50TH

The American Ceramic Society
ceramics.org

GOLDEN JUBILEE CELEBRATION OF THE 50TH INTERNATIONAL CONFERENCE AND EXPO ON ADVANCED CERAMICS AND COMPOSITES (ICACC 2026)

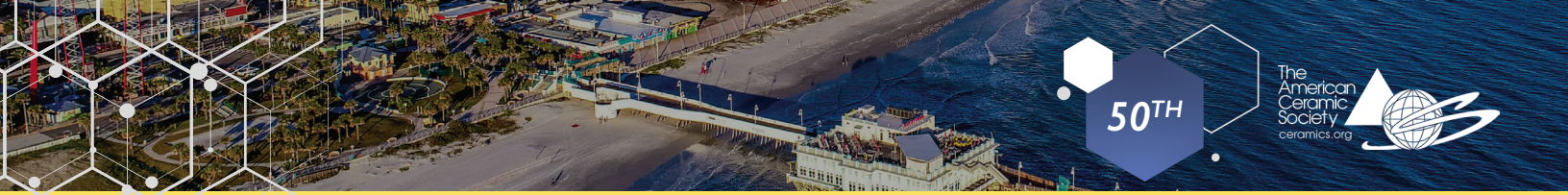
JAN. 25–30, 2026

HILTON DAYTONA BEACH OCEANFRONT RESORT,

DAYTONA BEACH, FLA.

Organized by
The American Ceramic Society and The Engineering Ceramics Division

ceramics.org/icacc2026



Welcome

We are incredibly excited to welcome you to the **50th International Conference and Exposition on Advanced Ceramics and Composites (ICACC 2026)** in sunny Daytona Beach, Florida! This year marks a truly historic milestone: the Golden Jubilee of ICACC, celebrating five decades of breakthroughs, collaboration, and global impact since the conference began in 1977. What started as a focused technical meeting has grown into the premier international event for researchers, educators, technology developers, manufacturers, and end users worldwide in the field of advanced ceramics and composites.

For this landmark 50th year, ICACC 2026 features an exceptional technical program with **20 Symposia, six Focused Sessions, one Special Focused Session on Entrepreneurship and Commercialization**, a special **Golden Jubilee Symposium**, entitled "Engineered Ceramics for Achieving Net-Zero Carbon Emissions," and the **15th Global Young Investigator Forum**. From next-generation ceramics for energy conversion and storage to bioceramics, from ultra-high-temperature materials to advanced processing and manufacturing technologies, from photonics to focused sessions on emerging ceramic technologies, the topics represented this year reflect the remarkable evolution and expanding influence of the ceramic sciences over the past half-century.

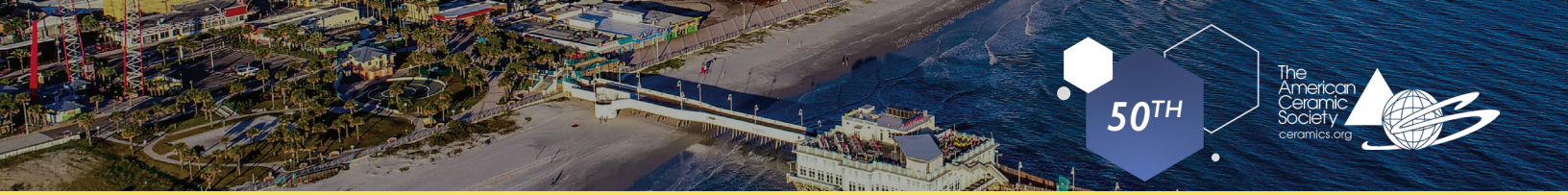
To honor the Golden Jubilee, ICACC 2026 will introduce enhanced programming and celebratory touches throughout the week, including **poster elevator-pitch sessions**, where presenters share rapid two-minute research spotlights at the end of each day. Engagement is already strong, with more than 40 presenters taking part in this fast-paced feature. Our Sunday night **Welcome Reception** will be held outside, near the beach, with a live steel drum band. Join us to celebrate with a drink and some light appetizers.

Be sure to join us Tuesday and Wednesday evenings in the Ocean Center for the **ICACC Exposition**, where attendees can connect with industry partners, explore emerging technologies, and discover new materials, processes, instrumentation, and business opportunities. The dynamic poster sessions will once again be held in conjunction with the Expo. We will celebrate the 50th anniversary on Thursday night with a ticketed dinner featuring music and entertainment from Felix and Fingers' dueling pianos. You can stop by the registration desk to purchase a ticket for this event to join the celebration.

The ECD Executive Committee, ICACC Programming Committee, our dedicated volunteers, and the American Ceramic Society extend a heartfelt thank-you for joining us for this memorable Golden Jubilee year. We are also profoundly grateful to our industrial sponsors, partners, and exhibitors whose support has helped ICACC thrive for 50 incredible years.

Here's to celebrating the legacy, innovation, and future of ICACC together!

Federico Smeacetto
ICACC2026 Program Chair



2025–2026 ENGINEERING CERAMICS DIVISION OFFICERS

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Panel of Fellows representative (2024-2027): Dileep Singh | Argonne National Laboratory, USA

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Chair: Jie Zhang | Institute of Metal Research, China
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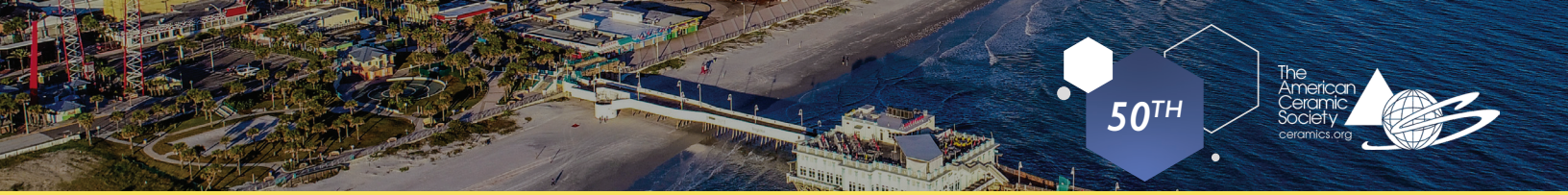

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MEETING REGULATIONS

Cell phones silent

No photography/ recording

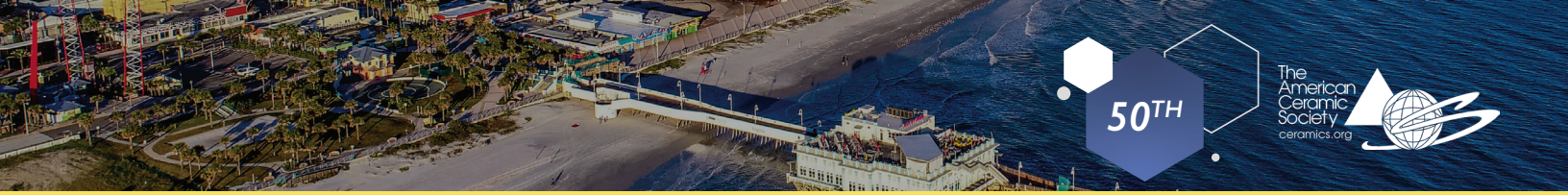
During oral sessions conducted during Society meetings, unauthorized photography, videotaping, and audio recording is strictly prohibited for two reasons:

(1) conference presentations are the intellectual property of the presenting authors and as such are protected, and

(2) engaging in photography, videotaping, or audio recording is disruptive to the presenter and the audience. Failure to comply may result in the removal of the offender from the session or from the remainder of the meeting.

Note: The Society may engage photographers to photograph sessions for marketing and promotional purposes.

