



## Preliminary Program

### Sustainability in Chemistry

Biannual meeting of the Division  
"Sustainable Chemistry"

September 28-30, 2014

Friedrich-Alexander-Universität  
Erlangen-Nürnberg (FAU):  
Department of Organic Chemistry,  
Henkestr. 42, Erlangen

[www.chemie.fau.de/suschem2014](http://www.chemie.fau.de/suschem2014)

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## Topics

- Sustainable Synthesis Including Catalysis & Biotechnology
- Renewable Feedstocks
- Sustainable Macromolecular Chemistry
- Assessment and Politics
- Green Chemistry Education

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## Invited Speaker

Shu Kobayashi, University of Tokyo, J

Ulf Hanefeld, TU Delft, NL

Konrad Hungerbühler, ETH Zürich, CH

Cor Koning, TU Eindhoven, NL

Bert Sels, University of Leuven, BE

Matthias Beller, University of Rostock, D

Michael Dreja, Henkel, Düsseldorf, D

Harald Gröger, University of Bielefeld, D

Burkhard König, University of Regensburg, D

Andreas Künkel, Biopolymers, BASF, D

Uwe Lahl, University of Darmstadt, D

Alexander Vyhndal, STAEDTLER, Nürnberg, D

find more information:  
[www.chemie.fau.de/suschem2014](http://www.chemie.fau.de/suschem2014)

### Poster prize - "Green Chemistry" (RSC)

The conference program is accompanied by a poster session, best poster contributions are awarded with poster prizes donated by "Green Chemistry" (RSC).

### PhD Award "Sustainability in Chemistry"

The GDCh-division "Sustainable Chemistry" - with generous support by Evonik Industries AG - awards 2014 a prize for the best PhD thesis in the area of sustainable chemistry.

## *Preliminary Program*

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Sunday, September 28, 2014

16.00 - 16.20 Opening

16.20 - 16.50 NN

*Shu Kobayashi, Tokyo - J*

16.50 - 17.20 From  $sp^2$  to  $sp^3$  utilising enzymes

*Ulf Hanefeld, Delft - NL*

17.20 - 17.50 Symbiosis of Chemistry and Biology:  
BASF's Biodegradable and Renewable Polymers

*Andreas Künkel, Biopolymers, BASF, D*

17.50 - 18.20 **PhD Award "Sustainability in Chemistry"**

short orals:

18.20 - 18.25 Holistic Assessment of Alternative Catalytic  
Synthesis Pathways for an Anti-Cancer Drug Production  
*Denise Ott, Jena - D*

18.25 - 18.30 Methyl Formate as Carbonylating Agent for Aniline  
to Carbamate: a Carbon Recycling into Chemicals  
*Mohammad Yalfani, Aachen - D*

18.30 - 18.35 to be entitled  
*nn*

18.35 - 18.40 to be entitled  
*nn*

18.40 **Round table "Sustainability in education"**  
Kick-off presentation and moderation:  
Burkhard König, Regensburg

18.40 **Poster session**

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Monday, September 29, 2014

- 09.00 - 09.30 Chemical photocatalysis using visible light  
*Burkhard König, Regensburg - D*
- 09.30 - 09.50 Combined Metal and Photoredox Catalysis  
*David Fabry, Aachen - D*
- 09.50 - 10.10 Sustainable Organic Synthesis – A Continuous-Flow Approach to Hydrogenation, CO<sub>2</sub>-Capture and Photosynthesis  
*Toma Glasnow, Graz - AT*
- 10.10 - 10.30 Solvent-free organic reactions in planetary ball mills: Process design and assessment  
*Katharina Jacob, Jena - D*
- 10.30 - 11.00 Coffee break*
- 11.00 - 11.30 A lignocellulosic biorefinery concept in Leuven: a chemist's view  
*Bert Sels, Leuven - BE*
- 11.30 - 11.50 Selective bond activation in lignin model substrates  
*Tim den Hartog, Aachen - D*
- 11.50 - 12.10 Valorization of renewables by isomerizing olefin metathesis  
*Lukas Goößen, Kaiserslautern - D*
- 12.10 - 12.30 Synthesis of fatty ethers: Catalytic reduction of fatty acid esters  
*Ursula Biermann, Oldenburg - D*
- 12.30-13.30 Lunch break*
- 13.30 - 14.00 New developments in sustainable and renewable coating materials  
*Cor Koning, Eindhoven - NL*

