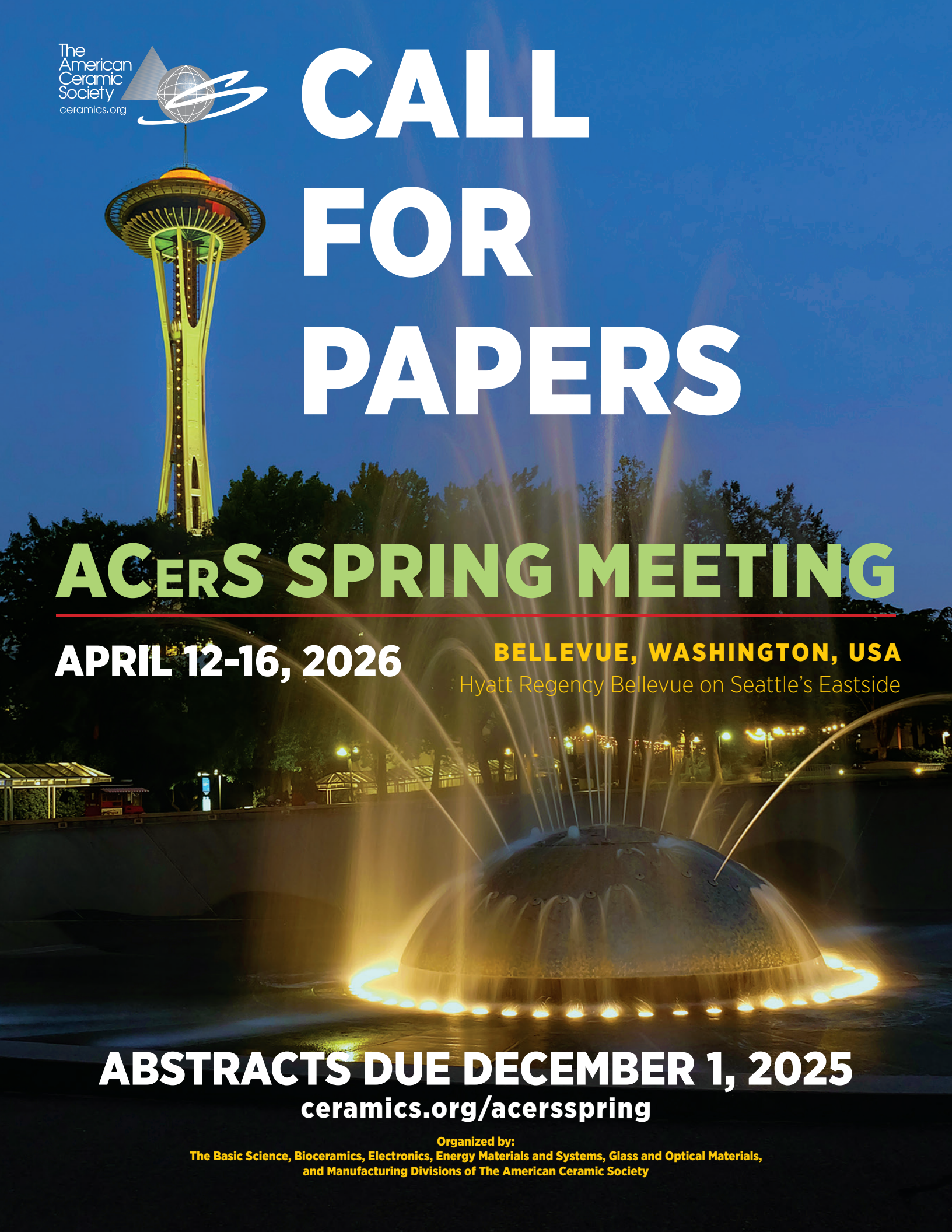
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CALL FOR PAPERS
ACERS SPRING MEETING
APRIL 12-16, 2026
BELLEVUE, WASHINGTON, USA
Hyatt Regency Bellevue on Seattle's Eastside
ABSTRACTS DUE DECEMBER 1, 2025
ceramics.org/acersspring
Organized by:
The Basic Science, Bioceramics, Electronics, Energy Materials and Systems, Glass and Optical Materials, and Manufacturing Divisions of The American Ceramic Society

WELCOME

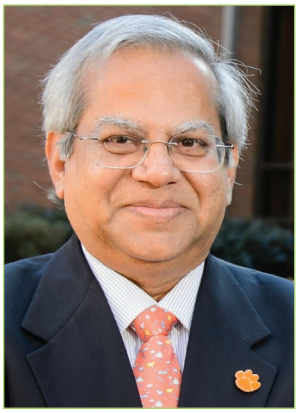
I would like to warmly welcome you to the first annual ACerS Spring Meeting, in Bellevue, Washington, USA. Bellevue is very close to and well connected with the beautiful port city of Seattle and its international airport. This first of its kind international conference is the result of collaboration between six Divisions of the American Ceramic Society (ACerS) - the Basic Science, Bioceramics, Electronics, Energy Materials and Systems, Glass and Optical Materials, and Manufacturing Divisions.

The first ACerS Spring Meeting provides a platform for state-of-the-art presentations and information exchange on cutting-edge ceramics and glass science and technologies, across many disciplines. The technical program of ACerS Spring Meeting 2026 consists of a total of 39 Symposia, including three all-division symposia, 16 jointly sponsored symposia, as well as a number of special and networking events. The programming will include symposia on a wide range of exciting and emerging topics including sustainability, extreme environments, AI and ML, low dimensional materials and oxide quantum materials. These will complement the symposia that have been organized by the participating Divisions in their annual meetings and at MS&T. Please have a look at the list of the symposia below. We expect strong participation from the worldwide membership of ACerS along with the broader glass and ceramics community.

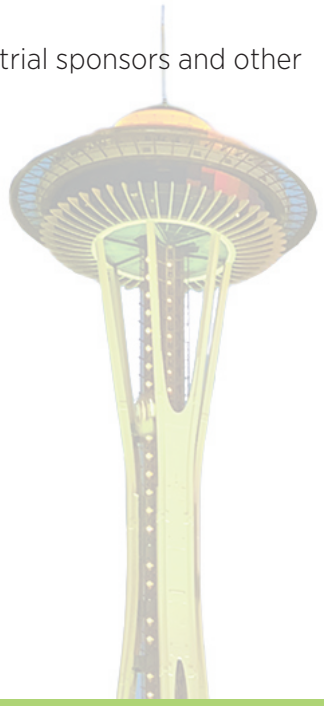
ACerS Spring Meeting 2026 will host a number of special events in conjunction with its technical program. These events welcome members of all Divisions and include the beloved "Failure: The Greatest Teacher" event, and two incredible tutorials, sponsored by the Electronics Division and the Basic Science Division. A roundtable discussion centering around the Resilience of U.S. Research will also be held. Complementing the technical programming are a number of networking and mentoring events including those for students and young professionals to engage and promote future leaders of the Divisions. **We encourage participants from all Divisions to submit abstracts to the symposium that best aligns with their research. All symposia welcome submissions from any Spring Meeting attendee, regardless of Division affiliation.**

On behalf of the organizing committee, the leaders of the participating Divisions and the staff of The American Ceramic Society, I invite you to actively participate in and contribute to this first Spring Meeting of ACerS. It will be an excellent opportunity to meet and network with friends and colleagues your and other ACerS Divisions, the broader glass and ceramics colleagues and be a part of an excellent professional meeting in a very attractive location. We look forward to welcoming you to Bellevue, Wash., in April 2026!

On behalf of the ACerS Spring Meeting organizing committee, I sincerely thank our industrial sponsors and other partners and exhibitors.



Rajendra K. Bordia
Clemson University
Program Chair,
ACerS Spring Meeting 2026



SPRING MEETING 2026
ORGANIZING COMMITTEE

Rajendra K. Bordia
Clemson University

Ming Tang
Rice University

Dong Hou
Clemson University

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North Dakota State University

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Glidewell Dental

Aiping Chen
Los Alamos National Laboratory

Reeja Jayan
Carnegie Mellon University

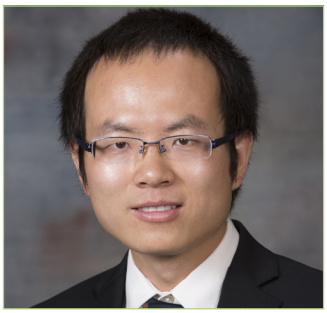
Geoff Brennecka
Colorado School of Mines

Charmayne Lonergan
Missouri S&T

Sepideh Akhbarifar
Vitreous State Laboratory/ Catholic University of America

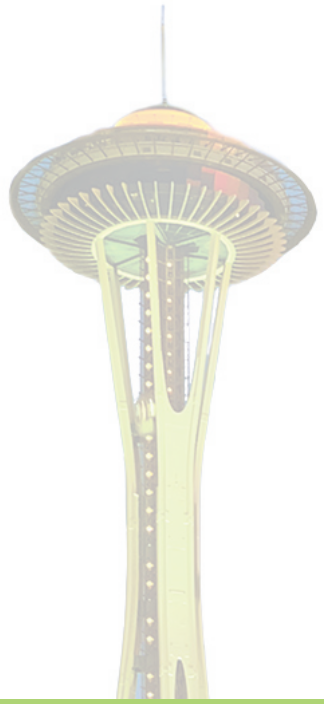
Jose Marcial
Pacific Northwest National Lab

Shiv Prakash Singh
Liaoning Academy of Materials



Bai Cui
University of Nebraska-Lincoln

Chao Ma
Arizona State University



IMPORTANT INFORMATION
SPRING MEETING 2026!

HOTEL INFORMATION

Hyatt Regency Bellevue on Seattle's Eastside

900 Bellevue Way NE
Bellevue, Washington
United States

ceramics.org/event/acers-spring-meeting/spring-meeting-hotel-travel/

ABSTRACT SUBMISSION INSTRUCTIONS

Submit your abstract by December 1, 2025:

springmeeting2026.abstractcentral.com

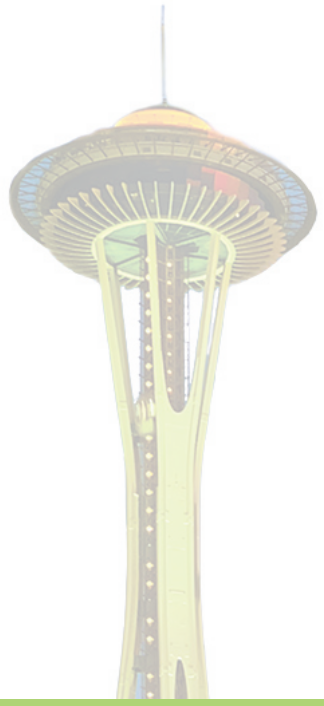
If you have questions, please contact:

Karen McCurdy
at kmccurdy@ceramics.org

NOTE TO PRESENTERS

It is unavoidable that some symposia and presentations will be scheduled for the last day of the conference. Please refrain from making flight reservations or travel arrangements until your presentation has been scheduled. If you are unable to present on your assigned day, ACerS cannot guarantee we will be able to reschedule your presentation. Special requests for specific presentation times and dates are discouraged.

Due to costs associated with hosting a professional scientific conference, ACerS does not offer complimentary or discounted registration for this meeting. All attendees, to include our invited speakers and students, are expected to register for the event through our registration system at the appropriate rate. All student attendees will be asked to show valid student id to retrieve their badges on site.



SPRING MEETING 2026!
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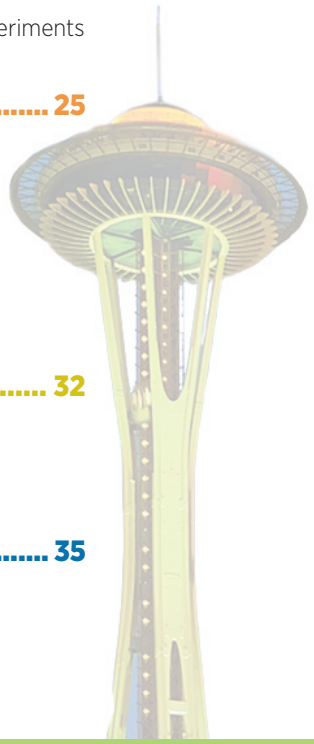


SYMPOSIUM 1:

Emerging Frontiers in Glasses and Ceramics

Organized by All Participating Divisions

This special symposium focuses on the recent advances for glasses and ceramics that highlight material design and characterization especially for the emerging new technologies such as quantum computation, new telecommunication systems and semiconductors. The speakers for this session will be by invitation only.

Symposium Organizer(s)

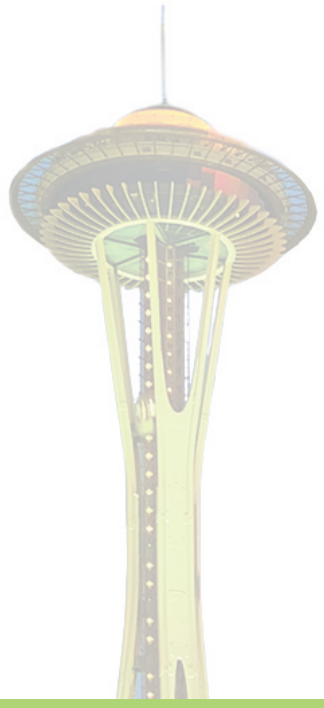
- Charmayne Lonergan, Missouri University of Science and Technology, USA
- Jessica Rimsza, Sandia National Lab, USA
- Bai Cui, University of Nebraska-Lincoln, USA
- Geoff Brennecka, Colorado School of Mines, USA
- Shiv Prakash Singh, Liaoning Academy of Materials, China

Point(s) of Contact

- Charmayne Lonergan; clonergan@mst.edu
- Jessica Rimsza; jrimsza@sandia.gov

Symposium Sponsor(s)

- All Participating Divisions



SYMPOSIUM 2:

Outreach and Engagement: STE(A)M Outreach, Education, Engagement and Retention

Organized by All Participating Divisions

Participants in this symposium will highlight efforts related to awareness and interest in science, technology, engineering, art, and mathematics [STE(A)M] topics as well as approaches for educating and retaining the next generation of STE(A)M individuals in Glass/Ceramics research. Work that reaches one's country and/or a global audience is highly encouraged. Additional topics covered may include any pursuit that focuses on underrepresented and/or low-income communities and/or engagements in research with an emphasis on energy equity or environmental justice. Presentations should focus on outreach activities related to glass or ceramics-related topics, including exploration of STE(A)M essentials and best practices for developing and disseminating activities and tools to prepare students for technical careers; supporting K–12 STEM programs through outreach to teachers and schools; development of curricula and/or courses to support STE(A)M in schools and universities; and the importance of addressing the imminent gap in a qualified STE(A)M workforce.