The American Ceramic Society is a nonprofit scientific organization that facilitates the exchange of knowledge meetings and publication of papers for future reference. The Society owns and retains full right to control its publications and its meetings. The Society has an obligation to protect its members and meetings from intrusion by others who may wish to use the meetings for their own private promotion purpose. Literature found not to be in agreement with the Society's goals, in competition with Society services or of an offensive nature will not be displayed anywhere in the vicinity of the meeting. Promotional literature of any kind may not be displayed without the Society's permission and unless the Society provides tables for this purpose. Literature not conforming to this policy or displayed in other than designated areas will be disposed. The Society will not permit unauthorized scheduling of activities during its meeting by any person or group when those activities are conducted at its meeting place in interference with its programs and scheduled activities. The Society does not object to appropriate activities by others during its meetings if it is consulted with regard to time, place, and suitability. Any person or group wishing to conduct any activity at the time and location of the Society meeting must obtain permission from the Executive Director or Director of Meetings, giving full details regarding desired time, place and nature of activity. **ACerS welcomes all:** The American Ceramic Society values diverse and inclusive participation within the field of ceramic science and engineering. ACerS strives to promote involvement and access to leadership opportunity regardless of race, ethnicity, gender, religion, age, sexual orientation, nationality, disability, appearance, geographic location, career path or academic level. Visit the registration desk if you need access to a nursing mother's room or need further assistance. For childcare services, please check with the concierge at individual hotels for a listing of licensed and bonded child care options. The American Ceramic Society plans to take photographs and video at the conference and reproduce them in educational, news or promotional materials, whether in print, electronic or other media, including The American Ceramic Society's website. By participating in the conference, you grant The American Ceramic Society the right to use your name and photograph for such purposes. All postings become the property of The American Ceramic Society. During oral sessions conducted during Society meetings, unauthorized photography, videotaping and audio recording is prohibited. Failure to comply may result in the removal of the offender from the session or from the remainder of the meeting. **Registration Requirements:** Attendance at any meeting of the Society shall be limited to duly registered persons. **Disclaimer:** Statements of fact and opinion are the responsibility of the authors alone and do not imply an opinion on the part of the officers, staff or members of The American Ceramic Society. The American Ceramic Society assumes no responsibility for the statements and opinions advanced by the contributors to its publications or by the speakers at its programs; nor does The American Ceramic Society assume any liability for losses or injuries suffered by attendees at its meetings. Registered names and trademarks, etc. used in its publications, even without specific indications thereof, are not to be considered unprotected by the law. Mention of trade names of commercial products does not constitute endorsement or recommendations for use by the publishers, editors or authors. Final determination of the suitability of any information, procedure or products for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. Expert advice should be obtained at all times when implementation is being considered, particularly where hazardous materials or processes are encountered.



PLENARY SPEAKERS

OPENING AWARDS CEREMONY & PLENARY SESSION

Monday, 8:20 a.m. – 12 p.m. | Coquina D&E

8:50 a.m.

James I. Mueller Memorial Award:

Stanley Whittingham

NECCES and Chemistry Department, Binghampton University

Li Batteries: 50 years old and the future challenges for an American based industry

The Nobel Committee citation read: "They have laid the foundation of a wireless, fossil fuel-free society, and are of the greatest benefit to humankind." Now the world needs to take action. Although lithium batteries celebrated their 50th anniversary in 2022, they still achieve only 25% of their theoretical energy density. Even at that level, they now dominate portable energy storage. The dominant anode and cathode today are graphitic carbon and the layered NMC oxides, LI[NiMnCoAl]O_2. Both need improving. We must push the chemistry to its limits. Ten-year lifetimes demand 99.95% reaction selectivity

Alternatives to Li-NMC cells will also be discussed, including the phosphates, with also a discussion of what is very technically and/or politically challenging and maybe not viable in an attempt to correct some of the exponential hype in the battery energy storage arena. A key challenge in the Western world is to build a sustainable supply chain and manufacturing capability that leapfrogs the present 30 year old technology. We need to stop building new "old gigafactories" in North America.

Stan Whittingham is a Distinguished Professor of Chemistry and Materials Science and Engineering at Binghamton University. Following his D Phil at Oxford University, he was a research associate in Materials S&E at Stanford University. This was followed by 16 years in the energy industry, before returning to academia at Binghamton. He developed the materials chemistry programs and subsequently MS and PhD degrees in Materials Science and Engineering. He served as the University VPR for five years, and as vice-chair, Board of Directors of the Research Foundation of SUNY. He was the 2019 Chemistry Nobel Laureate for the discovery of lithium rechargeable batteries, and the 2023 VinFutures $3M Grand Prize winner. He is a member of the National Academy of Engineering and Fellow of The Royal Society. He presently leads the Battery-NY $113M economic development effort, and is the Chief Innovation Officer of the recently awarded NSF Upstate New York Energy Storage Engine. He is a founding member of NYBEST, and serves on the Board as Vice-Chair for Research, and Chief Scientific Officer of NAATBatt. He received a knighthood in the King's birthday honors 2024 list.

PLENARY SPEAKERS

OPENING AWARDS CEREMONY & PLENARY SESSION

Monday, 8:20 a.m. – 12 p.m. | Coquina D&E

9:30 a.m.

Mrityunjay Singh Bridge Building Award:

Shunpei Yamazaki

Chairman and CEO of Semiconductor Energy Labratory Co., Ltd.

Title: *Oxide ceramics LSI devices to mitigate global extreme weather due to computers in the AI era*

The emerging AI era has led to a significant increase in computer power consumption, contributing to global extreme weather patterns. To address part of this issue, we will present oxide semiconductor LSI (OSLSI) devices using crystalline indium–gallium–zinc oxide (IGZO), which we named CAAC-IGZO, or crystal indium oxide (IO). Our research has revealed that OS transistors exhibit an extremely low off-current of yA (10^{-24} A)/μm, which is 10 orders of magnitude lower than that of Si FETs. We have also found that crystal IO transistors demonstrate favorable on-state characteristics and excellent frequency characteristics.

We have explored various FET structures achieving a high degree of integration intended for ultra-low power consumption. With the goal of reducing the power consumption of semiconductors, the heart of data centers, to 1/100, we are currently collaborating with LSI and display companies in Taiwan and Korea. This presentation will provide details on how to accomplish ultra-low power consumption using the OSLSI technology based on crystal IO.

Dr. Shunpei Yamazaki is Chairman and CEO of Semiconductor Energy Laboratory (SEL), Japan. In 1970, he invented a non-volatile memory device using a Si floating gate with a control gate, currently known as a "flash memory" during his doctoral work. In 1980, he established Semiconductor Energy Laboratory Co., Ltd. and widespread many significant technologies relating to semiconductor to the society. He received his Ph.D., ME, BE and honorary degrees from Doshisha University, Japan, in 1971, 1967, 1965, and 2011, respectively.

Dr. Yamazaki is a life fellow of the IEEE, distinguished foreign member of the Royal Swedish Academy of Engineering Sciences, and Academician of World Academy of Ceramics. He was awarded Medal with Purple Ribbon by the Japanese Prime Minister's Office for the innovation of MOS LSI element technology in 1997. He received the 2015 SID Special Recognition Award for discovering CAAC-IGZO semiconductors, leading its practical application, and paving the way to next-generation displays by developing new information-display devices such as foldable or 8K×4K displays. He also received 1984 Richard M. Fulrath Award, Medal for Leadership in the Advancement of Ceramic Technology (inaugural winner 2016), 2018 W.D. Kingery Award, and 2024 Rustum Roy Lecture Award from the American Ceramic Society.

Dr. Yamazaki holds the GUINNESS WORLD RECORDS™ Title as "*Most patents credited as inventor*". A total of 20,120 patents was recognized by Guinness World Records on July 9, 2025.

PLENARY SPEAKERS

OPENING AWARDS CEREMONY & PLENARY SESSION

Monday, 8:20 a.m. – 12 p.m. | Coquina D&E

10:40 a.m.

Plenary Speaker:

Steven Zinkle

Department of Nuclear Engineering and Department of Materials Science & Engineering, University of Tennessee - Knoxville

Title: *High performance ceramics for extreme environments: Applications for fission and fusion energy*

Multiple emerging advanced technologies require high-performance materials to operate satisfactorily under extreme operating conditions such as ultra-high temperatures, high heat and particle fluxes, and corrosive environments. Due to a wide range of achievable thermal conductivities (insulating to highly conductive) combined with high upper use temperature, overall structural stability over a wide temperature range, and generally good compatibility with corrosive environments, ceramics are attractive options for many extreme environment applications.

A new generation of advanced high-temperature fission and fusion energy concepts are under consideration for projected future worldwide energy needs. There is also increased interest in nuclear power to enable future science missions involving space exploration. These next generation nuclear energy systems will require advanced high-performance materials due to the extreme operating environment involving high temperatures and heat fluxes, high neutron displacement damage levels and (for fusion first wall materials) intense particle bombardment. Key materials science challenges and research needs associated with reliable operation in these extreme operating environments will be summarized, with emphasis on ceramic materials. The potential for high-performance ceramics to function in these challenging operational environments will be discussed. Ceramic options include ultra-high temperature ceramics (UHTCs), MAX-phase ceramics, complex concentrated ceramics (CCCs, also known as high entropy ceramics or multiple principal element ceramics), and a variety of particulate- and fiber-reinforced ceramic-matrix composites.

