



GESELLSCHAFT DEUTSCHER CHEMIKER

Fachgruppe
Photochemie



Fachgruppe Photochemie

25. Lecture Conference on Photochemistry

September 26 – 28, 2016
Jena



seit 1558



www.gdch.de/photo2016



WELCOME ADDRESS

The conference brings together leading international scientists to present and to discuss the latest results on hot topics of photochemistry and photophysics related research. The topics range from molecular energy and electron transfer, light-activatable drugs, photoresponsive polymers and molecular sensors to technological and industrial relevant processes such as photocatalysis and artificial photosynthesis. We cordially invite you to join us for stimulating discussions on interdisciplinary research touching reaction mechanisms, synthesis and modern spectroscopy.

SCIENTIFIC COMMITTEE

B. Dietzek	Jena
A. G. Griesbeck	Cologne
H. Ihmels	Siegen
H. Muroph	Bitterfeld-Wolfen
B. Strehmel	Krefeld
D. Wöll	Aachen

LOCAL COMMITTEE

B. Dietzek	Jena
K. Peneva	Jena
F. H. Schacher	Jena
A. Schiller	Jena

INFORMATION FOR AUTHORS

For your presentation we provide a PC (MS Power Point, Apple Keynote) and a data projector. In order to keep delay times between presentations as short as possible, we kindly ask you to use only the PC provided by the organizers.

POSTERS

The deadline for abstract submission of posters and oral contributions is **July 31, 2016**. The poster list confirmed by the Scientific committee will be available on the internet:

www.gdch.de/photo2016

It is still possible to submit last-minute-poster until **August 25, 2016**. It is not guaranteed that last-minute-poster will be published in the book of abstracts.

The best poster contribution will be awarded.

Poster format: Portrait A0: Height: 118.9 cm, width: 84.1 cm

INVITED SPEAKERS

Monday, September 26, 2016

Session Photoresponsive Materials

Mashahiro Irie (Tokio)

Session Photocatalysis

Vincent Artero (Grenoble)

David Fabry (Aachen)

Tuesday, September 27, 2016

Session Photoinduced Energy and Electron Transfer

Ulrich Steiner (Konstanz)

Session Industrial Photochemistry

Karl H. Drexhage (Siegen)

Andreas Briel (Berlin)

Kai Licha (Berlin)

Session Novel Functional Dyes

Stefan Spange (Chemnitz)

Thomas J. J. Müller (Düsseldorf)

Wednesday, September 28, 2016

Session Photoswitches and Photopharmacology

Rainer Herges (Kiel)

Session Molecular Sensors

Tia Keyes (Dublin)

On Tuesday, September 27, the winners of the Theodor-Förster-Gedächtnisvorlesung and the Albert-Weller-Preis will give a lecture.

Monday, September 26, 2016

Döbereiner Hörsaal

12:45 **OPENING REMARKS**

A. Griesbeck, Cologne/DE, B. Dietzek, Jena/DE

Photoresponsive Materials*Session Chair: F. H. Schacher, Jena/DE*13:00 **Making and Breaking Bonds with Light: Diarylethene Crystals that convert light into mechanical work**
M. Irie, /JP13:30 **Supramolecular DNA-chromophore DNA architectures with fullerene**H.-A. Wagenknecht, Karlsruhe/DE, P. Ensslen, R. Hofsäß, Y. Fritz, Karlsruhe/DE13:45 **Photoflow polymerizations: A tale of highly efficient and over-efficient reactions**T. Junkers, Hasselt/BE14:00 **Luminescent Bio(In)Organic Supramolecular Polymers in Water**P. Besenius, Mainz/DE, B. Kemper, L. Vanessa, Mainz/DE14:15 **The Survival of Bacterial Spores – First Femtosecond Experiments**C. Torres Ziegenbein, Düsseldorf/DE, R. Mundt, S. Fröbel, O. Weingart, P. Gilch, Düsseldorf/DE