Proposed Session Topics

- K-12 STE(A)M outreach
- Workforce development
- Researcher engagement and retention
- Community/global outreach and engagement

Symposium Organizer(s)

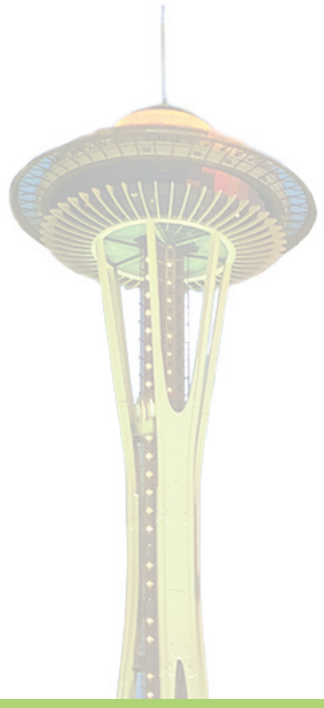
- Charmayne Lonergan, Missouri University of Science and Technology, USA
- Casey Schwarz, Ursinus College, USA
- Amanda Engen, The American Ceramic Society, USA
- Kathryn Goetschius, Corning Inc., USA

Point(s) of Contact

- Charmayne Lonergan; clonergan@mst.edu
- Casey Schwarz; cschwarz@ursinus.edu

Symposium Sponsor(s)

- All Participating Divisions



SYMPOSIUM 3:

Sustainable Horizons: A Recurring Symposium on Collective Action for a Resilient Future

Organized by All Participating Divisions

In a time when sustainability and climate decisions shape our future, scientists and engineers must go beyond technological advancements to act as stewards of our planet. This symposium explores how professional organizations and educators can drive meaningful solutions. A key initiative, the International Alliance of Societies for a Sustainable Future (SFS Alliance), led by The American Ceramic Society (ACerS) and other societies, fosters global collaboration for sustainability. This event marks a significant step in ACerS' commitment to this alliance. Unlike conventional technical programs, this symposium serves as a dynamic forum for exchanging ideas, sharing impactful initiatives, and gaining feedback from like-minded professionals. Attendees will explore diverse approaches adopted by institutions and professional societies, learning how to integrate sustainability into their work. By fostering discussion and collaboration, this symposium empowers participants to contribute effectively to a more sustainable future, reinforcing the collective responsibility we share in addressing climate and environmental challenges.

Proposed Session Topics

- Teaching sustainability in university courses: Exploring methodologies for incorporating sustainability principles into higher education curricula
- Outreach to K-12 educators and the general public: Discussing strategies to disseminate knowledge on sustainability to a broader audience, including K-12 educators and the general public
- Sustainability of professional societies and conferences: Addressing the integration of sustainable practices within the operations of professional societies and conferences
- Socio-ecological transformation and the role of individuals and societies: Examining the societal and individual roles in driving socio-ecological transformation towards sustainability
- Sustainability in the workplace from industry to university laboratories: Exploring sustainable practices across diverse work environments, from industry settings to university laboratories
- Other topics in the spirit of the broad approach: Encouraging presentations on a wide array of topics that align with the overarching theme of sustainability

Symposium Organizer(s)

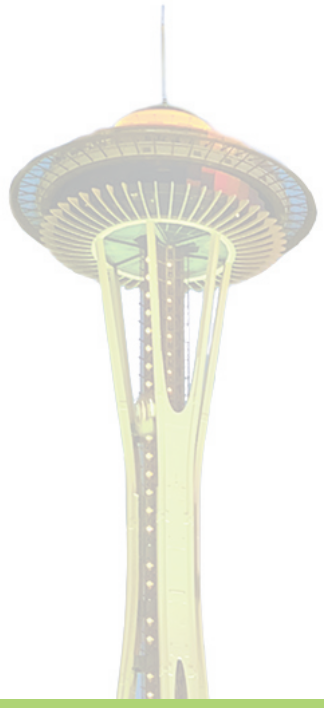
- Alp Sehirlioglu, Case Western Reserve University, USA
- Jürgen Rödel, Technische Universität Darmstadt, Germany
- Rishabh Kundu, Case Western Reserve University, USA

Point(s) of Contact

- Alp Sehirlioglu; axs461@case.edu

Symposium Sponsor(s)

- All Participating Divisions



SYMPOSIUM 4:

Frontiers in Low Dimension Ferroic Oxides

Organized by BSD and ED

Ferroic oxides exhibit rich physics and great potential for applications in next-generation devices. Significant research efforts over the past decades have created unprecedented advances in the study of these materials. Recent breakthroughs in materials synthesis, characterization, theory and modeling, and device fabrication have led to emerging materials in the form of thin films, heterostructures, and nanomembranes, as well as emergent phenomena, including but not limited to exotic topological structures, magnetoelectronics and quantum magnetism. These advancements have attracted worldwide interest and opened up a new era toward understanding fundamental ferroic phenomena. This symposium will focus on interdisciplinary topics related to physics, materials science, and engineering within the field of ferroic oxides.

Proposed Sessions/Topics

- Epitaxial synthesis of ferroic oxide thin films, heterostructures, and membranes
- Multiscale theory and modeling of ferroicity
- Topological polar textures
- Electrical control of magnetism and spin textures
- Heavy transition metal oxides
- Spin-orbit electronics
- Altermagnetism

Symposium Organizer(s)

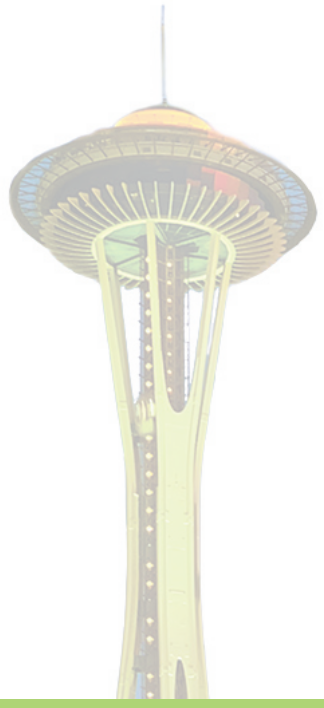
- Ruijuan Xu, North Carolina State University, USA
- Jian Liu, University of Tennessee, USA
- Yu-Tsun Shao, University of Southern California, USA
- Gang Cao, University of Colorado Boulder, USA

Point(s) of Contact

- Ruijuan Xu; rxu22@ncsu.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 5:

Oxide Quantum Materials

Organized by BSD and ED

The interplay between charge, spin, orbital, and lattice in strongly correlated oxide materials leads to a plethora of implications in both scientific research and technological applications. Emergent phenomena in oxide quantum materials, exhibited across a diverse array of material forms, offer novel functional properties of ceramics that extend beyond conventional electronic applications. This symposium covers recent advances in the synthesis and characterization of oxide quantum materials, encompassing thin film heterostructures, bulk crystals, membranes, and nanomaterials. Topics of interest include epitaxial growth of complex oxides, exploration of new materials, investigation of quantum/electronic/magnetic properties, advanced characterization techniques, and device applications.

This symposium aims to bring together scientific experts and young scientists with an interest in oxides, fostering interactions and advancing knowledge of emergent functional properties and related hardware concepts for unconventional computing.

Proposed Sessions/Topics

- Emergent quantum properties at oxide interfaces
- Unconventional superconductivities in oxides
- Oxide materials for unconventional computing devices
- Characterization of oxide quantum materials
- Epitaxial design of novel oxide quantum materials
- Synthesis and characterization of freestanding oxide membranes

Symposium Organizer(s)

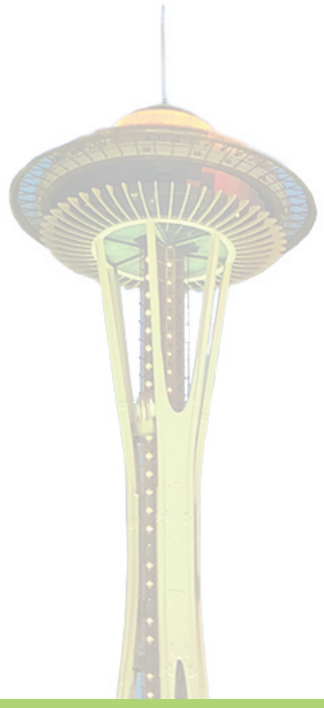
- Seung Sae Hong, University of California, Davis, USA
- Jennifer Fowlie, Northwestern University, USA
- Ho Nyung Lee, Oak Ridge National Laboratory, USA
- Elizabeth Nowadnick, University of California, Merced, USA

Point(s) of Contact

- Seung Sae Hong; sshong@ucdavis.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 6:

Complex Oxide Thin Films and Heterostructures

Organized by BSD and ED

This symposium aims to showcase cutting-edge advances in the synthesis of complex oxide thin films, heterostructures, superlattices, and nanocomposites. Contributions that connect strain, defect engineering, and interfacial control to structure and property trends are of particular interest, as are those which link theoretical/computational and experimental efforts. The use of AI-driven autonomous synthesis and machine learning–accelerated data analysis to advance complex oxide thin film research are also strongly encouraged. The goal of this symposium is to bring together international and interdisciplinary researchers with an interest in epitaxial thin films to exchange ideas and foster collaboration. The topics listed for this symposium reflect the needs and opportunities of strongly correlated oxide thin films towards the applications in energy, memory and electrocatalysis.

Proposed Sessions/Topics

- Synthesis of complex oxide thin films, superlattices, and nanocomposites
- Strain, defect, and interface engineering
- High-entropy and metastable oxide thin films
- In situ and operando characterization: probing growth mechanisms, defect dynamics, and related functionalities
- Theory and modeling of complex oxides: from strain and interface control to defect chemistry and electronic structure
- AI-driven autonomous synthesis and machine learning-accelerated data analysis focused on complex oxide thin film growth and characterization

Symposium Organizer(s)

- Le Wang, Pacific Northwest National Laboratory, USA
- Sundar Kunwar, Los Alamos National Laboratory, USA
- Jon-Paul Maria, The Pennsylvania State University, USA
- James Rondinelli, Northwestern University, USA
- Judith L. MacManus-Driscoll, University of Cambridge, UK
- Elizabeth Paisley, Sandia National Laboratories, USA
- Hyoungjeen Jeen, Pusan National University, Korea
- Weiwei Li, Nanjing University of Aeronautics and Astronautics, China

Point(s) of Contact

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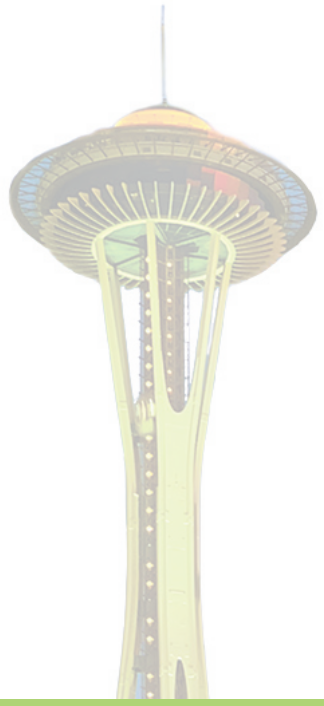
Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 7:

In Situ/Operando Characterization of Nanomaterials

Organized by BSD and ED

The advancement of new technologies in recent decades has enabled a variety of in situ and operando techniques to study materials behavior and nanostructure evolution in real time. External stimuli can take on many forms, including heating or cooling, mechanical stress, light exposure, electric and/or magnetic fields, reactive gas or liquid environments, and ion irradiation. By capturing real-time materials evolution under external stimulus, we can understand functionality and device operation mechanisms fundamentally in their proposed working environments, which facilitates breakthroughs needed for the development of novel materials systems and devices for future technological applications.

This symposium focuses on recent progress and development of in situ and operando characterization methods to understand functional and structural materials and devices. These techniques use photon, electron, neutron, and X-ray probes to investigate materials and devices, including but not limited to transmission electron microscopy, synchrotron X-ray and neutron diffraction/reflectivity, atomic force microscopy, and optical probes.

Proposed Sessions/Topics

- In situ/operando study of advanced functional materials, including transition metal oxides, transition metal dichalcogenides, halide perovskites, etc.
- In situ/operando study of electronic materials such as Mott insulators, dielectrics, ionics, ferroics, semiconductors, superconductors, etc.
- Operando study of device properties, including batteries, fuel cells, solar cells, memristors, memory devices and others
- In situ study of nanocatalysts in reactive environments
- Real-time investigation of mechanical properties in structural materials
- Advances in operando/in situ characterization methods related to electron, X-ray, and neutron techniques

Symposium Organizer(s)

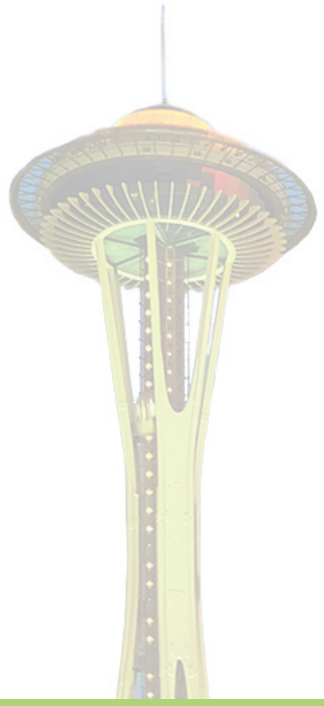
- Katherine Harmon, Stanford University, USA
- Di Zhang, University of Texas at Arlington, USA
- Alessandro Mazza, Los Alamos National Laboratory, USA
- Hao Zheng, Argonne National Laboratory, USA

Point(s) of Contact

- Katherine Harmon; kharmon@stanford.edu
- Di Zhang; di.zhang@uta.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 8:

Nano4Neuro 3: Materials Advances for Analogue, Neuromorphic and Post-Moore Computing Paradigms

Organized by BSD and ED

The rapid development of new ideas for neuromorphic, reservoir, thermal, optical computing raises new challenges and opportunities for materials, devices and integration technologies. We seek to connect diverse audiences from academia, industry and national laboratories with expertise in computing paradigms, materials theory and design, device measurements, advanced characterization, and AI/ML to outline the fundamental mechanisms of energy and information transduction in material systems, address open questions and challenges in computing materials and architectures, and advance emerging application areas where new computing will complement and expand existing technologies. Particular attention will be drawn to synergy among synthesis, theory, modeling and characterization that can bridge the multiplicity of energy, time and length-scales involved in computation, and enable accelerated adoption of new material systems for future information technologies.

