



**Jagiellonian University in Kraków promotes cooperation and cares for a good atmosphere based on mutual trust. It implements the strategy resulting from The Human Resources Strategy for Researchers, creating stable conditions for employment as well as the development of academic career, which resulted in the award of the HR Excellence in Research by the European Commission**

### **INFORMATION ON SELECTION PROCEDURE**

**Date of selection procedure announcement** Krakow, 16.10.2023

<b>Selection procedure information number given by the Centre for Human Resources</b>	1227.1101.296.2023
<b>Dean of the faculty of /Director of a non-faculty, inter-faculty or common unit</b>	Prof. Dr. Habil. Wojciech Macyk Dean of the Faculty of Chemistry
<b>Address</b>	Jagiellonian University in Cracow Faculty of Chemistry Gronostajowa 2 30-387 Krakow

### **RECTOR**

**of the Jagiellonian University**

**announces a selection procedure for the position of an**

### **ASSISTANT PROFESSOR**

<b>Group of employees</b>	Research staff
<b>JU organisational unit (place of work performance)</b>	Faculty of Chemistry
<b>Field of science</b>	Exact and natural sciences
<b>Discipline</b>	chemistry
<b>Scope</b>	Heterogenous catalysis, spectroscopy
<b>Number of posts</b>	1
<b>Type of employment</b>	contract of employment
<b>Working time</b>	40 h per week
<b>Planned duration of employment</b>	30 months
<b>Expected date of employment</b>	I-III 2024

<b>commencement</b>	
<b>Remuneration</b>	according to the <a href="#">Rules for Remunerating Jagiellonian University Employees</a>
<b>Requirements</b>	<p>The selection procedure is open for all individuals, who meet the requirements set out in Articles 113 and 116.2.3) of the Act of 20 July 2018 – Law on Higher Education and Science, and who meet the following eligibility criteria according to § 165 of the Statute of the Jagiellonian University:</p> <ul style="list-style-type: none"> <li>• holding at least a doctoral degree;</li> <li>• having relevant scientific achievements;</li> <li>• taking active part in scientific life.</li> </ul>
<b>Additional requirements and expectations</b>	<p>Holding at least a doctoral degree; obtained in the year of employment in the project or in 7 years before January 1 of the year of employment in the project and obtained a doctoral degree in an entity other than Jagiellonian University (JU). The last condition is ceased if the applicant has completed at least 10 months of continuous and documented postdoctoral fellowship in an entity other than JU and in a country other than Poland;</p> <p>Documented experience (in the form of a certificate):</p> <ul style="list-style-type: none"> <li>- in conducting spectroscopic studies (IR UV-Vis and Raman spectroscopy)</li> <li>- in characterization of microporous solids using sorption and microscopic techniques.</li> </ul>
<b>Project Title</b>	<b>Go Green CO<sub>2</sub> - exploration of paths for sustainable production of green platform chemicals</b>
<b>Project description</b>	<p>The proposed project represents a new approach to chemical recycling of CO<sub>2</sub> and CH<sub>4</sub> to methanol, dimethyl ether and/or acetic acid, thus making them a renewable source of green platform chemicals. Simultaneous processing of CO<sub>2</sub> and CH<sub>4</sub> will be carried out over tailored counter metal ion/oxo (M = Fe, Zn, and Cu) structures supported over newly obtained Al-rich *BEA zeolites. In contrast to commonly used high-silica zeolites (Si/Al &gt; 12), a high concentration of Al atoms in the Al-rich *BEA (Si/Al &lt; 5) matrix offers the possibility of introducing a high population of metal ion extra-framework centres, which are the active sites in the catalytic process. Thus, the Al-rich *BEA (Si/Al &lt; 5) represents a new perspective catalytic material. To enable simultaneous processing of CO<sub>2</sub> and CH<sub>4</sub>, novel bimetallic Cu- Fe*BEA and Zn-Fe*BEA catalysts will be designed. The Fe ions will be embedded directly into the *BEA zeolite framework, while the Cu and Zn ions/oxo species will be introduced to the extra-framework position. This pioneering attempt will allow the development of an effective catalyst exhibiting mutual cooperation of two metal cations for the simultaneous transformation of CO<sub>2</sub> and CH<sub>4</sub> to green platform chemicals. A special emphasis will be given to determine the conditions of the scale-up of simultaneous catalytic transformation of CO<sub>2</sub> and CH<sub>4</sub> to green platform chemicals. The state and organization of Al atoms in the zeolitic matrix will be fine-tuned employing the results of <sup>27</sup>Al, <sup>29</sup>Si MAS NMR and UV-Vis spectroscopy. The structure of metal ion/oxo species interacting with CO<sub>2</sub> and CH<sub>4</sub> will be investigated using Mössbauer, FTIR, and UV-Vis spectroscopies under ex-situ and in-situ conditions. The obtained knowledge on the structure-activity relationships will allow to design efficient catalytic systems for simultaneous CO<sub>2</sub> and CH<sub>4</sub> processing towards the production of methanol, dimethyl ether and/or acetic acid.</p>
<b>Scope of duties</b>	<p>according to the <a href="#">Work Regulations of the Jagiellonian University</a> Annex 1 to the Work Regulations of the Jagiellonian University – Model scopes of responsibilities and duties of academic teachers Duties resulting from the project:</p> <p>1) Synthesis and modification of the materials with respect to their</p>

