



23rd International Symposium on

**NON-OXIDE AND  
NEW OPTICAL  
GLASSES  
(ISNOG)**

June 14–17, 2026

DGI Byen, Copenhagen,  
Denmark



## General information

Venue: DGI Byen - Tietgensgade 65, 1704 København V

Website with link for registration: <https://www.isnog.bio.aau.dk/>

Accommodation: Various hotels are located near DGI-Byen in Copenhagen, including CPH Hotel (at DGI-Byen), Comfort Hotel Vesterbro and Cabinn Copenhagen. You will handle the hotel reservation yourself.

### Conference meeting rooms

Auditorium: 221 seats

Enghave Plads og Kødbyen: 116 seats

Tivoli og Vesterbros Torv: 95 seats

### Duration of presentations (incl. Q&A)

Plenary talk: 35 min

Invited talk: 25 min

Oral contribution: 15 min

### Posters

Size of board: 100x215cm

Mounting with mounting putty or tape

### Conference chairs

Morten M. Smedskjær (Aalborg University)

Yuanzheng Yue (Aalborg University)

### International Advisory Board

Jianrong Qiu (Zhejiang University)

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Shixun Dai (Ningbo University)

Akira Saito (Ehime University)

Yong Gyu Choi (Korea Aerospace University)

## Sunday June 14

### Welcome reception

16:00-18:00

## Monday June 15

### Plenary session (room: auditorium)

<i>Session chair</i> Yuanzheng Yue	
08:00 Morten M. Smedskjær	Welcome
08:10 Matthias Wuttig	Unraveling the origin of non-Zachariasen glasses
08:45 Lili Hu	Manipulation of spectroscopic properties of active ions in glass via local structure

### Coffee break + poster session

9:20-9:50

### Symposium 2 (room: auditorium)

<i>Session chair</i> Xianghua Zhang	
09:50 Setsuhisa Tanabe	Phase segregation of CsPb(Br,I) <sub>3</sub> perovskite quantum dots in fluorophosphate glass
10:15 Shibin Jiang	High Peak Power Fiber Lasers
10:40 Nilanjana Shasmal	Lead-Free Perovskite-Doped Glasses: Promising Materials for White Light Emission
10:55 Shuangli Dong	Predicting structure and spectroscopic properties of quaternary phosphate laser glasses
11:10 He Shasha	Tunable dual-band photoluminescent CsPbBr <sub>3</sub> quantum dots in glass for light-emitting applications
11:25 Weichao Wang	Fluoro-Sulfo-Phosphate Laser Glasses
11:40 Yiguang Jiang	Preparation and Application of Mid-infrared Fluoride Glass Fiber

### Symposium 4 (room: Enghave Plads og Købbyen)

<i>Session chair</i> Jingwei Hou	
09:50 Satoshi Horike	Molecular doping into the metal-organic framework glasses for functional materials
10:15 Hoi Ri Moon	Designing Vitrifiable Metal–Organic Frameworks through Coordination and Molecular Dynamics
10:40 Sebastian Henke	Chemical Approaches to Tuning the Structure and Properties of Hybrid Glasses
11:05 Guillermo M. Espallargas	Iron-based zeolitic imidazolate framework glasses and beyond: from multi-structural phase transitions to direct synthesis
11:30 Alexander Knebel	Taking a Magnifying Glance Through the MOF-Glass

### Symposium 1 (room: Tivoli og Vesterbros Torv)

<i>Session chair</i> Alex Hannon	
09:50 Seong H Kim	Infrared Light–Glass Interactions: Insights into Network Structure
10:15 Collin Wilkinson	Hybrid Methods for Predicting Vibrational Properties of Glasses
10:40 Elsebeth J. Pedersen	Structure of Hydrated Borate Glasses
10:55 Jinwook Jang	Compositional Effect on Chemical Strengthening and Mechanical Properties of SiO <sub>2</sub> –B <sub>2</sub> O <sub>3</sub> –Al <sub>2</sub> O <sub>3</sub> –Na <sub>2</sub> O Glass
11:10 Sidsel M. Johansen	Correlating structural relaxation and fracture toughness in aluminoborosilicate glasses
11:25 Liu Wei	Effect of B <sub>2</sub> O <sub>3</sub> substitution for Al <sub>2</sub> O <sub>3</sub> on crystallization behavior, microstructure, and mechanical properties of forsterite-based glass-ceramics
11:40 Sourav Sahoo	Indentation Deformation Mechanisms of Intermediate Calcium Aluminoborosilicate Glasses