Proposed Sessions/Topics

- Phase transitions in 2D materials and devices
- Heterogeneous and monolithic integration
- CMOS compatible ferroelectric materials and devices
- Fundamental materials needs for emerging computing paradigms
- Electrochemical and reservoir memory and computing devices
- Scalable modeling and computation for analogue and neuromorphic computing applications of machine learning in device modeling and characterization
- Materials research in national microelectronics centers
- Advanced characterization techniques

Symposium Organizer(s)

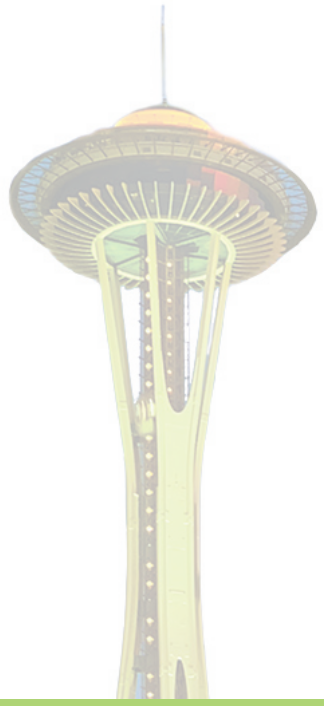
- Petro Maksymovych, Clemson University, USA
- Karsten Beckmann, NY-CREATES, USA
- Aiping Chen, Los Alamos National Laboratory, USA

Point(s) of Contact

- Petro Maksymovych; p.maksym@clemson.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 9:

From Atoms to Applications of Wurtzite and Other Emerging Ferroelectrics

Organized by BSD and ED

Ferroelectric materials have shown promise in a variety of fields, including data storage, transducers, and optoelectronics. This symposium will explore the fundamental science and applications of wurtzite and other emerging ferroelectrics, with a focus on bridging atomic-scale properties to devices. Sessions will explore the latest developments in the synthesis, characterization, and computational modeling of these materials. The symposium will welcome experimental and computational contributions, including the use of data-driven and machine-learning approaches to discover and design new wurtzite ferroelectrics. The symposium will delve into the switching mechanisms of these materials, examining how defects, interfaces, and synthesis methods influence their ferroelectric properties. Discussions will focus on the atomic- to device-scale design of wurtzite ferroelectrics with an emphasis on integration and co-design.

Proposed Sessions/Topics

- Domain walls and switching mechanisms
- Defects and disorder in emerging ferroelectrics
- Interfaces and heterostructures
- Emerging ferroelectric materials beyond wurtzites and fluorites

Symposium Organizer(s)

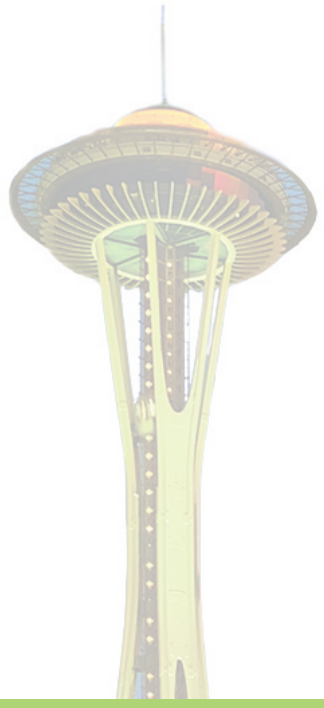
- Prashun Gorai, Rensselaer Polytechnic Institute, USA
- Geoff Brennecka, Colorado School of Mines, USA
- Simon Fichtner, Kiel University, Germany

Point(s) of Contact

- Prashun Gorai; goraip@rpi.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 10:

Extreme Environment Microelectronics Materials and Devices

Organized by BSD and ED

This symposium focuses on recent advances and developments in materials and devices for extreme environments. Topics of interest include materials and devices for memory and data storage, power electronics, optoelectronics, and detectors for extreme environments that include temperature, pressure, radiation, and chemical stress factors. Contributions that connect material process/structure to device performance are of particular interest.

Broad areas of interest include: modeling and simulation to predict device degradation, studies on the role of defects and interfaces in extreme environments, synthesis and fabrication process for environmentally resilient integration. Specific application areas of interest are memory and data storage devices, neuromorphic devices, power electronic devices, and detectors.

Proposed Sessions/Topics

- Defects and interfaces in extreme environments
- Synthesis, fabrication, and characterization of extreme environment devices
- Application-driven properties at high temperature (e.g. non-volatile memory, piezoelectric actuators, power devices, sensors, etc.)
- Optoelectronics and detectors in radiation-heavy environments
- Modeling and prediction of properties and degradation in extreme environments

Symposium Organizer(s)

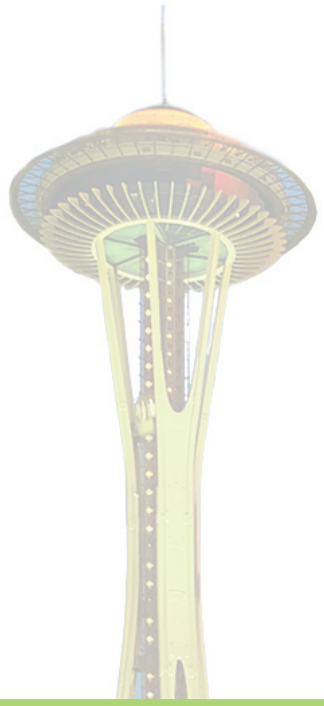
- Brooks Tellekamp, National Renewable Energy Laboratory, USA
- Kei Yazawa, Colorado School of Mines, USA
- Alexey Drobizhev, Lawrence Berkeley National Laboratory, USA

Point(s) of Contact

- Brooks Tellekamp; brooks.tellekamp@nrel.gov

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 11:

Characterization of Structure–Property Relationships in Functional Ceramics

Organized by BSD and ED

Probing structure–property relationships in functional ceramics demands integrated approaches combining complementary experimental probes (e.g., light, X-ray, electron, neutron) with theory and simulation. Spatially and temporally resolved multiscale state-of-the-art scattering, imaging, and/or spectroscopy techniques can capture the dynamic material structure, composition and microstructure under external stimuli (e.g., electric/magnetic and stress/strain fields), which are necessary to answer open questions in this field.

This symposium bridges the Basic Science and Electronics Divisions, focusing on rapidly developing experimental and computational-imaging techniques, big-data analysis, and modeling approaches, to answer open structure–property relationship questions in functional ceramics, and demonstrate use cases of these methods.

The symposium will demonstrate new characterization techniques and stimulate new research questions and collaborations. Methods for approaching challenging problems spanning from functional interfaces to structural ordering will be featured. Contributions integrating novel applications of computational tools to predict and interpret scattering, diffraction, and microscopy data (e.g., ptychography, molecular dynamics) are encouraged.

Proposed Sessions/Topics

- Advances in scattering, imaging, and analytical techniques
- Integrating computational-imaging techniques and machine-learning into the structural measurement workflow
- Advances in connecting local and global structure to properties
- Addressing open questions in functional ceramics

Symposium Organizer(s)

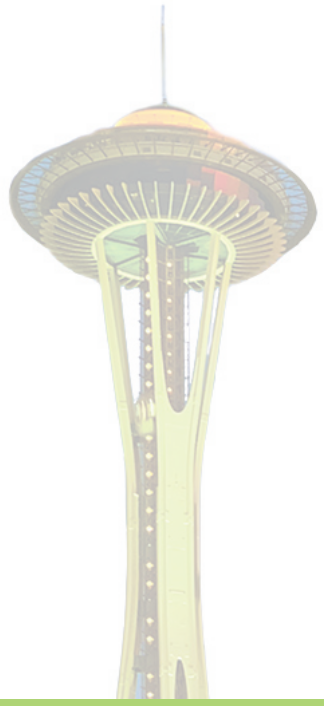
- Hadas Sternlicht, The Pennsylvania State University, USA
- Christopher Fancher, Oak Ridge National Laboratory, USA
- James LeBeau, Massachusetts Institute of Technology, USA
- Igor Levin, National Institute of Science and Technology, USA
- Mehmet Gulgun, Sabancı University, Turkey
- Megan Holtz, Colorado School of Mines, USA
- Robert Hovden, University of Michigan, USA
- Steven Spurgeon, National Renewable Energy Laboratory, USA

Point(s) of Contact

- Hadas Sternlicht; hsternlicht@psu.edu
- Christopher Fancher; fanchercm@ornl.gov

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 12:

Electronic and Ionic Materials in Energy Storage and Conversion Systems

Organized by BSD and ED

The continued advance of energy systems hinges on the scientifically informed innovation of key electronic and ionic materials across the entire energy storage and generation system assembly. Understanding the fundamental materials properties and dynamic, multiscale electrochemical phenomena that govern performance is key to the innovation and design of the next generation of safe, cost-effective, and high-performance energy storage and conversion systems. Abstracts are solicited that describe innovative electronic and ionic materials advances for a wide range of applications, including but not limited lithium-ion, beyond lithium-ion (e.g., sodium, zinc, potassium, magnesium, calcium), redox flow, metal-air, and solid-state batteries, solid-state fuel cells, and other emerging systems. We are interested in fundamental experimental investigations of electronic and ionic phenomena, computational modeling and predictions of materials behavior, advanced characterization techniques, and assessments of energy storage system performance.

Proposed Sessions/Topics

- Electrodes (anodes and cathodes)
- Interfaces
- Current collectors/electrode supports
- Next-generation electrolytes (including solid-state)
- Separators

Symposium Organizer(s)

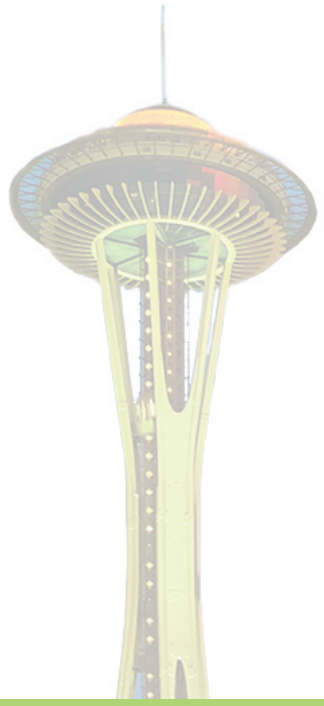
- Hui (Claire) Xiong, Boise State University, USA
- Hua Zhou, Argonne National Lab, USA
- Nicola Perry, University of Illinois Urbana-Champaign, USA
- Ming Tang, Rice University, USA
- Yiyang Li, University of Michigan, USA

Point(s) of Contact

- Hui (Claire) Xiong; clairexiong@boisestate.edu

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 13:

Defects and Transport in Ceramics

Organized by BSD and ED

This symposium highlights experimental and computational research aimed at understanding point defect equilibria and kinetics in ceramic materials. Defect chemistry governs conductivity and impacts interfacial reaction kinetics in electronic, ionic, and mixed-conducting ceramics. These materials are important for numerous applications, including solid-state batteries, memristors, dielectrics, solid oxide fuel/electrolysis cells, catalysts, and sensors. Many operate under extreme electrochemical conditions to gain higher energy, power density, and novel properties. In addition, defect transport is intimately related to microstructure evolution and many material degradation phenomena. We encourage symposium contributions that help establish a greater understanding of our ability to predict, design, and control defects to enhance ceramic properties and performance, including under extreme far-from-equilibrium conditions. This symposium furthermore includes the influence of dislocations and grain boundaries as higher-dimensional defects.