	<p>textural and redox-acidic properties;</p> <p>2) Characterization of materials employing structural, textural and spectroscopic methods vs. intermediates nature and possible reaction's mechanism; 2D COS analysis. Active participation in advanced spectroscopic experiments dedicated to the evaluation of reaction mechanism</p> <p>3) Individual literature research;</p> <p>4) Discussion of results and manuscript preparation;</p> <p>5) Preparation of the reports from project realization.</p>
<b>We offer</b>	<ul style="list-style-type: none"> <li>• stable employment based on an employment contract at the renowned university,</li> <li>• cooperation with the interdisciplinary academic community represented by well-known scientists,</li> <li>• scientific support as well as the possibility of qualifications improvement and professional development,</li> <li>• access to research infrastructure,</li> <li>• benefits in the form of i.a. Multisport card, sports activities, medical packages, group insurance,</li> <li>• additional social benefits.</li> </ul>
<b>Required application documents</b>	<ol style="list-style-type: none"> <li>1. resume,</li> <li>2. personal questionnaire filled in by the candidate,</li> <li>3. copy of the doctoral diploma or a diploma confirming the candidate's habilitation degree, if applicable,</li> <li>4. information on the candidate's scientific, teaching and organisational achievements,</li> <li>5. declaration of the candidate, confirming that the Jagiellonian University will be their primary place of work, should they be selected in the selection procedure,</li> <li>6. statement under Article 113 of the Law on higher education and science,</li> <li>7. statement on acknowledging and accepting the rules and regulations concerning intellectual property management and commercialisation in force at the Jagiellonian University.</li> </ol> <p><b>Declaration forms (no. 5-7) and personal questionnaire template (no. 2) can be obtained at:</b>  <a href="https://cso.uj.edu.pl/en_GB/konkursy">https://cso.uj.edu.pl/en_GB/konkursy</a></p>
<b>Additional application documents</b>	<ol style="list-style-type: none"> <li>1. list of publications (along with the respective publishing houses and the number of pages), if applicable,</li> <li>2. doctoral dissertation or habilitation dissertation review, if applicable;</li> <li>3. recommendation concerning the candidate's predisposition of research work</li> </ol>
<b>The course of selection procedure</b>	<p>The first stage of the selection procedure is the formal assessment of the submitted documents. Applications which meet all formal requirements are the subject of substantive assessment, during which an interview with the Candidate may be conducted (directly or via electronic communication channels), upon settling the date of the interview with the Candidate. The Candidate has the right to appeal against the negative assessment by the selection board within 7 days from receiving the information about the results of the assessment. The selection procedure is conducted in accordance with <a href="#">The Policy of Open, Transparent and Merit-Based Recruitment Process at the Jagiellonian University</a></p>
<b>Form of submission</b>	<p>by e-mail to the address: <a href="mailto:etat@chemia.uj.edu.pl">etat@chemia.uj.edu.pl</a>, title: <b>POST-DOC OPUS 24+LAP</b> Kinga Góra-Marek</p> <p>by mail to: Faculty of Chemistry, Gronostajowa 2, 30-387 Krakow with the note: POST-DOC OPUS 24+LAP Kinga Góra-Marek</p>
<b>Deadline for submission of applications</b>	17 <sup>th</sup> November 2023
<b>Expected date of the selection</b>	15 <sup>th</sup> December 2023

