to theoretical predictions, should exhibit a memristive switching effect between two electrical conductivity states: low and high. Following experimental verification, the synthesized derivatives will be used to construct next-generation memristive elements.

Accepting the position entails a commitment to preparing a doctoral dissertation in a field consistent with the project's theme, under the supervision of the Research Group Leader.

The main tasks will involve:

- synthesis of intermediates and final functional compounds;
- isolation and purification of products followed by their full chemical, spectroscopic, and photophysical characterization;
- collaboration with students;
- drafting reports and publications;
- attending Doctoral School lectures;
- preparing a doctoral dissertation.

Envisaged job starting date: 01.10.2026

Offer

Terms of employment: Full-time employment for 39-month, including a 3-month probationary period; a monthly salary of approximately 8 300 PLN gross, corresponding to the level of remuneration offered for comparable positions at the Institute of Organic Chemistry PAS in projects funded from external sources.

Benefits: *private medical care package, co-financing for sports activities, co-financing for leisure activities, the opportunity to participate in training to improve qualifications.*

Career development opportunities: *The selected candidate will have the opportunity to pursue extramural studies to prepare their doctoral dissertation. We offer work in a dynamically developing international team, access to advanced research infrastructure, opportunities for collaboration with foreign research centers, opportunities for further professional development at the Institute of Organic Chemistry of the Polish Academy of Sciences, and participation in training courses and scientific conferences abroad.*

Requirements

required competences

- MSc title in chemistry or related discipline
- Strong background in organic chemistry
- Proven experience in synthetic organic chemistry (hands-on laboratory work)
- Proficiency in English
- Experience with structural characterization of organic compounds using NMR, MS, UV-Vis, and IR spectroscopy

desirable competences

- Additional advantages: Experience in the chemistry of polycyclic aromatic compounds and/or functional dyes; background in photophysics
- Ability to work independently and as part of a research team

Candidate evaluation criteria

- knowledge of organic chemistry
- scientific achievements measured by the quality and quantity of scientific publications or granted/pending patents
- Candidate's professional experience in laboratory work
- awards or distinctions
- opinions about the Candidate contained in the letters of recommendation
- language knowledge enabling conducting scientific research

List of required documents

- Candidate's Curriculum Vitae
- cover letter
- description of scientific achievements including list of publications
- academic transcript including grade point average
- copy of MSc diploma or equivalent document
- Candidates who have submitted their Master's thesis must attach a certificate confirming the scheduled defense date
- letters of recommendation and references from previous employers/supervisors (if possess)
- consent to the processing of the Candidate's personal data for the purposes of the competition

Along with the required documents, please submit (or send a scan) a signed consent to the processing of personal data available at: <https://www.icho.edu.pl/en/cooperations/career/>

Competition settlement date: 10.09.2026

Additional information

Group Lider: Prof. Daniel Gryko

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Secretariat

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Applications must be sent to e-mail address: rekirutacja@icho.edu.pl

ATTENTION! In the title of the e-mail, please enter reference numer

“CKCOM/2026/D/2”

We are an open and inclusive employer – we encourage applications from all individuals, regardless of gender, origin, nationality, or minority background.