14:30 COFFEE BREAK

Photocatalysis*Session Chair: W. Weigand, Jena/DE*14:50 **Sustainable Catalysis with Visible Light and Continuous Flow Reactors**D. Fabry, Aachen/DE15:05 **Photochemical CO₂ reduction catalyzed by mono- and dinuclear phenanthroline-extended tetramesityl porphyrin complexes**M. Schwalbe, Berlin/DE15:20 **A New Class of Luminophors and Photoredox Catalysts: Robust Mo(0) Complexes as Earth-Abundant [Ru(bpy)₃]²⁺ Analoga**L. A. Büldt, Basel/CH, X. Guo, O. S. Wenger, Basel/CH15:35 **Investigation on Continuous-Flow Photooxidations of 1-Phenyl-1-cyclohexenes with Singlet Oxygen in a Microreactor**P. Bayer, Regensburg/DE, J. Schachtner, A. Jacobi von Wangelin, M. Májek, Regensburg/DE15:50 **Selective Synthesis of Pyrrolo[1,2-a]quinolines and Ullazines by Visible Light mediated one- and twofold Annulation of N-Arylpyrroles with Arylalkynes**A. Das, Regensburg/DE, I. Ghosh, Regensburg/DE

Monday, September 26, 2016

Döbereiner Hörsaal

Photocatalysis (II)*Session Chair: D. Wöll, Aachen/DE*16:05 **Visible Light Photo Arbuzov Reaction of Aryl Bromides and Trialkyl Phosphites Yielding Aryl Phosphonates**
R. Shaikh, Regensburg/DE, S. Düsel, Regensburg/DE, B. König, Regensburg/DE16:20 **Electronic structure investigation of osmium and molybdenum dimers capable of dinitrogen photocleavage**V. Krewald, Vienna/AT, L. González, Vienna/AT

16:35 COFFEE BREAK

17:00 **The photoionization of 1-aminoperylene revisited: from correcting major errors in the literature to turning this molecule into a sustainable green-light driven source of hydrated electrons**T. Kohlmann, Halle (Saale)/DE, R. Naumann, C. Kerzig, M. Goez, Halle (Saale)/DE17:15 **Eosin Y as a Photo-redox Catalyst for Radical Aromatic Substitutions**M. Májek, Regensburg/DE, A. Jacobi von Wangelin, Regensburg/DE17:30 **Design of Heteroleptic Copper Photosensitizers for Light-Driven Hydrogen Production within a Fully Noble-Metal-Free System**M. Karnahl, Stuttgart/DE, M. Heberle, Stuttgart/DE, N. Rockstroh, M. Beller, S. Tschierlei, S. Lochbrunner, Rostock/DE17:45 **Photocatalytic Hydrogen Evolution Driven by [FeFe] Hydrogenase Models Tethered to Fluorene and Silafluorene Sensitizers**W. Weigand, Jena/DE, R. Goy, Jena/DE, L. Bertini, Milano/IT, T. Rudolph, Jena/DE, S. Lin, Fukuoka/Jp, M. Schulz, Jena/DE, G. Zampella, Milano/IT, B. Dietzek, F. Schacher, Jena/DE, L. De Gioia, Milano/IT, K. Sakai, Fukuoka/Jp18:00 **Molecular-based H₂-evolving photocathodes**V. Artero, Grenoble/FR*Session Chair: D. Wöll, Aachen/DE*18:30 **5-Minutes Pitch Talks**

M. Jäger, J. Nomrowski, K. Zhang, S. K. Pagire, D. Maus, S. Schramm

19:00 **General Assembly of the GDCh-Division of Photochemistry**19:00 **POSTER SESSION**

