



GESELLSCHAFT DEUTSCHER CHEMIKER

Fachgruppe
Photochemie



Fachgruppe Photochemie

24. Lecture Conference on Photochemistry

September 29 – October 1, 2014
Cologne



www.gdch.de/photo2014



WELCOME ADDRESS

The conference brings together leading international and national scientists to present and to discuss the latest results on hot topics of photochemistry- and photophysics-related research. We cordially invite you to join us for stimulating discussions on interdisciplinary research touching reaction mechanisms, synthesis and modern spectroscopy.

A. G. Griesbeck, Cologne
H. Ihmels, Siegen
A. Klein, Cologne
K. Meerholz, Cologne
H. Moustroph, Wolfen
B. Strehmel, Krefeld
D. Wöll, Konstanz

LOCAL COMMITTEE

A. G. Griesbeck, Cologne
A. Klein, Cologne
K. Meerholz, Cologne

M. Atar, Cologne (social)
A. Burczyk, Cologne (exhibition)
M. Kleczka, Cologne (poster)

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Monday, September 29, 2014

Kurt-Alder-Lecture Hall

13:00 **OPENING REMARKS**
 by Heinz Moustroph and Axel Griesbeck

Biological Aspects of Photochemistry

Chairperson: Dominik Wöll

13:10 **Collision-induced Quenching, FRET, and Diffusion-enhanced FRET in Peptidic Biopolymers**
 PL1 W. Nau, Bremen/DE

14:00 **Photocurrent generated by Photosystem II adsorbed on a nanostructured titanium dioxide/indium tin oxide electrode**
 OC1 K. Brinkert, London/GB, A. Fantuzzi, London/GB, A. W. Rutherford, London/GB

14:20 **Highly Photostable "Super"-Photoacids as Versatile Tools in Life Sciences and Chemistry**
 OC2 B. Finkler, Saarbrücken/DE, C. Spies, Saarbrücken/DE, G. Jung, Saarbrücken/DE

14:40 **Conformational Control of Tetrapyrrole Cofactors – How Nature Controls Photosynthetic Pigments**
 OC3 M. O. Senge, Dublin/IE, S. A. MacGowan, Dublin/IE

15:00 **Photoswitchable DNA-Binding of a Phenanthroline-Annelated Spirooxazine**
 OC4 H. Ihmels, Siegen/DE, J. Mattay, Bielefeld/DE, H. Berke, Bielefeld/DE, F. May, Bielefeld/DE, L. Thomas, Siegen/DE

15:20 **Dipyrrolylmethane-based fluorescent probes for anions**
 OC5 E. Kataev, Chemnitz/DE

15:40 COFFEE BREAK

Monday, September 29, 2014

Kurt-Alder-Lecture Hall

New Light-Based Concepts and Methods

Chairperson: Werner Nau

- 16:20 **Making Light Work of Ligation – A Photochemical Toolbox for Macromolecular Design**
 PL2 C. Barner-Kowollik, Karlsruhe/DE
- 17:10 **An “All-Green” Catalytic Cycle of Aqueous Photoionization**
 OC6 R. Naumann, Halle (Saale)/DE, M. Goez, Halle (Saale)/DE, C. Kerzig, Halle (Saale)/DE
- 17:30 **Magnetic Field Effect on Delayed Fluorescence**
 OC7 A. Wankmüller, Graz/AT, G. Grampp, Graz/AT, S. Landgraf, Graz/AT, G. Angulo, Warsaw/PL
- 17:50 **Fluorescent Borylated Arylisoquinolines for Molecular Thermometry**
 OC8 U. Pischel, Huelva/ES, V. F. Pais, Huelva/ES, A. Ros, Sevilla/ES, R. Fernández, Sevilla/ES, J. M. Lassaletta, Sevilla/ES, H. S. El-Sheshtawy, Quena/EG
- 18:10 **Proton-Coupled Electron Transfer with Photoexcited Metal Complexes**
 OC9 O. Wenger, Basel/CH
- 18:30 **Photoswitching of an Oxazine Dye for Super-Resolution Microscopy Analyzed by IR Difference Spectroscopy**
 OC10 T. Kottke, Bielefeld/DE, S. van de Linde, Würzburg/DE, M. Sauer, Würzburg/DE, S. Kakorin, Bielefeld/DE, M. Heilemann, Frankfurt/DE
- 18:50 **Sparkling Wine Reception**
- 19:20 **POSTER SESSION I**
 (all posters, **odd**-numbered posters presented) with brezels and beer

