call for papers

Abstracts due November 24, 2017

2018 GLASS & OPTICAL MATERIALS DIVISION ANNUAL MEETING

Hilton Palacio del Rio | San Antonio, Texas

may 20–24, 2018



www.ceramics.org/gomd2018

GLASS & OPTICAL MATERIALS DIVISION ANNUAL MEETING

May 20-24, 2018 | Hilton Palacio del Rio | San Antonio, Texas

Join the Glass & Optical Materials Division (GOMD) for its annual meeting May 20-24, 2018, in San Antonio, Texas. This year's program will feature five symposia: Fundamentals of the glassy state; Glasses in healthcare; Optical and electronic materials and devices, Glass technology and cross-cutting topics; and Symposium to honor Prof. L. David Pye—glass scholar and ambassador. Technical leaders from industry, national laboratories, and academia will lead technical sessions featuring both oral and poster presentations that provide an open forum for glass scientists and engineers from around the world to present and exchange findings on recent advances in various aspects related to glass science and technology.

Students are encouraged to enter their presentations in the annual poster competition for professional recognition and cash awards. Students attending GOMD 2018 are invited to attend a career round table discussion with scientists from industry, national laboratories, and academia about career opportunities and other topics in a casual environment. GOMD 2018 will provide a unique opportunity for students to learn, interact, and win.

Set on the banks of the San Antonio River, the Hilton Palacio del Rio sits in the middle of the River Walk entertainment, shopping, and dining district. River boat tours load just outside the doors, and it is only ten miles from San Antonio International Airport. The San Antonio River Walk is a verdant oasis of cypress-lined paved paths, arched stone bridges and lush landscapes. It gently winds through the city center, providing millions of visitors each year with easy access to the city's cultural hot spots, historic sites, and other attractions.

On behalf of the GOMD executive committee and volunteer organizers, we sincerely hope you will join us at GOMD 2018 to find new collaborative opportunities and to exchange ideas in the international glass community.

We look forward to seeing you in San Antonio!

GOMD 2018 PROGRAM CHAIR:



Jincheng Du University of North Texas, USA du@unt.edu

ABSTRACT SUBMISSION

Visit www.ceramics.org/gomd2018 to review the session topics and select the "Submit Abstract" hyperlink to be directed to the https://glass2018.abstractcentral.com/ website. If you have questions, please contact Marilyn Stoltz at mstoltz@ceramics.org or 614-794-5868.

GOMD 2018 STUDENT ACTIVITIES

Poster session and student poster competition Organizer: Jessica Rimsza, Sandia National Laboratories

Poster abstracts will be accepted for all sessions and symposia. Students are encouraged to enter their presentations in the annual poster competition for professional recognition and cash awards. To enter, select "Student Poster Competition" as a symposium topic during the submission process.

Career round table

Organized by Global Graduate Researcher Network (GGRN) and President's Council of Student Advisors (PCSA)

Students attending GOMD 2018 should plan to attend an information round table discussion with scientists from industry, national laboratories, and academia. This will be an opportunity for students to ask scientists questions in a casual environment on diverse topics (work-life balance, career opportunities, etc.). The scientists will rotate every 15 minutes so that students have the chance for candid discussions with several professionals during the session.

Facebook group

Students can network prior to the event with fellow attendees and coordinate travel arrangements to decrease conference costs on the GOMD 2018 Facebook group (coming soon).

Travel support

GOMD will award a limited number of student travel awards. Check the event website for application details.

2016-17 GOMD OFFICERS

Chair Edgar Zanotto Federal University of São Carlos, Brazil dedz@power.ufscar.br Chair-elect Pierre Lucas University of Arizona, USA pierre@email.arizona.edu Vice chair Liping Huang Rensselaer Polytechnic Institute, USA huangL5@rpi.edu Secretary Jincheng Du University of North Texas, USA du@unt.edu

call for papers Abstracts Due November 24, 2017

www.ceramics.org/gomd2018



PRELIMINARY SCHEDULE

Sunday, May 20, 2018

Registration	4:00 p.m. – 7:00 p.m.
Welcome reception	6:00 p.m. – 8:00 p.m.

