

28th Lecture Conference on Photochemistry

Düsseldorf, September 19 - 21, 2022

Monday, September 19, 2022

01.00 p.m.

Welcome, Peter Gilch

OLED I

Chair: Thomas Müller

01.15 p.m.

Stability Management in Hyperfluorescence OLEDs

C. Adachi, Fukuoka/JP, Y.-T. Lee, Fukuoka/JP, C. Y. Chan, Fukuoka/JP, M. Tanaka, Fukuoka/JP, Y. Tsuchiya, Fukuoka/JP, M. Mamada, Fukuoka/JP, K. Goushi, Fukuoka/JP, H. Nakanotani, Fukuoka/JP

02.00 p.m.

Cobalt(III) Carbene Complex with an Electronic Excited-State Structure Similar to Cyclometalated Iridium(III) Compounds

N. Sinha, Basel/CH, B. Pfund, Basel/CH, C. Wegeberg, Basel/CH, A. Prescimone, Basel/CH, O. S. Wenger, Basel/CH

02.15 p.m.

Luminescence energy tuning of cyclometalated chromium(III) complexes

L. Stein, Mainz/DE, R. Naumann, Mainz/DE, C. Förster, Mainz/DE, P. Boden, Kaiserslautern/DE, G. Niedner-Schatteburg, Kaiserslautern/DE, K. Heinze, Mainz/DE

Photocatalysis and Solar Fuels

Chair: Stefanie Tschierlei

02.30 p.m.

How the strategy of modification impacts the photophysical and -catalytic properties of Cu(I) photosensitizers

F. Doettinger, Braunschweig/DE, M. Karnahl, Braunschweig/DE, S. Tschierlei, Braunschweig/DE, Y. Yang, Braunschweig/DE

02.45 p.m.

Anti-dissipative strategies towards more efficient solar energy conversion

A. Cadranel, Erlangen/DE, A. Cotic, Buenos Aires/AR, S. Cerfontaine, Louvain-la-neuve/BE, L. Slep, Buenos Aires/AR, B. Elias, Louvain-la-neuve/BE, L. Troian-Gautier, Louvain-la-neuve/BE

03.00 p.m.

Coffee Break

Photocatalysis and Solar Fuels

Chair: Stefanie Tschierlei

03.30 p.m.

Visible-Light-Mediated Photoredox Desulfonylation of amines and Phenols with Flavin derivatives: 5-Aryldeazaflavins and 5-Aryldeazaalloxazines in action

T. Pavlovska, Prague/CZ, I. Weisheitelová, Prague/CZ, R. Cibulka, Prague/CZ

03.45 p.m.

Metal-free Photocatalytic Perfluoroalkylations Using Phosphines

C. Czekelius, Düsseldorf/DE, C. Wulkesch, Düsseldorf/DE, L. Helmecke, Düsseldorf/DE

04.00 p.m.

Active repair of molecular hydrogen evolving photocatalysts - a new chapter in artificial photosynthesis

S. Rau, Ulm/DE

Fundamental Photophysics and Single Molecules

Chair: Christoph Kerzig

04.15 p.m.

Use of tertiary solvent mixtures to study solvent effects

S. Landgraf, Graz/AT, G. Grampp, Graz/AT, P. Choto, Chiang Rai/TH

04.45 p.m.

Energy transfer dyads for single molecule studies on slow diffusion in polymers

D. Wöll, Aachen/DE, T. Schmidt, Aachen/DE

05.00 p.m.

Water-Soluble Ruthenium Complex-Pyrene Dyads – Synthesis, Photophysics and Energy Transfer Applications

A.C. Sell, Mainz/DE, J. C. Wetzel, Mainz/DE, M. Schmitz, Mainz/DE, R. Naumann, Mainz/DE, C. Kerzig, Mainz/DE

Poster Flash Talks

Chair: Wiebke Haselbach

05.15 p.m.

Poster Flash Talks

Poster Session

06.00 p.m.

Poster I (odd numbers)

Tuesday, September 20, 2022

Photobiology and Photomedicine

Chair: Peter Gilch

09.00 a.m.

Mechanism and dynamics of fatty acid photodecarboxylase

I. Schlichting, Heidelberg/DE

09.45 a.m.

Atropisomerism as Design Principle for Photosensitizers, Sensors, and Photoactive Drugs

M. O. Senge, Dublin/IE

10.15 a.m.

