

# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



## MONDAY 14<sup>th</sup> July

**08:00 – 09:00  
Registration**

**09:00 – 09:30  
Opening Ceremony (Audimax)**

**09:30 – 10:15 (Audimax)**

**PLENARY LECTURE 1**

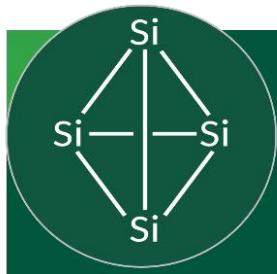
**David Scheschkewitz**

Saarland University, Germany

Silicon versions of iconic Hückel aromatics

**10:15 – 10:45 Coffee Break**

	<b>Audimax</b>	<b>Blue</b>	<b>Green</b>
<b>10:45 – 11:15</b>	<b>IL 1</b> <b>M. Driess</b> TU Berlin, Germany Subvalent Silicon and Boron in Concert: Entering New Chemical Space in Small Molecule Activation	<b>IL 2</b> <b>B. Arkles</b> Catemer Inc., USA; Temple University, USA Silacrown Ethers: Synthesis and Influence on Ion Flux Across Myocardial Cell Membranes	<b>IL 3</b> <b>H. Mack</b> Evonik Operations GmbH, Germany Fluorine-free Hybrid Siloxane Resins Feel the Heat
<b>11:15 – 11:35</b>	<b>L1</b> <b>J.O. Bauer</b> University of Regensburg, Germany Activation by CO <sub>2</sub> : C–C Coupling Reactivity of Borylsilyl Ester Enolates	<b>L2</b> <b>K. Stefanowska</b> Adam Mickiewicz University, Poland Synthesis of alkenyl-functionalized silsesquioxanes and spherosilicates	<b>L3</b> <b>O. Dudarko</b> SLU Uppsala, Sweden Amine-functionalized silicas for water purification from PFAS
<b>11:35 – 12:05</b>	<b>IL4</b> <b>T. Iwamoto</b> Tohoku University, Japan Valence Isomerization of a Tetrasila-1,3-dienide	<b>IL5</b> <b>I. Melnyk</b> Slovak Academy of Sciences, SL, National Academy of Sciences, Ukraine Enhanced Performance of Bifunctional Silica Spheres: Advantages of Dual Functional Surface Engineering Versus Monofunctional Strategies	<b>IL 6</b> <b>C. Stauch</b> ISC Würzburg, Germany Hybrid coatings for biomaterials: advancing functionality and circularity