Monday, May 21, 2018

Registration	7:00 a.m. – 5:30 p.m.
Stookey Lecture of Discovery	8:00 a.m. – 9:00 a.m.
Concurrent sessions	9:20 a.m. – 5:40 p.m.
Lunch on own	12:00 p.m. – 1:20 p.m.
GOMD general business meeting	5:45 p.m. – 6:30 p.m.
Poster session & student poster	6:30 p.m. – 8:30 p.m.
competition	

Tuesday, May 22, 2018

Registration	7:30 a.m. – 5:30 p.m.
George W. Morey Award lecture	8:00 a.m. – 9:00 a.m.
Concurrent sessions	9:20 a.m. – 6:00 p.m.
The Norbert J. Kreidl Award for	12:00 p.m. – 1:00 p.m.
Young Scholars lecture	
Lunch on own	12:00 p.m. – 1:30 p.m.
Conference banquet	7:00 p.m. – 10:00 p.m.

Wednesday, May 23, 2018

Registration	7:30 a.m. – 5:00 p.m.
Darshana and Arun Varshneya	8:00 a.m. – 9:00 a.m.
Frontiers of Glass Science lecture	
Concurrent sessions	9:20 a.m. – 5:40 p.m.
Lunch on own	12:00 p.m. – 1:30 p.m.
Concurrent sessions	1:30 p.m. – 5:40 p.m.

Thursday, May 24, 2018

Registration	7:30 a.m. – 12:00 p.m.
Darshana and Arun Varshneya	8:00 a.m. – 9:00 a.m.
Frontiers of Glass Technology	
lecture	
Concurrent sessions	9:20 a.m. – 12:00 p.m.

HOTEL INFORMATION

Hilton Palacio Del Rio

Ph: +1 210-222-1400 | Fax: +1 210 270 0761 200 S Alamo | San Antonio, TX 78205

Based on availability:

Single/double \$189 plus tax (currently 16.75 percent)

Triple/quad - \$209 plus tax

Prevailing government rate

Reserve your room by **April 20, 2018**, to secure the negotiated conference rate.

S1: Fundamentals of the glassy state

This symposium will provide a discussion forum on fundamental principles of glass science. Contributions covering experimental and theoretical developments in the field of glass science are welcome. Topics of interest include novel developments in the following sessions.

Session 1: Glass formation and structural relaxation

Organizers: Ozgur Gulbiten, Corning Incorporated John Mauro, Pennsylvania State University

This session will address all aspects of glass formation, including experimental, modeling, and theoretical development in our understanding of the glass transition and relaxation. All glass systems including oxides, metallic glasses, organic glasses and chalcogenides will be covered. Topics of interest include, but are not limited to structural relaxation, viscous flow, fragility, dynamic processes in the glass transition range, and energy landscape approach.

Session 2: Crystallization in glass and its application

Organizers: Edgar D. Zanotto, Federal University of São Carlos Kenneth F. Kelton, Washington University Jincheng Du, University of North Texas Mathieu Hubert, Corning Incorporated Indrajit Dutta, Corning Incorporated

This session is devoted to building fundamental understanding of crystallization in glass and glass-ceramics and its application. It will cover both experimental, analytical/characterization as well as numerical/ modeling aspects of nucleation and growth in glass and glass-ceramics.