Insights into the regulation of light-induced cytotoxicity in photoactive nanomaterials

A. Galstyan, Essen/DE

10.30 a.m.

Fluorescence sensing and recognition of cytosine in nucleotides and RNA sequences

E. Kataev, Erlangen/DE

10.45 a.m.

Coffee Break

Photobiology and Photomedicine

Chair: Peter Gilch

11.15 a.m.

Photoswitching as a future approach in the RNA-targeting therapy

D. Berdnikova, Siegen/DE

Synthetic Photochemistry

Chair: Heiko Ihmels

11.45 a.m.

Synergies between Macromolecular Architectures and Light

H. Frisch, Brisbane/AU

12.15 p.m.

Lunch and Group Photo

Synthetic Photochemistry

Chair: Heiko Ihmels

01.15 p.m.

Unlocking novel reaction pathways of carbenes and nitrenes with photocatalysts

R. M. Koenigs, Aachen/DE

01.30 p.m.

Photocycloadditions of lignin derived aromatic compounds

N. Hoffmann, Reims/FR, A. Desvals, Reims/FR

01.45 p.m.

Photo-mechanochemistry - A sustainable alternative for organic photochemistry

D. Baier, Bochum/DE, C. Spula, Bochum/DE, S. Grätz, Bochum/DE, L. Borchardt, Bochum/DE

02.00 p.m.

Synthesis of Sulfones and Sulfonamides via Visible-Light Driven Fixation of Sulfur Dioxide

G. Manolikakes, Kaiserslautern/DE

OLED II

Chair: Chihaya Adachi

02.15 p.m.

Highly efficient and narrowband blue organic light emitting diodes

P. L. dos Santos, Durham/GB

03.00 p.m.

Investigating the Low-Lying Excited States by NIR Spectroscopy

B. E. N. de Faria, Düsseldorf/DE, W. Haselbach, Düsseldorf/DE, M. Jantz, Düsseldorf/DE, P. Gilch, Düsseldorf/DE

03.15 p.m.

Coffee Break

Technological and Industrial Processes

Chair: Klaus Schaper

03.45 p.m.

High efficiency in blue OLEDs

P. Schütz, Darmstadt/DE, I. Stengel, Darmstadt/DE, A. Mekic, Darmstadt/DE, N. Haase, Darmstadt/DE, C. Pflumm, Darmstadt/DE

04.15 p.m.

Contributions of Reaction Engineering Towards Efficient Photochemical Processes

D. Ziegenbalg, Ulm/DE

04.45 p.m.

Spectroscopic Instruments in the Field of Photochemistry

F. Brandl, Herrsching/DE

Awards

Chair: Stefanie Tschierlei

05.00 p.m.

Förster Award

05.45 p.m.

Weller Award I

06.00 p.m.

Weller Award II

Poster Session

06.15 p.m.

Poster II (even numbers)

Wednesday, September 21, 2022

OLED III

Chair: Paloma Dos Santos

09.00 a.m.

Adventures in Thermally-Activated Delayed Fluorescence (TADF) - Design, Syntheses, and Applications

S. Bräse, Karlsruhe/DE

Photochemistry of New Materials

Chair: Dominik Wöll

09.45 a.m.

Circularly Polarized Luminescence in a Möbius Helicene Carbon Nano hoop

J. Malinčík, Basel/CH, S. Gaikwad, Basel/CH, M. P. Mora-Fuentes, Granada/ES, M. A. Boillat, Basel/CH, A. Prescimone, Basel/CH, A. G. Campaña, Granada/ES, D. Häussinger, Basel/CH, T. Šolomek, Bern/CH

10.00 a.m.

Separating the "photo" from the "switching" for molecular photoswitches

O. Thorn-Seshold, Munich/DE, B. Baumgartner, Munich/DE, M. Müller, Munich/DE, A. Müller-Deku, Munich/DE

10.15 a.m.

When dyes meet 2D-layered materials- spectroscopic properties and photocatalytic applications

A. Lewandowska-Andralojc, Poznan/PL, E. Gacka, Poznan/PL, D. Larowska, Poznan/PL, B. Scheibe, Poznan/PL, B. Marciniak, Poznan/PL

10.30 a.m.