Proposed Sessions/Topics

- Predictive bulk and interfacial point defect energetics and equilibria from density functional theory, molecular dynamics, and other computational methods
- Structure, stability, and concentration of defects and defect complexes via in situ and ex situ measurement (e.g., EPR, TSDC, EXAFS, STEM, Positron)
- Defect-mediated transport & reaction kinetics, including concerted/cooperative effects, via advanced in situ and ex situ measurement (e.g., QENS, NMR, isotope-APT, Raman)
- High-throughput, screening, and combinatorial methods applied to the study of defect equilibria and point defect-mediated properties
- Point defect segregation to or depletion from dislocations, surfaces, grain boundaries, and interfaces
- Defect mobility and transport behavior, including under operando or in extreme environments (e.g., temperature, chemical reactions, stress, high E-fields, irradiation)
- Defect-mediated properties (e.g., conductivity, surface oxygen or proton exchange kinetics, optical absorption, grain growth, creep, magnetism, ferroelectric imprint, dielectric degradation)
- Impact of dislocations and grain boundaries on ceramic functional properties

Symposium Organizer(s)

- Xin Xu, Arizona State University, USA
- Yanhao Dong, Tsinghua University, China
- Till Frömling, Technical University of Darmstadt, Germany
- Tiffany Kaspar, Pacific Northwest National Laboratory, USA
- Nicola Perry, University of Illinois Urbana-Champaign, USA

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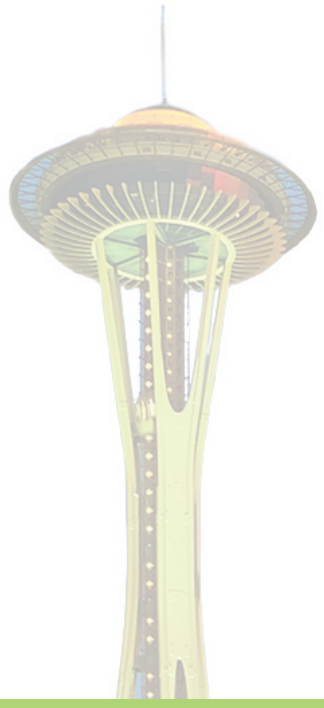
- Yanhao Dong; dongyanhao@tsinghua.edu.cn

Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 14:

AI/ML-Driven Discovery, Manufacturing, and Characterizations

Organized by BSD, ED, and MD

This symposium is designed to offer a platform for researchers to share insights into the integration of artificial intelligence (AI), machine learning (ML), and data science methodologies across various aspects of scientific research, including materials synthesis, device fabrication, characterization, advanced manufacturing, and stability and lifetime assessment. The symposium will explore a diverse range of AI/ML applications, including predictive modeling, classification, autonomous experimentation, AI-guided online monitoring and quality control, and human-AI collaboration. The symposium will foster an interdisciplinary exchange of ideas related to AI/ML among different ACerS divisions and by bridging expertise across disciplines, this symposium will drive forward the development of AI/ML-based frameworks for ceramics and glasses, fostering collaboration and accelerating innovation.

Proposed Sessions/Topics

- Predictive modeling of material properties, device performance, and product lifetime
- Materials informatics and high-throughput experimentation
- AI-guided approaches for material discovery and design
- AI-guided defect detection, online monitoring, and quality control for advanced manufacturing
- AI-driven process optimization
- AI-assisted process monitoring and quality assurance
- Defect analysis, degradation modeling, and failure prediction using AI
- Autonomous experimentation
- AI-enhanced spectroscopic and microscopic techniques

Symposium Organizer(s)

- Yongtao Liu Oak Ridge National Laboratory, USA
- Fei Peng, Clemson University, USA
- Bai Cui, University of Nebraska-Lincoln, USA
- Aiping Chen, Los Alamos National Laboratory, USA
- Davi Febba, National Renewable Energy Laboratory, USA

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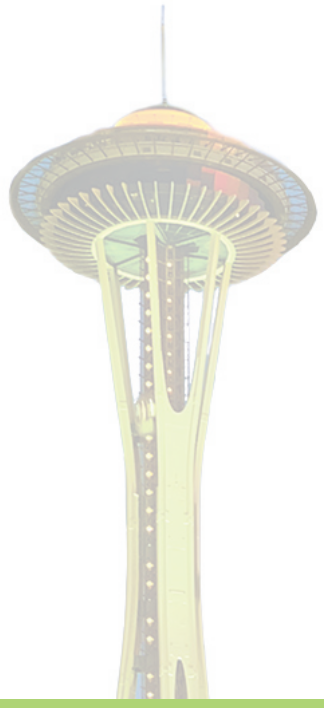
Symposium Sponsor(s)

- Basic Science Division
- Electronics Division
- Manufacturing Division



SYMPOSIUM 15:

Ceramic and Composite Materials and Systems for a Sustainable and Resilient Energy Future

Organized by BSD, EMSD, and MD

The symposium aims to cover the role of ceramic and composite material systems in advancing next-generation technologies for energy efficiency, emissions reduction, and industrial innovation. Despite tremendous progress in the innovation of new materials, systems, and technologies, many challenges remain in achieving enhanced energy security and industrial competitiveness while supporting cleaner and more efficient processes. Technical communities will collaborate to advance ceramic and composite materials, components, processes, and systems that will strengthen the energy sector, optimize resource use, and develop practical solutions for emissions control and carbon management. Challenges related to material systems, integration with energy and industrial platforms, performance under demanding conditions, and long-term durability will be discussed along with future research and development directions.

Proposed Sessions/Topics

- General perspectives of a sustainable and resilient energy future
- Advances in industrial processes and manufacturing technologies for reducing emissions and improving efficiency
- Role of ceramic and composite material systems in industrial optimization, emissions reduction, and energy system resilience
- Ceramic/composite materials and components for various technologies, including electrochemical methods, for gas separation, carbon management, and emissions mitigation
- Ceramics and composites for energy production, refining, and chemical processing
- Role of ceramic processing for carbon dioxide mineralization and utilization
- Ceramic materials and processes in various infrastructures, including buildings and pavements, for carbon capture and conversion
- Degradation and corrosion issues of materials and components for industrial and environmental applications
- Materials and processing issues for carbon dioxide mineralization and utilization
- Circular economy of ceramic materials and their role in resource efficiency and lifecycle extension
- Ceramic materials and technology for reduction of other pollutant gases such as SOX and NOX
- Innovation of new ceramic materials systems, novel processing and manufacturing techniques to overcome current technical challenges
- Manufacturing and process control of battery-grade ceramics and composites
- Recycling, sustainability, safety and reliability for energy material and systems
- Advances in characterization tools and property evaluation techniques relevant to emission mitigating technologies
- Advances in computational methods, data science, and theoretical approaches for predictive design of high performance, stable materials and components to address industrial sustainability challenges
- Perspectives for future R&D directions including multi-scale modeling, long-term durability, and accelerated deployment
- Technoeconomic analysis, safety issues, codes, and standards for scalable ceramic and composite solutions

Symposium Organizer(s)

- Manoj Mahapatra, University of Alabama, Birmingham, USA
- John S. Hardy, Pacific Northwest National Laboratory, USA
- Edgar Lara-Curzio, Oak Ridge National Laboratory, USA
- James G. Hemrick, Oak Ridge National Laboratory, USA
- Jorgen F. Rufner, Idaho National Laboratory, USA
- Sepideh Akhbarifar, The Catholic University of America, USA
- Tianyu Zhu, Clemson University, USA
- Dong Hou, Clemson University, USA

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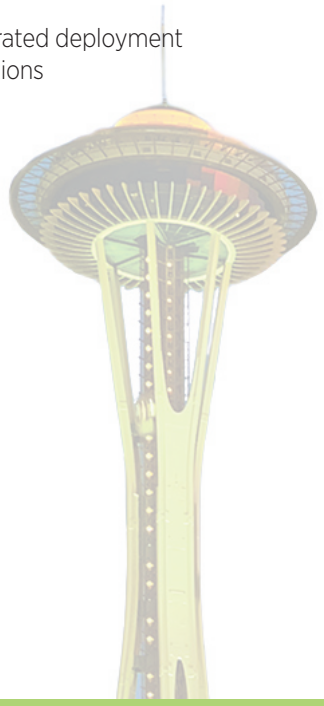
Symposium Sponsor(s)

- Basic Science Division
- Energy Materials and Systems Division
- Manufacturing Division



SYMPOSIUM 16:

Advanced Manufacturing and Processing of Ceramic Materials

Organized by MD, ED, and GOMD

Processing and manufacturing routes control the microstructure and properties of advanced structural and functional ceramic materials. Almost all stages during the manufacturing of ceramics have some effects on the mechanical, electrical, and optical properties of ceramic products. Some of the manufacturing variables may include the purity and particle size of the starting powders, mixing and milling of powders, and the consolidation process, which may influence the microstructural formation, such as the phase transformation, grain growth, porosity, defects, and residual stress in ceramics.
This symposium seeks technical presentations related to experimental and modeling studies of various processes related to the synthesis, sintering, casting, additive manufacturing, machining, welding, and surface engineering of ceramic materials.

Proposed Sessions/Topics

- Synthesis of ceramic powders, such as sol-gel, molten salt, hydrothermal synthesis
- Preparation of ceramic powders, such as mixing, milling, and consolidation
- Sintering of ceramics, including spark plasma sintering, microwave sintering, flash sintering, cold sintering, laser sintering, etc.
- Welding and joining methods for ceramics
- Machining of ceramics, such as laser drilling and cutting, etc.
- Surface engineering of ceramics, including coating, shot peening, laser peening, etc.
- Multiscale models and/or in situ experimental methods to understand the processing mechanisms in ceramics

Symposium Organizer(s)

- Bai Cui, University of Nebraska-Lincoln, USA
- William Headrick, RHI Magnesita, USA
- James Hemrick, Oak Ridge National Laboratory, USA
- Reeja Jayan, Carnegie Mellon University, USA
- Kathryn Goetschius, Corning Inc., USA
- Eric J. Faierson, Iowa State University, USA
- Keith DeCarlo, Blasch Precision Ceramics, Inc., USA
- Max Modugno, Oak Ridge National Lab, USA

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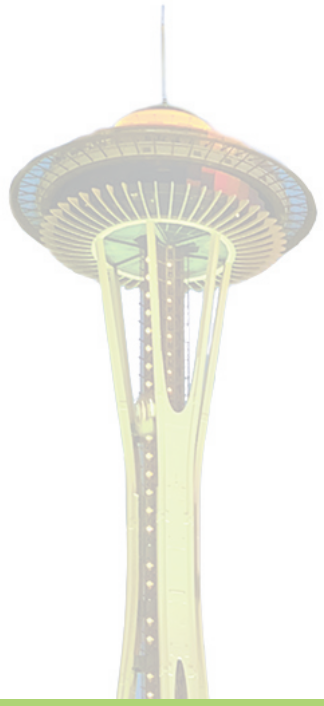
Symposium Sponsor(s)

- Manufacturing Division
- Electronics Division
- Glass and Optical Materials Division



SYMPOSIUM 17:

Ceramics for the Hydrogen Economy

Organized by BSD and ED

The transition to a sustainable, hydrogen-based economy is a critical global challenge that requires innovative solutions across various sectors. Ceramics have emerged as promising materials for enabling and advancing the hydrogen economy. However, applications like solid oxide fuel cells (SOFC) and electrolyzers (SOEC) are still far from being established technologies. There is still a high demand for new ceramic materials and in-depth investigations of their physical properties. Therefore, this symposium aims to bring together leading researchers working on ceramics for hydrogen technologies.

The symposium will provide a unique platform for us to delve into the diverse applications of ceramics in the hydrogen economy, including hydrogen production, storage, and fuel cell technologies. Furthermore, alternative fuel production from hydrogen, such as ammonia and e-fuels, is the focus. This is an exciting opportunity for us to collectively contribute to the advancement of ceramics in the hydrogen economy.

Proposed Sessions/Topics

- High-performance ceramic materials for hydrogen production
- Ceramic components for hydrogen fuel cells, including electrolytes, electrodes, and sealants
- Proton-conducting membranes
- Ceramic processing and manufacturing techniques for hydrogen applications
- Decreasing the application temperature for electrolyzers and fuel cells
- Mechanical properties of fuel cell and electrolyzer material
- Sustainability and life-cycle analysis of ceramic-based hydrogen technologies

Symposium Organizer(s)

- Till Frömling, Forschungszentrum Juelich, Germany
- Ming Li, University of Nottingham, UK

Point(s) of Contact

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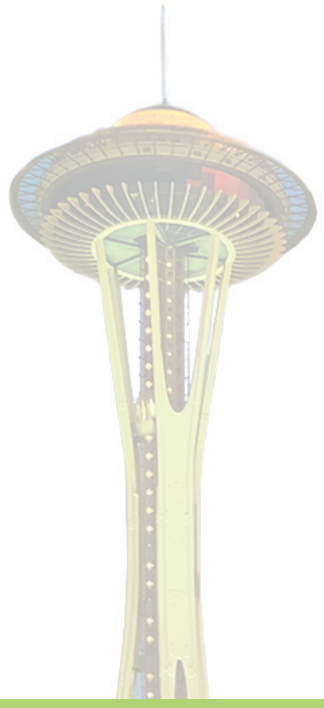
Symposium Sponsor(s)

- Basic Science Division
- Electronics Division



SYMPOSIUM 18:

New Frontiers in Additive Manufacturing of Ceramic Materials

Organized by MD, BSD, BIO, and GOMD

Additive manufacturing (AM, or 3D printing) has emerged as novel ceramic manufacturing processes with the advantages of design freedom, flexibility, high customization, and waste minimization. Various AM processes have been developed for structural and functional ceramic materials, including binder jetting, stereolithography, ink jet printing, selective laser sintering, fused deposition modeling, which have provided new opportunities to overcome the limitations of traditional ceramic manufacturing processes, such as the long processing time and difficulty to fabricate structures with complex geometries.
With the recent advances in powder processing, in situ process monitoring, in situ and ex situ characterization tools, nondestructive evaluation and testing, qualification and certification, we will develop a better understanding of the physical mechanisms controlling the unique microstructures, defect formation, and physical and chemical properties of additively manufactured ceramics.

This symposium also provides a forum for exchanging and discussing current issues and trends in AM of glasses, recent theoretical and experimental advances in the processing and characterization of 3D-printed glasses for biomedical, optical, architectural, functional, and artistic applications, and emerging technological applications of 3D-printed glasses.