Topics to be covered include, but not limited to:

- Theoretical, simulation, and experimental studies of nucleation and crystal growth in glasses and liquids
- The critical role of glass composition, structure, and nucleating agents on crystallization
- Amorphous phase separation and its role in influencing crystallization
- Novel methods and characterization techniques (ex-situ, in-situ) to understand crystallization
- Advanced modeling and simulation techniques to elucidate crystallization

GLASS & OPTICAL MATERIALS

- Properties of glass-ceramics (thermal, mechanical, electrical, optical, chemical, etc.)
- Microstructure/property relationships in glass-ceramics
- Applications of glass-ceramics
- Crystallization phenomena relevant to earth andplanetary sciences, including comparison of glass-ceramics to crystalline rocks in terms of mineralogy, microstructure, and properties
- Glass forming ability of compositions and related issues
- Crystallization phenomena in related materials

Session 3: Structural characterizations of glasses

Organizers:

ers: Sabyasachi Sen, University of California, Davis Mario Affatigato, Coe College Randall E. Youngman, Corning Incorporated Chris Benmore, Argonne National Laboratory

This session will cover new developments in experimental techniques to advance the understanding of glass structure. Areas of interest include: developments and applications of various experimental techniques, such as X-ray, neutron, and light scattering; X-ray absorption and emission spectroscopy; vibrational spectroscopy; NMR spectroscopy; and scanning probe microscopy to study the short-range, medium-range, nanoscale structure, and heterogeneity of glasses.

Session 4: Topology and rigidity

Organizers: Mathieu Bauchy, University of California, Los Angeles

Morten Smedskjaer, Aalborg University

Topological constraint theory and rigidity concepts have resulted in many breakthroughs in our understanding of the composition dependence of glass properties and, thereby, have enabled the nanoengineering of high-performance glasses. This session will focus on recent advances in topological modeling and cover experimental, computational, and theoretical studies.

Session 5: Computer simulation and predictive modeling of glasses

Organizers: Walter Kob, Universite Montpellier II Carlo Massobrio, Institut de Physique et Chimie des Matériaux de Strasbourg Tandia Adama, Corning Incorporated Jessica Rimsza, Sandia National Laboratory Hiroyuki Inoue, University of Tokyo Jincheng Du, University of North Texas

Modeling and simulation plays an increasingly important role in materials research. This is in particular the case for glasses, amorphous, and nanostructured materials due to their complex nature. This session will focus on computer simulations and modeling approaches to gain insight into the structures and properties of glasses and glass-forming liquids. Furthermore, machine learning, deep learning, big data and their applications in predictive modeling of glass properties will be covered. Recent development of classical and first principles methods including empirical potentials, efficient first principles algorithms, as well as applications in simulations in complex interfaces and interfacial behaviors such water/glass interactions are also of particular interest. Also welcome are numerical studies that help the interpretation of experimental data and structural validation using methods such as X-ray and neutron diffraction, solid-state NMR, and other spectroscopic techniques. Finally, integrated computational material design of glass compositions using physics-based modeling and simulation methods will also be covered.

Session 6: Mechanical properties of glasses

Organizers: Lothar Wondraczek, University of Jena Yunfeng Shi, Rensselaer Polytechnic Institute

This session will discuss the mechanical properties of disordered materials across multiple scales, while bridging the fields of metallic and nonmetallic glasses. We will consider the structural origin of elasticity, plasticity, and fracture with the objective of designing glasses with superior toughness, defect tolerance, and stiffness. Particular attention shall be given to the identification of general, material-independent constitutive laws which may be used as guidelines to improve the mechanical properties; the combination of experimental approaches and computational modeling of the stress-response of glasses and early stages of damage infliction; and the interplay between size and time effects, stress-corrosion, and the chemical aspect of fracture.

Contributions are especially invited on:

- Dynamic fracture and brittleness, or crack initiation, including the application of in situ techniques
- Slow crack growth and stress corrosion cracking, the under lying chemistry and transport phenomena in high stress fields
- Multiscale investigation of elasticity, plasticity and hardness in relation to bulk topology through combining mechanical analyses with structural analyses
- Strategies for toughening inorganic oxide glasses as well as metallic glasses

Session 7: Nonoxide glasses

Organizers: Pierre Lucas, University of Arizona Laurent Chavez, Université de Rennes

This session welcomes presentations covering new developments in chalcogenide, halide, metallic, organic glasses, and all other types of nonoxide glasses. Topics of interest include structural characterization, structure-property relationship, novel processing methods, compositional trends, and advances in physical properties such as optical, thermal, electrical, and mechanical behaviors. Technological applications of these glasses will be covered, including the field of energy, sensing, optics, biomedical, phase change materials, and microelectronics.