### Lunch break

12:00-13:15

### Symposium 2 (room: auditorium)

<i>Session chair</i> Lili Hu	
13:15 Laeticia Petit	Rare-Earth doped Glasses for (bio)Photonic Systems
13:40 Andrea S. S. de Camargo	From Structure to Function: RE-doped Fluoride-Phosphate Glasses for Advanced Optical Applications
14:05 Dezhi Tan	Regulation of micro/nano-structures and photonic functionalities of glass
14:30 Katrin Wondraczek	Optical Fiber Preform Materials: Novel Approaches in Powder Doping for Versatile Fiber Architectures in Medical and Industrial Photonics
14:45 Chen Tian	CaTa <sub>2</sub> O <sub>6</sub> /Al <sub>2</sub> O <sub>3</sub> composite ceramics prepared via crystallization from CaO-Ta <sub>2</sub> O <sub>5</sub> -Al <sub>2</sub> O <sub>3</sub> glasses for highly-sensitive luminescent temperature sensing

### Symposium 4 (room: Enghave Plads og Købbyen)

<i>Session chair</i> Hoi Ri Moon	
13:15 Jingwei Hou	Metal Organic Framework Glass Composites
13:40 Minghua Zeng	Multi-phase Evolution of MOFs Involving Liquid, Glass States and the Beyond
14:05 Ang Qiao	Magnetism Evolution Induced by Structural Disorder in an Fe-Based Zeolitic Imidazolate Framework
14:30 Søren S. Sørensen	Continuous structure and property tuning of metal-organic framework glasses
14:45 Samraj Mollick	Ion Exchangeable Hybrid Glasses for Selective Mineral Harvesting from Seawater

### Symposium 1 (room: Tivoli og Vesterbros Torv)

<i>Session chair</i> Giulio Monaco	
13:15 Kristine Niss	Experimental test of the isomorph theory : a step towards understanding glass-forming liquids
13:40 Hai-Bin Yu	Double percolation and configuration distance of glass transtion
14:05 Jun-Qiang Wang	Critical roles of activation entropy in relaxation and glass transition
14:30 Tina Hecksher	Broadband Shear Mechanical Measurements on Glass-forming Materials
14:45 Hanna M. Wenzel	Structure determination in molecular amorphous solids with nonlinear optical properties

### Coffee break + poster session

15:00-15:30

### Symposium 2 (room: auditorium)

<i>Session chair</i> Pierre Lucas	
15:30 Yong Gyu Choi	Te-based chalcogenide glasses for use as thermal-imaging lenses: Momentum and potential
15:55 Petr Nemeč	Temperature-dependent optical functions of selected Ge-Sb-Se bulk chalcogenide glasses determined using spectroscopic ellipsometry
16:10 Yanqing Fu	Chalcogenide Glass Fibers and Their Optoelectronic Sensing Applications
16:25 Wei Zhang	Chalcogenide photonic devices and application in complex refractive index sensing
16:40 Akila G Prabhudessai	Thermal properties, Structure and Optical Performance of Ge–Sb–S Chalcogenide Glasses

### Symposium 4 (room: Enghave Plads og Købbyen)

<i>Session chair</i> Shuai Wei	
15:30 Robert Maass	Hierarchical microstructures in metallic glasses – are they real?
15:55 Isabella Gallino	On the nature of the glass transition in metallic glasses studied via fast scanning calorimetry
16:20 Yelim Lee	Design Strategies for Vitrification in Rare-Earth Carboxylate-Based Coordination Polymers
16:35 Valdineli Liber de Faria	Luminescent glass composites based on RE doped upconverting nanoparticles impregnated in zeolitic imidazolate frameworks

### Symposium 1 (room: Tivoli og Vesterbros Torv)

<i>Session chair</i> Andrea S. S. de Camargo	
15:30 Jihong Zhang	Plasma melting Al <sub>2</sub> O <sub>3</sub> -R <sub>x</sub> O <sub>y</sub> binary aluminatate glass and transparent ceramics microspheres
15:55 Jinjun Ren	Crystallization Mechanism of Fluorine-Oxygen Glasses – Elucidated by Solid-State NMR Spectroscopy
16:20 Kenji Shinozaki	Pre-Existing Bicontinuous Structures in Oxyfluoride Glass Melts and Their Role in Ultrafast Nucleation Revealed by Chromatic Topological and Coarse-Grained Analyses
16:35 Néstor Merino-Diez	Growth of secondary phases on calcium aluminosilicate glass surfaces