Sterically Hindered Alkyl Phenothiazines as Promising OLED TADF Emitters

L. Presser, Düsseldorf/DE, L. Kloeters, Düsseldorf/DE, T. J. J. Müller, Düsseldorf/DE

10.45 a.m.

Coffee Break

Photochemistry of New Materials

Chair: Dominik Wöll

11.15 a.m.

Fluorescence behaviour of rare earth mixed oxide nanomaterial

P. Sri Bala Jeya Krishna Sri, Thiruvananthapuram/IN, P. Sreejith Shankar, Thiruvananthapuram/IN, S. Ananthakumar, Thiruvananthapuram/IN

11.30 a.m.

Photomechanical Polymer Films

A. Staubitz, Bremen/DE

11.45 a.m.

Triplet-triplet annihilation up-conversion sensitizes metal oxide nanoparticles for photocatalytic reactions

S. P. Gonzalez Lopez, Thuwal/SA, J. Gorenflot, Thuwal/SA, P. Murton, Oxford/GB, M. Moser, Oxford/GB, I. McCulloch, Oxford/GB, F. Laquai, Thuwal/SA

12.00 p.m.

Eu-mediated photochemistry: sensor applications, REE dynamics in environment, destruction of pollutants, and chemical wave phenomena

S. Fränzle, Zittau/DE, F. Blind, Zittau/DE, M. Junold, Zittau/DE

12.15 p.m.

Lunch

Theoretical Photochemistry and Quantum Chemistry

Chair: Martin Kleinschmidt

01.15 p.m.

Triplet Harvesting: From Excitation to Molecular Design

T. J. Penfold, Newcastle upon Tyne/GB

02.00 p.m.

Intra-chain exciton dynamics in conjugated polymers: Signatures of coherence and conformational relaxation in computed 2D electronic spectra

D. Brey, Frankfurt am Main/DE, I. Burghardt, Frankfurt am Main/DE

02.15 p.m.

Nonadiabatic processes in condensed phase systems with Δ SCF

M. Malis, Zürich/CH, E. Vandaele, Zürich/CH, S. Luber, Zürich/CH

Ultrafast Photochemistry

Chair: Barbara de Faria

02.30 p.m.

Multiscale conformational dynamics of (bio)molecules probed by time-resolved circular dichroism

P. Changenet, Palaiseau/FR, A. Perrin, Palaiseau/FR, K. Laouer, Palaiseau/FR, M. Schmid, Palaiseau/FR, F. Hache, Palaiseau/FR

03.00 p.m.

From Femtosecond Excited-State Dynamics to Nanosecond Reaction Kinetics: Following C-H Bond Activation with X-rays

R. Jay, Uppsala/SE, D. Ozerov, Villigen/CH, P. Wernet, Uppsala/SE, C. Arrell, Villigen/CH, P. Johnson, Villigen/CH, G. Smolentsev, Villigen/CH, T. Huthwelker, Villigen/CH, C. Borca, Villigen/CH, C. Cirelli, Villigen/CH, C. Bacellar, Villigen/CH, C Milne, Hamburg/DE, A. Banerjee, Uppsala/SE, T Leitner, Uppsala/SE, R. Stefanuik, Uppsala/SE, H. Wikmark, Uppsala/SE, R.-P. Wang, Hamburg/DE, J. Harich, Hamburg/DE, E. Beale, Villigen/CH, V. Kabanova, Villigen/CH, A. Kahraman, Villigen/CH, N. Huse, Hamburg/DE, A. Wach, Villigen/CH, M. Odelius, Stockholm/SE

03.15 p.m.

Coffee Break

Ultrafast Photochemistry

Chair: Barbara de Faria

03.45 p.m.

The BODIPY Molecular Rotor in The Giant Unilamellar Vesicle- A Case Study by Transient Absorption Anisotropy

K. K. Jha, Jena/DE, A. Prabhakaran, Dublin/IE, T.E. Keyes, Dublin/IE, B. Dietzek Ivanšić, Jena/DE

04.00 p.m.

Charge-Transfer Dynamics between Photoexcited CdSe@CdSe Nanorods and (Poly)Dopamine

M. Micheel, Jena/DE, M. Boecker, Mainz/DE, C. Synatschke, Mainz/DE, T. Weil, Mainz/DE, M. Wächtler, Jena/DE

Closing Session

04.15 p.m.

Poster Awards

04.30 p.m.

Next Conference

04.45 p.m.

Closing, Thomas Müller