Session 8: Glass under extreme conditions

Organizers: Liping Huang, Rensselaer Polytechnic Institute Benoit Rufflé, Université Montpellier II Morten Smedskjær, Aalborg University Yann Vaills, University of Orléans

This session will cover the recent progress in understanding structure and properties of glass under extreme conditions, such as high pressure, high stress, high temperature, high radiation, highly reactive conditions, etc., in designing glass for these applications, as well as in utilizing such conditions to synthesize glass with superior properties. Both experimental and computational studies will be included.

DIVISION ANNUAL MEETING

S2: Glasses in healthcare fundamentals and application

Organizers: Julian Jones, Imperial College London

Delia S. Brauer, Friedrich Schiller University Jena **Ashutosh Goel**, Rutgers, The State University of New Jersey

Jincheng Du, University of North Texas

In addition to the current application of glasses and glass-ceramics in medicine and dentistry, there is growing interest in the application of novel glass products in important areas, such as bone regeneration and wound healing. Emerging areas in the applications of bioactive glasses will also be covered, including antibacterial materials, drug delivery systems, and soft tissue engineering. Functional products based on glasses and glass-ceramics for applications, such as treatment of cancer and osteomyelitis will be also addressed. Discussions will cover biomedical glasses composed of silicate, borate, and phosphate compositions, metal ion-doped bioactive glasses for targeting specific cellular and biological responses, the formation of melt-derived, sol-gel and mesoporous glasses into specific architectures, such as three-dimensional scaffolds, particles and fibers, including nanoparticles and nanofibers, as well as coatings, thin films and composites.

Proposed session topics:

- Compositional design of glasses for biomedical applications
- Interactions of glasses in the biological environment
- Modeling and characterization of structure and properties
- Applications in regenerative medicine and tissue engineering
- Glasses for growth factor and drug delivery
- Glasses in wound healing, vascularisation, and soft tissue engineering
- · Glasses and glass-ceramics in dentistry
- Applications in cancer treatment and osteomyelitis
- Roundtable discussion on key issues and future directions in glasses for healthcare

S3: Optical and electronic materials and devices fundamentals and applications

Optical and electronic materials and devices are of critical importance for applications, including sustainable energy, information technology, nonvolatile memory, sensing, medical diagnostics and treatment, and national defense. This symposium will address processing and properties of optical and electronic materials as well as design, fabrication, and performance of functional devices.

Session 1: Laser interactions with glasses

Organizers: Himanshu Jain, Lehigh University Jianrong Qiu, South China University of Technology Jingshi Wu, Corning Incorporated

The field of light interaction with matter has attracted much attention, more so since the invention of ultrashort lasers and high power fiber lasers. Many new phenomena have been observed and many new applications have been developed in recent decades. Now lasers are widely used for cutting, welding and engraving of glass; fabrication of waveguides, gratings and micro-channels, etc., inside the bulk of glass. At the same time, potential applications of laser-glass interactions are emerging such as in the fabrication of active single crystal architecture, strengthening of glass, surface modification for improved performance, etc. This session will focus on the most recent and advanced issues pertaining to the science and applications of laser-glass interactions, such as laser irradiation effects, compositional and structural changes, dynamics and mechanisms of laser-induced modifications, laser processing and machining of glass, etc.