## Tuesday June 16

### Plenary session (room: auditorium)

Session chair *Morten M. Smedskjær*

- 08:00 **Heike Ebendorff-Heidepriem** Reinventing soft glasses and fibres through adding crystal particles, tuning fibre microstructure or processing in microgravity  
08:35 **Sabyasachi Sen** Atomistic Understanding of Structure, Relaxation and Related Phenomena in Chalcogenide Glasses and Glass-Forming Liquids

### Coffee break + poster session

9:10-9:45

### Symposium 2 (room: auditorium)

Session chair *Shibin Jiang*

- 09:45 **Sen Qian** The R&D of the High Light Yield and High Density Glass Scintillator for High Energy Physics Detectors  
10:10 **Chao Liu** Lead-free halide nanocrystals in glass: tailoring luminescence for advanced optoelectronic applications  
10:35 **Guoping Dong** Hybrid Glass Fiber and Its Optical Applications  
11:00 **Zhi Chen** Ultrafast Laser 3D micro-nano Fabrication of Core Architectures for Glass-based Photonic Quantum Chip  
11:25 **Sachin Kumar** Tellurite fibre fabrication with NV-containing diamond particles using an interface-based approach  
11:40 **Chao Ruan** Perovskite nanocrystals in glass for high efficiency and ultra-high resolution dynamic holographic multicolor display

### Symposium 4 (room: Enghave Plads og Kødbyen)

Session chair *Jianrong Qiu*

- 09:45 **Changgui Lin** Chalcogenide Glasses for Advanced Optoelectronic Applications  
10:10 **Shiliang Kang** Advanced chalcogenide glasses and their optoelectronic sensing applications  
10:35 **Chengwei Gao** IR transparent and flexible chalcogenide organic glass  
11:00 **Linling Tan** Development and Imaging Applications of Infrared Chalcogenide Glasses  
11:25 **Nguyen M. P. Truong** Luminescence modulation in Tb/Yb codoped oxyfluoride glass and their glass-ceramic counterparts  
11:40 **Yixi Wu** Tough transparent glass ceramics for multi-mode programmable dynamic tunable persistent luminescence via phase engineering

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair *Jincheng Du*

- 09:45 **Jeppe Dyrre** The material-time concept in physical aging  
10:10 **Ziqiang Chen** Geological timescales' aging effects of lunar glasses  
10:25 **Ankit Singh** Atomic-scale simulations of the mechanics of real-world glasses at experimentally accessible time-scales  
10:50 **Limin Wang** Understanding the glass transition by building its connection to melting  
11:15 **Giulio Monaco** Shaping Glasses with X-rays  
11:40 **Jens Moesgaard** Elucidating the features of the Boson peak to expand upon the understanding of amorphous phase-change material

### Lunch break

12:00-13:15

### Symposium 2 (room: auditorium)

Session chair *Heike Ebendorff-Heidepriem*

- 13:15 **Xianghua Zhang** Infrared optics with gradient refractive index based on chalcogenide glasses  
13:40 **Shixun Dai** Recent Advances in Chalcogenide Glasses and Acousto-Optic  
14:05 **David Le Coq** Femtosecond laser writing of mid-infrared splitters in chalcogenide glasses  
14:20 **He Ren** Chalcogenide glass anti-resonant hollow-core fiber for 9.3- $\mu\text{m}$  CO<sub>2</sub> laser delivery  
14:35 **Virginie Nazabal** Chalcogenide Glass Thin Films as Functional Materials for Infrared Photonic Water Pollution Sensors

### Symposium 4 (room: Enghave Plads og Kødbyen)

Session chair *Sabyasachi Sen*

- 13:15 **Lothar Wondraczek** Multiresponsive glasses  
13:40 **Pierre Lucas** Towards Additive Manufacturing of Far-Infrared Optics  
14:05 **Shuai Wei** Pressure-Temperature Driven Structural Evolution Across Polyamorphism in Phase-Change Materials  
14:30 **Yang Li** Biomolecular Noncovalent Glasses: Fabrication Fundamental, Multifunctional Properties, and Emerging Applications