## *Preliminary Program*

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Monday, September 29, 2014

- 14.00 - 14.20    Regioselective Enzymatic Halogenation of Substituted Tryptophan Derivatives using the FAD-Dependent Halogenase RebH  
*Marcel Frese, Bielefeld - D*
- 14.20 - 14.40    Isomerization of glucose to fructose catalyzed by hydrotalcites  
*Irina Delidovich, Aachen - D*
- 14.40 - 15.00    Introducing new reactions and technologies in industrial synthesis: Challenges, hurdles and opportunities for sustainable chemistry. An SME's Case Study Report about navigating from mgs to multi-kgs  
*Irene Erdelmeier, Romainville - FR*
- 15.00 - 15.20    Organocatalyzed synthesis of cyclic carbonates utilizing CO<sub>2</sub> as a C1 building block  
*Hendrik Büttner, Rostock - D*
- 15.20 - 15.50    Coffee break*
- 15.50 - 16.20    Sustainability indicators in Chemistry  
*Konrad Hungerbühler, Zürich - CH*
- 16.20 - 16.40    Mass Balances for important Organic Synthesis Reaction  
*Marco Eissen, München - D*
- 16.40 - 17.00    Nanocellulose Gained by Bacteria – A Nano-Structured High Performance Biopolymer with Great Prospect  
*Dana Kralisch, Jena - D*
- 17.00 - 17.20    Sustainable Chemistry – Transform a Holistic Strategic Approach into Applied Best Practice Action  
*Christopher Blum, Umweltbundesamt - D*
- 17.20 - 17.40    Evaluation of sustainability in early stages of product development  
*Peter Saling, BASF/Ludwigshafen - D*

## *Preliminary Program*

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Tuesday, September 30, 2014

- 09.00-09.30 Sustainable detergents - where are we on our way towards 2030?  
*Michael Dreja, HENKEL/Düsseldorf - D*
- 09.30 - 09.50 WOPEX – A sustainable materials innovation by STAEDTLER  
*Alexander Vyhnal, STAEDTLER/Nürnberg - D*
- 09.50 - 10.10 Developing the 'Benign by Design' Approach for a Rational Design of Green Derivatives of  $\beta$ -Blockers: Propranolol as an Example  
*Tushar Rastogi, Lüneburg - D*
- 10.10-10.30 Reduced Methane Emission in Dairy Production: Eco Footprint of a Feed Additive  
*Ulla Létinois, Basel - CH*
- 10.30 - 11.00 Coffee break*
- 11.00 - 11.30 Combination of the two "worlds" chemo- and biocatalysis towards one-pot processes in water  
*Harald Gröger, Bielefeld - D*
- 11.30 - 11.50 Renewable Polyamides and Polyesters by straight forward modification of Acid Methyl Ester Derivatives Fatty-  
*Matthias Winkler, Karlsruhe - D*
- 11.50 - 12.10 Amino Acid-derived Imidazolium Zwitterions as Precursors for renewable Ionic Liquids  
*Sarah Kirchhecker, Golm - D*
- 12.10 - 12.30 Sustainable and user friendly olefin metathesis  
*Andrzej Tracz, Wrocław - PL*
- 12.30 - 13.30 Lunch break*

## *Preliminary Program*

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Tuesday, September 30, 2014

- 13.30 - 13.50    Efficient catalyst systems for alcohol  
re-functionalization reactions  
*Rhett Kempe, Bayreuth - D*
- 13.50 - 14.10    On Irony Reactions & Sunny Places:  
Two Sustainable Case Studies of Catalytic  
C-C Bond Formations  
*Axel Jacobi von Wangelin, Regensburg - D*
- 14.10 - 14.40    Chemistry goes Green:  
Technologies for the Development of a Sustainable Society  
*Matthias Beller, Rostock - D*
- 14.40 - 15.10    Indirect Land Use Change ( iLUC)  
*Uwe Lahl, Stuttgart - D*
- 15.10            Closing remarks

## Conference site

Department of Organic Chemistry  
Friedrich-Alexander-Universität  
Erlangen-Nürnberg  
Henkestraße 42  
D-91054 Erlangen

## Registration

**Deadline: August 1st, 2014**

Online registration is possible using  
[www.chemie.fau.de/suschem2014](http://www.chemie.fau.de/suschem2014) or  
[www.emts-online.de](http://www.emts-online.de)

