

100. Glass-Technology Conference

25-26 May 2027
Bremerhaven

Submission Deadline
11.12.2026

Call for Papers

A Century of Glass Science and Technology – Shaping the Next Era

In 2027, the German Society of Glass Technology will celebrate a remarkable milestone: the **100th Glass-Technology Conference**. Across 100 conferences, DGG has brought the glass community together to exchange scientific knowledge, share industrial experience and advance glass technology through collaboration.

The 100th GTC will be a special edition, honouring this legacy while looking firmly ahead. The conference will open with a specially curated **Anniversary Focus, "A Century of Glass Science and Technology – From Foundations to the Next Era."** Through invited perspectives, this special session will connect the conference's heritage with today's developments and future directions in glass science and technology.

Beyond the Anniversary Focus, we warmly invite researchers, scientists, engineers, industry professionals and young experts to contribute their latest findings, technological developments and practical insights across glass science, applications, industry and process technology.

Abstract submissions are invited for Sessions 2–8 for presentation as a lecture or poster by 11 December 2026.

Conference President
Joachim Deubener
Clausthal University of Technology

Programme Chair
Thomas Jüngling
German Society of Glass Technology

HVG-DGG
Service and Research in the Field of Glass

hvg-dgg.de/100gtc

Call for Papers

ANNIVERSARY FOCUS SESSION

Session 1: A Century of Glass Science and Technology – From Foundations to the Next Era
This specially curated Anniversary Focus marks the 100th Glass-Technology Conference and opens the scientific programme with invited perspectives on a century of glass science and technology, connecting its heritage with the next era. *Invited contributions only.*

SCIENCE & APPLICATIONS SESSIONS

Session 2: Glass Structure, Properties & Advanced Characterisation
Fundamental and applied studies on the structure and behaviour of oxide and non-oxide glasses. Topics include glass transition and relaxation, structure–property relationships, mechanical, thermal, optical, electrical and functional properties, durability, corrosion and fracture. Contributions on surface and interface phenomena, coatings, as well as advanced, high-throughput, in-situ and process-relevant characterisation methods are particularly welcome.

Session 3: Glass-Ceramics, Crystallisation & Emerging Glass Compositions
Design, synthesis and processing of glass-ceramics and emerging glass systems. Topics include nucleation and crystallisation, phase separation, sintering, glass formation and glass stability, as well as oxide, chalcogenide, halide, metallic, hybrid, high-entropy and other unconventional glasses. Contributions may address both fundamental mechanisms and functional or structural applications.

Session 4: Glass Applications for Health, Energy, Photonics & Resilient Infrastructure
Innovative glass materials, components and systems for healthcare, pharmaceuticals, energy generation and storage, photonics, electronics, optical fibres, architecture, transport, packaging and structural applications. Contributions addressing safety, reliability, lifetime, standardisation, harsh or coastal environments and application-specific performance challenges are welcome.

Session 5: Modelling, Digitalisation, Data & Artificial Intelligence
Computational and data-driven approaches across glass science and technology. Topics include atomistic and molecular modelling, CFD and process simulation, statistical methods, machine learning and AI, digital twins, data infrastructures, autonomous experimentation, validated datasets, sensor integration and model-based process control. Contributions addressing data quality, transferability, explainability and industrial implementation are particularly encouraged.

INDUSTRY & PROCESS TECHNOLOGY SESSIONS

Session 6: Industrial Glass Melting, Furnace Technologies & Decarbonisation
Industrial glass melting and conditioning across container, flat, fibre, specialty and technical glass production. Topics include furnace design and operation, all-electric and hybrid melting, hydrogen and renewable fuels, oxygen-based technologies, heat recovery, refractory materials, emissions reduction, process sensing and control, glass quality, operational flexibility and the transition of existing production assets.

Session 7: Recycling, Raw Materials & Circular Glass Production
Innovations in glass recycling, cullet processing and quality, raw material substitution, low-carbon and carbon-free batches, waste valorisation and the recovery of critical materials. Topics also include reuse and repair, closed-loop systems, recycling of photovoltaic, automotive, architectural and specialty glasses, life cycle assessment, material flow analysis and circular business or production models.

Session 8: Glass Forming, Processing, Surface Engineering, Automation & Additive Manufacturing
Forming, conditioning and processing of container, flat, fibre and specialty glasses. Topics include forming simulation and validation, automation and robotics, sensors and closed-loop control, strengthening, joining, cutting, machining, grinding, polishing, coating and surface functionalisation. Contributions on additive manufacturing, laser-based processing, powder and slurry routes, quality control and resource-efficient processing are particularly welcome.

Session categories are for guidance only. Cross-disciplinary contributions are welcome across all sessions.