Tuesday, September 30, 2014

Kurt-Alder-Lecture Hall

Light-Induced Catalysis

Chairperson: Axel Griesbeck

- 9:00 **Chemical Photocatalysis with Visible Light**
 PL3 B. König, Regensburg/DE
- 9:50 **Organo- and Photocatalysis with Quinones**
 OC11 M. Brasholz, Hamburg/DE
- 10:10 **Combined Metal and Photoredox Catalysis**
 OC12 D. C. Fabry, Aachen/DE, J. Zoller, Aachen/DE, M. A. Ronge, Aachen/DE, S. Raja, Aachen/DE, M. Rueping, Aachen/DE
- 10:30 **When Organic Dyes Snatch a Place in the Sun: On Syntheses & Mechanisms**
 OC13 A. Jacobi von Wangelin, Regensburg/DE, M. Majek, Regensburg/DE
- 10:50 COFFEE BREAK

Synthesis and Methods in Photochemistry

Chairperson: Heiko Ihmels

- 11:10 **Enantioselective [2+2] Photocycloadditions of Isoquinolones using a Chiral Hydrogen-Bonding Template**
 OC14 S. C. Coote, Garching/DE, T. Bach, Garching/DE
- 11:30 **Reaction engineering review on microstructured photoreactors**
 OC15 D. Ziegenbalg, Stuttgart/DE, Ü. Tastan, Stuttgart/DE
- 11:50 **Cross-Coupling Studies Using Spiropyran as Electrophiles in Stille Reactions**
 OC16 M. Schulz-Senft, Kiel/DE, A. Staubitz, Kiel/DE
- 12:10 **C-H Functionalization of Indole Derivatives via Photochemically Generated Hydroperoxides**
 OC17 N. Gulzar, Mülheim (Ruhr)/DE, M. Klußmann, Mülheim (Ruhr)/DE
- 12:30 **The Role of Copper (I) Photosensitizers in Hydrogen Evolving Systems**
 OC18 S. Tschierlei, Rostock/DE, M. Karnahl, Rostock/DE, N. Rockstroh, Rostock/DE, H. Junge, Rostock/DE, M. Beller, Rostock/DE, S. Lochbrunner, Rostock/DE
- 12:50 LUNCH BREAK

Tuesday, September 30, 2014

Kurt-Alder-Lecture Hall

Techniques in Photochemistry

Chairperson: Bernd Strehmel

- 14:00 **Industrial Photochromism**
 PL4 A. Towns, Huddersfield/GB
- 14:50 **Redox-Active Polymers Decorated with a Phosphorescent Ru(II)-Sensitizer: Towards Long-Lived Charge Separation in Solution**
 OC19 M. Jäger, Jena/DE, R. Schroot, Jena/DE, U. S. Schubert, Jena/DE
- 15:10 **Excited state proton transfer reactions in isolated hydroxychromones investigated by different IR/UV techniques**
 OC20 M. Gerhards, Kaiserslautern/DE, A. Stamm, Kaiserslautern/DE, M. Weiler, Kaiserslautern/DE, A. Brächer, Kaiserslautern/DE, K. Schwing, Kaiserslautern/DE
- 15:30 **Shuttling in photoswitchable hydrogen-bonded rotaxanes: the effect of thread and end station**
 OC21 T. Kumpulainen, Amsterdam/NL, M. R. Panman, Amsterdam/NL, B. H. Bakker, Amsterdam/NL, M. Hilbers, Amsterdam/NL, S. Woutersen, Amsterdam/NL, A. M. Brouwer, Amsterdam/NL
- 15:50 COFFEE BREAK

