# Unifying Concepts in Catalysis

UniCat is the Cluster of Excellence within the framework of the German Initiative for Excellence researching the field of catalysis. More than 250 chemists, physicists, biologists and engineers from four universities and two Max Planck research institutes from Berlin and Potsdam are involved in this interdisciplinary research network. The Cluster is hosted by the Technische Universität Berlin.

The subject areas covered range from the chemical conversion of natural and biogas, the activation of carbon dioxide and the creation of hydrogen from light and water, to the synthesis of active ingredients using enzymes.

### **Participating Institutions**

- Technische Universität Berlin (host university)
- Freie Universität Berlin
- Humboldt Universität zu Berlin
- Universität Potsdam
- Fritz-Haber-Institut der Max-Planck-Gesellschaft in Berlin Dahlem
- Max-Planck-Institut für Kolloid- und Grenzflächenforschung in Potsdam Golm

#### Contact

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### **Public Transportation**



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Ernst-Reuter-Platz: U2
Zoologischer Garten: U2, U9



Ernst-Reuter-Platz: M45, 245, X9



Zoologischer Garten: **S5, S7, S75** Tiergarten: **S5, S7, S75** 

## Friday, February 12, 2016 at 2:00 pm

Technische Universität Berlin Main Building, Atrium (Lichthof) Straße des 17. Juni 135 10623 Berlin

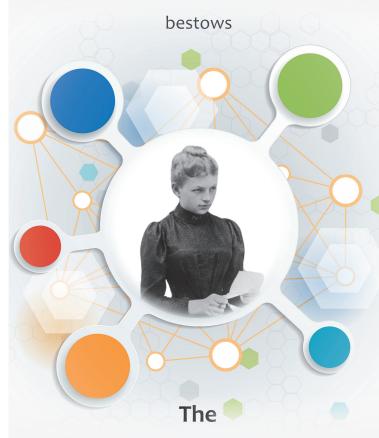
The Clara Immerwahr Award 2016 is sponsored by





# The cluster of excellence "Unifying Concepts in Catalysis"





# CLARA IMMERWAHR AWARD 2016

Friday, February 12, 2016 at 2:00 pm at Technische Universität Berlin

#### About the Award

The Clara Immerwahr Award is conferred annually to a young female scientist at an early stage of her career (postdoctoral fellow, junior researcher) for outstanding results in Catalysis Research. It is associated with a financial support of 15.000 Euro for a research stay at UniCat and thought to pave the way for setting up an independent research group in the consortium or for establishing close collaborative links with UniCat.

The Clara Immerwahr Award serves as an excellent exemplare of the promotion of an excellent young female scientists and is another successfull measure taken by UniCat aimed at advancing female researchers.



Lichthof TU Berlin; Foto © TU-Pressestelle / Böck

### Who was Clara Immerwahr

Clara Immerwahr (June 21, 1870 - May 2, 1915) studied Chemistry at the University of Breslau. She became the first woman to be awarded a doctorate in physical chemistry at a German university. Clara Immerwahr was the first wife of Fritz Haber.

### Award Ceremony

Friday, February 12, 2016 at 2:00 pm at Technische Universität Berlin Main Building, Atrium (Lichthof)

including lectures of



**Dr. Rebecca Melen**Cardiff University, UK

"Main Group Catalysis: A Transition Metal Alternative?"

and

Prof. Dr. Katharina Al-Shamery Carl von Ossietzky Universität Oldenburg

"Titania"

The ceremony and lectures will be followed by a reception at the Atrium of the Technische Universität Berlin.

We cordially ask for a notice of intention to attend via e-mail to

registration@unicat.tu-berlin.de until January 31, 2016.

### Awardee

Dr. Melen completed her BA and MSci degrees at the University of Cambridge. After an internship at Johnson Matthey, she was awarded a PhD in 2012 for her doctoral thesis entitled "Catalytic Versus Stoichiometric Dehydrocoupling Reactions Using Main Group Metals" which described the use of p-block bases in E-E and E-E' bond formation through stoichiometric and catalytic dehydrocoupling reactions of E-H bonds. She continued on to become a postdoctoral researcher at the University of Toronto where she investigated the ,click' chemistry of boron azides and pioneered the use of electron deficient main group compounds to promote the intramolecular (catalytic) cyclisation of propargyl amides and esters. In 2013, she was awarded a Humboldt Fellowship to work at the University of Heidelberg where she gained additional expertise in main group catalysis, prior to her current lectureship at Cardiff University.

### Research Interests

On an industrial scale the use of catalysts to lower activation energies for chemical transformations is becoming of increasing importance. As a result, a multitude of transition metal catalysts have been developed for a diverse range of transformations. Recently however, there has been a surge in interest in the catalytic properties of main group elements. The development of main group alternatives to conventional transition metal catalysts is an emerging 'hot topic'. Research in the Melen group focuses on the use of main group Lewis acids and bases in organic synthesis and catalysis.