Session 2. Charge and energy transport in disordered materials

Organizers: B.G. Potter, Jr., University of Arizona Krishna Muralidharan, University of Arizona Xiang-Hua Zhang, Université de Rennes

The control of charge and energy streams in materials is central to their application in a broad range of thermal, energy generation/storage, and electronic technologies. In disordered systems, challenges in understanding and manipulating transport phenomena become paramount in establishing structural design criteria, formulation, and processing methods to provide optimized properties. With the increased consideration and application of glassy and nanoheterogeneous (e.g. glass-ceramics, nanostructured composites) materials addressing such areas as energy generation and storage (e.g. photovoltaics, fuel cells, thermoelectrics, batteries), thermal isolation or conduction media, and low-loss dielectrics and electronic conduction (microelectronics, nanoelectronics), new insights into the fundamental nature and control of, often coupled, transport processes is of key interest. This session is intended to provide a general forum for the discussion of the mechanisms, properties, and application of charge and energy transport phenomena in such disordered systems. Contributions on the experimental, theoretical, and modeling aspects of these topics are encouraged. Topics of interest include, but are not limited to:

- Material synthesis and characterization (thin film, bulk, fiber)
- Novel experimental methods and instrumentation
- Charge transport theory and measurement (ionic and carrier transport)
- Thermal transport (including phononic systems and processes)
- Computational modeling of energy and charge transport
- Applications

Session 3: Optical fibers and waveguides

Organizers: Xiang-Hua Zhang, Université de Rennes Johann Troles, Université de Rennes

The field of optical fibers application is not confined to telecommunication technologies. Optical fibers can be used in numerous other applications such as: sensing, new laser source, biomedicine, defense, and security. This session will be an opportunity for discussions about the state of the art and recent advances in the design, fabrication, characterization and applications of innovative and exotic fibers.

Session 4: Glass-based optical devices

Organizers: Juejun Hu, Massachusetts Institute of Technology Tingyi Gu, University of Delaware Hongtao Lin, Massachusetts Institute of Technology

Glasses are important materials for optical components and devices given their excellent optical transparency and versatile processing.

GLASS & OPTICAL MATERIALS

Novel oxide and non-oxide glass compositions and fabrication technology development have further enabled emerging applications such as light emission, infrared imaging, nonlinear optical signal processing, and sensing. This session will cover material synthesis and processing as well as device fabrication and applications of innovative device architectures, including but not limited to: molded optics, diffractive optics, thin film optical coatings, fiber optic devices, and integrated photonic components.

Session 5: Optical ceramics and glass-ceramics

Organizers: Yiquan Wu, Alfred University John S. McCloy, Washington State University

Glass-ceramic and optical ceramic materials are emerging as a highly promising alternative to single-crystal materials for potential use in a wide range of optical and photonic applications. This session will provide a forum for researchers, students, and entrepreneurs to present and discuss their recent scientific results on a wide variety of topics related to science and engineering issues associated with glass-ceramic and optical ceramic materials. A particular emphasis will be placed on the fundamental issues to advance our understanding and utilization of glass-ceramics and optical ceramics and related devices. Session topics include science of transparent glasses and ceramics, novel processing, scintillators and spectroscopy, laser materials, modeling, and theory computation.

Session 6: Glasses and glass-ceramics in detector applications

Organizers: Mario Affatigato, Coe College Jackie Johnson, University of Tennessee Space Institute

S.K. Sundaram, Alfred University

This session highlights fundamentals and applications of glasses and glass-ceramics in radiation and particle detectors. These detectors are critical to fundamental discoveries in physics, industrial applications, and theranostics in medicine. Selected topics include, but are not limited to:

- Photomultiplier tube glasses for neutrino detection
- Glasses and glass ceramics for neutron detection and imaging
- Glasses and glass ceramics for X-ray detection and imaging, including medical imaging
- Glass alpha particle detectors
- Glasses in detection of gravitational waves
- Glasses for nuclear fusion research
- Proton-detecting glasses
- Color-glass condensates

Session 7: Rare-earth and transition metal-doped glasses and ceramics for photonic applications

Organizers: Setsuhisa Tanabe, Kyoto University Shibing Jiang, Photonics Incorporated Kohei Soga, Tokyo University of Science