Tuesday, September 30, 2014

Kurt-Alder-Lecture Hall

YEAR OF LIGHT 2015
Special Light-Based Events*Chairperson: Martin Goetz*

- 16:20 **Some remarks of the chairman**
- 16:30 **Curriculare Innovationsforschung in der Chemiedidaktik**
 OC22 M. W. Tausch, Wuppertal/DE
- 16:50 **WELLER LECTURE**
Ultrafast Deactivation Dynamics of Structurally Modified and Hydrogen-Bonded DNA Building Blocks
Dr. Katharina Röttger, Kiel/DE
- 17:20 **WELLER LECTURE**
4H-imidazole ruthenium polypyridine complexes-promising dyes in the field of light harvesting
Dr. Maria Wächtler, Jena/DE
- 17:50 **FÖRSTER LECTURE**
Controlling – Dynamic Systems with Light
Ben Feringa, Groningen/NL

General Meeting
(Mitgliederversammlung)

- 18:50 **General Meeting of the Division Photochemistry**
- 19:00 **POSTER SESSION II**
 (all posters, **even**-numbered posters presented)
 Cold buffet, beer and wine, music and discussions

Wednesday, October 1, 2014

Kurt-Alder-Lecture Hall

Topic

Chairperson: Klaus Meerholz

- 9:00 **A New Photopolymer for Light Guiding Applications**
 PL5 T. Rölle, Leverkusen/DE, F.-K. Bruder, Leverkusen/DE,
 T. Fäcke, Leverkusen/DE, R. Hagen, Leverkusen/DE,
 D. Hönel, Leverkusen/DE, K. Kawamura, Leverkusen/DE,
 S. Kostromine, Leverkusen/DE
- 9:50 **Sensitized Near Infrared Photopolymerization of**
 OC23 **Coatings using Line-Shaped Laser Beams**
C. Schmitz, Krefeld/DE, A. Halbhuber, Krefeld/DE,
 B. Strehmel, Krefeld/DE
- 10:10 **New Norrish II-based Photocages for Fragrances**
 OC24 A. Landes, Köln/DE, B. Porschen, Köln/DE,
 A. G. Griesbeck, Köln/DE
- 10:30 **Engineering of interfaces for enhanced photo(electro)**
 OC25 **catalysis**
R. Beranek, Bochum/DE
- 10:50 COFFEE BREAK

Radical-Initiation and Photochemistry

Chairperson: Axel Griesbeck

- 11:10 **Advanced Applications of Photopolymerization:**
 PL6 **3D Printing of Biomaterials**
R. Liska, Wien/AT
- 12:00 **Controlling the aggregation of planar photosensitizers**
 OC26 **and electroluminescent materials**
C. A. Strassert, Münster/DE
- 12:20 **Hexaarylbisimidazoles as Radical Builder in Highly**
 OC27 **Reactive Two-and Three-component Photoinitiator**
Systems
M. Schläpfer, Krefeld/DE, B. Strehmel, Krefeld/DE

Wednesday, October 1, 2014

Kurt-Alder-Lecture Hall

Special Talk by the EPA-PPS Awardee

- 12:40 **Electron and hydrogen transfer in organic photo-**
 OC28 **chemical reactions**
N. Hoffmann, Reims/FR
- 13:20 **POSTER PRIZE**
- 13:21 **Final remarks**

INFORMATION FOR AUTHORS

For your presentation we provide a PC and a data beamer.

POSTERS

The poster list confirmed by the Scientific committee is available on the internet:

www.gdch.de/photo2014

It is still possible to submit last-minute-poster until September 20, 2014. It is not guaranteed that last-minute-poster will be published in the book of abstracts.

The poster session will take place in the foyer in front of the lecture hall.

The best poster contribution will be awarded.

Poster format: Portrait A0 (upright format).

Monday, September 29, 2014 *

- 18:50 **Reception**
- 19:20 **Poster Session I**
with local beer and snacks

Tuesday, September 30, 2014 *

- 19:00 **Poster Session II**
- 20:00 Cold and warm buffet, beer and wine, music

* (included in the fees)



VENUE

University of Cologne
Department of Chemistry
Kurt-Alder Lecture Hall
Greinstr. 4-6
50939 Cologne
Germany

TRAVEL INFORMATION

Cologne is an important traffic hub and easily reached. Arriving in an ICE or Thalys high-speed train, crossing the Rhine via the Hohenzollern Bridge (look at the padlocks!) allows a first glimpse on the famous cathedral, the Kölner Dom.

