

Sustainable Chemical Processes through Catalysis

Suchcat National Centre of Competence in Research

Brief overview

Many everyday products – plant fertilisers, electronic components, medicines and motor fuels – result from chemical reactions and the chemical transformation of various materials. A large proportion of all chemical products are manufactured using catalytic processes.

The aim of the Suchcat National Centre of Competence in Research (NCCR) is to create the scientific and technological bases to make chemical processes and products, and indeed the chemical industry in general, more sustainable, resource-efficient and CO₂-neutral. The Suchcat NCCR will revolutionise the chemical production chain by accelerating the discovery of new catalytic processes. It will make use of abundant sustainable raw materials to create chemical products and to build up a sustainable chemistry industry. This interdisciplinary project will bring together research groups from the fields of chemistry, material science, engineering and computer science. The Suchcat NCCR is firmly anchored in new digital methods such as machine learning and artificial intelligence; it will also drive forward digitalisation and innovation in chemical research and the chemical industry.

The NCCR is based at the ETH Zurich (primary home institution; 13 research groups) and at the EPF Lausanne (second home institution; ten research groups). The national network also involves a research group at each of the following institutions: the universities of Basel, Bern and Zurich, the School of Technology and Architecture in Fribourg and the Zurich University of Applied Sciences in Wädenswil. The NCCR makes use of the ETH Domain's recently established infrastructure, the Swiss Catalysis Hub.

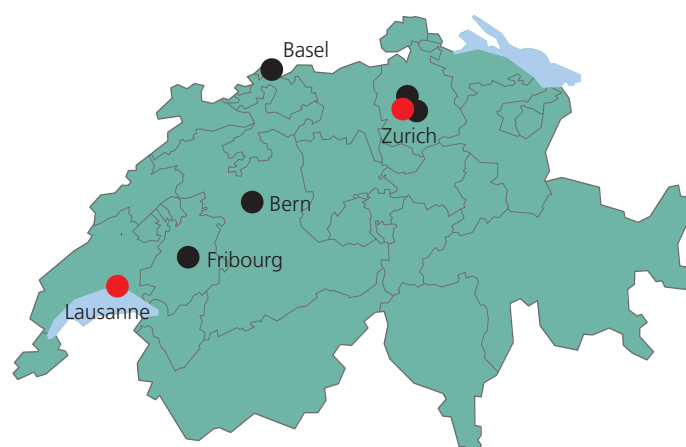
Further information

www.suchcat.ch

www.sbf.admin.ch/nccr-e

Facts and figures

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Home institutions
(number of groups)
ETH Zurich (13)
EPF Lausanne (10)

Network
(number of groups)
University of Basel (1)
University of Bern (1)
University of Zurich (1)
School of Technology and Architecture in Fribourg (1)
Zurich University of Applied Sciences (1)