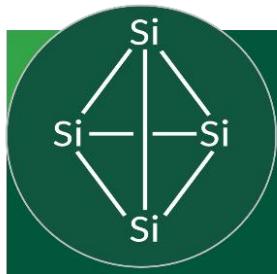
# 11th EUROPEAN SILICON DAYS

## SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



### 12:05 – 13:30 Lunch

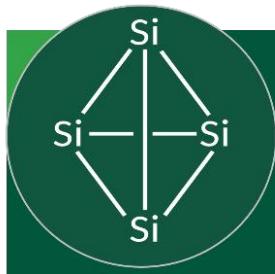
	<b>Audimax</b>	<b>Blue</b>	<b>Green</b>
<b>13:30 – 14:00</b>	<b>IL7</b> <b>T. Müller</b> Carl von Ossietzky University Oldenburg, Germany A Short Story on Oligosilanyl Cations, Oligosilyl Carbocations and Bissilylum Ions	<b>IL8</b> <b>M. Wong-Chi-Man</b> Univ. Montpellier, France Silsesquioxanes: Defined Sizes, Structures and Shapes	<b>IL9</b> <b>J. J. Vilatela</b> IMDEA Materials, Spain Large-scale silicon nanowire paper fabrication and battery applications
<b>14:00 – 14:20</b>	<b>L4</b> <b>L. Bichlmaier</b> TU München, Germany Hydrosilane-Functionalized [2.2]Paracyclophane for Plasma- Etch-Resistant and Post- Modifiable Poly(Para-Xylylene)	<b>L5</b> <b>M. Przybylak</b> Adam Mickiewicz University, Poland Thiol–ene Click Chemistry as a Versatile Tool for the Functionalization of Natural Fabrics with Organosilicon Compounds	<b>L6</b> <b>G. Bourret</b> University of Salzburg, Austria Engraving Function at the Nanoscale via Metal-Assisted Chemical Etching
<b>14:20 – 14:40</b>	<b>L7</b> <b>A. Seidel</b> TU Freiberg, Germany LEWIS-Base-Stabilized $\alpha$ -Amino Acid-Derived Silaheterocycles and Their Role in Peptide Bond Formation	<b>L8</b> <b>A. Sarkar</b> Momentive Performance Materials, India Evidence of "Structured Water" in a Rationally Designed Silicone Elastomer	<b>L9</b> <b>E. Idowu</b> University of Bordeaux, France Synthesis of hybrid silicon nanowires with different metal catalysts
<b>14:40 – 15:00</b>	<b>L10</b> <b>G. Nikonov</b> Brock University, Canada Ge(0) supported by a diimino- NHC, and its lighter and heavier congeners	<b>L 11</b> <b>A. Noureddine</b> University of New Mexico, USA Immunogenic silica nanoparticles and silicified cells for ovarian cancer immunotherapy	
<b>15:00 – 15:30 Coffee Break</b>			



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



	<b>Audimax</b>	<b>Blue</b>	<b>Green</b>
<b>15:30 – 16:00</b>	<b>IL10</b> <b>F. Lips</b> University of Münster, Germany Reactivity of a Silylum Borata Ylide	<b>IL 11</b> <b>M. Unno</b> Gunma University, Japan Functional Silsesquioxanes as Versatile Monomers	<b>IL12</b> <b>D. Lau</b> ISC Würzburg, Germany PFAS-free hybrid coatings: Technical applications and wet- chemical functionalization of textiles
<b>16:00 – 16:20</b>	<b>L12</b> <b>K. Tomer</b> University of Bonn, Germany Metal–Silicon Triple Bonds: Reactivity of the Silylidyne Complexes [Cp*(CO) <sub>2</sub> M≡Si–Tbb] (M = Cr – W)	<b>L13</b> <b>K. Mitula-Chmielowiec</b> Adam Mickiewicz University , Poland Tailoring the Properties and Applications of Polysiloxanes Using Silsesquioxanes	<b>L14</b> <b>K. Kraushaar</b> TU Freiberg, Germany Advanced Sol-Gel Coatings for Anti-Graffiti and Anti-Fingerprint Applications: A Hybrid Material Approach
<b>16:20 – 16:50</b>	<b>IL13</b> <b>A. Franczyk</b> Adam Mickiewicz University, Poland Organosilicon-based building blocks for the controlled synthesis of unsaturated organic compounds	<b>IL14</b> <b>J. Furgal</b> Bowling Green State University, USA Investigations of Photoresponsive Behaviors in Q-Silica Cage- based Network Polymer Gels	<b>IL15</b> <b>J. Tillmann</b> Wacker Chemie AG, Germany Technology example for the reduction of silanol freight in waste water
<b>16:50 – 17:10</b>	<b>L15</b> <b>M. Bermeshev</b> A.V. Topchiev Institute of Petrochemical Synthesis, Russia The development of approaches to the synthesis of silicon- containing cycloolefins: the search for ways to the selective bis-silylation of norbornadiene		<b>L16</b> <b>K. Korth, F. Zschocke</b> Evonik Operations GmbH & Total Energies Glass Lubricants Europe Glasskote Base 1 – a new coating for the container glass industry
<b>17:10 – 18:30</b>	<b>Postersession I</b>		
	<b>18:00 – 20:00 Welcome Reception</b>		



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



## TUESDAY 15<sup>th</sup> July

**08:30 – 9:15 (Audimax)**

### PLENARY LECTURE 2

**Carole C. Perry**

Nottingham Trent University, UK

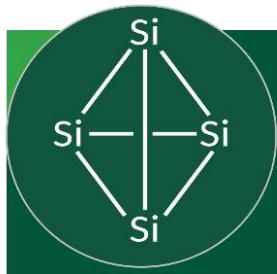
Experimental and computational approaches to studying silica-based materials and their interaction with biomolecules; towards an understanding of the biological processing of silica