Proposed Sessions/Topics

- New approaches for AM processes of ceramics and ceramic-matrix composites
- Novel techniques to prepare ceramic powders for AM
- Multiscale computational modeling and data-driven process optimization
- In situ and ex situ characterization of phase transformation, textures, defects, etc., using synchrotron X-ray, neutron diffraction, electron microscopy
- Mechanical, thermal, electrical, magnetic, and optical properties
- New applications of additively manufactured ceramics

Symposium Organizer(s)

- Bai Cui, University of Nebraska-Lincoln, USA
- Fei Peng, Clemson University, USA
- Chao Ma, Arizona State University, USA
- Kalpana S. Katti, North Dakota State University, USA
- Joel Destino, Creighton University, USA

Point(s) of Contact

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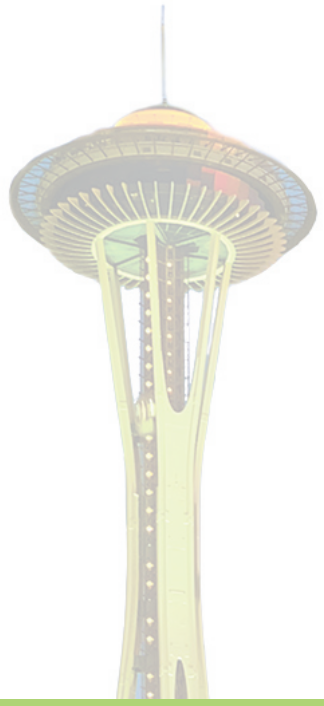
Symposium Sponsor(s)

- Manufacturing Division
- Basic Science Division
- Bioceramics Division
- Glass and Optical Materials Division



SYMPOSIUM 19:

Glass and Interactions with its Environment - Fundamentals and Applications

Organized by GOMD and EMSD

This symposium is dedicated to fundamentals and applications of how glass is used in contact with specific environments, e.g., with the human body, how glass surface and interfaces evolve or can be modified in different environments, and how glass can be used to contain other materials and prevent their release in the environment.

Topics in this symposium will address new developments and innovative applications in materials and materials processing methods for the immobilization of nuclear and hazardous wastes. Progress in the processing and testing of materials for immobilization is critical to the efficient treatment and safe disposition of nuclear wastes around the world. This symposium will focus on synthesis, characterization, testing, and modeling techniques that facilitate waste form design and provide quantitative descriptions of waste form behavior. Materials of interest may include glass, ceramics, glass-ceramics, and other composite matrices.

This symposium will cover the recent progress in understanding the structure and properties of glassy materials exposed to non-ambient conditions, such as high pressure, low/high temperature, high stress, high radiation, humid environments, etc. These conditions are relevant to many glass manufacturing processes and knowledge of the relationships between composition, processing, structure, and properties can help design the next generation of functional glasses. Experimental studies, novel in situ analysis methods, and computational approaches are within the scope of this symposium.

Proposed Sessions/Topics

- Glass surfaces and interfacial interactions
- Glass under non-ambient conditions
- Materials for waste immobilization
- Glasses, glass-ceramics, and other biomaterials

Symposium Organizer(s)

- Nick Smith, Corning Inc., USA
- James Neeway, Pacific Northwest National Laboratory, USA
- Maziar Montazerian, The Pennsylvania State University, USA
- Charmayne Lonergan, Missouri University of Science and Technology, USA

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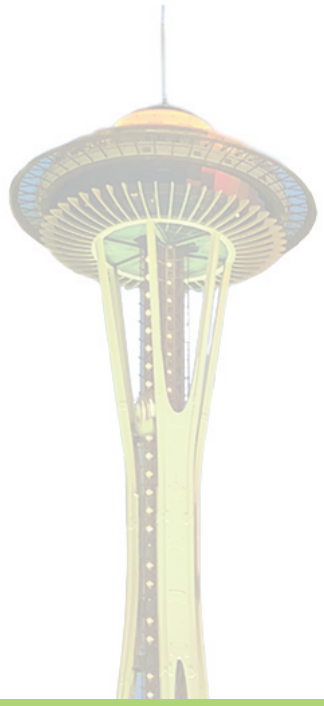
Symposium Sponsor(s)

- Glass and Optical Materials Division
- Energy Materials and Systems Division



SYMPOSIUM 20:

Symposium to Honor W. Craig Carter

Organized by BSD

This symposium will celebrate Professor W. Craig Carter's outstanding contributions to fundamental and applied materials science, materials science education, and his legacy of collaboration and mentorship, on the occasion of his 65th birthday. Invited speakers will showcase the breadth of his influence and contributions to fields such as microstructural evolution, interfacial thermodynamics and kinetics, electrochemistry, and mathematical methods in materials science. Contributed talks by students and postdocs will celebrate his championing of early career researchers.

Craig Carter received his PhD from UC Berkeley in 1989, worked briefly at Rockwell International, and was Research Scientist at NIST until 1998 when he joined the Department of Materials Science and Engineering at MIT. He is co-founder of M24 battery company. He is a Fellow of The American Ceramic Society, recipient of the Robert L. Coble, the Ross Coffin Purdy and Outstanding Educator Awards from Acers, and the Wolfram Innovator of the Year from Wolfram Research. He holds a joint appointment with EPFL, Switzerland.

Proposed Sessions/Topics

- Interfaces: Structure, complexions and their transitions
- Microstructural evolution
- Electrochemical systems
- Mathematics for materials science
- Materials science and education

Symposium Organizer(s)

- Edwin García, Purdue University, USA
- Catherine Bishop, University of Canterbury, New Zealand

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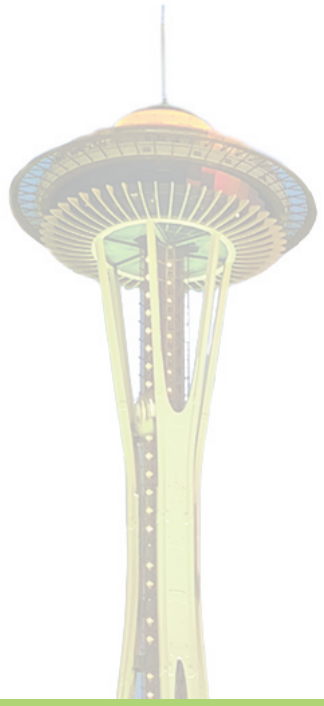
- Catherine Bishop; catherine.bishop@canterbury.ac.nz

Symposium Sponsor(s)

- Basic Science Division



SYMPOSIUM 21:

Science of Sintering and Grain Growth

Organized by BSD

This symposium explores the fundamental science of sintering and grain growth in ceramics. It aims to bring together experts from experimental, theoretical, and computational fields to discuss breakthroughs and challenges in ceramic processing.

Proposed Sessions/Topics

- Thermodynamics & Kinetics: Energy landscapes, driving forces, and diffusion mechanisms during sintering
- Grain Boundary Engineering: Measurement, modeling, and control of grain boundary energies; effects of dopants
- Advanced Sintering Techniques: Field-assisted and rapid sintering methods for ultra-fine grain control
- Multiscale Modeling & In Situ Characterization: Integration of simulation and real-time experiments to understand micro-structural evolution
- Applications & Future Trends: Tailoring microstructures for enhanced mechanical and functional performance; impact on additive manufacturing

Symposium Organizer(s)

- Ricardo Castro, Lehigh University, USA
- Amanda Krause, Carnegie Mellon University, USA
- Klaus van Benthem, University of Alabama, Tuscaloosa, USA
- Fei Peng, Clemson University, USA

Point(s) of Contact

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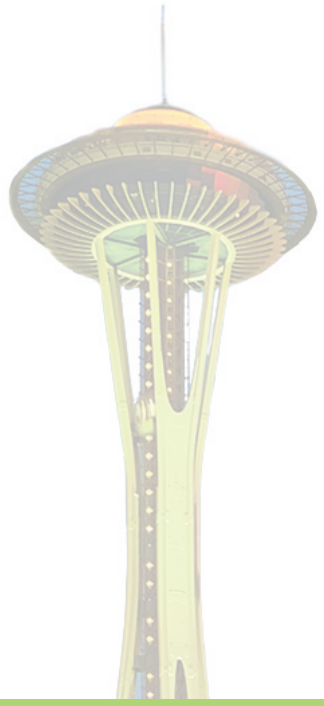
Symposium Sponsor(s)

- Basic Science Division



SYMPOSIUM 22:

Robert B. Sosman Award and Lecture

Organized by BSD

The Robert B. Sosman Award is the highest recognition of scientific accomplishment given by the Basic Science Division and is given in recognition of outstanding achievement in basic science of an area that results in a significant impact to the field of ceramics. The awardee presents a plenary lecture at the ACerS Annual Meeting, receives a certificate commemorating the event and a piece of glassware. The lecture is given each year by the awardee who has been deemed by the award committee to have made the most significant contribution to the field of ceramics. This symposium will consist of invited speakers only.

Symposium Organizer(s)

- Ming Tang, Rice University, USA
- Dong Hou, Clemson University, USA

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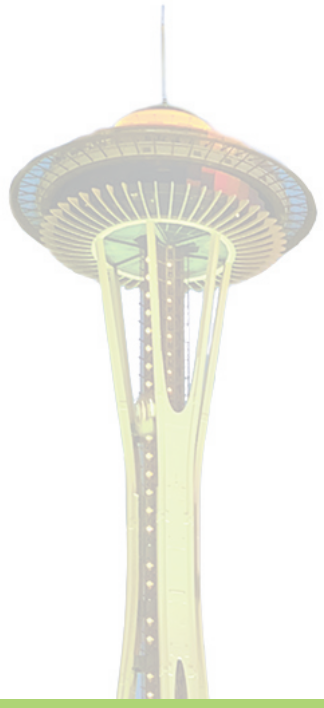
- Dong Hou; hou4@clemson.edu

Symposium Sponsor(s)

- Basic Science Division



SYMPOSIUM 23:

High Interfacial Materials – Controlling Grain Boundary Structure, Chemistry, and their Network

Organized by BSD

Electronic, thermal, and mechanical properties that control the function of ceramic devices are highly dependent on the structure and chemistry of grains, grain boundaries, and the subsequently formed grain boundary network. Bulk nanomaterials are a specific class of materials which have high volumetric densities of interfacial features with demonstrated impacts on these functional properties. The atomic structure, bonding configuration, defect distribution, segregation behavior of these boundaries, and the overall microstructure of the system are altered by material processing techniques. Developing a fundamental understanding of the effect of processing techniques on modifying these internal interfaces, and in turn, impacting the microstructure of ceramic materials is needed in order to tailor their properties and optimize their application in next generation technology. This symposium explores fundamental research into the modifications of internal interfacial structure and composition as well as microstructure evolution in functional materials as it relates to processing techniques with an overall goal of increasing the volumetric density of the internal interfacial network – i.e. creating stable bulk nanomaterials. Applicable processing techniques include sintering, electric fields, high temperature and cryogenic application, and gas environment.

Proposed Sessions/Topics

- Interface structure and chemistry
- Atomic structure, chemistry, bonding configuration
- Defect and segregation behavior
- In situ microscopy evaluation
- Microstructure evolution
- Thermal stability
- Chemical stability
- Material properties
- Processing parameters
- Mechanical and electric fields (SPS, FAST, HIP, etc.)
- Extreme temperatures (cold sintering, SPS, etc.)
- Environments (oxygen, hydrogen, etc.)

Symposium Organizer(s)

- James Wollmerhauser, Naval Research Laboratory, USA
- Edward Gorzkowski, U.S. Naval Research Laboratory, USA
- Amanda Krause, Carnegie Mellon University, USA
- Hadas Sternlicht, The Pennsylvania State University, USA

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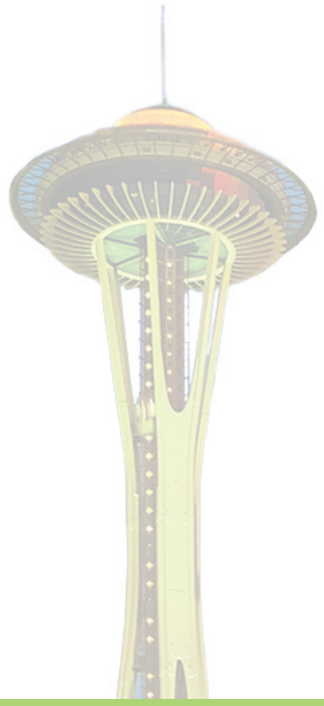
- Edward Gorzkowski; edward.p.gorzkowski.civ@us.navy.mil

Symposium Sponsor(s)

- Basic Science Division



SYMPOSIUM 24:

Mechanobiology and Cell-Substrate Interactions at Biointerfaces in Bioceramics: Theory and Experiments

Organized by BIO

The unique properties and organized structures of bioceramics and bioceramic composites have resulted in their multitude of applications in biomedical engineering that include dental, hard and soft tissues, drug delivery, disease modeling, and wound healing, among others. In addition, the biological responses at the interfaces of these biomaterials with the biological world is a topic that is extensively investigated through experiments and modeling. This symposium will attempt to bring together experimentalists in the area of materials design of bioceramics and bioceramic composites for a variety of biomedical applications with modelers who bring a simulation-guided materials design as well as modelers and experimentalists who investigate cell-cell and cell-substrate interfaces. Novel experimental characterization of mechanics of cellular and tissue systems using AFM and nanoindentation based experimentation as well as biological, genetic, biomechanical and molecular characterization of biointerfaces will be covered. New advanced multiscale methods in bioceramics design as well as molecular, cell and tissue level modeling of biointeraces will presented. Recent evaluations that use machine learning-based approaches to evaluate these interfaces will also be represented.

Proposed Sessions/Topics

- Experimental evaluation of bio-nanointerfaces of bioceramic composites with substrates
- Multiscale modeling of bioceramics and bioceramic composites
- Novel characterization methods for evaluating mechanical behavior from nano to macro scale for bioceramics and bioceramic composites through experiments such as nanoindentation, biochemical characterization, spectroscopies, electron microscopy, etc.
- Multiscale and molecular mechanics of interface proteins for evaluation of cell-cell and cell-substrate adhesions with bioceramics
- Cellular and tissue mechanics on bioceramics and its role in disease
- Bioceramics based human invitro disease models
- Predictive modeling and machine learning on biodesign and evaluations
- Advanced 3D manufacturing using bioceramics for biomedical applications
- Development and applications of stimuli-responsive bioceramics

Symposium Organizer(s)

- Kalpana S. Katti, North Dakota State University, USA
- Annabel Braem, Leuven, Arenberg, Belgium
- Anamika Prasad, Florida International University, USA
- Hrishikesh Kamat, Glidewell Dental, USA
- Ashutosh Kumar Dubey, Indian Institute of Technology (BHU) Varanasi, India

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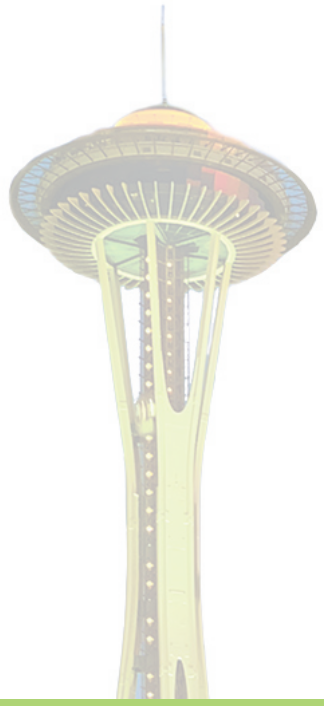
Symposium Sponsor(s)

- Bioceramics Division



SYMPOSIUM 25:

Advanced Electronic Materials: Processing Structures, Properties, and Applications

Organized by ED

This symposium brings together materials and engineering researchers to present the latest advances in electronic materials, including synthesis, especially powder processing derived techniques. This includes compositional and microstructure analysis with regards to characterization of dielectric, piezoelectric, pyroelectric, and ferroelectric properties in the form of bulk ceramics, single crystals, thick films, and multilayers (MLCC). These materials have tremendous impact on a variety of technologies, including ultrasonic transducers, memories, MEMS devices, actuators, sensors, and tunable microwave devices. Other topics of interest include nanoscale domain phenomena, low temperature powder processing) and electric-field-induced phase transitions.