Tuesday, September 27, 2016

Döbereiner Hörsaal

Energy and Electron Transfer

Session Chair: B. Dietzek, Jena/DE

- 8:30 **Spin chemistry of charge recombination in donor-metal complex-acceptor triads**
U. Steiner, Konstanz/DE
- 9:00 **Efficient long-range ultrafast energy transfer in a novel family of DNA-hosted antenna complexes**
M. Nazari, Bern/CH, C. D. Bösch, M. Gazzetto, A. Rondi, S. M. Langenegger, R. Häner, T. Feurer, A. Cannizzo, Bern/CH
- 9:15 **The road to golden photocatalytic activity is paved with platinum – charge-separation and recombination dynamics in CdSe@CdS nanorods with bimetallic metal tips**
M. Wächtler, Jena/DE, P. Kalisman, L. Amirav, Haifa/IL
- 9:30 **Electron-Transfer Dynamics at Water-Dodecane Interface Probed by Surface Second Harmonic Generation**
T. Kumpulainen, Geneva/CH, G. Licari, Geneva/CH, N. Tkachenko, A. Efimov, Tampere/FI, E. Vauthey, Geneva/CH
- 9:45 **Structural investigations on a Cu(I) containing OLED complex by application of time-resolved IR spectroscopy**
M. Gerhards, Kaiserslautern/DE, M. Zimmer, F. Dietrich, F. Bäßler, Kaiserslautern/DE, M. Wallesch, Karlsruhe/DE, D. Volz, Bruchsal/DE, S. Bräses, Karlsruhe/DE, R. Diller, Kaiserslautern/DE

10:00 COFFEE BREAK

Energy and Electron Transfer (II)

Session Chair: M. Jäger, Jena/DE

- 10:20 **Anisotropic Magnetic Field Effects in Photoexcited Molecular Triads – Towards a Model for the Avian Magneto-Compass**
S. Richert, Oxford/GB, C. Kerpel, J. G. Storey, Oxford/GB, P. A. Liddell, D. Gust, Arizona/US, C. R. Timmel, Oxford/GB
- 10:35 **Photoinduced Electron and Energy Transfer in Ruthenium (II) Bis(terpyridine)Fullerene Triads: Influence of Donor-Acceptor Distance on Dynamics**
Y. Luo, Jena/DE, K. Barthelmes, M. Wächtler, A. Winter, U. S. Schubert, B. Dietzek, Jena/DE

Tuesday, September 27, 2016

Döbereiner Hörsaal

- 10:50 **Iridium-based photosensitizers for DSPECs applications**
M. Koepf, Grenoble/FR, M. Chavarot-Kerlidou, V. Artero, Grenoble/FR
- 11:05 **The Effect of Anchoring Groups on immobilized Ruthenium (II) Bipyridine Complexes for Dye Sensitised Solar Cells: A Theoretical Study**
A. Sen, Ulm/DE, A. Groß, Ulm/DE
- 11:20 **From ultrafast spectroscopy to controlling photochemistry: mixed IR/VIS 2D-spectroscopies in chemistry and biophysics**
J. Breitenbeck, Frankfurt (Main)/DE
Session Chair: M. Jäger, Jena/DE
- 11:35 **5-Minutes-Pitch-Talks**
S. Kupfer, A. Reiffers, S. J. Schlegel, C. S. Burke
- 11:55 LUNCH BREAK & POSTERS

Award Winners Presentation

Session Chair: A. Griesbeck, Cologne/DE

- 13:30 **Theodor Förster Lecture**
- 14:30 **Albert Weller Lecture (I)**
- 14:55 **Albert Weller Lecture (II)**
- 15:20 COFFEE BREAK

Industrial Photochemistry

Session Chair: H. Moustroph, Bitterfeld-Wolfen/DE

- 15:45 **VISCOVER: Innovative nanosized diagnostics enhance and advance the impact of in vivo imaging**
A. Briel, /DE
- 16:10 **Fluorescent Dyes for Single Molecule Tracking and Spectroscopy**
K. H. Drexhage, Siegen/DE
- 16:35 **Intelligent fluorescent dyes and new approaches in molecular imaging**
K. Licha, Berlin/DE
- 17:00 COFFEE BREAK

