

# Ph.D Students in Energy research

Korea Institute of Science and Technology Europe mbH

KIST Europe, Saarbrücken offers positions as

## Ph.D Students

The initial appointment will be 1 year with the possibility of extension (generally up to 3 years). Salary is in accordance with the German State Regulated Public Salary Scale (TV-L E13 1/2) <sup>1</sup>

## Tasks

In KIST Europe, currently researches on all-solid-state batteries, sodium-ion batteries, zinc-ion batteries, and PEM water electrolysis for next-generation secondary batteries are being conducting. Particularly, improving the performance of next-generation secondary batteries using ionic liquids as additional electrolytes, and hydrogen storage and production are being performed in collaboration with the Julich Institute in Helmholtz, Germany.

Depending on your supervisor professor, your PhD research will be carried out at either the University of Saarland or Aachen University of Technology. The student will carry out research and projects that combine the synthesis of materials with the testing of electrochemical performance and fundamental analysis.

## Application fields :

**Electrolytes of next-generation secondary batteries, Synthesis of ionic liquids, Catalyst study of PEM water electrolysis**

Research Contents	Tasks	Majors	Application	Positions
Organic/Inorganic Synthesis	Synthesis of ionic liquids and electrolytes, Electrode materials, Polymer synthesis, Analysis	Organic Chemistry, Inorganic Chemistry, Chemical Engineering, Materials Science, Polymer Engineering	Solid-state batteries Sodium-ion batteries Zinc-ion batteries High temperature Fuel cells	1 student
Electrochemistry / Battery / Water Electrolysis	Testing and analysis of secondary batteries, water electrolysis, and electrochemical performance	Chemistry, Chemical Engineering, Materials Science, Mechanical Engineering	Next-generation secondary batteries, PEM water electrolysis	1 student

**Eligibility:** Master degree, fluent in English

## Documents to submit:

Cover letter, CV, Academic transcripts, Certification of graduation (degree certificates), List of references (at least two)

If your documents are incomplete, the application will be ignored.

**Contact:** Dr. Sangwon Kim (energy\_recruit@kist-europe.de)

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<sup>1</sup> From the completion of the PhD registration process. Prior to enrolment in a PhD programme at the University, the salary will be paid in line with a research assistant.