Participants from European neighboring countries want to look for direct flights to Cologne Bonn Airport (CGN). Alternatively, you might want to fly to Düsseldorf (DUS) or Frankfurt Airport (FRA). FRA is linked to Cologne with a high-speed train which leaves on the half-hour.

From Cologne central railway station, take tram no. 18 to station Weißhausstrasse (6 stations); from Cologne Neumarkt take tram no. 18 to station Weißhausstrasse (4 stations) or tram no. 9 to Universität. From the station Weißhausstrasse take the pedestrian bridge and turn left to the white buildings of the Chemistry Department (not right to the court-house). From the station Universität cross the street to direction Physics Department and walk 2 min to the Chemistry Department.

Arrival by Train

The „Deutsche Bahn“ offers attractive conditions for travelling to GDCh events. Further information can be found at www.gdch.de/bahn

REGISTRATION

Please register online no later than **August 25, 2014**

www.gdch.de/photo2014

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Congress Team / Photo 2014

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All tickets and congress papers will be handed to the participants upon check-in at the registration desk. Participants are requested to wear their congress badge at all times for identification and admittance to the conference rooms.

By online registration, payment by credit card or direct debit (only with German bank account) or bank transfer (free of bank commission) is preferred. The invoice will be sent to you automatically.

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REGISTRATION FEES*

GDCh-member and member of EuCheMS-member societies	€ 200,-
Member, unemployed or retired	€ 100,-
Non-member	€ 250,-
Student** (GDCh-member and member of EuCheMS-member societies)	€ 65,-
Student – Non-member**	€ 85,-
Gold member (with over 50 years of GDCh membership)	free of charge

*) The registration fees are not liable to value added tax (tax exemption additional § 4 Nr. 22a UStG.)

**) Valid student card required

SOCIAL PROGRAMME***

Get-together	free of charge
Poster Session I and II (cold and warm buffet)	free of charge
Lunch (Mensa offer) Tuesday, 30.9. (cash payment only)	€ 10,-

***) These positions included 19% VAT.

If fees are paid in advance, but after **September 19, 2014**, we kindly ask participants to show proof of payment when claiming their tickets and congress papers at the registration desk. Credit cards (Mastercard, Visa, Amex) will be accepted.

CANCELLATION

Requests for cancellation made prior to **September 1, 2014** will be subject to a € 25,- administration fee. After that date the full amount of the invoice has to be paid. Requests for refund will not be accepted; however, registration may be transferred to another member of your organisation. In this case please send a note to GDCh, congress team.

If the meeting is cancelled for whatever reason, fees paid will be refunded. Further recourse is excluded.

▶ BEVERAGES

Coffee, tea and softs will be provided for free during the breaks.

▶ LUNCH

Lunch can be taken at the University Mensa and a large number of nearby restaurants, a list will be distributed.

▶ ACCOMMODATION

For reservations please contact the hotels directly.

The customers will be held accountable for non-occupancy of reserved rooms.

▶ COPYRIGHT PERMISSION

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▶ INFORMATION BEFORE AND AFTER THE CONFERENCE

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(German Chemical Society)

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Registernummer beim Vereinsregister: VR 4453, Registergericht Frankfurt am Main

▶ INFORMATION AND REGISTRATION DURING THE CONFERENCE

The conference office) will be located near by the Kurt-Alder Lecture Hall

Opening hours:

Monday, September 29, 2014	12.00 – 17.00 hrs
Tuesday, September 30, 2014	08.30 – 17.00 hrs
Wednesday, October 1, 2014	08.30 – 12.00 hrs

Phone: +49 221 470-3083

Fax: +49 69 7917-1366

▶ DATES

Deadlines

August 25, 2014	Personal registration
September 1, 2014	Cancellation of participation
September 20, 2014	Submission of Last-Minute-Posters

Date: August 19, 2014