Steve Zinkle is the Governor's Chair Professor for Nuclear Materials at the University of Tennessee, Knoxville, with a joint appointment at Oak Ridge National Laboratory (ORNL). His research interests include deformation and fracture mechanisms in structural materials, advanced manufacturing, and high performance materials for extreme operating conditions such as fission and fusion energy systems. He received his PhD in Nuclear Engineering and an MS in Materials Science from the University of Wisconsin-Madison. He is a fellow of the American Ceramic Society, The Minerals, Metals and Materials Society (TMS), the Materials Research Society, the American Nuclear Society, the American Physical Society, and ASM International. He is a member of the National Academy of Engineering.

PLENARY SPEAKERS

OPENING AWARDS CEREMONY & PLENARY SESSION

Monday, 8:20 a.m. – 12 p.m. | Coquina D&E

11:20 a.m.

Plenary Speaker:

Silke Christiansen

Fraunhofer Institute for Ceramic Technology and Systems – IKT

Title: *Multimodal analytics and data-driven optimization of ceramic composite materials for energy and electronic applications*

Advanced ceramic composites are critical enablers of high-performance energy storage and electronic devices. To meet increasing demands for reliability, sustainability, and miniaturization, we introduce a scale-bridging, data-driven optimization pipeline that unites multimodal analytics, machine learning, and physics-based simulations. This integrative framework is broadly applicable across material systems and device platforms, with batteries and microelectronic components serving as exemplary use cases.

The pipeline leverages high-resolution, correlative data from electron, ion, and X-ray microscopies (SEM, FIB-SEM, AFM, XRM), complemented by spectroscopic modalities such as Raman, IR, and µXRF. With nanoGPS-based relocalization, we achieve true multimodal correlation across instruments and scales, enabling quantitative analysis of critical features such as interfaces, degradation zones, and functional inhomogeneities.

Acquisition workflows are designed to maintain chemical and structural integrity—e.g., using glovebox-integrated tools and contamination-free transfer holders—while operando methods provide dynamic insights under real device conditions. These rich datasets are integrated, analyzed, and visualized using the Correlyze platform, allowing AI-assisted segmentation, anomaly detection, and pattern recognition.

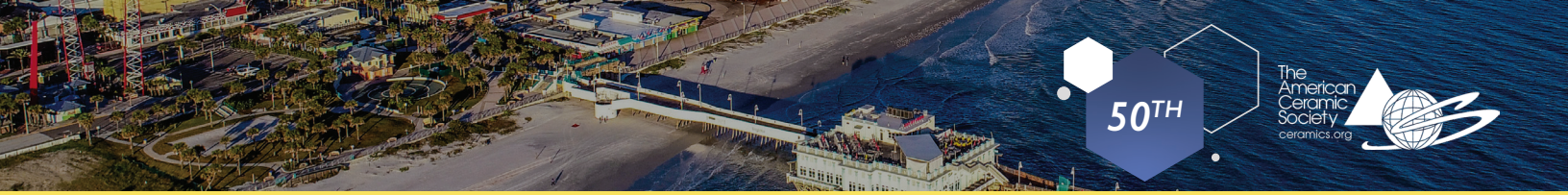
Validated experimental insights are coupled with multiscale simulations, including finite element modeling and AI-based surrogate modeling. This approach enables predictive assessment of functional behavior—be it ionic transport in batteries or thermal/electrical reliability in integrated circuits.

The resulting closed-loop framework streamlines the optimization of ceramic materials across diverse applications. By systematically correlating structure, composition, and performance, we accelerate innovation in both energy and electronic technologies through a unified, data-centric approach.

Silke Christiansen is a full professor of physics at the Free University of Berlin since 2013 and heads the research department for Correlative Microscopy and Materials Data at the Fraunhofer Institute for Ceramic Materials and Systems (IKTS) in Forchheim, Germany. Her scientific career has been recognized with numerous awards, including the MRS Student Award, a fellowship from the Bayerische Forschungsstiftung for research at Columbia University in New York, and a Feodor Lynen Fellowship from the Alexander von Humboldt Foundation, which enabled her to conduct pioneering work in silicon technology at IBM's T.J. Watson Research Center in Yorktown Heights. From 2015 to 2021, she also served as honorary professor in the Department of Materials Science at Chungbuk National University in Korea.

Her expertise spans nanomaterials for energy applications such as batteries and photovoltaics, advanced microscopy and spectroscopy, biomedical sensing, biotechnology, and opto-, power-, and large-area electronics as well as quantitative image analysis using ML/AI algorithms.

She advances these fields through world-class analytical infrastructure that is part of the prestigious labs@ location program of Carl Zeiss Microscopy and part of a strategic partnership with Horiba Europe and Leica Microsystems. Over the course of her career, she has held research and leadership positions at leading institutions in Germany and the United States, including Columbia University, the Max Planck Institutes in Halle and Erlangen, the Helmholtz Zentrum Berlin for Materials and Energy, the Leibniz Institute for Photonic Technology in Jena, and the Friedrich-Alexander University Erlangen-Nürnberg, where she completed her PhD and habilitation. She has authored more than 430 peer-reviewed publications, holds over a dozen patents and patent applications, and her work has been cited more than 18,100 times, reflected in an h-index of 68.



JUBILEE GLOBAL EXCELLENCE AWARD

JUBILEE GLOBAL EXCELLENCE AWARD

Monday, 1:30 – 2:50 p.m. | Grand Ballroom 3

Joanna Wojewoda-Budka

Director of Institute of Metallurgy and Materials Science, Polish Academy of Sciences

Title: The peculiar self-assembling product phases formed via in-situ reactions

The proposed talk focuses on the reactions leading to the creation of self-assembling product phases. Initially, solid-state displacement reactions resulting in periodic layered structures will be presented forseveral metal/ceramic systems: Zn/NiSi, Zn/CoSi, and Mg/SiO. Various opposing models involving physical and/or chemical processes that result in product periodicity have been developed. Such modulated structurescan facilitate in-situ formation of multilayer (spatially ordered) inorganic materials inside the reaction zone,which may occur unintentionally in many cases, such as in joined components, composite materials, thin-filmelectronic devices, and metallization. The second part of the talk will address a specific group of metal-ceramiccomposites with a C4 structure (Co-Continuous Ceramic Composites), consisting of uninterruptedinterpenetrating crystalline lattices of metallic and ceramic components. The experiment involves chemicalreactions between aluminum and reactive oxides, such as YO, SiO, ZnO, and NiO, to in-situ fabricate Al-AlO type microstructure. This approach may open new prospects for ultra-modern, lightweight, and cost-effective metal-ceramic materials applicable in the automotive industry (pistons, bushings, control arms) and inmachinery used in mining, agriculture, etc., where resistance to abrasion and thermal shocks is critical.

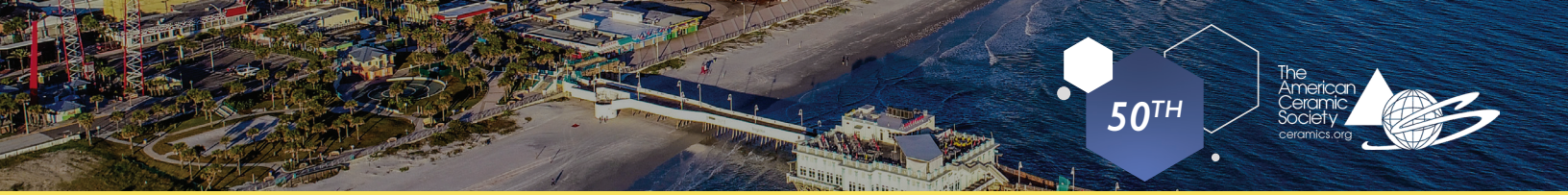
Prof. Joanna Wojewoda-Budka is a dedicated scholar in the field of Materials Science, currently serving as the Director of the Institute of Metallurgy and Materials Science of the Polish Academy of Sciences. She graduated from Jagiellonian University, Department of Chemistry, in 2002, earned her Ph.D. in Materials Science in 2007, and became an Assistant Professor in 2014. She is also leading the Multilayer Department since 2021.

Her research encompasses diffusion phenomena in metals and ceramics, metal-ceramic composites, and joining technologies such as diffusion soldering and explosive welding, with recent work focusing on copper coatings reinforced with oxide particles. Prof. Wojewoda-Budka has co-authored 95 journal articles, over 85 of which are indexed in JCR, and actively participates in international conferences, including her role as Chair Lady for the XVIIIth International Conference on Electron Microscopy (EM2024). She also contributes to the organization of major materials science congresses, including her current role as the organizer of the Euromat 2025 Area D panel focused on Characterization, Modeling, and Artificial Intelligence.