Rare-earth and transition-metal doped materials are playing crucial roles in photonics as optical fiber amplifiers, lasers at various wavelengths, phosphors for displays and solid-state lighting as well as recent bio-imaging probe utilizing upconversion or persistent luminescence of the ions. This session will cover the topics on:

- Glass and transparent ceramic lasers
- Ceramic phosphors for solid-state lighting

- Wavelength converters for photovoltaic systems
- Nanoprobe phosphors for biophotonics
- Energy transfer or light storage mechanisms in solids
- d-d, f-f and f-d transitions in glass and ceramics
- Optical amplifiers for telecommunication

S4: Glass technology and cross-cutting topics

Glass can be engineered with a wide range of properties and in many different forms to make it important in both active and passive applications for current and emerging energy and environmental technologies. This symposium will draw an arc from the fundamental approaches (interplay of theory, modeling and experiment) via material properties (compositional influences and signatures) and their characterization (in situ, ex-situ) to manufacturing (novel processing techniques).

Session 1: Glass surfaces and functional coatings

Organizers: Nick Smith, Corning Incorporated Rob Schaut, Corning Incorporated

Glass surfaces remain an enduring area of scientific and technological challenges for applications of glass, and approaches to understand and customize surface and interfacial behaviors with glass modifications and functional coatings represent a critical direction for glass' future. This session will focus on surfaces in glassy and film-related systems, with a scope that includes fundamental studies of glass surfaces and properties; innovations in glass surface characterization; novel methods for modifying surfaces; emerging concepts around functional coatings on glass; and properties of glassy/amorphous thin films.

Session 2: Sol-gel processing of glasses and ceramic materials

Organizers: Gang Chen, Ohio University Lisa C. Klein, Rutgers University John Kieffer, University of Michigan

Sol-gel processing uses low-temperature processing approaches to produce glass and ceramic materials with high purity, excellent homogeneity, and well-controlled morphology. This session will focus on all aspects of sol-gel derived and nanostructured materials prepared by liquid synthesis, including:

- Sol-gel routes to bulk, film, glass coating, colloidal, nanoparticle, porous, and hybrid organic-inorganic materials
- Structural characterization using spectroscopic, scattering, and imaging techniques
- Computer simulations through the molecular dynamics, Monte-Carlo, and reverse Monte-Carlo simulation methods
- New functionalities based on the optical, electrical, thermal, mechanical, chemical, and biomedical properties
- New sol-gel materials and products for energy and other applications

DIVISION ANNUAL MEETING

Session 3: Challenges in glass manufacturing

Organizers: Irene Peterson, Corning Incorporated Hong Li, PPG Industries Mathieu Hubert, Corning Incorporated

Industrially fabricated glass is one of the most important materials used in society. New applications and compositions, more

rials used in society. New applications and compositions, more stringent quality requirements, increasing costs and compliance with environmental regulations drive constant innovation in glass chemistry, equipment and processes. New laboratory research and modeling approaches have dramatically increased understanding of glass chemistry, glass melting and product forming processes, and improved energy efficiency and equipment design. This session will cover recent developments in:

- Physics and chemistry of glass melting and forming— Experiments and modeling
- Energy efficiency—Combustion, heat transfer, and new energy saving technologies
- Furnace design and process control—Sensors, flue gas chemistry, emissions
- Corrosion and wear—Refractories and electrodes
- Post-forming treatments—Finishing, surface treatments, films, etc.
- New glass melting and forming concepts

Session 4: Waste immobilization—waste form development: processing and performance

Organizers: Stephane Gin, CEA

Joseph Ryan, Pacific Northwest National Laboratory John Vienna, Pacific Northwest National Laboratory

Jincheng Du, University of North Texas

The processing, properties, and testing of vitreous materials is crucial to the success and effectiveness of treating and disposing of nuclear wastes world-wide. This session will cover materials technologies for the treatment of nuclear, hazardous, and toxic wastes, which includes waste immobilization and encapsulation in inert glass, ceramic, and composite matrices. New and innovative applications of materials and materials processes and alternative waste form materials and processing methods will be highlighted. Wasteform performance and accelerated testing to assess durability will be also covered as well as modeling of their behavior over various timescales. Additional topics include characterization, testing, and modeling techniques to quantify waste form properties.

