

JOB OPENING

INSTITUTION:	Institute of Power Engineering – Research Institute
CITY:	Warsaw
JOB POSITION:	Co-investigator
LOCATION:	Department of High Temperature Electrochemical Processes Augustówka 36, 02-981 Warsaw, POLAND
SCIENTIFIC DISCIPLINE:	Environmental engineering, mining and energy
SPECIALITY:	High temperature electrochemical processes
CALL:	SONATA BIS
FUNDING AGENCY:	National Science Centre (Narodowe Centrum Nauki)
ANNOUNCEMENT DATE:	15.03.2022
DEADLINE FOR APPLICANTS:	29.03.2022
WAY OF SUBMITTING:	electronic (via email)
LINK:	www.ien.com.pl
KEYWORDS:	electrolysis, co-electrolysis, electrochemical cells, hydrogen production, solid oxide cells

DESCRIPTION

Institute of Power Engineering in opening a position for a researcher who will be involved in the project as a Co-investigator - a member of the research team. The winning candidate will receive a salary and will be responsible for research activities within the project *Investigation of high temperature co-electrolysis of carbon dioxide and steam in solid oxide electrochemical cells operated at elevated pressure* which received financing from the National Science Centre through SONATA BIS programme.

Job description and expected competences:

The Co-investigator will be responsible for the design and computational activities related to high temperature co-electrolysis of steam and carbon dioxide in solid oxide cells, operating in elevated pressure conditions. The prepared numerical tool will undergo a validation process based on data gathered during experimental tasks within the project. This model will be used to determine the optimal operating parameters of the final unit, defining the boundary areas in which a given system will not function properly or is characterized by low efficiency and increased degradation of functional layers.

The Co-investigator is expected to have theoretical knowledge and experience related to numerical modelling of high-temperature electrochemical processes, such as co-electrolysis of steam and carbon dioxide. Additionally, the Co-investigator should be able to independently carry out experimental work, such as polarization measurements and impedance spectroscopy of solid oxide cells. The Co-

investigator is expected to have the appropriate knowledge of how to analyse data from experiments in terms of their implementation in the designed model. Proper background and authorship/co-authorship of articles related to the above topics is proof of right competences to carry out tasks in the project.

Requirements:

- education - engineering degree (power engineering, materials engineering, chemical engineering or process engineering)
- theoretical knowledge and experience in modelling of high-temperature electrochemical processes
- experience in using laboratory equipment for measurements and experimental analyses of fuel cells and/or electrolysers.
- good command of English, publications in English are welcome

Conditions of employment:

Duration: up to 48 months

Salary: 1500 PLN (gross including the employer's costs)

Required documents:

1. Curriculum vitae (CV).
2. List of scientific achievements including publications, conference presentations, participation in research projects, internships and research stays, training courses and received awards and distinctions.
3. Cover letter
4. Copy of the university diploma
5. A declaration of consent to the processing of personal data for recruitment purposes
6. The candidate's own declaration that he / she meets the formal requirements of the National Science Centre in terms of employment in the position

Assessment criteria along with the scale used by the selection board:

- Scientific achievements to date (publications and patents), assessed on a scale of 0-10 (criteria I)
- Participation in R&D project, research grant, scientific projects and cooperation with research entities, assessed on a 0-10 scale (criteria II)

In the event none of candidates scores at least 12 points, while minimum of 6 in each criteria, researcher will not be recruited.

Application documents with a statement saying: *"I consent to the processing of my personal data for the purpose of recruitment in accordance with art. 6 sec. 1 lit. a of the Regulation of the European Parliament and of the Council (EU) 2016/679 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 (general regulation on data protection” please send by e-mail to the following address: agnieszka.wardak@ien.com.pl. In the subject line of the e-mail, type "SONATA BIS 11 – Co-investigator". Documents are considered delivered on time, if they were delivered to the above-mentioned address by March 29th, 2022. Persons qualified for the recruitment interview will be informed about its date by phone. We reserve the right to conduct a competency test during the interview with selected candidates. Due to the COVID-19 pandemic or other circumstances the recruitment process may be conducted online as a videoconference. The results of the opening will be published online upon completion of the evaluation on March 31st, 2022.

Application which are not complete or submitted after the deadline will not be considered. Results of the selection process will be made public in accordance with the regulations of the National Science Centre. The decision of the committee may not be appealed.