As the General Secretary of the Polish Materials Society, she engages in promoting Materials Science and Engineering through various activities while supporting research efforts with Ph.D. candidates and young scientists from Poland and abroad.

Her research on Co-Continuous Ceramic Composites (C4 structure) offers potential applications in various industries. She has conducted extensive studies on Al/MeO couples and worked on projects related to layered periodic structures in metal-ceramic systems. Additionally, her project under the EU M-Era.Net program focuses on next-generation copper-based coatings with enhanced resistance to pathogens, significantly advancing the field.

Prof. Wojewoda-Budka is also a Board Member of the Federation of Materials Societies (FEMS) for 2024-2025 and has strong ties to industry through approximately 30 research projects, contributing to both academia and practical applications in materials science. She has garnered significant awards, including the NATO scholarship in 2004, the Silver Cross of Merit for scientific activity in the development of science in 2017 and Knight's Cross of Polonia Restituta Order for the overall scientific achievements in 2023 – last two honors were awarded by the President of Poland.



JUBILEE GLOBAL EXCELLENCE AWARD

JUBILEE GLOBAL EXCELLENCE AWARD

Monday, 1:30 – 2:50 p.m. | Grand Ballroom 3

Reeja Jayan

Professor of Mechanical Engineering, Carnegie Mellon University

Title: The spark between fields: Emerging materials opportunities with electromagnetic control

Can we use energy more intelligently to make the materials of the future?

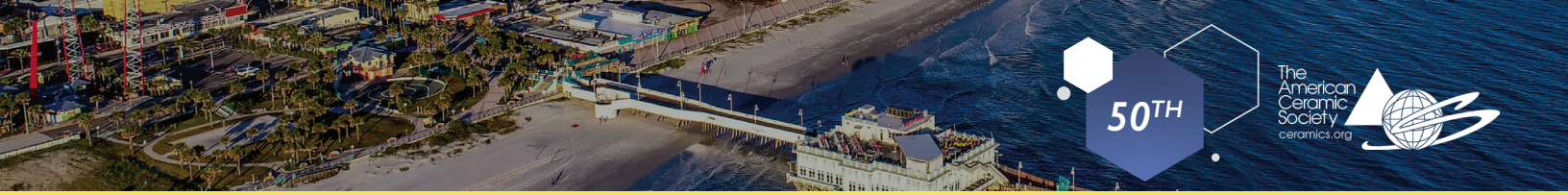
This talk explores how electromagnetic fields—like microwaves—can guide chemical reactions in surprising ways, helping us create advanced materials with less heat, less waste, and more control. From coatings for batteries to 3D-printed engineering ceramics, learn how this emerging approach could transform how we power, build, and manufacture in a cleaner world.

Reeja Jayan is a professor in the Departments of Mechanical Engineering, Electrical and Computer Engineering, and Materials Science & Engineering at Carnegie Mellon University, where she also serves as director of the Center for Faculty SuccessOpens in new window. She leads interdisciplinary research exploring how electromagnetic fields can control materials synthesis and energy storage behavior.

Jayan is the founder and chief executive officer of SeaLion Energy Inc.Opens in new window, a CMU spinout advancing polymer coatings that extend battery life and enable regeneration of lithium-ion cells. Since its launch in 2023, SeaLion has secured over $2 million in grant funding and is scaling its technology with industrial and government partnersOpens in new window.

She has led a research portfolio of over $22 million, collaborated with and mentored more than 50 researchers, and taught over 1,000 students. Her work has earned recognition including the National Science Foundation (NSF) CAREER Award, Army Research Office (ARO) Young Investigator Award, Air Force Office of Scientific Research (AFOSR) Young Investigator Award, and selection to the U.S. National Academy of Sciences panel advising the Army Research Lab. She was also a 2024 finalist for the U.S. Department of Energy's Clean Energy Education & Empowerment (C3E) Award, recognizing women leaders in clean energy.

She serves as associate editor of Science Advances, was elected to the Board of the International Microwave Power Institute (IMPI), and has chaired or served on multiple national and international scientific committees.



JUBILEE GLOBAL EXCELLENCE AWARD

JUBILEE GLOBAL EXCELLENCE AWARD

Monday, 1:30 – 2:50 p.m. | Grand Ballroom 3

Fiona Spirrett

Assistant Professor at The University of Osaka's Joining and Welding Research Institute (JWRI)

Presentation to be delivered at ICACC 2027

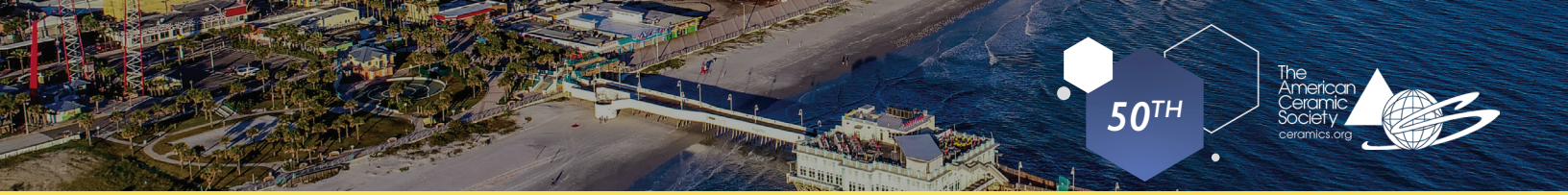
Dr. Fiona Spirrett is an Assistant Professor at The University of Osaka's Joining and Welding Research Institute (JWRI). Her role includes both research and teaching in the Department of Environmental and Energy Engineering, where she leads research projects and supervises student projects focused on developing sustainable societies.

Within the Lithographic Additive Manufacturing Group, Fiona's research focuses on stereolithography of ceramic materials, exploring how the desirable properties of ceramics can be integrated into functional, geometrically complex structures for enhanced performance or reduced environmental burden. Her work bridges computational modelling, material science, and additive manufacturing, with a focus on developing sustainable ceramic-based components for next-generation manufacturing systems. Since joining the JWRI, Fiona has been awarded with three competitive research grants from the Okura Kazuchika Memorial Foundation, Mazda Foundation, and JFE 21st Century Foundation to support her work. Her current projects work towards developing highly efficient ceramic heat exchangers for various applications and Yttria-Stabilized Zirconia electrodes for aluminium smelting through geometry design and optimisation, development of high-volume dispersion ceramic pastes, and component fabrication by stereolithography, utilising various computational analysis methods to support each stage of investigations.

In addition to her research, Fiona plays an active role in teaching and mentoring, guiding students in projects that integrate engineering design with environmental responsibility. She also collaborates with industry partners across Japan to support industry-academia co-operation towards sustainable manufacturing.

Originally from the United Kingdom, Fiona earned her Master's degree in Medicinal and Biological Chemistry from the University of Nottingham, where she focused on computational modelling. She continued her studies at Nottingham, joining the Centre for Additive Manufacturing in 2016 to pursue a PhD in Additive Manufacturing and 3D printing. Her doctoral research explored laser based additive manufacturing of bespoke glass compositions, forming a solid foundation for facing the challenges of processing high performance ceramics and glasses by additive manufacturing techniques.

Beyond her research, Fiona is a keen photographer and traveller with a goal of visiting all 47 prefectures in Japan to experience the diverse landscapes, traditions, and cultures.



2026 GLOBAL YOUNG INVESTIGATOR AWARD WINNER

2026 GLOBAL YOUNG INVESTIGATOR AWARD WINNER

Monday – 1:30 p.m. | Grand Ballroom 5

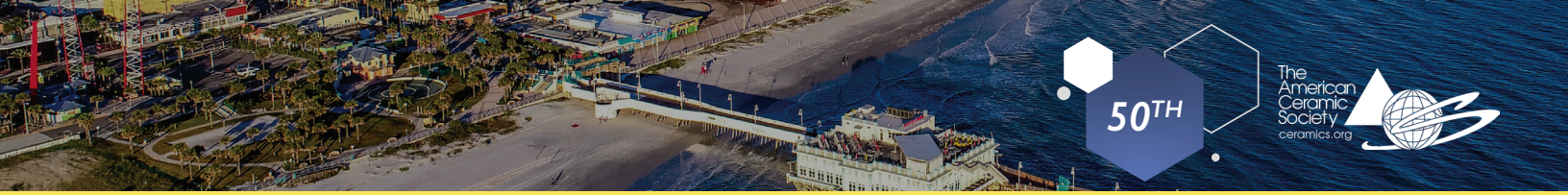
Lyndsey McMillon-Brown

Research Engineer at NASA Glenn Research Center

Title: Next generation materials for advanced energy applications

Advanced materials are critical for myriad applications spanning from the incremental enhancement of human's quality life to disruptive next generation technology that enables space exploration. Here, we will review recent materials development towards advanced energy applications for terrestrial and space applications. This talk will include project overviews, systems analysis, and identifications of technological gaps which the ceramics community could aid to close.

