

The Paul Scherrer Institute PSI is the largest research institute for natural and engineering sciences within Switzerland. We perform cutting-edge research in the fields of future technologies, energy and climate, health innovation and fundamentals of nature. By performing fundamental and applied research, we work on sustainable solutions for major challenges facing society, science and economy. PSI is committed to the training of future generations. Therefore, about one quarter of our staff are post-docs, post-graduates or apprentices. Altogether, PSI employs 2300 people.

For the Syn Flow group at the Femtochemistry laboratory we are looking for a

PhD Student in operando microfluidic reactors

06.01.2026 • Doctoral • 6417-00 • 100% 

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Your tasks

- Design microfluidic reactors for operando studies of photocatalysts, including hydrogen evolution reactions HER, hydrogenation reactions, and decomposition of organic pollutants
- Perform experiments in PSI laboratories and at synchrotron radiation facilities, data processing and analysis
- Optimization and automation of reaction parameters, correlation of the structural data with the materials' catalytic performance

Your profile

- You have a master's degree in physics, chemistry, materials science or related field
- You are able to perform experimental and theoretical work, look for new solutions, work independently
- You have a background in heterogenous catalysis, photocatalysis, electrocatalysis, or microfluidics
- You understand the principles behind the different spectroscopic techniques
- You have an experience in scientific programming using Python for data analysis
- You can integrate easily in an interdisciplinary research team and have great communication skills

We offer

Our institution is based on an interdisciplinary, innovative and dynamic collaboration. You will profit from a systematic training on the job, in addition to personal development possibilities and our pronounced vocational training culture. If you wish to optimally combine work and family life or other personal interests, we are able to support you with our modern employment conditions and the on-site infrastructure.

For further information, please contact Dr Aram Bugaev, aram.bugaev@psi.ch.

Please submit your application online by **15 February 2026** (including addresses of referees) for the position as a PhD Student (Index-Nr. 6417-00).

Paul Scherrer Institute, Human Resources Management, Pascale Bärtschi, 5232 Villigen PSI, Switzerland