## Conference fees

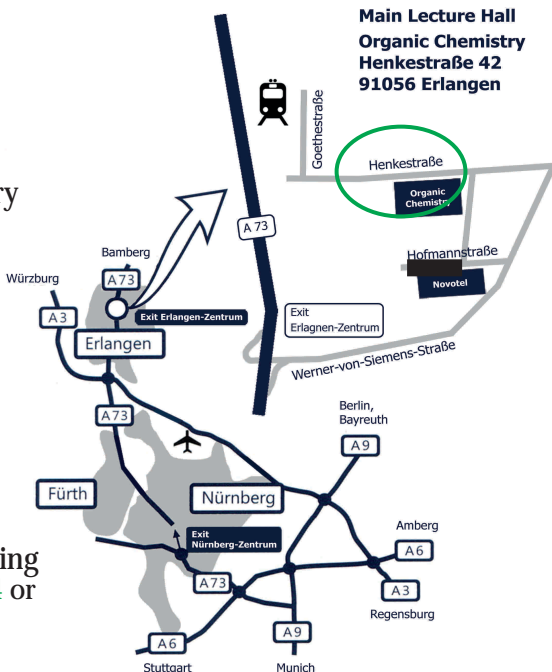
|                                  |                |
|----------------------------------|----------------|
| GDCh or EuCheMS member           | € 150,-        |
| Non-member                       | € 200,-        |
| Retired or unemployed member     | € 110,-        |
| Retired or unemployed non-member | € 145,-        |
| Student, GDCh or EuCheMS member  | € 70,-         |
| Student, non-member              | € 90,-         |
| GDCh Gold member                 | Free of charge |

## Scientific Board

Klaus Kümmerer, Lüneburg  
Jürgen O. Metzger, Oldenburg  
Jürgen Schatz, Erlangen  
Peter Wasserscheid, Erlangen

## Local Organization / Contact

Prof. Dr. Jürgen Schatz  
Organic Chemistry 1  
Friedrich-Alexander-Universität Erlangen-Nürnberg  
Henkestraße 42, D-91054 Erlangen  
T +49 9131 85-25766, [Juergen.schatz@fau.de](mailto:Juergen.schatz@fau.de)



**Main Lecture Hall**  
**Organic Chemistry**  
**Henkestraße 42**  
**91056 Erlangen**



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## Abstract Submission

Deadline for posters: August 1st, 2014

A MSWord template including abstract submission formular can be downloaded [www.chemie.fau.de/suschem2014](http://www.chemie.fau.de/suschem2014)

Please contribute to the scientific outcome of this conference by sharing results with others. Poster presentations from all areas of electrochemistry are more than welcome. The scientific committee will decide on the submitted papers and will arrange them to a scientific program.

The conference language is English.

The abstract (please send both a native MSWord and additionally a pdf file) has to be included in the submission of the contribution.

Files may contain embedded graphics, but should not exceed 10 MB.

After a successful transmission you will receive a reference code for each submitted abstract. Please submit one abstract for every contribution.

Please mail your abstract to: [juergen.schatz@fau.de](mailto:juergen.schatz@fau.de)

Concerning the layout of your abstract please keep to the abstract guidelines (see below) and use the template. No revision or corrections will be made by the editorial team. After a successful transmission you will receive a reference code for each submitted abstract. The scientific committee reserves the right to accept or reject papers.

## Abstract Guidelines

Volume: One page, DIN A 4 (29,7 cm height, 21 cm width)

Font: Arial/Helvetica 12 pt

Margins: Left/right: 2,3 cm; above/below: 3 cm

1st Paragraph: blank line

2nd Paragraph: Title of the paper (bold face)

3rd Paragraph: Authors of the contribution in the format initials author, please underline the presenting author

4th Paragraph: Affiliation

5th Paragraph: Abstract body text, graphics/schemes may be embedded directly in the text

Foot Notes: Do not use Winword foot-notes, please write foot-notes in normal text at the end of your abstract, 10 pt font size

## Social program

**Conference dinner  
on Monday, September 29 2014**  
18:00-19:00 guided tour through  
Kitzmann Brewery ([www.kitzmann.de](http://www.kitzmann.de))  
19:30 Franconian style dinner buffet  
at "Kitzmann Bräuschänke"  
**ticket per person: €30,--**  
**pay cash at conference site**  
(dinner and guided tour included,  
drinks not included)  
Please register for conference dinner  
until August 1st, 2014 by mail to  
[miriam.schatz@emts-online.de](mailto:miriam.schatz@emts-online.de)



**Welcome Mixer  
on Sunday, September 28, 2014**  
19.00 during the poster session  
"Fränkische Bratwurst"  
free admission  
as long as supplies last

Accommodation via [www.erlangen-marketing.de/uni/](http://www.erlangen-marketing.de/uni/)



## Industrial and institutional Support

Without the generously support of our industrial and institutional partners, this meeting would not be possible.

We say thank you very much for all support!



## Important deadlines and information



## During the meeting