Proposed Sessions/Topics

- Advanced electronic materials, including dielectric, ferroelectric, piezoelectric, electrocaloric, and pyroelectric materials
- Materials design, new materials and structures, or non-conventional methods
- Reliability and fatigue of ferroelectric materials or related properties

Symposium Organizer(s)

- Eric Patterson, Naval Research Laboratory, USA
- Hana Uršič, Jozef Stefan Institute, Slovenia
- Satoshi Wada, University of Yamanashi, Japan
- Shujun Zhang, University of Wollongong, Australia

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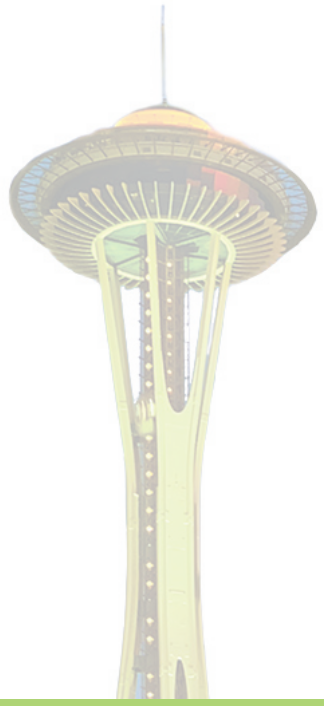
Symposium Sponsor(s)

- Electronics Division



SYMPOSIUM 26:

Semiconductors and Microelectronics in Metal Halide, Chalcogenide and Oxide Perovskites

Organized by ED

This symposium focuses on recent advances and developments in perovskite-based (including metal halide, chalcogenide, and oxide) semiconductors and microelectronics and their synthesis and fabrication processes. Metal halide perovskites are emerging low-cost, high-performance semiconductors with great application potential in a wide range of microelectronic applications. Chalcogenide perovskites have also attracted significant attention recently in energy generation and optoelectronics. Research in oxide perovskites are also reviving in the past few years thanks to new techniques for growth and device integration. We invite contributors from industry, academia and national laboratories and believe such collaborations can spark new ideas and drive new developments, given the same perovskite structure shared by these materials and similar engineering methods used by different perovskite communities.

Proposed Sessions/Topics

- Theory and modeling of devices performance and properties in perovskites
- Synthesis and characterization of metal halide, chalcogenide and oxide perovskite nanomaterials and thin films (e.g., low-dimensional perovskites, glassy perovskites, perovskite heterostructure/heterointerfaces)
- Device contacts in perovskites
- Structure-property correlation in perovskites
- Role of defects, interface and synthesis/fabrication process on perovskite properties and device performance
- Perovskites for emerging optoelectronics and detectors
- Solution grown perovskite semiconductors
- Perovskite for flexible electronics
- Perovskites for resistive switching and novel computing

Symposium Organizer(s)

- Qing Tu, Texas A&M University, USA
- Wanyi Nie, SUNY University at Buffalo, USA
- Mythili Surendran, Lawrence Berkeley National Laboratory, USA
- Aiping Chen, Los Alamos National Laboratory, USA
- Yuxuan Cosmi Lin, Texas A&M University, USA

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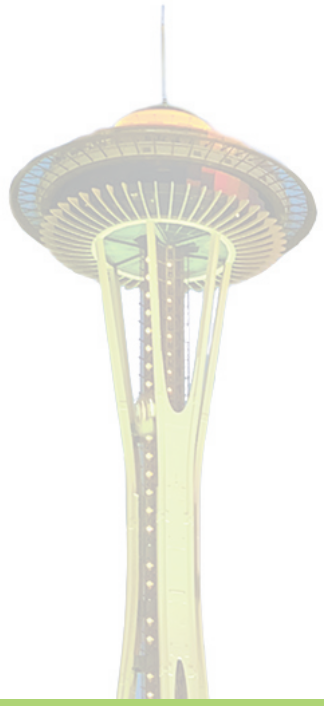
Symposium Sponsor(s)

- Electronics Division



SYMPOSIUM 27:

Two-Dimensional Materials: Synthesis, Theories, Properties, and Applications

Organized by ED

This symposium will focus on the modeling, synthesis, characterization, and application of two-dimensional (2D) electronic materials. Topics will include, but are not limited to, novel synthesis methods of a wide range of 2D materials, such as 2D transition metal chalcogenides, oxides, nitrides and halides, characterization of their electronic, magnetic, and optical properties, and theoretical studies of these materials' ground and excited states, and device demonstrations. The symposium will cover advanced characterization techniques, including physical measurements and machine-learning-assisted methods, and the application of 2D ceramics such as oxides and nitrides in electronic and quantum devices, such as transistors, sensors, and memory devices. Challenges and opportunities in large-scale production will be addressed, with special attention given to the role of defects, interfaces, and strain engineering in tuning properties.

Proposed Sessions/Topics

- Synthesis of 2D quantum materials and their bulk counterparts
- Novel 2D heterostructures with emergent electronic, photonic, and magnetic properties
- Electronic, optoelectronic, and spintronic 2D devices
- Structural characterization of 2D materials
- Quasiparticles (e.g., phonons, magnons, excitons) in 2D materials and heterostructures
- Theoretical simulation of 2D material and device properties
- Quantum defects in 2D materials
- Neuromorphic computing via 2D devices
- 2D semiconductors, 2D magnets, 2D ferroelectrics, and 2D semimetals

Symposium Organizer(s)

- Haozhe Wang, Duke University, USA
- Cheng Gong, University of Maryland, USA

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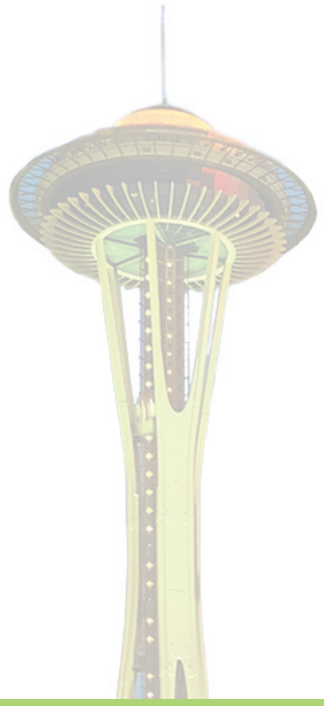
Symposium Sponsor(s)

- Electronics Division



SYMPOSIUM 28:

Advanced Characterization of Functionalized Low-Dimensional Material Surfaces

Organized by ED

This symposium focuses on the synthesis, characterization, and theoretical modeling of functionalized low-dimensional materials on surfaces. It covers innovative synthesis techniques for creating low-dimensional materials such as functional films, nanoparticles, and quantum dots, which have numerous practical applications in batteries, sensors, catalysis, light harvesting, and electronic devices. The symposium highlights state-of-the-art surface-sensitive characterization methods, such as scanning probe microscopies and spectroscopic techniques based on electrons, X-rays, and optics. These advanced methods are crucial for probing the intricate details of material surfaces. A comprehensive understanding of the physical, chemical, optical, and electrical properties of these novel nanomaterials is essential for advancing their applications across various technological fields. By integrating synthesis with characterization and modeling, the symposium aims to foster deeper insights into the behavior and potential of low-dimensional materials, paving the way for their use in electronics, photonics, and energy-related applications. This holistic approach is vital for driving innovation and enhancing the functionality of materials at the nanoscale.

Proposed Sessions/Topics

- Electron and X-ray based in situ microscopies and spectroscopies
- Advanced high resolution surface characterization techniques
- Surface electronic properties: STM (Scanning Tunneling Microscopy), KPFM (Kelvin Probe Force Microscopy), TEM (Transmission Electron Microscopy), AES (Auger Electron Spectroscopy).
- Surface photonic properties: XPS (X-ray Photoelectron Spectroscopy), Raman Spectroscopy, UV-Vis-Infrared Spectroscopy
- Surface magnetic properties: MFM (Magnetic Force Microscopy), SMOKE (Surface Magneto Optical Kerr Effect), SPLEEM (Spin polarized low energy electron microscopy), Lorentz electron microscopy PEEM/XMCD, etc.

Symposium Organizer(s)

- Nozomi Shirato, Argonne National Laboratory, USA
- Julius De Rojas, Oklahoma State University, USA

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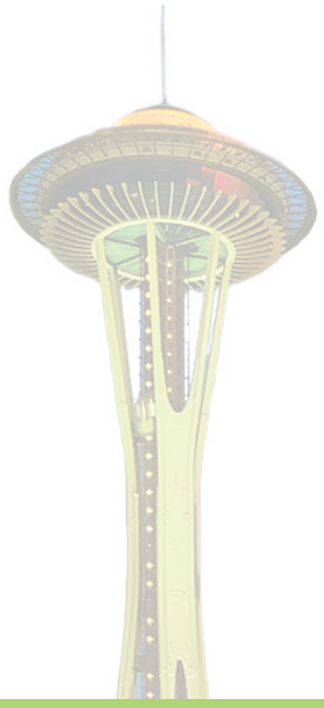
Symposium Sponsor(s)

- Electronics Division



SYMPOSIUM 29:

Scale-Bridging Approaches for Electroceramic Design and Performance

Organized by ED

From a crystal chemistry perspective, electroceramics are complex systems that encompass various lattice configurations for charged substituents and defects, as well as regions of polar order/disorder and interfaces/interphases in their microstructure. Optimization of properties can be successfully achieved through advanced synthesis and processing but also by understanding this multiple length scale problem. Combining experimental and modeling techniques, alongside scientific AI, can offer a deeper insight into the fundamental structure-property relationships of electroceramics. This undoubtedly can contribute to the design of higher performance electroceramics. This symposium will be focused on the interplay of local structure, chemistry, configurational entropy, microstructure, and instabilities induced by various stimuli (e.g., composition, temperature, pressure, strain, external fields) on multiple length scales and how it impacts macroscopic properties relevant for applications (energy storage, electromechanical and electrocaloric applications, among others). Importantly, we welcome contributions involving state-of-the-art materials synthesis/processing techniques and advanced nano- to micro-scale characterization methods in synergy with multiscale modeling and scientific AI to advance our understanding and discovery of novel electroceramics.

Proposed Sessions/Topics

- Advanced synthesis and processing of electroceramics
- Experimental multiscale characterization of complex electroceramics
- Characterization and modeling of local structure and properties of complex electroceramics
- Theoretical foundations and computational approaches in electroceramics
- Scientific AI for electroceramics: From database construction, atomistic simulations, to equation discovery

Symposium Organizer(s)

- Antonio Feteira, Sheffield Hallam University, UK
- Prasanna Balachandran, University of Virginia, USA
- Giovanna Canu, CNR-ICMATE, Italy
- Joaquin Gabriel Miranda Mena, Silicon Austria Labs, Austria

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Symposium Sponsor(s)

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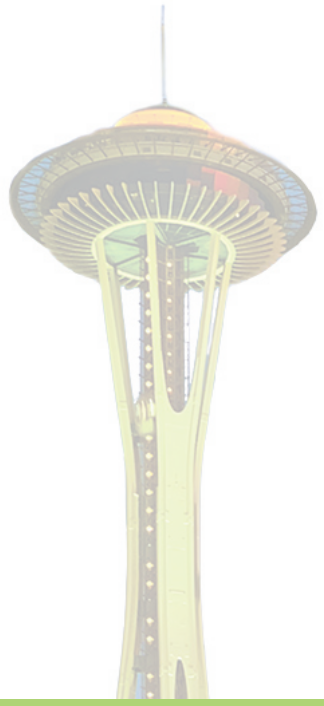

SYMPOSIUM 30:

Quo Vadis, High-Entropy Oxides?

Organized by ED

High-entropy oxides, be it in bulk form, thin films or nanoparticles have developed over the past few years to become an attractive playground to tune and manipulate desired functional properties, ranging from enhanced magnetism, multifunctional semiconductors, dielectrics and low thermal conductivity. Both experimental and computational approaches shall be presented and discussed.

