

PhD Project in the field of plasma-based methane decomposition

Materials science and technology are our passion. With our cutting-edge research, Empa's around 1,100 employees make essential contributions to the well-being of society for a future worth living. Empa is a research institution of the ETH Domain.

Within the framework of an industrial project aimed at the plasma-pyrolytic production of hydrogen with negative CO₂ emissions, the Automotive Powertrain Technology Laboratory offers a PhD position.

Your tasks:

- Planning, execution and evaluation of scientific investigations in the field of plasma-based methane decomposition.
- Fundamental investigation of relevant processes in methane-containing (low pressure) plasma.
- Modeling of the plasma, the chemical reactions and the interactions with the flow field.
- Optimization of the process regarding efficiency and structure of the produced solid carbon.
- Scientific publications in journals and at conferences.
- Supervision of students.

Your profile:

- University Master's degree in process engineering, chemical engineering, mechanical engineering materials science or similar; admission to doctoral studies at ETH Zurich
- Good technical knowledge and/or high interest in scientific work in the areas indicated above, including simulation.
- Interest in working in interdisciplinary teams.
- Good knowledge of the English language.

Our offer:

- Interesting and responsible tasks in the field of applied research.
- Development opportunities in an economically and socially important field.
- Contacts to international partners, customers and suppliers.
- Attractive working conditions of the ETH Domain – working place close to Zurich.

We live a culture of inclusion and respect. We welcome all people who are interested in innovative, sustainable and meaningful activities. That's what counts - not age, gender, origin, religion, sexual orientation, etc.

We look forward to receiving your online application including a letter of motivation, curriculum vitae, diplomas with references and contact details of two references. Please submit these exclusively via our job portal:

<https://apply.refline.ch/673276/1845/pub/3/index.html>

Questions?

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