

## PhD Position in Biocatalysis

**In the lab of Prof. Xile Hu at EPFL (Swiss Federal Institute of Technology Lausanne; Ecole Polytechnique Fédérale de Lausanne)**

Website: <https://lsci.epfl.ch>

(Availability: Immediately to First half of 2025).

We are looking for motivated and successful candidates to work on the following projects:

(i) Artificial enzymes. We seek to modify or create metalloenzymes for synthetic applications. We also seek to apply biocatalysis for organic synthesis according to metabolic guidelines.

(ii) Enzyme engineering. We seek to engineering and design natural enzymes to extend their application towards unnatural substrates or unconventional reaction mechanisms. We also plan to (re)design natural enzymes by computational means for abiotic reactivity. See our latest publication on our ammonia-lyase project: <https://onlinelibrary.wiley.com/doi/full/10.1002/anie.202406008>.

The project is a combination of synthetic chemistry and molecular biology. Background in one of these two areas is required.

**Requirements:** A Master's degree in Synthetic chemistry, Biochemistry, or related area is generally required. We expect you to have high grades (A-type; >5/6) and top rankings, as well as research experience in related fields. But most important is to have passion in research. Applicants whose first language is not English are recommended to provide results of the TOEFL and/or GRE tests, or other measure(s) of English proficiency. The initial appointment will be for one year. After one year you will have a qualifying exam. Those who pass the exam are definitely admitted to our PhD program. The normal duration of Ph.D. is 4 years. More information about the doctoral program can be found at: [phd.epfl.ch](http://phd.epfl.ch)

**For all applications, please send your candidature to Prof. Hu via [xilehu@gmail.com](mailto:xilehu@gmail.com).** Please include a CV, research interest, and names of two reference providers. In case of a large volume of applications, we can only reply to those who will be further considered for Zoom or onsite interviews. In this case if you do not hear from me within 2 weeks of initial application, please assume that your application is declined. Note that applications that do not meet the requirements stated above (e.g., necessary academic background) will not be replied.

The position requires acceptance in the Doctoral Program of Chemistry and Chemical Engineering, for which you must file an application at: <https://www.epfl.ch/education/phd/edch-chemistry-and-chemical-engineering/>. Contact person: Ms. Anne-Lene Odegaard. You might contact Prof. Hu for pre-evaluation of your profile before applying to the doctoral school.