### 5 min Break

	Blue	Green
<b>9:20 – 09:50</b>	<b>IL16</b> <b>T. D. Tilley</b> University of California Berkeley, USA Bond-Breaking and -Making at Silicon with Coordination Chemistry	<b>IL 17</b> <b>S. Zhao</b> EMPA, Switzerland Silica-Based Aerogels: Manufacturing and Emerging Applications
<b>09:50 – 10:10</b>	<b>L17</b> <b>D. Ujjal</b> Ruhr Universität Bochum, Germany Coordination Chemistry of Silicon: Multiple Bonding and Ligand Exchange	<b>T18</b> <b>B. Milow</b> DLR Cologne, Germany Efficient automotive heat shielding based on complex shaped aerogel composites

### 10:10 – 10:40 Coffee Break

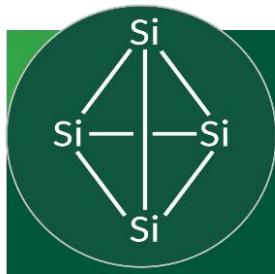
	Blue	Green
<b>10:40– 11:00</b>	<b>L19</b> <b>E. Kroke</b> TU Freiberg, Germany Phosgene-free, silane-based, sustainable synthesis of isocyanates	<b>L20</b> <b>C. Scherdel</b> Center for Applied Energy Research, Germany Silica aerogels with structural sizes varied over two decades
<b>11:00 – 11:20</b>	<b>L21</b> <b>M. Haas</b> Graz University of Technology Water Soluble Acyl Metalloids for Innovative Phototherapeutics and Novel Photoinitiators	<b>L22</b> <b>G. Kickelbick</b> Saarland University, Germany Unlocking the Potential of Polysilsesquioxanes: Advanced Materials for Optics and Beyond



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



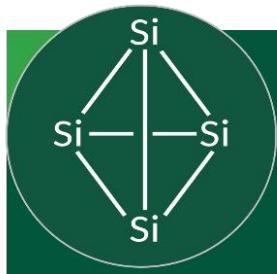
<b>11:20 – 11:50</b>	<b>IL18</b> <b>N. Tokitoh</b> Kyoto University, Japan New Insights in the Chemistry of Heavier Aryl Anions	<b>IL19</b> <b>A. Andrieu-Brunsen</b> TU Darmstadt, Germany In-situ functionalization and additive manufacturing of mesoporous silica
<b>11:50 Group Photo</b>		
<b>12:00 – 13:30 Lunch (IA Board Members Meeting)</b>		
<b>13:30 – 14:15 (Audimax)</b> <b>PLENARY LECTURE 3</b> <b>Luisa Durães</b> University of Coimbra, Portugal Silica aerogels versatility – from thermal insulation to pollutants capture		
<b>14:20 – 14:50</b>	<b>IL20</b> <b>T. Kato</b> Université de Toulouse, France Base-stabilized silynes: Synthesis and reactivity	<b>IL21</b> <b>M. Brook</b> McMaster University, Canada Waste Not, Want Not: Silicones and the Waste Stream
<b>14:50 – 15:10</b>	<b>L23</b> <b>P. Lickiss</b> Imperial College London, UK Synthesis, Structures and Applications of Metal-Organic Frameworks Containing Silicon Linkers	<b>L24</b> <b>N. Wienkenhöver</b> Wacker Chemie AG, Germany Introduction of renewable raw materials into the chemical supply chain
<b>15:10 – 15:30</b>	<b>L25</b> <b>M. Joon OH</b> Cracow University of Technology Surface modification of spherical silica with silane/silatrane coupling agents – application in photopolymerizable 3D-printing resin composites	<b>L26</b> <b>J. Lyubina</b> Evonik Operations GmbH, Germany Advancing electrocatalyst stability and performance of water electrolysis with silicon chemistry solutions
<b>15:30 – 15:45 Coffee Break</b>		



