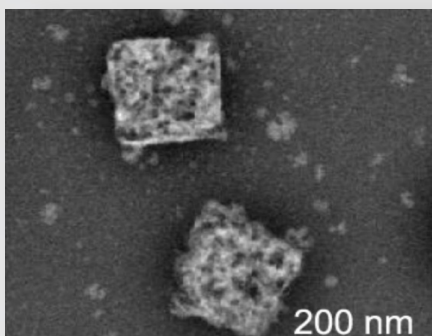




Newsletter

Winter 2021



Research Highlights

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



Current Affairs

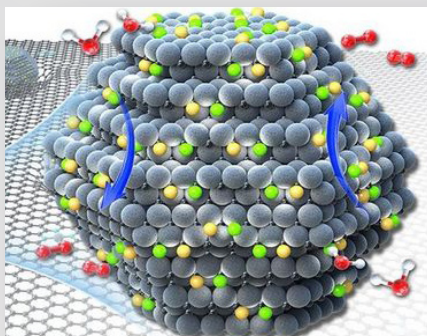
[Click here](#) to view the most recent events, awards and other affairs hosted by UniSysCat.



Upcoming Events

[Click here](#) to take a look at the colloquiums and other events coming up.

Research Highlights



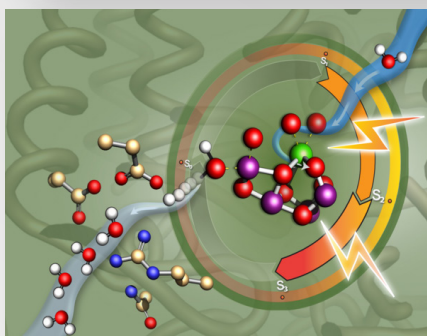
Promising new approach: single-atom catalyst for electrochemical water splitting

Dr. Shuang Li, as part of the Prof. Thomas group, presents a novel single-atom catalyst in which two metals, iron and nickel on a tungsten carbide support, act synergistically to yield highly active catalysts for the oxygen evolution reaction.



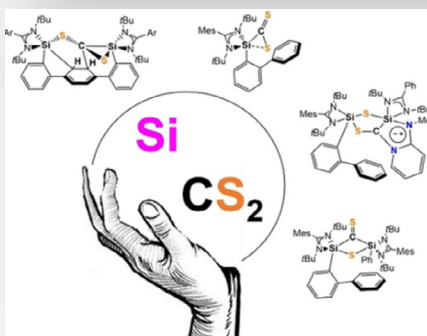
Protonation controls function

Two recent UniSysCat publications show how protonation controls function: the first work describes how the structural change of a bacterial photoreceptor is enabled by protonation. The second work shows that protonation of a catalyst is a crucial step to activate it for photocatalysis.



Structural dynamics in the water and proton channels of photosystem II during the S_2 to S_3 transition

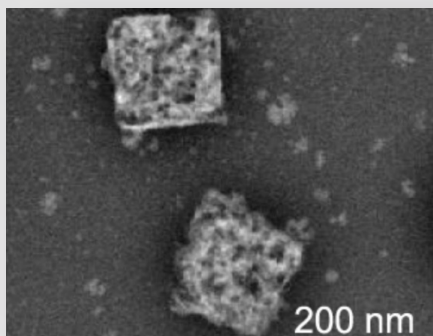
Researchers at UniSysCat shine a light on the working principles of photosystem II by generating atomic snapshots using ultrashort X-ray laser pulses.



A striking mode of activation of carbon disulfide with a cooperative bis(silylene)

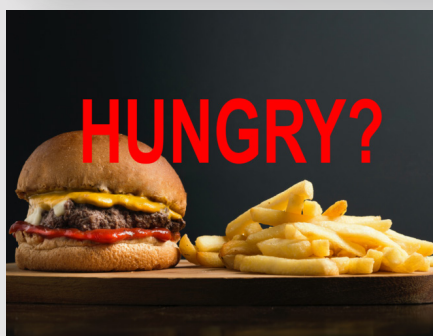
UniSysCat group leaders Prof. Matthias Driess and Dr. Tobias Gensch from the TU Berlin found that the metal-free activation mode observed is completely different from activation with a monosilylene.

Research Highlights



Can you watch a catalyst during catalysis?

The UniSysCat researchers in Prof. Roldan Cuenya's Group from the Fritz Haber Institute Berlin use real-time electrochemical liquid cell transmission electron microscopy to show how these cubic copper catalysts restructure during reaction.



Hungry? How a molecular switch determines our feeling of hunger

UniSysCat group leaders Patrick Scheerer and Christian Spahn recently disentangled the structure of a molecular switch responsible for hunger: the nanometer-sized protein called melanocortin 4 (MC4R).



Search for new catalysts: End of the laborious laboratory work?

Researchers from the Novel Materials Discovery (NOMAD) laboratory, FHI and the BasCat BASF JointLab at the TU Berlin have now proposed a novel AI approach for modeling heterogeneous catalysis.

Current Affairs



UniSysCat group leader Markus Antonietti receives Hermann Staudinger Prize 2020

The award ceremony originally planned for 2020 had been rescheduled to November 3, 2021. Congratulations once again from UniSysCat! The prize is awarded by the GDCh for special contributions to macromolecular chemistry.