Proposed Sessions/Topics

- Exploring properties and new functionalities in high-entropy oxides: Dielectrics, semiconductors and relaxor ferroelectrics
- High-entropy oxide perovskites and spinels: Newest developments
- High-entropy oxides: Computational pathways towards understanding and manipulating desired properties

Symposium Organizer(s)

- Alan Farhan, Baylor University, USA
- Katharine Page, University of Tennessee, USA
- Megan Marie Butala, University of Florida, USA

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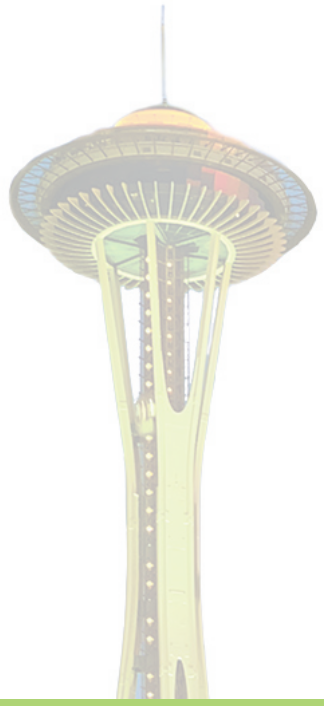
Symposium Sponsor(s)

- Electronics Division



SYMPOSIUM 31:

Superconducting and 2D Magnetic Materials: From Basic Science to Applications

Organized by ED

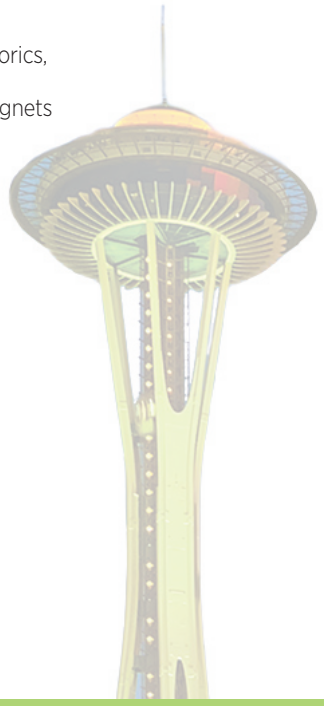
The symposium will broadly cover the advances in current and emerging superconducting and 2D magnetic material research from fundamental science to devices and applications. We especially encourage topics covering the correlations among spin, charge and orbital order parameters, electro-optic, and light-matter effects for these materials. Relevant work spanning theory, synthesis, and characterization of new materials and phenomena is welcomed for submission to this symposium.

The fundamental focus for superconductors in this symposium are materials discovery, synthesis, and advanced characterization of new superconducting materials, theoretical and experimental understanding the superconducting and normal state properties of novel superconductors, and their interaction with charge, spin, orbital, and lattice order parameters, and developing new heterostructures devices and superconducting electronics (such as superconducting diodes & superconducting qubits) to enable emergent phenomena and new functionalities. The application aspect of the symposium is to promote transition from basic science to deployment, where we will focus on the fabrication of superconducting wires, tapes, thin films, devices, and superconducting multi-layers and composites towards large scale energy-relevant technology applications, including high power transmission, energy and information storage, THz and GHz electronics, and processing technologies.

The fundamental focus for 2D magnets in this symposium is to highlight material discovery, new synthesis methods, new characterization methods, single crystal and large-area thin film growth of 2D magnets, device fabrication & characterization, structures, dynamics, and properties of moiré superlattices, electronic, optical, and magnetic properties of 2D magnets and van der Waals heterostructures. Additionally other topics such as spintronic devices, magneto-ionics, magneto-optical and electro-optical properties, magnetocalorics, and new device studies towards new generation of magnetic memory devices and information sciences. We will also include the integration of magnetic materials into novel device structures and the study of their device physics.

Proposed Sessions/Topics

- New superconducting materials and related synthesis & properties
- Superconductivity and competing phases: Theory and advanced characterizations
- Low dimensional superconductors, flat bands, and Kagome superconductors
- Superconducting materials and devices related to magnetic orders and fluctuations
- Tailoring superconductors and correlated materials for applications
- Superconducting electronics and devices: Nanoscale to large scale applications
- New magnetic materials compositions and related synthesis and property characterization
- Low dimensional, correlated magnetic materials
- Crystal growth, large area thin film deposition of magnetic materials and 2D magnets.
- Electronic, optical, and magnetic properties of 2D magnets and their heterostructures with other Van der Waals materials
- Structures, dynamics, and properties of moiré superlattices of 2D materials
- 2D magnet heterostructures and devices: From nanoscale to large scale applications
- Novel applications of magnetic materials: Magnetoelectrics, magneto-ionic transport, THz spintronics, magnetocalorics, hybrid magnonics, magnetoresistance, quantum magnetic phenomena
- Quantum spin liquids, skyrmions and other frustrated magnetism closely tied up with superconductors and 2D magnets
- Artificial intelligence (AI) and machine learning enabled materials discovery and new functionality for superconductors and magnetic materials
- Multiscale modeling includes first principles calculations, phase-field modeling, micromagnetics simulations, finite element analysis, high-throughput evaluation of materials



Symposium Organizer(s)

- Lv Bing, University of Texas at Dallas, USA
- Michael A. Susner, Air Force Research Laboratory, USA
- Rosario A. Gerhardt, Georgia Institute of Technology, USA
- Timothy Haugen, U. S. Air Force Research Laboratory, USA
- Jun Xiao, University of Wisconsin, USA

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Symposium Sponsor(s)

- Electronics Division

SYMPOSIUM 32:

Solid Oxide Cells for Sustainable Energy

Organized by EMSD

Solid oxide cells (e.g., oxygen ion conducting/proton conducting cells) allow for versatile electrochemical reactions to occur efficiently, selectively, cost-effectively, and environment-benignly, which have been extensively used for energy devices such as fuel cells for electricity generation, electrolysis cells for hydrogen production, electrochemical cells for carbon dioxide to fuels and fuel upgrading, solid-state electrochemical ammonia production, catalytic membrane reactors for natural gas conversion and hydrogen purification, separation/purification, and electrochemical/electrocatalytic sensors. The focus of this symposium is to convene leading global experts to engage in the design, discovery, characterization, understanding, and application of solid oxide cell materials, the fabrication/processing, characterization/understanding, testing/demonstration of solid oxide cell devices, and design/modeling of the solid oxide cell systems.

Proposed Sessions/Topics

- Solid oxide fuel/electrolysis cells
- Solid oxide cell materials discovery and characterization
- Solid oxide cells fabrication and processing
- Solid oxide cells for fuel conversions
- Solid oxide cells for CO_2 reduction
- Solid oxide cells for component development
- Solid oxide cell device modeling/simulation

Symposium Organizer(s)

- Jianhua (Joshua) Tong, Clemson University, USA
- Kevin Huang, University of South Carolina, USA
- Sandrine Ricote, Colorado School of Mines, USA
- Federico Smeacetto, Politecnico di Torino, Italy

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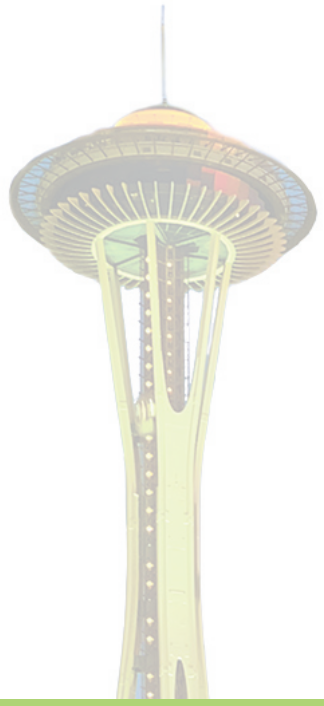
Symposium Sponsor(s)

- Energy Materials and Systems Division



SYMPOSIUM 33:

Advances in Thermoelectrics: Bridging Theory and Application

Organized by EMSD

The advancement of thermoelectric materials is essential for improving energy conversion systems across various applications by directly converting waste heat to electricity. Over the past few decades, we have observed various emerging thermoelectric materials ranging from traditional bulks to nanostructured composites and low dimensional 1D, 2D, and mixed dimensional structures. This symposium will focus on recent breakthroughs in thermoelectric materials, devices, and systems, emphasizing the integration of theoretical advancements with practical applications. Topics will include the design, synthesis, advanced manufacturing, characterization, and performance enhancement of both conventional and novel thermoelectric materials.

Researchers are invited to present their work on advanced synthesis and manufacturing methods, characterization techniques, and theoretical modeling aimed at developing fundamental understanding of electron and phonon transport, and materials design strategies to enhance the figure of merit, zT, and improve system performance. Additionally, the symposium will explore the integration of magnetism with thermoelectric transport, including spin-Seebeck effects, magnon-drag, and magnetic field-induced thermoelectric effects in topological materials. The symposium will also cover fundamental methods for controlling scattering mechanisms and improving transport properties in metals and semimetals.

Proposed Sessions/Topics

- Design, synthesis, and advanced manufacturing of thermoelectric materials
- Magnetism, topology, and spin transport in thermoelectrics
- Modeling and computational approaches for thermoelectric materials
- Charge and heat transport mechanisms in thermoelectrics
- Devices and systems for waste heat recovery and thermal management
- Interface, microstructure, low dimensionality, and composite approaches in thermoelectrics

Symposium Organizer(s)

- Sepideh Akhbarifar, The Catholic University of America, USA
- Mona Zebarjadi, University of Virginia, USA
- Je-Hyeong Bahk, University of Cincinnati, USA
- Holger Kleinke, University of Waterloo, Canada

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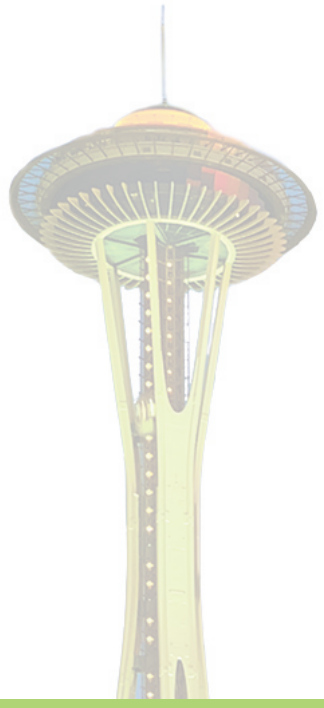
Symposium Sponsor(s)

- Energy Materials and Systems Division



SYMPOSIUM 34:

Advances and Current Challenges in Solid-State Battery Technologies

Organized by EMSD

This symposium focuses on recent advances in solid-state battery technologies, emphasizing the role of advanced materials, battery chemistries, electrode and interface engineering, and multiscale modeling and machine learning approaches for solid-state battery research. As solid-state batteries emerge as a next-generation energy storage solution with superior safety and energy density, this symposium will provide a platform for researchers, industry experts, and policymakers to discuss the latest developments in the field. Key topics will include next-generation solid-state battery chemistries, innovations in electrode materials and interface engineering, advances in battery systems that go beyond conventional lithium-ion technology, and the growing role of computational tools and data-driven approaches in accelerating solid-state battery research.

Proposed Sessions/Topics

- Advances in next-generation solid-state battery chemistries
- Electrode engineering and interfaces in solid-state batteries
- Beyond lithium-ion - emerging materials and systems for post-lithium batteries
- Multiscale modeling, simulation, and machine learning for solid-state battery design

Symposium Organizer(s)

- Bisrat Nigusie Tafese, Northwestern University, USA
- Jianhua (Joshua) Tong, Clemson University, USA
- Megan Burrill, Northwestern University, USA
- Danielle Veigel, Northwestern University, USA
- Surafel Mustefa Beyan, Northeastern University, USA

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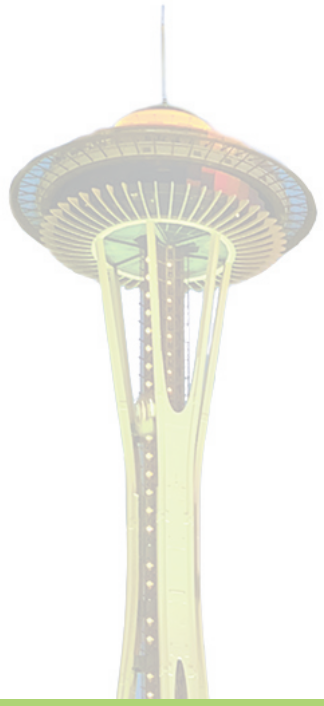
Symposium Sponsor(s)

- Energy Materials and Systems Division



SYMPOSIUM 35:

Fundamentals of the Glassy State

Organized by GOMD

This session will address all fundamental aspects of glass formation, including experimental, modeling, and theoretical developments in our understanding of glass transition and relaxation. All glass-forming systems including oxide, non-oxide, metallic, and organic glasses will be covered. Topics of interest include, but are not limited to, various relaxation phenomena and dynamical processes in the glass transition range including fragility, and dynamic heterogeneity.

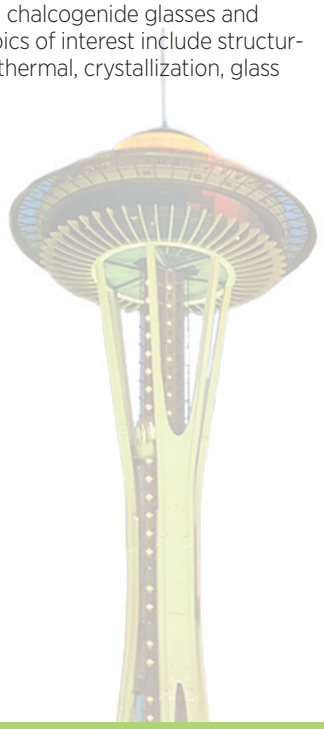
This symposium is devoted to advancing our fundamental understanding of crystallization in glasses and its importance in glass-ceramics and related materials. The symposium will cover experimental, characterization, as well as numerical/modeling aspects of nucleation and growth in inorganic, organic, and metallic materials.

This symposium will present on recent advances on the structural characteristics of glasses and melts, crucial for both research and industrial applications. Contributions are sought on basic glass characterization and correlations between structure, properties, and processing. Highlighted techniques include magnetic resonance spectroscopy, X-ray, neutron, and light scattering, as well as X-ray absorption and emission spectroscopy, vibrational spectroscopy, and scanning probe and electron microscopies. Key topics encompass spectroscopic studies to reveal the structures of glasses and melts, but also experimental measurements of physical properties (viscosity, density, diffusivity, elemental partitioning), and computational methods such as molecular dynamics simulations and ab initio calculations. This symposium aims to bring together specialists in the structural aspects of glasses and melts, as well as those working on macroscopic properties. It will provide a global view of glasses and liquids and cross the boundaries between them.

