



The Laboratory of Biomolecular Research at the PSI offers a

PhD Project in Electron Crystallography:

Structure Determination of Organic Compounds by Electron Diffraction

The group of Dr. Tim Grüne is looking for an ambitious candidate to advance the field of 3D electron crystallography of organic and radiation sensitive compounds.

This project seeks to advance structure determination of organic and radiation sensitive compounds with 3D electron crystallography. It aims at increasing sample throughput by optimisation sample preparation and establishing data processing parameters. You will look into the determination of chirality based on phase combination with electron images. This project will be carried out in close collaboration with the companies Novartis, Roche, and Crystallise!, and you will gain insight into the work flow at these companies during your PhD.

We offer

PSI has access to two electron microscopes suitable for diffraction studies, equipped with the latest Timepix hybrid pixel detectors, combined with a Gatan K2 imaging detector. The project runs in close contact with the detector development, data processing and refinement routines. The candidate will receive excellent training in all aspects touching this project.

The **PSI** is the largest research centre for natural and engineering sciences within Switzerland. We perform cutting-edge research in the fields of matter and materials, energy and environment and human health. **PSI** is committed to the training of future generations. We offer an attractive work environment and provide an excellent platform for your future career.

In addition to being a great platform for your future scientific career, **PSI** offers very attractive work conditions and competitive salaries. See <https://www.psi.ch/pa/working-at-psi> for more details.

Your Skills

You have a degree in science or technology that qualifies for a PhD and is related to the topic of this project. Your education includes theoretical experience in (X-ray) crystallography, practical experience is a strong bonus. Experience in a chemistry of biochemistry lab is desired. You are interested in method development in the sense "how things work". **PSI** is an international institute and fluent knowledge of English is required.

Application

Applications including names of two to three referees and possible start dates should be submitted online *via* <https://www.psi.ch/pa/stellenangebote/1426>

Contact and Further Inquiries

Dr. Tim Grüne
Paul Scherrer Institut
Phone: +41 56 310 5297
Email: tim.gruene@psi.ch