Tuesday, September 27, 2016

Döbereiner Hörsaal

Novel Dyes

Session Chair: K. Peneva, Jena/DE

- 17:30 **Photostabilization of Cyanine Dyes as Fluorophores for Single Molecule Spectroscopy**
S. Jockusch, New York/US, Q. Zheng, S. C. Banchard, New York/US
- 17:45 **Highly selective fluorescence probes for sulfate in water**
E. Kataev, Chemnitz/DE
- 18:00 **Diversity Oriented Synthesis of Functional Dyes**
T. J. J. Müller, Düsseldorf/DE
- 18:30 **Functional Solvatochromic Dyes**
S. Spange, Chemnitz/DE, N. Friebe, A. Schade, A. Oehlke, Chemnitz/DE
- 19:00 Transfer to Restaurant „Zum Landgrafen“
- 20:00 **CONFERENCE DINNER**



Wednesday, September 28, 2016

Döbereiner Hörsaal

Photoswitches

Session Chair: H. Ihmels, Siegen/DE

- 8:30 **Function by Switching**
R. Herges, Kiel/DE
- 9:00 **New insights into the photochromism of azobenzene benzene tricarboxy amides by in situ irradiation NMR spectroscopy**
J. Kind, Darmstadt/DE, M. Leyendecker, L. Kaltschnee, C. M. Thiele, Darmstadt/DE
- 9:15 **Molecular Magnetic Switches Functioning at Constant Room Temperature**
M. M. Khusniyarov, Erlangen/DE
- 9:30 **Switching First Contact: Photocontrolled Adhesion of E. coli Bacteria to Live Human Cells**
L. Möckl, München/DE, A. Müller, T. Lindhorst, Kiel/DE, C. Bräuchle, München/DE
- 9:45 **The Photochemistry of Stiff Dithienylethenes**
M. Kleinwächter, Berlin/DE, S. Hecht, Berlin/DE
- 10:00 **Diarylethene photoswitches for superresolved localization microscopy**
O. Nevskiy, Aachen/DE, D. Wöll, Aachen/DE, D. Sysoiev, T. Huhn, Konstanz/DE
- 10:15 COFFEE BREAK

Photochemistry

Session Chair: B. Strehmel, Krefeld/DE

- 10:45 **Thuringian Innovation Strategy and expertise in nanomedicine**
Thüringischen ClusterManagement, Erfurt/D
- 10:55 **Finding alternative pathways in chemical reaction mechanisms by means of single-molecule chemistry**
J. A. Menges, Saarbrücken/DE, A. Clasen, L. Klemmer, G. Jung, Saarbrücken/DE
- 11:10 **Self-Assembled Plasmonic Core/Satellite Nanoclusters as Colloidal Sensors**
C. Kuttner, Dresden/DE, R. P. M. Höller, Dresden/DE, M. Dulle, Bayreuth/DE, M. Mayer, A. M. Steiner, Dresden/DE, S. Thomä, S. Förster, Bayreuth/DE, M. Chanana, Zürich/CH, A. Fery, Dresden/DE
- 11:25 **Near-Infrared Photoresponsive Materials Based on Upconverting Nanoparticles**
S. Wu, Mainz/DE

Wednesday, September 28, 2016

Döbereiner Hörsaal

- 11:40 **Counting the PhotoClick: Towards a Fluorescence Sensor for Step-Growth Polymer Quantification**
L. Barner, Karlsruhe/DE, D. Estupinan Mendez, Karlsruhe/DE
- 11:55 LUNCH BREAK
- Bioconjugates**
- Session Chair: A. Schiller, Jena/DE*
- 12:40 **Peptide Targeted Metal Luminophores for Sensing and Structural Discrimination in the Cellular Environment**
T. Keyes, Dublin/IE
- 13:10 **Light-Operated Supramolecular Cascade for Controlled Ligand–DNA Interaction**
D. Berdnikova, Siegen/DE, H. Ihmels, Siegen/DE
- 13:25 **Photoactivity and phototoxicity of a series of strained ruthenium-based complexes with N,S-coordinating ligands**
J. A. Cuello Garibo, Leiden/NL, S. Bonnet, Leiden/NL
- 13:40 **Development of Ruthenium and Osmium Polypyridine Peptide Conjugates for Application in PDT**
A. Stumper, Ulm/DE, S. Rau, Ulm/DE
- 13:55 **Phototriggered release of cargo from cucurbituril host-guest complexes**
U. Pischel, Huelva/ES, C. Parente Carvalho, J. Vázquez, Huelva/ES, N. Basilio, Lisbon/PT
- 14:10 **POSTER AWARDS & CONCLUDING REMARKS**
 A. Griesbeck, Cologne/DE, B. Dietzek, Jena/DE

