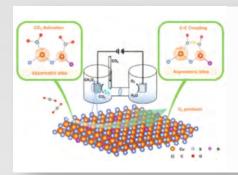


# Newsletter Winter 2023/24



#### 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.

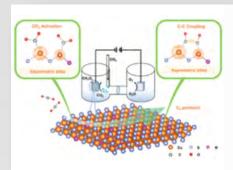


#### **Upcoming Events**

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



## Research Highlights



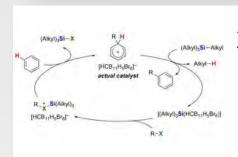
#### Coupling of two active sites matters

To achieve net zero carbon emissions, we need ways to close the anthropogenic carbon cycle in the chemical sector. UniSysCat researchers have developed surfaces with asymmetric metal pairs to promote electrochemical valorization of CO<sub>2</sub> into multicarbon e-chemicals.



## Solar-driven upgrading of biomass by coupled hydrogenation using in situ generated hydrogen

UniSysCat researchers suggest a cost-effective solar-driven hydrogen production method in a new Nature publication. A coupled process improves economic viability by creating a valuable chemical and hydrogen.



### A novel top-down approach for producing functional silanes

UniSysCat group leader Martin Oestreich and coworkers published a paper in Nature on a catalytic halodealkylation of fully alkylated silanes by making use of a sacrificial Friedel–Crafts reaction.





### Kindergarten place for visiting scientists is still available!

Since 2022, UniSysCat has a "Beleg" kindergarten place for visiting scientists. At the moment, it is available! If you're interested, please contact UniSysCat's Advisor on Gender Equality Claudia Ben Nasrallah.



#### UniSysCat and the new proposal

UniSysCat group leaders met to discuss the proposal for the coming funding period of the German Excellence Strategy. In an interdisciplinary cluster like UniSysCat this kind of teamwork is vital.



### Organic chemistry for solving the climate problem - with Prof. Omar Yaghi

On 4 March, Prof. Omar Yaghi from the University of California, Berkeley, gave a special UniSysCat lecture to mark the presentation of the Humboldt Research Award.



### Berlin's politicians support excellent research

The Berlin Clusters of Excellence, the Berlin University Alliance and Berlin politicians, notably the Senator for Science, Health and Care Ina Czyborra and the Major Kai Wegner came together to talk about the importance of academic research for the city.





### IUPAC Global Women's Breakfast @ UniSysCat

At a breakfast on February 27, UniSysCat researchers discussed ways to improve diversity and discrimination. Global Women's Breakfast is an annual worldwide event that was initiated by the IUPAC. This year's motto was "Catalyzing Diversity in Science".



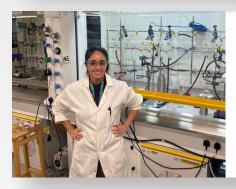
### The beginning of a new era in UniSysCat with a new speaker team

On the 12th of January, the general assembly of UniSysCat elected a new speaker team representing the new scientific direction of the cluster: Welcome to the new members Prof. Dr. Juri Rappsilber and Prof. Dr. Maria Andrea Mroginski!



#### From Marseille to Berlin, with catalysts

Researchers from UniSysCat and from the University of Aix Marseille met for an international exchange in the field of "gas-converting metalloenzymes" and to discuss new cooperations.



#### Prof. Dr. Meera Mehta wins the Clara Immerwahr Award 2024

Congratulations to Prof. Dr. Meera Mehta from the University of Oxford! She was awarded for her outstanding research, dedication and the significant impact she has made in the area of catalysis.





### 3rd UniSysCat - Oxford meeting in Berlin held at the TUB

Scientists from Oxford came to Berlin to discuss with UniSysCat members the catalysis of future collaborations.



#### Petrosalon – Grieving the end of fossil fuels

Süddeutsche Zeitung published a review on the latest activities of Benjamin Steininger (UniSysCat) and Alexander Klose who work together in the research collective "Beauty of Oil".



### Crossing Boundaries with UniSysCat at BUA event

UniSysCat presented its research to stakeholders from the fields of science, business, politics, civil society, and culture at an event organized by the Berlin University Alliance.



### ERC Synergy Grant for Juri Rappsilber and partners

Bold and visionary ideas that challenge the limits of what can be imagined – read our interview with UniSysCat group leader Juri Rappsilber about the innovative "TransFORM" project.





#### **GreenCHEM Kick-off - better together**

On October 6th was the kick-off of GreenCHEM, a consortium consisting of the three Berlin universities and 26 other partners from science and industry with the aim to build an ecosystem for innovations in Green Chemistry in the Berlin region.



### UniSysCat and EC<sup>2</sup> / BIG-NSE - Scientific Advisory Board meeting

UniSysCat's Scientific Advisory Board, which consists of distinguished scientists with expertise in the multiple fields of catalysis and related areas, discussed the current research and future directions of UniSysCat and visited the graduate school EC<sup>2</sup>/BIG-NSE.



## UniSysCat SAB member Junko Yano named director of Molecular Biophysics & Integrated Bioimaging Division at Berkeley Lab (MBIB)

In her new role, Dr. Yano aims to strengthen and expand the MBIB Division's expertise in bioenergetics, structural biology, cellular and tissue imaging, and computational simulations.



#### Berlin's Senator for Higher Education and Research, Health and Long-Term Care visits UniSysCat

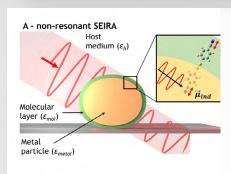
In October 2023, Dr. Ina Czyborra, Berlin's Senator for Higher Education and Research, Health and Long-Term Care, visited UniSysCat as part of her tour of the Clusters of Excellence in Berlin.





## UNIPRENEURS awards recognize professors' commitment to entrepreneurship in higher education

20 professors were honored for their role in fostering innovative startups. Among the awardees are Prof. Reinhard Schomäcker and Prof. Stefan Hecht, both affiliated with UniSysCat.



## Surface-Enhanced Infrared Absorption (SEIRA) spectroscopy: A powerful technique for the molecular analysis

Learn all about this surface sensitive spectroscopic technique in a recent review published in Nature Reviews by Jacek Kozuch, Kenichi Ataka and UniSysCat group leader Joachim Heberle.



### Arne Thomas nominated for the "Falling Walls Science Breakthrough of the Year"

UniSysCat's spokesperson was nominated for his work on organic photocatalysts that could revolutionize decentralized and eco-friendly energy conversion.



## Upcoming Events



#### Clara Immerwahr Award Ceremony 2024

Prof. Dr. Meera Mehta will be honored with this year's Clara Immerwahr Award for her outstanding research in the field of catalysis. The ceremony and lectures are followed by a reception. Guests are cordially invited. Please register by April 5, 2024.

Date: 12.04.24, 3:00 pm, TU Berlin, H 3005



#### **Imprint**

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