EIDGENÖSSISCHE TECHNISCHE HOCHSCHULE LAUSANNE
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Institute of Chemical Sciences and Engineering (ISIC)

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Ph.D. and Postdoc Positions in Time-Resolved Electron Microscopy

We are seeking a highly motivated Ph.D. student or postdoc to join our team. We are looking for someone curious and driven who has fun trying out new things. A background in Electron Microscopy, lasers, instrument design, nanotechnology, or anything related would be great. But really anybody with good ideas and plenty of enthusiasm is highly welcome.

Our research revolves around time-resolved electron microscopy in the widest sense, with the goal of observing the fast dynamics of nanoscale objects that have previously remained invisible.

We have recently developed a new approach that improves the time resolution of cryo-electron microscopy by a thousand times, allowing us to observe the motions of proteins on the microsecond timescale. We hope that this will enable us to obtain fundamentally new insights into how proteins perform their tasks in living systems. We would be particularly interested in candidates with a background in cryo-electron microscopy to join this project.

Another research direction involves the real-time imaging of fast nanoscale processes at atomic resolution. To achieve this goal, we have recently introduced a new approach for generating very intense, high-brightness electron pulses. We have now begun to explore the potential of this technique to study a range of phenomena, spanning different areas of interest. Take a look at our website for more information of what we are up to and do not hesitate to contact us if you have more questions.

Some technical details:
Candidates for Ph.D. positions should hold a Master's degree in Chemistry, Physics, or a related field. In exceptional cases, a Bachelor's degree will also be accepted. Good proficiency in English is required. French is a plus, but not necessary. Moreover, the candidate must be accepted by one of the doctoral schools of EFPL, for example in Physics or Chemistry.

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