Monday, September 26, 2016*

- 20:00 **Reception and Poster Session**
 with local beer and snacks

Tuesday, September 27, 2016*

- 20:00 **Conference Dinner**
- Thuringian barbecue at the Landgraf restaurant, beer and wine**
- The Landgraf is in short walking distance to the conference venue. The steep way to the 277m high look-out is rewarded with a spectacular round-view above Jena and an excellent panorama restaurant.

* (included in the fees)



▶ VENUE

Friedrich-Schiller-University Jena
Lecture hall (Döbereiner Hörsaal) of the Chemical Institutes
and the Institute of Inorganic and Analytical Chemistry
Am Steiger 3
07743 Jena, Germany

▶ TRAVEL INFORMATION

Jena is easily reached by train from one of the major international airports (Frankfurt, Berlin, Nuremberg, Munich, and Halle / Leipzig) or by car.

By train

“Jena Paradies” (Jena Paradise) is the name of the state-of-the-art ICE railway station located in the city center. Due to major construction works all trains going to Jena stop here. Tickets and train schedules are available in the internet: www.bahn.de.

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

By car

South of Jena passes the A4 motorway (Frankfurt / Main – Dresden). Just a few kilometers off Jena it crosses the A9 motorway (Berlin – Munich) at the junction Hermsdorfer Kreuz. The national roads B7 and B88 connect Jena with the motorways. There are a variety of parking lots within the city.

The Döbereiner Lecture hall is located at the corner national road B7/Steiger and can be reached in approx. 20 min. walking distance from the train station. Please be aware that there are no public parking spaces at the site of the lecture hall.

▶ COPYRIGHT PERMISSION

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▶ ACCOMMODATION

HRS – Hotel Reservation Service will gladly assist in booking accommodation in all categories. Please apply no later than **August 15, 2016**.

HRS – Hotel Reservation Service
Blaubach 32
50676 Köln

Please book online www.hrs.de/web3?clientId=ZW5fX2xjcA,2 or through the conference webpage.

Phone: +49 221 2077-7320
E-mail: event-online@hrs.de

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

▶ REGISTRATION

Please register online no later than **August 15, 2016**

www.gdch.de/photo2016

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All tickets and congress papers (incl. book of abstracts) will be handed to the participants upon check-in at the registration desk. Participants are requested to wear their congress badges at all times for identification and admittance to the conference rooms.

When registering online, 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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GENERAL INFORMATION

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

The registration fee includes the conference fee, beer and snacks during the Poster session on Monday September 26, the conference dinner on Tuesday September 27 and snacks, coffee, tea during breaks.

Fees are paid in advance. If fees are paid after September 19, 2016, 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 before **August 25, 2016** 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.

GENERAL INFORMATION

INFORMATION BEFORE AND AFTER THE CONFERENCE

GESELLSCHAFT DEUTSCHER CHEMIKER e.V.

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Executive Director: Professor Dr. Wolfram Koch,

Registernummer beim Vereinsregister: VR 4453, Registergericht Frankfurt am Main

INFORMATION AND REGISTRATION DURING THE CONFERENCE

The conference office will be located near by the Lecture Hall (Döbereiner-Hörsaal):

Opening hours:

Monday	September 26, 2016	12.00 – 17.00 hrs
Tuesday	September 27, 2016	08.30 – 17.00 hrs
Wednesday	September 28, 2016	08.30 – 12.00 hrs

Phone: +49 3641 206-064

E-mail: frances.karlen@leibniz-ipht.de

DATES

Deadlines

July 31, 2016	Submission of Posters and oral contributions
August 25, 2016	Personal registration
August 25, 2016	Cancellation of participation
August 25, 2016	Submission of Last-Minute-Posters

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