<b><i>procedure settlement</i></b>	
<b><i>Method of communicating of the results of the selection procedure</i></b>	by e-mail
<b><i>Questions</i></b>	For further information please contact prof. Kinga Góra-Marek, e-mail address: <i>kinga.gora-marek@uj.edu.pl</i>

In the selection procedure, the Jagiellonian University follows the principles of the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers.  
Jagiellonian University does not provide housing.

On behalf of  
the Rector of the Jagiellonian University  
prof. dr hab. Wojciech Macyk  
Dean of the faculty of chemistry

## Personal data processing information for job applicants

According to Article 13 of the 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 – hereinafter GDPR), the Jagiellonian University informs that:

1. The Administrator of your personal data is the Jagiellonian University with its registered office in Gołębia 24, 31-007 Kraków, represented by the Rector of UJ.
2. The Jagiellonian University appointed the Data Protection Officer [www.iod.uj.edu.pl](http://www.iod.uj.edu.pl), Gołębia 24, 30-007 Kraków. The Officer can be contacted by email: [iod@uj.edu.pl](mailto:iod@uj.edu.pl) or at the telephone number 12 663 12 25.
3. Your personal data will be processed in order to:
  - a. conduct recruitment process for the position specified in the hereby advertisement – as part of the legal obligation of the Administrator pursuant to Art. 6 (1) lit c of the GDPR in connection with the Polish Labour Code;
  - b. conduct recruitment process for the position specified in the hereby advertisement based on your consent pursuant to Art. 6 (1) lit a of the GDPR – your consent is granted by the clear action of submitting your CV with the Administrator. The consent to the processing of personal data concerns data that you voluntarily provide as part of your CV, which do not result from Polish Labour Code.
4. The obligation to provide your personal data results from the law (it applies to personal data processed under Article 6 (1) lit c of the GDPR). Failure to provide you personal data will result in your inability to take part in the recruitment process. Submission of personal data processed on the basis of consent (Article 6 (1) lit a of the GDPR) is voluntary.
5. Your data will be processed during the recruitment period. In the event of not concluding the contract with you, your data will be deleted after the recruitment process.
6. You have the right of access to the content of your personal data, as well as the right to correct, delete, restrict processing, transfer, object to processing – on the terms and conditions set out in the GDPR.
7. If the processing is based on consent, you have the right to withdraw the consent at any time, which shall not affect the lawfulness of processing based on the consent given before the withdrawal. Withdrawal of consent to the processing of personal data can be sent by e-mail to: [etat@chemia.uj.edu.pl](mailto:etat@chemia.uj.edu.pl) or by post to the following address: ul. Gronostajowa 2, 30-387 Kraków, or you can withdraw your consent in in the room CO-06.
8. Your personal data will not be subject to automated decision making or profiling.
9. You have the right to lodge a complaint with the Inspector General for the Protection of Personal Data, if you feel that the processing of your personal data violates the GDPR regulations