Dr. Lyndsey McMillon-Brown is a research engineer at NASA Glenn Research Center where she focuses on solar cell materials development. She was the lead investigator of one effort to develop solar cells that can be manufactured in space and on the moon and a separate terrestrial effort to improve atmospheric air quality by capturing toxic emissions at their source. Lyndsey was recently awarded the Presidential Early Career Award for Scientists and Engineers (PECASE) the highest honor bestowed by the United States federal government on outstanding scientists and engineers in the early stages of their independent research careers. Lyndsey has also received the NASA Early Career Achievement medal and the NASA Space flight awareness trailblazer award for her work developing solar cells for implementation in space and for her dedication to ensuring safety and mission success in support of NASA's human space flight programs, respectively. Outside of the lab, Lyndsey is a voracious reader and general nature lover. Prior to joining NASA, Lyndsey earned her Ph.D. in Chemical Engineering at Yale in 2019 where she researched novel materials and nano-patterns for advanced light trapping in solar cells. Lyndsey earned her bachelor's in Mechanical and Manufacturing Engineering from Miami University in Ohio in 2013.



SCHEDULE AT A GLANCE

SUNDAY, 1/25/26

IGNITE MSE Luncheon	12 – 1:30 p.m.
IGNITE MSE	1:30 – 4 p.m.
Registration	2 – 6 p.m.
Speaker Ready Room	2 – 6 p.m.
ECD Executive Committee	3 – 4 p.m.
Welcome Reception	4 – 6 p.m.

MONDAY, 1/26/26

Registration	7 a.m. – 5:30 p.m.
Speaker Ready Room	8 a.m. – 4 p.m.
ICACC Opening & Plenary Session	8:20 a.m. – 12 p.m.
Coffee Break	10:10 – 10:40 a.m.
Lunch On Own	12 – 1:30 p.m.
Journal Publishing Workshop	12 – 1:30 p.m.
Technical Sessions	1:30 – 5:30 p.m.
Coffee Break	3 – 3:20 p.m.
ACerS Student and Young Professional Networking Mixer	7:30 – 9 p.m.

TUESDAY, 1/27/26

Registration	7:30 a.m. – 5 p.m.
Speaker Ready Room	8 a.m. – 4 p.m.
Technical Sessions	8:30 a.m. – 12 p.m.
Coffee Break	10 – 10:20 a.m.
Lunch On Own	12 – 1:30 p.m.
Exhibitor Move-In	12 – 4 p.m.
Technical Sessions	1:30 – 5 p.m.
Coffee Break	3 – 3:20 p.m.
Exhibits & Poster Session Including Reception	5 – 8 p.m.
Shot Glass Contest	6:45 – 8 p.m.

WEDNESDAY, 1/28/26

Registration	7:30 a.m. – 5 p.m.
Speaker Ready Room	8 a.m. – 4 p.m.
Technical Sessions	8:30 a.m. – 12 p.m.
Corporate Partner Breakfast	9 – 10:30 a.m.
Coffee Break	10 – 10:20 a.m.
Lunch On Own	12 – 1:30 p.m.
Technical Sessions	1:30 – 5 p.m.
Coffee Break	3 – 3:20 p.m.
Exhibits & Poster Session Including Reception	5 – 7:30 p.m.

THURSDAY, 1/29/26

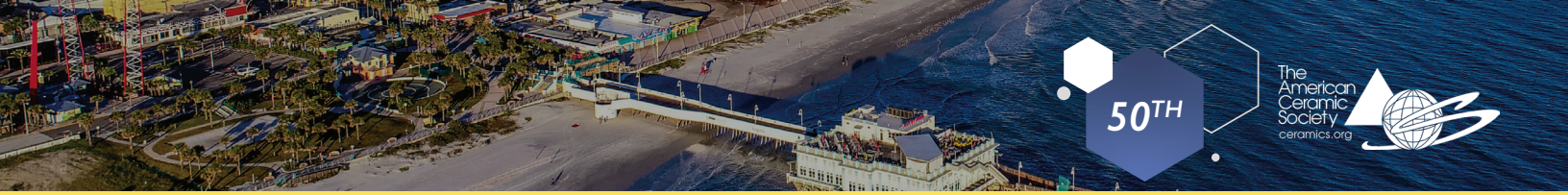
Registration	7:30 a.m. – 5:30 p.m.
Speaker Ready Room	8 a.m. – 4 p.m.
Mechanical Properties of Ceramics and Glass Short Course**	8 a.m. – 5:30 p.m.
Technical Sessions	8:30 a.m. – 12 p.m.
Coffee Break	10 – 10:20 a.m.
Lunch On Own	12 – 1:30 p.m.
Technical Sessions	1:30 – 5:30 p.m.
Coffee Break	3 – 3:20 p.m.
Golden Jubilee Conference Dinner*	6:30 – 9:30 p.m.

FRIDAY, 1/30/26

Registration	8 a.m. – 12 p.m.
Mechanical Properties of Ceramics and Glass Short Course**	8 a.m. – 5:30 p.m.
Technical Sessions	8:30 a.m. – 12 p.m.
Coffee Break	10 – 10:20 a.m.

*Ticketed Event; Tickets can be purchased through registration

** Additional registration is required



SPECIAL EVENTS

ICACC 2026 will offer a number of special events to not only encourage invaluable networking opportunities with colleagues, but also help to supplement your travel budget! ICACC 2026 registration includes three evening receptions with food and drink provided, as well as two coffee breaks per day, and an additional evening reception for students and young professionals. The host hotel, the Hilton Daytona Beach, will also offer lunch specials for conference attendees. Tickets to the Golden Jubilee Celebration dinner on Thursday night are available for an additional fee and require registration.

WELCOME RECEPTION

Network with colleagues at the reception and enjoy food, drinks, and a steel drum band at the kick-off event held with a great view of Daytona Beach behind the Hilton.

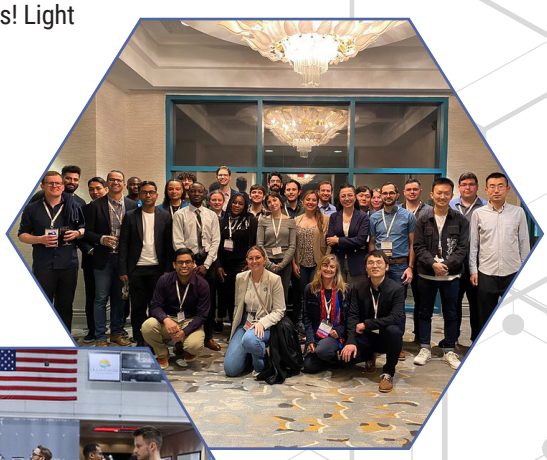
ACerS Student and Young Professional Networking Mixer: Join fellow students and young professionals for food and drink at the Student and Young Professionals Networking Event.

SHOT GLASS CONTEST

Organized by ACerS President's Council of Student Advisors (PCSA), test your skills with this design contest! Competing teams of four will be given 15 pipe cleaners to build a protective device for their shot glass provided by SCHOTT. Then, the glasses will be dropped from increasing heights until the breaking threshold is reached. The glass with the highest successful drop distance wins!

EXPO AND POSTER SESSION

Visit with vendors from the ceramic and glass industry and check out scientific posters! Light food and drink will be provided.



POSTER PREVIEW PITCH

At ICACC 2026, poster presenters will have the opportunity to make a two-minute "Poster Preview Pitch" in front of their colleagues at the end of their respective technical session each day, in addition to presenting their poster in the two-day poster session. This is optional and poster authors indicated their interest in participation at time of submission.

CONFERENCE DINNER

Join us for the celebration of the Golden Jubilee ICACC! This celebration will be held on Thursday night and will feature live music and dancing after a buffet dinner.*

*Ticketed Event: Tickets can be purchased through registration.

