

Institute of Power Engineering - Research Institute in Warsaw, Poland  
is offering:

### Post-Doc position (2 years)

in the field of:

### Effect of microstructure of ionic conductors on generation of hydrogen in solid oxide electrochemical cells (SOC)

#### ► Summary of the research activity:

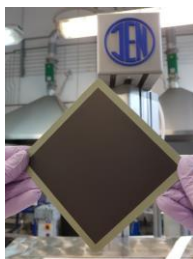
In frame of the project SONATA “Experimental and numerical studies of the effect of microstructure of ionic conductors on generation of hydrogen in solid oxide electrochemical cells (SOC)” financed by the National Science Centre (Poland), the research is focused on conducting a series of experimental studies on SOC degradation in the electrolysis mode in transient operating states, application of an advanced numerical model in the next stage of structure optimization to increase the performance of SOC cells, taking into account the dynamic operating states in the electrolysis mode. The responsibility of Post-Doc is to participate in the laboratory work concerning testing of SOC of varied microstructures, interpretation of the outcomes, especially the obtained current-voltage characteristics and impedance spectra (EIS), correlating the microstructure effect on SOC performance, and defining the guidelines for further modifications and improvements (lowering the voltage at a given current load of SOE). The Post-Doc will process the data obtained under laboratory conditions to collaborate with other members of the team, who will use those for validation of numerical models they create within the project. Finally, the task is to participate in the preparation of papers summarising the project results and their dissemination.

#### ► Who should apply:

- The desired candidate should hold a PhD in Power Engineering, Material Science, Chemical Engineering or related, obtained not earlier than 7 years before the year of employment in the project
- Previous experience in the field of solid-state electrochemical cells and material and operational issues related of these cells, especially in conducting experimental work under typical laboratory conditions for testing fuel cells and/or electrolyzers is a key competence
- Advanced knowledge of English language should be documented by publications in recognised scientific journals related to the project or similar

#### ► Work environment:

The workplace is 36 Augustówka Street, 02-981 Warsaw, at the Department of High Temperature Electrochemical Processes. The candidate will be part of a research group with ten years of experience in the field of solid oxide cells. The group is supported by funds from national and international research projects and collaborates with excellent research groups worldwide. The laboratories of IEn are equipped with many testing rigs and all the necessary infrastructure to carry out the research in the highest standards.



#### ► What we offer:

- fixed-term employment contract (24 months), starting: July-September 2020,
- monthly salary of about € 1350 (after tax),
- supervision and mentorship by a team of internationally renowned experts
- advanced training opportunities (scientific, skills, career)

## ► Required documents for application:

- Curriculum vitae (CV)
- List of scientific achievements, including publications, conference presentations, participation in research projects, internships and research stays, training received and awards received
- Cover letter
- Copy of the diploma confirming MSc degree
- Copy of the diploma confirming PhD degree
- Declaration of agreement to process of personal data for recruitment purposes

*"I consent to the processing of my personal data for recruitment purposes in accordance with Article 6(1)(a) 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 (General Data Protection Regulation)"*

- Declaration of meeting the formal requirements of the National Science Centre for post-doctoral employment in the project - details to be found at: <https://www.ncn.gov.pl/aktualnosci/2018-11-09-stanowisko-rada-post-doc?language=en>

## ► How to apply:

Please send the application documents by e-mail to [jakub.kupecki@ien.com.pl](mailto:jakub.kupecki@ien.com.pl) by **12.06.2020**. In the topic of the email, please write "SONATA - Post-Doc".

The applicants qualified for the recruitment interview will be informed about its date. We reserve the right to conduct a competence test during the interview with selected candidates. Due to the epidemiological situation, a possible form of a recruitment interview is a videoconference.

Incomplete applications and those submitted after the above mentioned deadline will not be considered. Information about the results of the recruitment process will be made public in accordance with the NCN regulations.

Evaluation criteria include: previous scientific achievements (publication and patents), evaluated on scale of 0-10; the result of a recruitment interview on issues related to the project's subject, evaluated on scale of 0-10; participation in R&D works, scientific projects and cooperation with scientific entities, evaluated on scale of 0-10.

**Come to Warsaw and research on solid oxide cells!**