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



15:45 – 16:45		Postersession II	
		Blue	Green
16:45 – 17:15		<b>IL22</b> <b>B. Dudziec</b> Adam Mickiewicz University, Poland Expanding the Role of Silsesquioxanes: From Structural Modifications to Coordination Chemistry	<b>IL23</b> <b>V. Monteil</b> CNRS, CPE Lyon, France Catalysis at Silicones' service
17:15 – 17:45		<b>IL 24</b> <b>S. Kahn</b> IISEER Pune, India N-heterocyclic Silylene: From Bonding to Application	<b>IL 25</b> <b>A. Ladegaard-Skov</b> TU Denmark, Denmark Identical silicone-gelatin compositions processed at different temperatures enable two distinct elastomer types for extrusion and shape-memory applications
17:45 – 18:15		<b>IL25</b> <b>C. Marschner</b> Graz University of Technology, Austria From Oligosilylenoids to a Range of Cyclotetrasilanes	<b>IL27</b> <b>G. Drisko</b> University of Bordeaux, France Silica's role in creating vivid structural color
<b>Free Evening</b>			



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



## Wednesday 16<sup>th</sup> July

**08:30 – 9:15 (Audimax)**

### PLENARY LECTURE 4

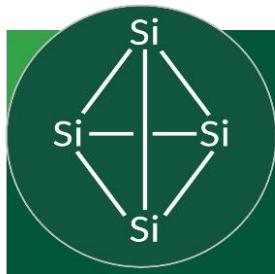
**Volker Deringer**

University of Oxford, UK

Modelling and understanding amorphous silicon with the help of atomistic machine learning

### 5 min Break

	<b>Audimax</b>	<b>Blue</b>	<b>Green</b>
<b>09:20 – 09:50</b>	<b>IL28</b> <b>M. Wagner</b> Goethe-Universität Frankfurt, Germany Silafulleranes and silaadamantanes: new developments	<b>IL30</b> <b>A. Lobnik</b> University of Maribor, Slovenia Sol Gel Nanomaterials and their Applications: Challenges, Opportunities and Risks	<b>IL29</b> <b>T. Fässler</b> Technische Universität München, Germany Low-Oxidation State Si and mixed Si/Ge Clusters
<b>09:50 – 10:10</b>	<b>L27</b> <b>A. Kostenko</b> TU München, Germany CO Insertion into the Si=Si bond of a disilene yields a 1,3-disaallene oxide which exhibits divergent reactivity toward CO <sub>2</sub>	<b>L28</b> <b>K.M. Lewis</b> Momentive Performance Materials, USA Silahydrocarbons as Potential Alternatives to Volatile Silicones	<b>L29</b> <b>T. Lainer</b> Graz University of Technology, Austria Mechanochemical Synthesis of Oligo- and Poly-silanes
<b>10:10 – 10:40</b>	<b>IL31</b> <b>M. E. Moret</b> Utrecht University, The Netherlands Elementary Steps of Catalysis at Cage Silanides	<b>IL32</b> <b>A. Shimojima</b> Waseda University, Japan Synthesis and unique properties of layered silica/silsesquioxane and polydimethylsiloxane nanocomposites	
<b>10:40 – 11:15 Coffee Break</b>			



# 11th EUROPEAN SILICON DAYS SALZBURG, July 14<sup>th</sup> - 16<sup>th</sup> 2025



## AUDIMAX

**11:15 – 11:25**

**Wacker Silicone Award Presentation**

**M. Schulze-Adams**

**11:25 – 12:15**

**Wacker Silicone Award Lecture**

**L. Greb**

Universität Heidelberg, Germany

Beyond the Comfort Zone: Expanding the Chemistry of Silicon(IV) through Ligand Control

**12:15 – 13:00 Poster Awards and Closing ceremony**

**13:15 – 18:30 Excursion Wacker Chemie / Burghausen\* or Lunch**

**18:30 – 23:00**

**Conference Dinner Kavalierhaus Klessheim\*\***

\*Lunch included

\*\*Conference Dinner will start at 6:30 pm on Wednesday 16<sup>th</sup> July 2025.