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair *Doris Möncke*

- 13:15 **Alex Hannon** Bond Angles and The Structure of Vitreous Beryllium Fluoride  
13:40 **Ruilin Zheng** Design and analysis of local structures of halide perovskite nanocrystals in glasses  
14:05 **Johann Troles** Additive Manufacturing of ZBLAN Fluoride Glass via Fused Filament Fabrication  
14:20 **Wenkai Zhao** Synthesis and characterization of ZnF<sub>2</sub>-AlF<sub>3</sub>-based glass for mid-infrared fiber applications  
14:35 **Qi Zhang** Multiscale Structural Disorder in Glasses: Beyond Local Coordination Effects on Rare-Earth Ion Luminescence

### Coffee break + poster session

15:00-15:30

### Symposium 2 (room: auditorium)

Session chair *Dezhi Tan*

- 15:30 **Félix Q. Martinez** Non-conventional laser processing of glass  
15:55 **Jian Ruan** NIR-II emitting Ni<sup>2+</sup> activated glass-ceramics prepared via controlled crystallization from MTa<sub>2</sub>O<sub>5</sub>-Al<sub>2</sub>O<sub>3</sub> (M=Ca, Sr or Ba) glasses  
16:10 **Zhencai Li** White-light emission in zeolitic imidazolate framework glasses  
16:25 **Muhammad Umair** Thermally and Optically Induced Johari Goldstein (JG) Relaxation in As<sub>2</sub>Se<sub>3</sub>  
16:40 **Iljung yoon** Composition-Dependent Viscoelastic Deformation Behaviors of Ge-Se-Te Glass for Use as Molded Lenses

### Symposium 3 (room: Enghave Plads og Kødbyen)

Session chair *Laeticia Petit*

- 15:30 **Leena Hupa** Silicates: Paving the Way for Biodegradable Glasses in Tissue Regeneration  
15:55 **Qiang Fu** Bioactive Glass for Improved Oral Care  
16:20 **Francesca Tallia** Bouncy Bioglass – a new hybrid material for tissue regeneration

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair *Dominique de Ligny*

- 15:30 **Philip S. Salmon** Bond counting strategies in an oxygen centric perspective on the structure of oxide glasses  
15:55 **Mattias Edén** Predicting Contents of Non-Bridging Oxygens and Oxygen Tricusters in Aluminosilicate Glasses From 27Al NMR Data  
16:20 **Beatrice Baraldi** In-Situ XRD Tracking of Structural Changes in Metallic Glasses During Thermal Scans  
16:35 **Wei Zhang** Lanthanum Stabilized Cubic BaCl<sub>2</sub>:Eu<sup>2+</sup> Nanocrystals in Glass with Enhanced Photoluminescence and Scintillation Performance for High-resolution X-Ra

### Conference dinner

18:00-21:00

## Wednesday June 17

### Plenary session (room: auditorium)

Session chair Yuanzheng Yue

08:00 Sebastian Leukele

08:35 Jianrong Qiu

From Augmented Reality to Laser Fusion: Glass at the Core of Future Technologies  
Ultrafast laser induced order/disorder changes and applications

### Coffee break + poster session

9:10-9:45

### Symposium 3 (room: auditorium)

Session chair Qiang Fu

09:45 Steve W. Martin

10:10 Yanfei Zhang

10:35 Wengang Huang

10:50 Ashutosh Goel

11:15 Kai Xu

11:40 Ziqiang Jia

Thin-Film Li Glassy Solid Electrolytes as a New Functionality for Glass Enabling High Energy Density Li All Solid State Batteries  
Engineering a Stable Electrode-Electrolyte Interface via Glass Structural Affinity for High-Performance All-Solid-State Lithium-Ion Batteries  
Engineering a Melttable MOF to Tune Liquid Transition and Promote Coenzyme Regeneration  
Structural origins of high MoO<sub>3</sub> solubility in peraluminous borosilicate glasses  
Improving Molybdenum Tolerance in Nuclear Waste Glasses: Compositional Modeling and Reduction Strategy  
Oxidation States and Local Environment of Molybdenum in Simplified Nuclear Waste Glass under Reducing Condition

### Symposium 5 (room: Enghave Plads og Købbyen)

Session chair Kristine Niss

09:45 Stephen Elliott

10:10 Konstantinos Konstantinou

10:25 Lu Deng

10:50 Aude Amari

11:05 Nicholas Bailey

11:20 Suresh Bishnoi

11:35 Markus S. Erlacher

Chiral crystallization of amorphous tellurium  
Nature of Electronic Excitations in Amorphous Phase-Change Memory Materials: Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub>  
Revisiting the mechanisms of the phase separation and crystal growth by Molecular Dynamics  
Identifying the limit of the Tool-Narayanaswamy formalism  
Isomorph Invariance of mechanical properties of model glasses  
Descriptor-Based and Chemistry-Agnostic Machine Learning Frameworks for Property Prediction and Discovery of Glassy Materials  
A microkinetic model for describing the molecular scale mechanisms that enhance aluminosilicate glass dissolution