STUDENT ACTIVITIES

The ACerS President's Council of Student Advisors (PCSA) aims to enhance attendee engagement through a variety of interactive and competitive activities:

SHOT GLASS COMPETITION

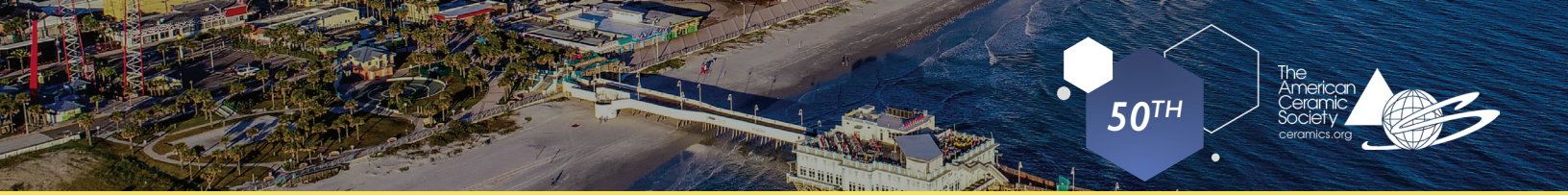
Teams of four participants will use a shot glass and 15 pipe cleaners to design protective structures. The goal is to safeguard the glass during drops from increasing heights. The team whose glass withstands the highest drop will be declared the winner. Prize: $200 Gift Card for a winning team. ($50 for each team member)

IGNITE MSE

IGNITE MSE is a professional development workshop co-organized by the PCSA and ACerS. The program brings students together at the start of ICACC for career-focused talks, networking, and discussions with speakers from industry, national laboratories, and academia. IGNITE MSE is designed to help students gain perspective on career pathways and start the conference with a strong foundation for networking.

PCSA BOOTH ACTIVITIES

Attendees are invited to visit the PCSA booth, located next to the ACerS table, to participate in a golf putting challenge. Winners will receive exclusive PCSA merchandise. Prizes: PCSA gift bags and merchandise.



POSTER PREVIEW PITCH

Poster presenters have the opportunity to present a two minute summary of their research. Thank you to the presenters listed below who will make their Poster Preview Pitch with in their specific symposium or focused session. **Please note, presentation times might have fluctuated due to last minute cancellations. Refer to the online itinerary planner for the most up to date information.**

Young-Wook Kim
Special Focused Session on Entrepreneurship and Commercialization
Monday, January 26, 2026 | 4:40 p.m.
Toward pore-free SiC ceramics for advanced applications

John Szumowski
15th Global Young Investigator Forum on Sustainability
Tuesday, January 27, 2026 | 4:30 p.m.
Evaluating the rheology of lunar regolith simulant melts and their interaction with crucible refractory materials

Fabian Jung
Focused Session 2: Ceramics to Shape the Future of Low-Carbon and Carbon-Negative Technologies
Wednesday, January 28, 2026 | 11:50 a.m.
MAXCarbon hybrid fibres for durable electrochemical components in hydrogen technologies towards net-zero carbon emissions

Shihong Yuan
Focused Session 4: Ceramic/Carbon Reinforced Polymers
Wednesday, January 28, 2026 | 10:10 a.m.
Evaluation of vibrational properties of polymer materials by molecular dynamics simulation

Michael Jenkins
SYMPOSIUM 1: Mechanical Behavior and Performance of Advanced Ceramics & Composites
Wednesday, January 28, 2026 | 11:50 a.m.
ASTM international standards for properties/performance of advanced ceramics-Helping our world work better by Advancing Standards/Transforming Markets

Wondayehu Alemu
SYMPOSIUM 1: Mechanical Behavior and Performance of Advanced Ceramics & Composites
Wednesday, January 28, 2026 | 11:52 a.m.
Toughening and densification of Ti-Mo-B2 ceramics by liquid-phase reactive sintering at a reduced temperature of 1550 °C

Koshika Pandey *WITHDRAWN*
SYMPOSIUM 1: Mechanical Behavior and Performance of Advanced Ceramics & Composites
Wednesday, January 28, 2026 | 11:54 a.m.
Laser-Assisted Joining of SiC/SiC Composite for High-Temperature Applications

Aurora Pizzinat
SYMPOSIUM 1: Mechanical Behavior and Performance of Advanced Ceramics & Composites
Wednesday, January 28, 2026 | 11:56 a.m.
Porosity effects on strength of oxide-CMC coatings and joints with preceramic polymers

Francesco Da Prato
SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology
Monday, January 26, 2026 | 5:20 p.m.
Sealing and steam-electrode development for the integration of protonic ceramic electrolysis cells

Francesco Braghò
SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology
Monday, January 26, 2026 | 5:22 p.m.
Formulation of novel glass sealants for protonic ceramic electrolysis cells

Merle Wellmann
SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology
Monday, January 26, 2026 | 5:24 p.m.
Mixed ionic-electronic conductors based on high-entropy oxides synthesized via sol-gel and nebulized spray pyrolysis

Andrea Moranti
SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology
Monday, January 26, 2026 | 5:26 p.m.
Multiphysics model for protonic ceramic electrolysis cells and olefins electrochemical production

Yi-Ming Zhao
SYMPOSIUM 4: Advanced Materials for Thermoelectric and Thermionic Energy Conversion
Thursday, January 29, 2026 | 11:30 a.m.
Dual-channel phonon transport in two-dimensional materials with low thermal conductivity

Shaista Ilyas
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites
Wednesday, January 28, 2026 | 5:40 p.m.
A green wall concept: Micro- and nanoparticles for enabling algae growth on concretes

Kaja Stanislawska
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites
Wednesday, January 28, 2026 | 5:42 p.m.
Tailoring magnesium phosphate cements with chitosan-based hydrogels for injectable bone repair

Francesca Gattucci
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites
Wednesday, January 28, 2026 | 5:44 p.m.
Synergistic approaches for improving antimicrobial activity of electrospun fibers

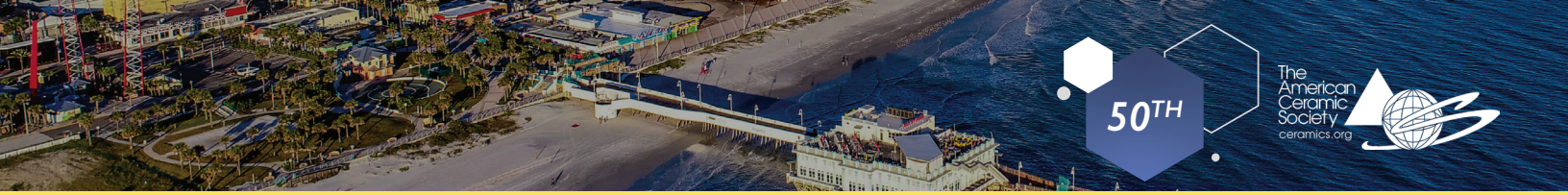
Kevin Pontillo
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites
Wednesday, January 28, 2026 | 5:46 p.m.
Development of multifunctional composite materials for the treatment of diabetic ulcers

Mehmet Tasyagan
SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage
Wednesday, January 28, 2026 | 5:00 p.m.
Preparation and characterisation of Na0.5Bi0.5Cu3Ti4O12 (NBCTO) for electrical applications

Won Seok Yang
SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage
Wednesday, January 28, 2026 | 5:02 p.m.
Conjugated bronze/anatase/rutile TiO2-carbon anodes engineered from titanium-based metal-organic frameworks for enhanced lithium-ion storage

David Patrun
SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage
Wednesday, January 28, 2026 | 5:04 p.m.
Exploring fully flexible batteries: Material and morphology design of bendable electrodes

Zeyan Li
SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage
Wednesday, January 28, 2026 | 5:06 p.m.
Electrostatics and chemistry combination divalent cobalt ions and alkali treated MXene for high performance lithium ion batteries



POSTER PREVIEW PITCH

Yapeng Cheng
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:40 a.m.
The critical role of electronic spin states in Fe-N4 moieties on enhancing oxygen reduction activity

Jiali Chai
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:42 a.m.
Construction of hard carbon with oxidized-crosslinked structure for sodium-ion batteries

Marisa Kelley
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:44 a.m.
Local structure evolution in thin film chalcogenides explains property differences

Demet Erdag Basoglu
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:46 a.m.
Hybrid nanomaterial-cold atmospheric Plasma approach for synergistic cancer cell inhibition

Linlin Yang
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:48 a.m.
Self-supported NiO/CuO electrodes to boost urea oxidation in direct urea fuel cells

