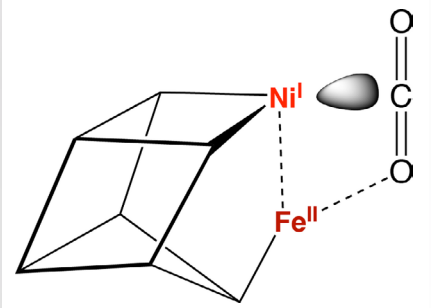
unisyscat

Newsletter

Summer 2025



Research Highlights

Click here to take a brief look at what researchers at UniSysCat have been working on the past few months.

Current Affairs

Click here to view the most recent events, awards and other affairs hosted by UniSysCat.

Upcoming Events

Click here to take a look at the colloquia and other events coming up.

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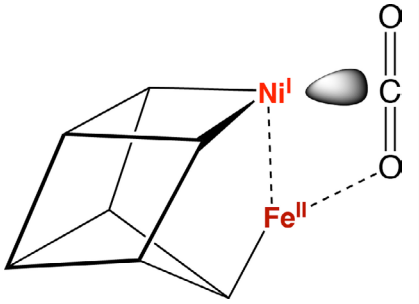
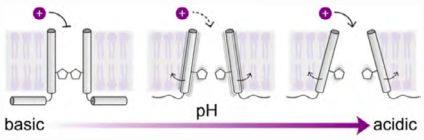
Research Highlights



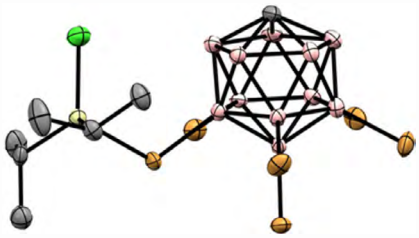
A new role for nickel in nature – how bacteria convert the greenhouse gas CO_2

Researchers from four UniSysCat groups uncovered in two studies how bacteria use two nickel-containing enzymes to convert the greenhouse gas carbon dioxide (CO_2) into energy-rich organic compounds. The studies have been published in Nature Catalysis.



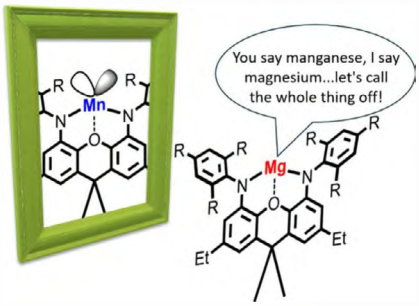
New structural insights on pH dependent proton channeling in a viroporin

Three UniSysCat group leaders from the FMP and the Kozuch group (FU Berlin) joined to study the structure of the tetrameric proton channel from the influenza A virus by NMR spectroscopy and theory as function of the pH.



New superacids for green chemistry

A UniSysCat team presents new, extremely reactive silicon cations for potential applications in recycling and green chemistry, including the chemical decomposition of so-called „forever chemicals“. The study has been published in Nature Chemistry.



Developing a new chemical tool for N_2 and C-H activation

From Berlin to Melbourne and back: A doctoral student from the UniSysCat research group of Prof. Limberg visited cooperation partners at Monash University in Australia and brought back exciting research results.

Current Affairs

Exzellent erklärt podcast: “The chemistry of tomorrow” - episode by UniSysCat

“exzellent erklärt” is the podcast of the 57 clusters of excellence in Germany. The second episode with experts from UniSysCat is online now: Martin Rahmel and Benjamin Steininger discuss the transformation of chemistry.

Award-winning coatings make electrolysis more sustainable

Great success for catalysis innovations: The Nano Cats GmbH, a spin-off supported by UniSysCat, wins one of the 2025 Validation Awards in the VIP+ program of the BMFTR. Using nanotechnology, they develop coatings for electrodes that save energy.

UniSysCat group leader Peter Seeberger re-elected as Vice President of the DFG

On July 2, the Vice Presidents of the German Research Foundation (DFG) have been elected. UniSysCat group leader Prof. Dr. Peter Seeberger, director at the MPI of Colloids and Interfaces and the CTC, has been re-elected for his second term in office.

The 2025 Gerhard Ertl Lecture Award goes to Prof. Dr. Héctor D. Abruña

Every year, the Gerhard Ertl Lecture Award honors an outstanding scientist in the field of electrocatalysis. This year, Prof. Dr. Héctor D. Abruña receives the prestigious award named after UniSysCat’s spiritus rector.

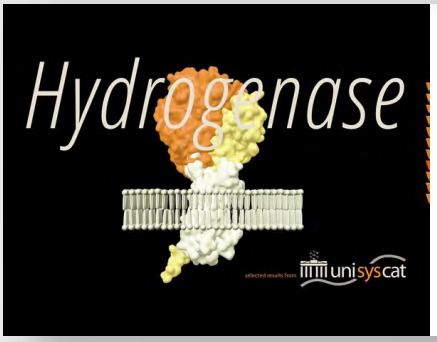
Current Affairs

2025 EC²/BIG-NSE Retreat

The EC²/BIG-NSE doctoral program, which is closely linked to UniSysCat, held its annual retreat on 12 and 13 June 2025. PhD students and supervisors shared their research progress and discussed the future of the program. Visit our website for a short report and photos of the retreat.

UniSysCat at the Long Night of Science

On June 28, the Long Night of Science took place in Berlin. UniSysCat contributed to the “Exzcellent Pub Quiz” by Berlin’s seven clusters of excellence at TU Berlin. It was a great evening! Visit our website for photos of the pub quiz evening.



New video: Hydrogenase

A new video on Youtube showcases the joint research results of several UniSysCat groups on the structure and function of the enzyme hydrogenase.
The video has been produced by Erik Werner with scientific advice from Maria Andrea Mroginski, Oliver Lenz and Juri Rappsilber.

Upcoming Events

Excellent Pub Quiz

The seven Berlin clusters of excellence invite you to seven exciting and inspiring pub quiz evenings in 2025 – right in the heart of Kreuzberg. The focus of the September pub quiz lies on the research of the cluster “Matters of Activity”.

Date: September 8, 7 pm, fahimi bar Kreuzberg.

UniSysCat Colloquium

Pedro Reis from Bayer AG will talk about ”Toward a Next Gen Toolkit for Modelling pH Effects in Proteins”. Modeling biomolecular pH effects helps us to better understand these, which is fundamental to capturing proton-coupled changes in structure, function, binding, and dynamics of proteins.

Date: September 10, 5:15 pm, TU Berlin & online

Imprint

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