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair Seong H. Kim

09:45 Theany To

10:10 Haizheng Tao

10:35 Johan F. S. Christensen

10:50 Dominique de Ligny

11:15 Stefano Marchesin

11:30 Kristine H. Rasmussen

Fracture toughness of oxynitride glasses  
How to accurately determine the dynamic crack growth exponent for glass materials?  
In situ mapping of indentation-induced densification and cracking in vitreous silica by nanofocus X-ray scattering  
Understanding local stress and structural modifications in glass using luminescence of Rare Earth Element and vibrational spectroscopy  
Photo-induced structural dynamics in Ge-Se glasses: a comparative study in the X-ray and visible light range  
Ionic migration and multi-scale crystallization near the glass transition in amorphous Fe-rich Ca-Mg aluminosilicate fibers during oxidative heating

### Lunch break

12:00-13:15

### Symposium 3 (room: auditorium)

Session chair Félix Q. Martinez

13:15 Mette Solvang

13:40 Denis Okhrimenko

14:05 Peter G. Jensen

14:20 Susan Stipp

The role of ROCKWOOL stone wool production technologies and products in the green transition  
Development of in vitro biosolubility test for assessing stone wool fiber biopersistence  
Improving high-temperature stability of stone wool fibres by optimizing crystallisation  
Aluminosilicate glasses, weathering and solving the CO<sub>2</sub> challenge

### Symposium 5 (room: Enghave Plads og Købbyen)

Session chair Stephen Elliott

13:15 Jincheng Du

13:40 Shingo Urata

14:05 David L. Christensen

14:20 Alfonso Pedone

Structures and structure-property relations of phosphate glasses: insights from atomistic simulations  
Cooling rate effects on CTE of sodium alkaline-earth aluminosilicate glasses  
Predicting Failure Regions in Sodium Silicate Glasses From its Initial Structure  
Unraveling the Mixed Glass Former Effect in Sodium Thiophosphate Glass Electrolytes: A Molecular Dynamics Perspective

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair Steve W. Martin

13:15 Doris Möncke

13:40 Louis-Martin Poitras

13:55 Louisiane Verger

14:10 Lina Hu

Invert glasses of high optical basicity  
Insights into the Structure-Property Relationships and Conduction Mechanisms in Glassy Sulfide Electrolytes  
New sodium-conducting glass compositions obtained by mechanochemistry: synthesis, structure, and properties  
Unique Energy-Storage Behavior Driven by High Entropy in Metallic Glasses

### Coffee break + poster session

14:45-15:15

### Symposium 3 (room: auditorium)

Session chair Ashutosh Goel

15:15 Alexandra Beltrami

15:30 Santanu Mondal

15:45 Shuijiang Liu

16:00 Anders M. Schade

Surface evolution of alkaline silicate materials under ambient conditions  
Selective leaching of stone wool at high pH by small organic molecules  
Surface crystallization of phosphate glass containing CuO and coloring on a float glass  
Impact testing of screen protectors for mobile devices

### Symposium 5 (room: Enghave Plads og Købbyen)

Session chair Alfonso Pedone

15:15 Tao Du

15:40 Louis-Martin Poitras

Atomistic Insights into Structure and Dissolution Behaviors of Metal-Organic Framework Glasses for Battery Applications  
Establishment of Generalized Empirical Force Fields for Sulfide Glasses and Crystals Used as Superionic Electrolytes in All-Solid-State Batteries

### Symposium 1 (room: Tivoli og Vesterbros Torv)

Session chair Søren S. Sørensen

15:15 Yingbo Zhao

15:40 Minhyuk Kim

15:55 Meihua Qin

16:10 Alexis Duval

Reticulating node-linker-strut chemical spaces for metal-organic network-forming glasses by synergistically promoting configurational degree of freedom  
Hybrid Glass Formation in Coordination Polymers via Aliphatic Chain Dynamics  
Generic Vitrification of Prototype Metal-Organic Frameworks Linked by Rigid Dicarboxylate Linkers  
Facile and Quantitative Determination of Glass Redox State