Session 5 Optical fabrication science and technology

Organizers: Tayyab Suratwala, Lawrence Livermore National Laboratory

This session will be on the fabrication science and technology of optical quality components with focus on, but not limited to, lasers and telescope applications. The age-old field of optical fabrication, which transforms bulk glasses or ceramics via grinding, cutting, polishing and etching into precision optics, continues its migration from more of an art to a science. Included in this scope will be a multidisciplinary (physics, chemistry, fracture mechanics, mechanics, tribology, etc.) approach to understanding the complex interactions between the workpiece, abrasive or polishing media, and the tool which influence the final workpiece properties (surface quality, surface roughness, and surface figure). In addition, this scope will include novel finishing technologies, techniques, and characterization methods that have been recently developed.

S5: Dawn of the Glass Age: New Horizons in glass science, engineering and applications

Organizers: Kathleen Richardson, University of Central Florida Arun Varshneya, Alfred University

Edgar Zanotto, Federal University of São Carlos

For more than five decades, Professor L. David Pye has been a visionary leader whose passion to link the global activities of academia and industry in glass science, technology and research have been an inspiration to many. These activities have led to an elevation of glass within the field of material science and engineering and has resulted in long-standing initiatives that remain in place today.

This symposium honors these contributions and their impact on professional societies, students, research and industry—university networks. With contributions from speakers with a diverse cross-section of backgrounds and experiences, we will celebrate the long-standing vision, creativity, leadership and mentorship, which has resulted from David's sustained efforts.

Dr. Pye's impact has spanned global glass science research, education and technology, including roles as:

- A glass researcher at Bausch & Lomb;
- Dean and professor of glass science (emeritus) at the NYS College of Ceramics at Alfred University, and as the founding director of NSF's first university – Industry center, the Center for Glass Research;
- Advisor of many graduate students and as an educator and mentor to countless undergraduates in the fundamentals of glass science;
- Recipient of the NYS University's Chancellor's Award for Scholarship and Creativity, the US Phoenix Award for Glassman of the Year, and the ASEE Award for Excellence in Teaching;
- Past president of both the American Ceramic Society and the International Commission on Glass;
- ACerS Distinguished Life Member, Honorary member of the German Society of Glass Technology (DGG), Honorary Fellow of the British Society of Glass Technology and recipient of the ICG President's Lifetime Achievement award;
- Recipient of the Malcolm G. McClaren Award (Rutgers University, 2015), and ACerS Toledo Glass and Ceramics Award (2016);
- Founding Board of Trustee member of the Ceramic and Glass Industry Foundation;
- Founding Editor of the International Journal of Applied Glass Science; and
- Aspiring stained glass artist

This symposium will consist of invited and contributed talks spanning topics of interest related to David's interests and activities, including, but not limited to:

- Nuclear waste storage in vitreous materials
- Rare earth doped materials
- Optical glass
- Fundamentals of glass science and engineering
- Industry university initiatives
- Art glass

Call for papers Abstracts Due November 24, 2017GLASS & OPTICAL
MATERIALS DIVISION
ANNUAL MEETINGwww.ceramics.org/gomd2018Understand
VoltageImage: Content of the state of

May 20-24, 2018 Hilton Palacio del Rio San Antonio, Texas



American Society The

may 20-24, 2018

sex9T ,oinotnA ne2 | oiЯ l9b oisel69 notliH

2018 GLASS & OPTICAL MATERIALS DIVISIOU DUNAL MEETING

Call for papers Abstracts Due November 24, 2017