This symposium will discuss the mechanical properties of disordered materials across multiple scales while bridging the fields of oxide and non-oxide glasses, as well as mechano-optical and mechanoelectrical couplings. We will consider the structural origin of elasticity, plasticity, and fracture with the objective of designing glasses with superior toughness, defect tolerance, and stiffness, combining mechanical and various functional properties. 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. The topics covered in this symposium include, but are not limited to, the following:

- Dynamic fracture and brittleness, or crack initiation, including the application of in situ techniques
- Slow crack growth and stress corrosion cracking, the underlying 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 non-oxide including metallic glasses
- Theoretical, simulation, and experimental studies of nucleation and crystal growth in glasses and liquids
- The role of composition, structure, nucleating agents, and phase separation on crystallization
- Novel techniques for characterizing and inducing crystallization
- Predicting glass-ceramic generation

This symposium aims to present and discuss the recent developments in both fundamental and applied research in chalcogenide glasses and amorphous semimetals (e.g., phase-change materials, thermoelectronic materials, and solid-state electrolytes). Topics of interest include structural characterization; structure–property relationship; and advances in physical properties, such as optical, electrical, thermal, crystallization, glass forming, and mechanical behaviors.



Proposed Sessions/Topics

- Glass formation and structural relaxation
- Glass crystallization and glass-ceramics
- Structural characterizations of glasses and melts
- Mechanical properties of glasses
- Chalcogenide glasses and amorphous materials

Symposium Organizer(s)

- Katelyn Kirchner, Celsian, USA
- Yueh-Ting (Tim) Shih, National Taipei University of Technology, Taiwan
- Pierre Lucas; University of Arizona, USA

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Symposium Sponsor(s)

- Glass and Optical Materials Division

SYMPOSIUM 36:

Modeling and Simulations of Glass Structures and Properties

Organized by GOMD

Modeling and simulation are integral to advancing materials research, especially in the realm of glass, ceramics, amorphous and nanostructured materials, which possess intricate characteristics and challenges to characterize experimentally. This session aims to delve into sophisticated computer simulations and modeling approaches employed to unravel the structures, properties, and behaviors of glasses and glass-forming liquids. We particularly seek to explore the latest advancements and applications of first-principles, classical, and mesoscale methods, with a focus on their integration to expand the spatial and temporal scales traditionally explored by conventional modeling techniques. Additionally, we encourage numerical investigations that facilitate the interpretation of experimental data and structural validation, utilizing techniques such as X-ray and neutron diffraction, solid-state NMR, and various spectroscopic methods. As an emerging technology, we will also highlight applications of machine-learning interatomic potential in this domain.

Data-driven methods and artificial intelligence-based models have attracted much attention in recent years to solve complex problems in the field of glass science. Machine learning has been successfully applied to solve long-standing problems, such as predicting composition–property relationships, developing optimized glass compositions, accelerating glass modeling, and even understanding some fundamental aspects of the glass transition. This session will focus on recent advances in the use of machine learning and artificial intelligence in glass science, technology, and modeling. Topics of interest include, but are not limited to, the application of machine learning and artificial intelligence to develop and interpret composition–property relationships, design optimized glass compositions, 3D printing and additive manufacturing of glasses, advanced computational modeling by developing machine-learned interatomic potentials and accelerating glass simulations, image processing, predicting the structure of glasses, identifying key structural patterns/descriptors that govern glass properties, and understanding the fundamentals of the glassy state.

Proposed Sessions/Topics

- Atomistic simulation and predictive modeling of glasses
- Data-driven modeling and machine learning for glass science

Symposium Organizer(s)

- Jincheng Du, University of North Texas, USA
- Xiaonan Lu, Pacific Northwest National Laboratory, USA

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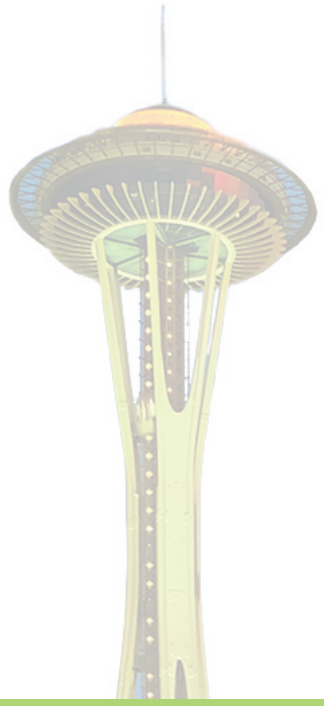
Symposium Sponsor(s)

- Glass and Optical Materials Division



SYMPOSIUM 37:

Optical and Electronic Materials and Devices

Organized by GOMD

The field of light interaction with matter has attracted increased attention with advances in ultrashort pulse lasers and high-power fiber lasers, along with the need to design and fabricate structures for use in low-loss applications and laser damage resistance. New phenomena have been observed and new applications have been developed, whereby lasers are employed in diverse areas, such as cutting, welding, and engraving of glass; fabrication of waveguides, gratings and micro-channels inside the bulk of glass; and, most recently, 3D printing through additive or subtractive laser-assisted processing. Lasers have been shown to be versatile in other applications of phase change, whereby glass or amorphous media are "converted" in a controlled way to crystalline or composites (glass ceramics) material. These advances have been realized in optical phase-change materials; laser-induced crystallization, such as seen in the fabrication of active single crystal architecture, GRIN lenses; and strengthening of glass and other applications, where a knowledge of not only the material but the light/matter interaction mechanism is required. 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, and dynamics and mechanisms of laser-induced modifications.

The session "Glasses for energy applications" invites researchers to share their discoveries about the new and transformative ways glass materials are used in the energy sector. Focusing on theoretical advancements and practical implementations, the session will cover innovative uses of glass in photovoltaic systems, energy storage solutions, thermal insulation, smart technologies, hydrogen production and utilization, and transport phenomenal in the disordered media, involving electronic, ionic, or molecular transport.

Glasses are important materials for optical components and devices given their excellent optical transparency and versatile processing. 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, metamaterials/metasurfaces and integrated photonic components. Special attention will be paid to innovative optical fibers and waveguides, with topics of interest including, but not limited to: microstructure optical fibers, infrared fibers, multimaterial fibers, optical fibers for health, novel processes of fiber fabrication

Rare earth and transition-metal doped materials play fundamental roles in many applications, such as optical communication, sensing, medical diagnosis, or clean energy systems. These roles are the result of intense research efforts on the development of new materials, material platforms, and designs. A deep understanding of the underlying science that determines the optical properties of these dopants has been achieved over the years.

Proposed Sessions/Topics

- Laser interactions with glasses
- Glasses for energy applications
- Optical fibers and waveguides, optoelectronic glass-based devices
- Rare-earth and transition metal-doped glasses and ceramics for photonics

Symposium Organizer(s)

- Shiv Prakash Singh, Liaoning Academy of Materials, China
- Myungkoo Kang, Alfred University, USA
- Casey Schwarz, Ursinus College, USA
- Rashi Sharma; University of Central Florida, USA

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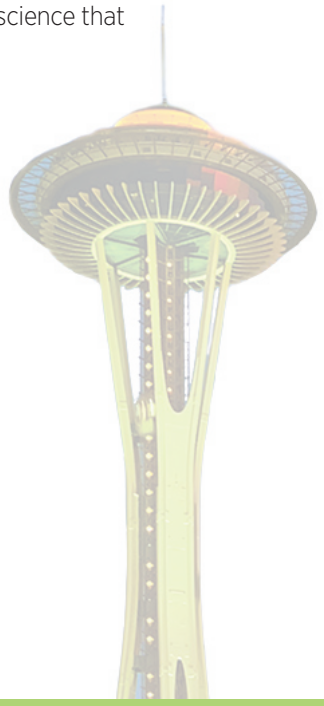
Symposium Sponsor(s)

- Glass and Optical Materials Division



SYMPOSIUM 38:

Glass Manufacturing

Organized by GOMD

The glass industry requires constant innovation to meet the needs of new compositions, new products, and sustainable manufacturing processes. Studies of natural silicates, such as magma and lava, can also provide useful insight. This session will cover the spectrum of new research, development, and engineering advances from the lab to the factory, including:

- Physics and chemistry of glass melting and forming via both modeling and experiments
- Energy efficiency strategies
- New furnace designs and process control methods
- Furnace materials - new materials, corrosion, and wear studies
- New concepts for melting and forming
- Post-forming treatments
- Challenges in recycling

Proposed Sessions/Topics

- Challenges in glass manufacturing and recycling
- Furnace materials
- New concepts for melting, forming, treating
- Energy efficiency

Symposium Organizer(s)

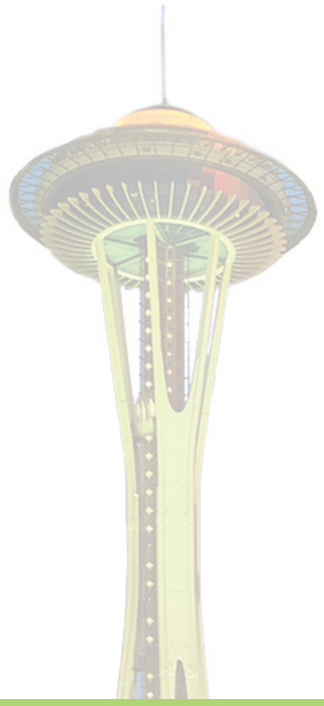
- Kathryn Goetschius, Corning Inc., USA
- Joel Destino, Creighton University, USA
- Alexandra Mitchell, Corning Inc., USA
- Katelyn Kirchner, Celsian, USA

Point(s) of Contact

- Kathryn Goetschius; goetschik@corning.com

Symposium Sponsor(s)

- Glass and Optical Materials Division



SYMPOSIUM 39:

Steve Feller Honorary Symposium

Organized by GOMD

This symposium brings together colleagues, former students, and collaborators of Steve Feller to celebrate his outstanding teaching and research career by presenting current research results. Presentations will cover all aspects of inorganic materials, glassy and crystalline, including, but not limited to their structural, dynamic and thermodynamic characterization, advances in physical properties and establishment of structure-property relationships at ambient and high temperature and pressure conditions, applications of characterization techniques.

Symposium Organizer(s)

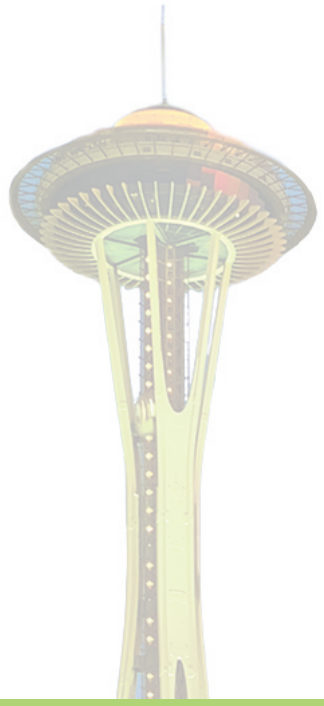
- Mario Affatigato, Coe College, USA
- Collin Wilkinson, Alfred University, USA
- Steve Martin, Iowa State University, USA

Point(s) of Contact:

- Mario Affatigato; maffatig@coe.edu
- Collin Wilkinson; wilkinsonc@alfred.edu

Symposium Sponsor(s)

- Glass and Optical Materials Division



SPECIAL EVENTS:

Roundtable Discussion on Resilience of US Research

Join us for an open, community-wide conversation on the proposed cuts to federal research funding and what they could mean for the future of universities, innovation, and the broader scientific enterprise in the United States.
This roundtable will explore:

- The potential impact on universities that rely heavily on federal grants
- How funding uncertainty affects early-career researchers, labs, and long-term projects as well as student retention and success
- Strategies for building resilience in the research ecosystem

This is a space for researchers, administrators, policymakers, and students to share perspectives, voice concerns, and brainstorm responses as a community.

Event Organizers

- Reeja Jayan, Carnegie Mellon University, USA, breeja@cmu.edu
- Aiping Chen, Los Alamos National Laboratory, USA
- Geoff Brennecka, Colorado School of Mines, USA
- Tina Rost, Virginia Tech, USA

Failure: The Greatest Teacher

The vast majority of scientific literature and conference talks report positive results, but there is a lot to be learned from negative results and missteps as well. Do not miss this opportunity to hear recognized leaders in the field discuss failure and perhaps recount some of their most spectacular learning experiences during a frank and friendly discussion in a relaxed atmosphere. Speakers and audience alike are encouraged to check their egos at the door for this event that has turned into an EMA highlight.

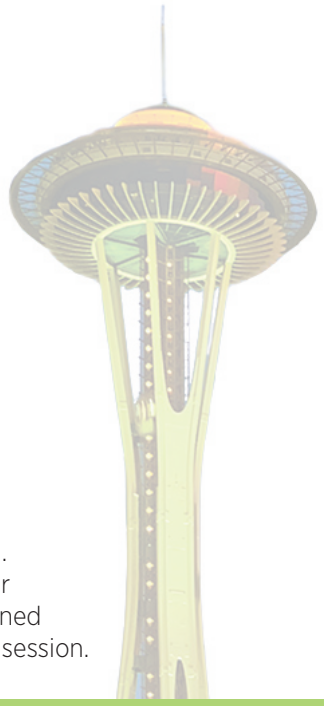
Event Organizer(s)

- Geoff Brennecka, Colorado School of Mines, USA, gbrennec@mines.edu

Electronics Division Tutorial

We are excited to announce that the annual Electronics Division Tutorial will be coming to the Spring Meeting! Whether you're a seasoned researcher or early in your career, this tutorial will provide valuable tools and insights to enhance your scientific practice. Attendees will benefit from expert instruction, interactive learning, and the chance to engage with fellow scientists in a collaborative environment.

Stay tuned - details on the featured presenter and tutorial topic will be announced at a later date!



Basic Science Division Tutorial

Attention all attendees! Join us for an intriguing new tutorial sponsored by the Basic Science Division. This special learning opportunity promises valuable insights and practical knowledge to enhance your scientific toolkit. The featured presenter and fascinating topic will be revealed at a later date - stay tuned for the announcement! Don't miss your chance to participate in what promises to be an enlightening session.