

Wednesday, March 25th, 2026

8:00	Gathering <i>Lobby of the Chemistry Building</i>
Synthesis and Catalysis <i>Chair: Sören Schuler</i>	
8:50	Madison Sowden Towards the Development of a General [n]Rotane Synthesis <i>Auburn U, USA</i>
9:15	Marina Šekutor Diamondoid Clusters in Helium Nanodroplets <i>Ruđer Bošković Institute, Zagreb, Croatia</i>
9:40	Zhiguo Zhang Light Driven Organic Synthesis <i>Zhejiang U, Hangzhou, China</i>
10:05	Rik Tykwinski Cumulenes as sp-Carbon Building Blocks <i>U Alberta, Edmonton, Canada</i>
10:30	Coffee Break
11:00	Daniel Seidel New Strategies for the C–H Bond Functionalization of Amines <i>U Florida, USA</i>
11:25	Helma Wennemers (Chemical) Bonding at the Bürgenstock <i>ETH Zürich, Switzerland</i>
11:50	Closing Remarks <i>Peter R. Schreiner</i>
12:15	Snack Lunch
13:15	Departure of Guests

Welcome from the Organizers

Physical organic chemistry (POC) has experienced a remarkable resurgence over the past two decades. At the same time, it has expanded far beyond its traditional borders, bridging not only organic and physical chemistry, but also extending into inorganic, theoretical, and even biological realms. In doing so, POC has become a powerful engine of cross-fertilization across chemistry, helping dissolve long-standing boundaries and fostering interdisciplinary work. This renaissance has been driven in no small part by the incorporation of rigorous quantum-chemical methods, which now play a central role in elucidating structures, revealing mechanisms, and inspiring entirely new chemical concepts grounded in solid physical principles.

The present conference brings together researchers from all these diverse areas to exchange ideas, share recent advances, and chart the challenges and opportunities that lie ahead.

It is especially fitting that we gather in honor of our colleague Peter R. Schreiner, who has been at the forefront of integrating quantum chemistry into a deeper understanding of organic reactivity and molecular behavior. His pioneering contributions span hydrogen-bonding interactions in catalysis (thioureas, beginning in 1996), diamondoids (2005), tunneling (2008) and tunneling control (2011), London dispersion interactions (2011), pnictogen allotropes (2021), and culminating most recently in the discovery of N₆ (2025).

*Richard Göttlich, Hermann A. Wegner, Raffael C. Wende
Giessen, March 2026*

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Experimental (Organic) Quantum Chemistry and Beyond 2026



March 23–25, 2026

Justus Liebig University
Institute of Organic Chemistry
Heinrich-Buff-Ring 17, 35392 Giessen
Germany

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Monday, March 23rd, 2026

10:00	Arrival of Guests and Welcome Reception <i>Lobby of the Chemistry Building</i>
Opening <i>Chair: Holger Zorn</i>	
13:00	Katharina Lorenz <i>President, Justus Liebig University</i> Joybrato Mukherjee <i>President, U Cologne, Germany</i>
13:30	Laudatio
Physical-Organic Chemistry <i>Chair: Wolfram Koch</i>	
13:40	Michael Sherburn Just Diene for More Polyenes <i>Australian National U, Canberra, Australia</i>
14:05	Holger Bettinger Photoisomerization of BN-Benzenes for Energy Storage <i>U Tübingen, Germany</i>
14:30	Michael Haley Supramolecular Interactions in Dimeric Assemblies of Hydrogen-Bonded 1,2-Azaphosphinine Dimers <i>U Oregon, Eugene, USA</i>
14:55	Coffee Break
Spectroscopy <i>Chair: Radim Hrdina</i>	
15:30	Christina Thiele Modern Solution NMR Methods Provide Insights into Catalysis <i>TU Darmstadt, Germany</i>
15:55	Cláudio Nunes Quantum Tunneling Driven Reactivity of Triplet Arylnitrenes in Cryogenic Matrices <i>U Coimbra, Portugal</i>
16:20	Xiaoqing Zeng Novel P-bearing Molecules: Matrix Isolation and Photochemistry <i>Fudan U, Shanghai</i>
16:45	André Eckhardt Advances in Matrix Isolation EPR Spectroscopy <i>U Bochum, Germany</i>
17:10	Philipp Wagner Reactive Intermediates in Molecular Hydrogen Activation <i>via</i> Quantum Tunneling <i>U Bremen, Germany</i>
19:00	Informal Dinner and Music <i>Lobby of the Chemistry Building</i>

Tuesday, March 24th, 2026

8:00	Gathering <i>Lobby of the Chemistry Building</i>
Theory <i>Chair: Urs Gellrich</i>	
8:40	Jürgen Gauß Theoretical Chemistry meets Organic Chemistry <i>U Mainz, Germany</i>
9:05	Attila Császár Tunnel or Not? Nuclear Quantum Effects in the CH ₅ ⁺ System <i>Eötvös U, Budapest, Hungary</i>
9:30	Ephrath Solel Potential Energy Surfaces and Reactivity <i>U Edinburgh, Scotland</i>
9:55	Stefan Grimme Revision of the D4 Dispersion Model <i>U Bonn, Germany</i>
10:20	Amnon Stanger Aromaticity Beyond the Second Row. Reality or Fiction? <i>Technion, Haifa, Israel</i>
10:45	Coffee Break
Synthesis <i>Chair: Philipp Wagner</i>	
11:05	Ilan Marek Tiny Triangle, Fun Chemistry <i>Technion, Haifa, Israel</i>
11:30	Michael Harmata Studies of (4+3) Cycloadditions <i>U Missouri, Columbia, USA</i>
11:55	Radim Hrdina Directed Amination Reactions <i>Charles U, Prague, Czech Republic</i>
12:20	Peter Chen Frustrated Lewis Pair Activation of Methyltrioxorhenium Produces a Homogeneous Model for Heterogenous Metathesis Catalysts <i>ETH Zürich, Switzerland</i>
12:45	Lunch
Merging Organic and Inorganic Chemistry <i>Chair: Nicole Graulich</i>	
14:00	Mark Gandelman <i>N</i> -Heterocyclic Nitrenium Ions: An Underexplored Chemical Space for Exciting Discoveries <i>Technion, Haifa, Israel</i>
14:25	Urs Gellrich Cooperative Bond Activation by Frustrated Lewis Pairs and Ylidic Quinodimethanes <i>U Hohenheim, Germany</i>

14:50	Stefanie Dehnen We G(l)o(w) Together: In–Organic Concert in Multinary Clusters <i>Karlsruhe Institute of Technology (KIT), Germany</i>
15:15	Coffee Break
Chemical Education, Partnerships, Industry <i>Chair: André Eckhardt</i>	
15:50	Nicole Graulich AI-based Support for Students' Mechanistic Reasoning in Organic Chemistry <i>Justus Liebig University, Giessen, Germany</i>
16:15	Andrey Fokin Diamondoids in the Construction of Unusual Molecular Structures <i>KPI Kiev, Ukraine</i>
16:40	Sören Schuler Peptides/Peptide-based Compounds in an Industrial Setting <i>CordenPharma, Taunusstein, Germany</i>
17:05	Horst Sulzbach Additives Solve Challenges <i>BYK-Chemie / Altana, Wesel, Germany</i>
19:00	Dinner, After Dinner Speech (Fritz Schaefer) <i>Burg Gleiberg</i>

Music by



with special guest