Xiaoyu Bi
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:50 a.m.
Ca2+-preintercalated V2O5 as a dual-function cathode additive for polyiodide anchoring in Zn-I2 batteries

Kun Woong Lee
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications
Wednesday, January 28, 2026 | 10:52 a.m.
Photoelectrochemically driven valence-charge control for defect inactivation and VO2 passivation in BiVO4 photoanodes

Krishnakant Phand
SYMPOSIUM 8: 20th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems (APMT20)
Tuesday, January 27, 2026 | 3:00 p.m.
Development of aluminum nitride (AlN) dispersion strengthened austenitic stainelss steel through powder metallurgy route

Natalia Sobczak
SYMPOSIUM 8: 20th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems (APMT20)
Tuesday, January 27, 2026 | 4:42 p.m.
High temperature behavior of molten magnesium on oxides vs oxidized metallic substrates

Yuya Akiba
SYMPOSIUM 10: Integrated Computational-Experimental Modeling and Design of Ceramics and Composites
Wednesday, January 28, 2026 | 4:40 p.m.
A style transfer DNN and algorithmic simulation approach for generating SEM images of polycrystals to train segmentation networks

Daichi Miura
SYMPOSIUM 13: Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems
Wednesday, January 28, 2026 | 5:00 p.m.
Sintering optimization and grain size evaluation of additively manufactured SiC for nuclear applications

Hakki Yegingil
SYMPOSIUM 13: Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems
Wednesday, January 28, 2026 | 5:02 p.m.
CoorsTek advanced ceramic technologies powering tomorrow's energy landscape

Mingzhao Li
SYMPOSIUM 15: 10th International Symposium on Additive Manufacturing and 3D Printing Technologies
Wednesday, January 28, 2026 | 11:00 a.m.
Manufacturing of meta-composite thermoelectric devices with high energy generation and mechanical performance

Ya Tang
SYMPOSIUM 15: 10th International Symposium on Additive Manufacturing and 3D Printing Technologies
Wednesday, January 28, 2026 | 11:02 a.m.
Direct Ink Writing of high zeolite catalysts for enhanced structural durability

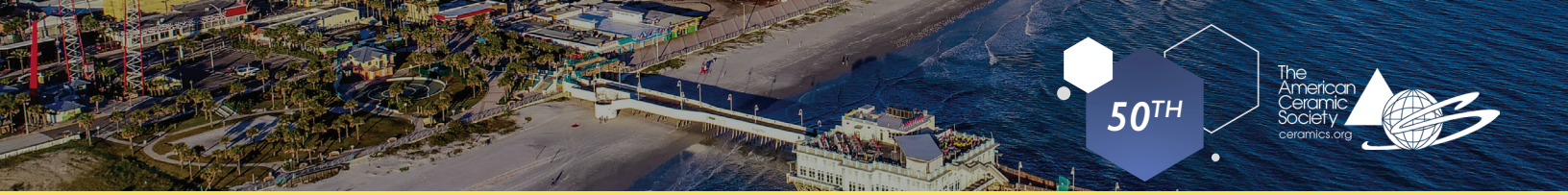
A K M Abirul Haque
SYMPOSIUM 15: 10th International Symposium on Additive Manufacturing and 3D Printing Technologies
Wednesday, January 28, 2026 | 11:04 a.m.
Direct exfoliation of hexagonal boron nitride in silicone polymer: A novel feedstock for additive manufacturing of flexible micro vapor chambers

Adrian Keith Caamino
SYMPOSIUM 16: Geopolymers, Inorganic Polymer-Derived Ceramics and Sustainable Construction Materials
Wednesday, January 28, 2026 | 5:20 p.m.
Evaluating mechanical performance and optimizing ratios for rice hull ash and cement in shotcrete

Ziyaad Aytuna
SYMPOSIUM 19: Molecular-level Processing and Chemical Engineering of Functional Materials
Monday, January 26, 2026 | 5:30 p.m.
From alkoxides to thiolates: Precursor chemistry for high entropy oxides and high entropy sulfides

Asma Ul Hosna
SYMPOSIUM 19: Molecular-level Processing and Chemical Engineering of Functional Materials
Monday, January 26, 2026 | 5:32 p.m.
Atomistic insights into PND polymer conversion to B/C solids with enhanced ReaxFF modeling

Andreas Lichtenberg
SYMPOSIUM 19: Molecular-level Processing and Chemical Engineering of Functional Materials
Tuesday, January 27, 2026 | 11:00 a.m.
Molecular actinide precursors for chemical vapor deposition of actinide-based thin films



BREAKING NEWS POSTERS

LATE POSTER SUBMISSIONS

ICACC-PA061-2026
Effects of surface roughness and edge damage on mechanical reliability of glass interposers for 2.5D/3D HBM packaging

H. Hong[1], S. Jung[2], J. Yoon[2]

1. Department of Semiconductor and Display Engineering; Samsung Institute of Technology, Sungkyunkwan University - Natural Sciences Campus, Suwon-si, Gyeonggi-do, KOREA (THE REPUBLIC OF)
2. Department of Semiconductor Convergence Engineering, Sungkyunkwan University - Natural Sciences Campus, Suwon-si, Gyeonggi-do, KOREA (THE REPUBLIC OF)

ICACC-PA062-2026
In-Cycle Argon Plasma-Assisted ALD for Electrical Property Modulation of IGZO Thin-Film Transistors

T. Kim[1], Y. Kim[1]

1. Chemical and Biological Engineering, Seoul National University, Gwanak-gu, Seoul, KOREA (THE REPUBLIC OF)

ICACC-PA063-2026
Development of multifunctional composite materials for the treatment of diabetic ulcers

K. Pontillo[1], M. Miola[1], M. Sangermano[1], E. Vernè[1]

1. Department of Applied Science and Technology, Politecnico di Torino, Turin, Piedmont, ITALY

Poster Session B

ICACC-PB-063-2026
High-throughput screening of compositionally complex ultra-high temperature ceramics via carburized combinatoric metal thin films

A. Barbosa[1], A. Bohn[2], V. Verma[1], C. Ott[1], A. Hodge[2], I. McCue[1]

1. Materials Science and Engineering, Northwestern University, Evanston, Illinois, UNITED STATES
2. Chemical Engineering and Materials Science, University of Southern California, Los Angeles, California, UNITED STATES

ICACC-PB-064-2026
Optimizing Thermal Debinding and Sintering Post-Processes in Additively Manufactured Silica-Based Ceramics

S. D. Chen[2], J. Kim[2], K. Trinh[2], D. McGraw Dattelbaum[3], P. Belleville[1], K. Lee[2]

1. Commissariat a l'energie atomique et aux energies alternatives Siege administratif, Gif-sur-Yvette, Île-de-France, FRANCE
2. Materials Physics and Applications, Los Alamos National Laboratory, Los Alamos, New Mexico, UNITED STATES
3. Dynamic Experiments, Los Alamos National Laboratory, Los Alamos, New Mexico, UNITED STATES

ICACC-PB-065-2026
High temperature behavior of molten magnesium on oxides vs oxidized metallic substrates

N. Sobczak[1], S. Terlicka[1], J. Vronska[1], K. Janus[2], J. Sobczak[2]

1. Instytut Metalurgii i Inzynierii Materialowej im Aleksandra Krupkowskiego Polskiej Akademii Nauk, Kraków, Lesser Poland Voivodeship, POLAND
2. Akademia Gorniczo-Hutnicza im Stanislawa Staszica w Krakowie, Kraków, POLAND

ICACC-PB-066-2026
Planarity in Proton Conductive Solid Oxide Cells: Challenges and Solutions

F. Torazzi[1], M. Testi[2], V. M. Sglavo[1]

1. Industrial Engineering, Universita degli Studi di Trento, Trento, Trentino-Alto Adige/South Tyrol, ITALY
2. Center for Sustainable Energy - SE, Fondazione Bruno Kessler, Trento, Trentino-Alto Adige/South Tyrol, ITALY

ICACC-PB-067-2026
Integration of conventional and advanced production processes in planar Proton Conductive Cell

F. Torazzi[1], E. De Bona[2], S. Zorzi[2], M. Bordin[2], M. Testi[2], V. M. Sglavo[1]

1. Industrial Engineering, Universita degli Studi di Trento, Trento, Trentino-Alto Adige/South Tyrol, ITALY
2. Center for Sustainable Energy - SE, Fondazione Bruno Kessler, Trento, Trentino-Alto Adige/South Tyrol, ITALY