Happy 85th birthday, Prof. Gerhard Ertl!

Nobel Prize laureate Prof. Gerhard Ertl is not only a pioneer of surface chemistry, but also is a great role model for the researchers of UniSysCat. He turned 85 on October 10th and UniSysCat would like to warmly congratulate him!



Martin Oestreich has been appointed a board member of "Lives in Chemistry"

In September 2021, the new book series "Lives in Chemistry - Lebenswerke in der Chemie" has been launched. The series is a project of the GNT-Verlag GmbH on behalf of the group "History of Chemistry" within the GDCh.



Sixth episode of the science podcast "exzellent erklart" now online

In this episode, climate change is examined from a very special perspective: sociologists and natural scientists are jointly investigating pressing issues relating to the climate crisis within the CLICCS Cluster of Excellence.

Current Affairs



Fifth episode of the science podcast “exzellent erklart” now online

Professors from the cluster Munich Center for Quantum Science and Technology discuss in this latest episode about their research in the field of quantum physics.



Fourth episode of the science podcast “exzellent erklart” now online

Researchers from the Cluster ECONtribute discuss their works regarding the analysis of markets and public policy against the background of fundamental social and technological challenges such as digitization and increasing inequality.



Markus Antonietti awarded for his research on artificial photosynthesis

Together with Marcella Bonchio and Pierre Joliot, Markus Antonietti, UniSysCat member and director at MPI-KGF in Potsdam receives the international award “Lombardia è Ricerca” for his contribution to artificial photosynthesis.



Third episode of the science podcast “exzellent erklart” now online

Dr. Lisa Maier is a junior group leader in the Cluster “Controlling Microbes to Fight Infections” (CMFI) in Tübingen. She studies antibiotics and other drugs and tries to find out to what extent these affect the health of our intestinal microbiome.

Current Affairs



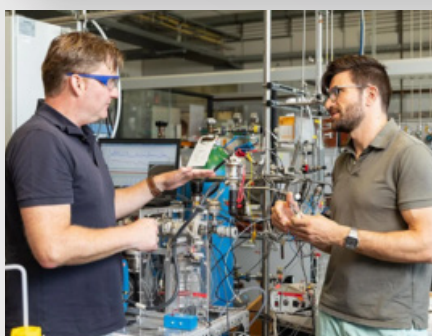
Prof. Dr. Süßmuth receives the Max Bergmann Gold Medal 2020

UniSysCat member Prof. Dr. Roderich Süßmuth from Technical University Berlin has been retroactively awarded the Max Bergmann Medal 2020 for his outstanding scientific achievements in the field of peptide natural products.



Dr. Charlotte Vogt is the recipient of this year's Clara Immerwahr Award

This year's Clara Immerwahr Award goes to Dr. Charlotte Vogt from Technion – Israel Institute of Technology for her outstanding achievements in catalysis research. We congratulate and welcome her to our team!



A glimpse into the lab of Peter Strasser: Searching for the 21st century refineries

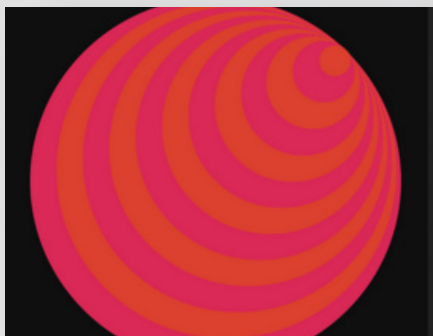
An article published by the TU Berlin gives the reader an insight on the intricate research being conducted within the laboratories of Prof. Dr. Peter Strasser.



UniSysCat group of Prof. Matthias Driess has been portayed for “WissenAusBerlin”

The UniSysCat team of Prof. Driess from Technical University Berlin got the chance to explain their research for “WissenAusBerlin” - the Youtube channel of the Berlin University Alliance.

Current Affairs



Schoolchildren from Neukölln immerse into the world of chemistry

On September 30th, 2021, an exceptional event took place in the garden of Schloss Britz in the heart of Berlin-Neukölln. Science and dance merged in an amazing liason - and UniSysCat was a part of it.



Video Release: "Day in the Life" with Dr. Shuang Li

The very first video of the project shows the daily work in the lab of UniSysCat researcher Dr. Shuang Li. She has been working as a post-doc in the Functional Materials group of Prof. Arne Thomas at the TU Berlin.



The 14th Gerhard Ertl Lecture award ceremony took place

The award was given to Omar M. Yaghi, who is the James and Neeltje Tretter Chair Professor of Chemistry at the University of California, Berkeley, and an elected member of the US National Academy of Sciences.



Upcoming Events



15th EC²/BIG-NSE Workshop

As every year once their “initial phase” is finished, the new PhD students of EC²/BIG-NSE have the opportunity to present their PhD work plan in front of the UniSysCat community.

Date: 07.01.22



Clara Immerwahr Award Ceremony 2022

This year's Clara Immerwahr Award Ceremony will be hosted at the Technical University of Berlin in the Summer of 2022.

Date: TBA, Summer 2022



Imprint

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