LATE CONTRIBUTED PRESENTATIONS

LATE CONTRIBUTED PRESENTATIONS

Symposium 1 | Thursday, January 29, 2026, 4:40 p.m. Coquina E

(ICACC-S1-060-2026) Engineered ceramic wear linings for abrasion- and impact-intensive industrial systems

Y. Yiming[1]

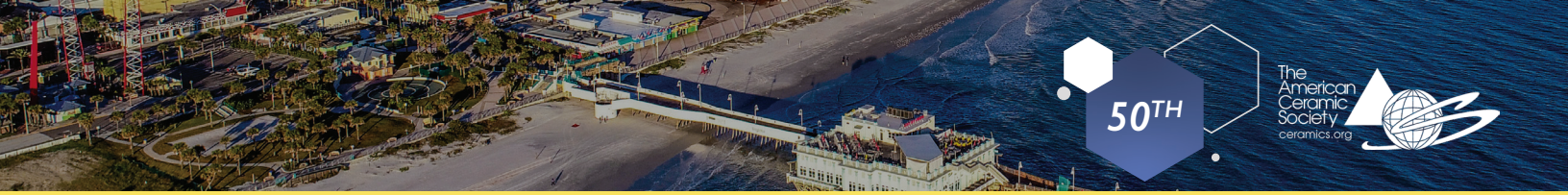
1. Illinois Wesleyan University, Marion, IL, United States.

Special Focused Session on Entrepreneurship and Commercialization | Monday, January 26, 2026, 4:42 p.m. Ballroom 3

(ICACC-SPEC-004-2026) Commercialization of Binder Jetting Additive Manufacturing for Silicon Carbide Components

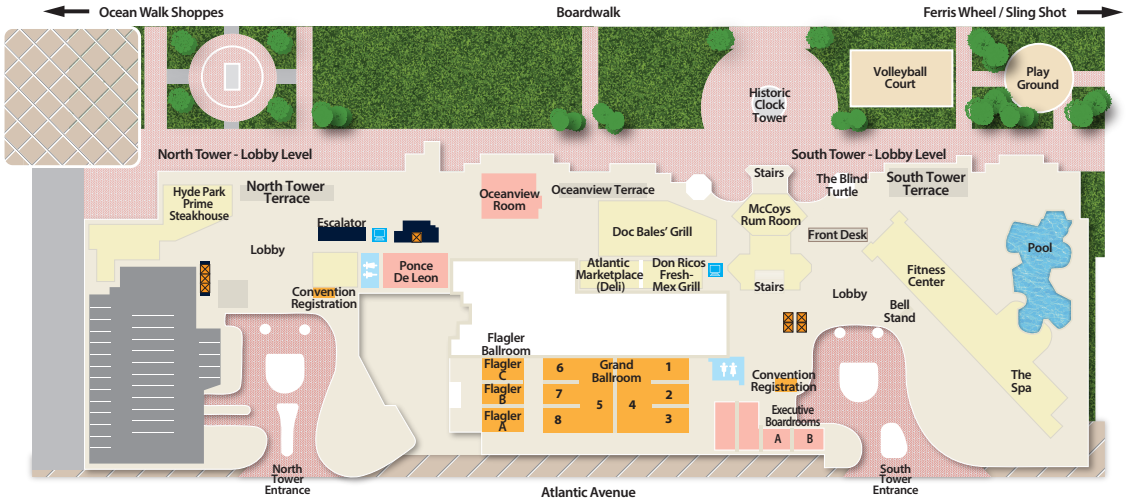
S. Cho[1]*; Y. Jung[1]; J. Oh[1]

1. MADDE Inc., Seoul, Korea (the Republic of).

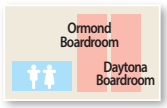


HOTEL FLOORPLAN

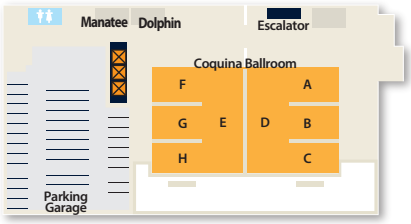
HILTON DAYTONA BEACH OCEANFRONT RESORT



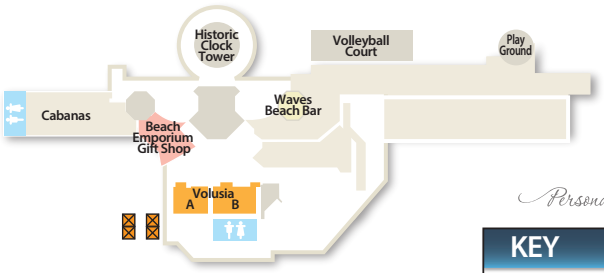
North Tower - 5th Floor



South Tower - 3rd Floor



North Tower - 3rd Floor



South Tower - Beach Level

Personal Concierge MAP

KEY

- Elevators
- Restrooms
- Connectivity Station

Hilton
DAYTONA BEACH OCEANFRONT RESORT

Daytona Beach, FL | 386.254.8200 | daytonahilton.com

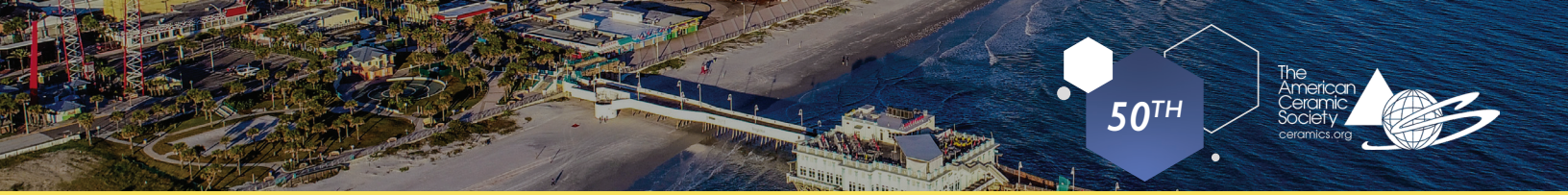
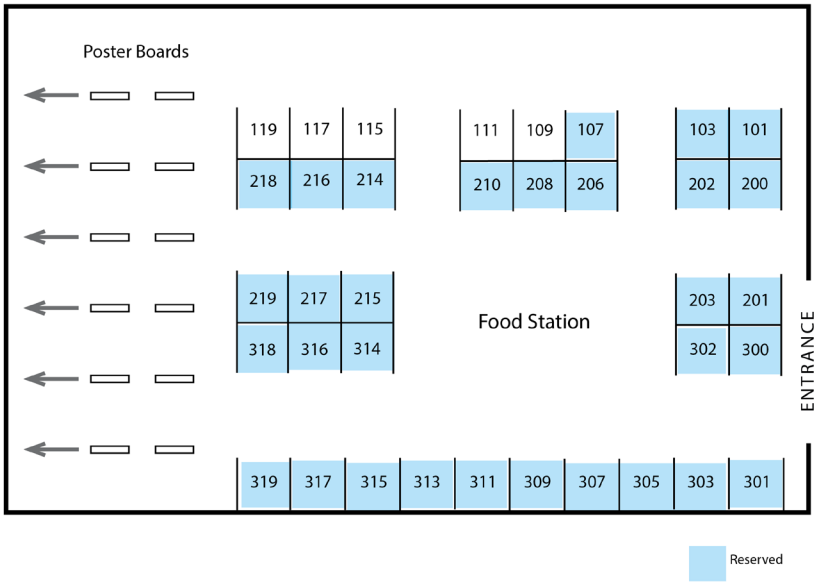
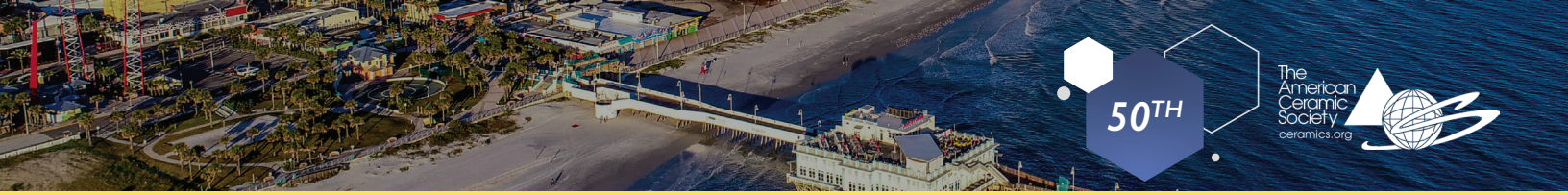


EXHIBIT HALL FLOORPLAN

ICACC 2026





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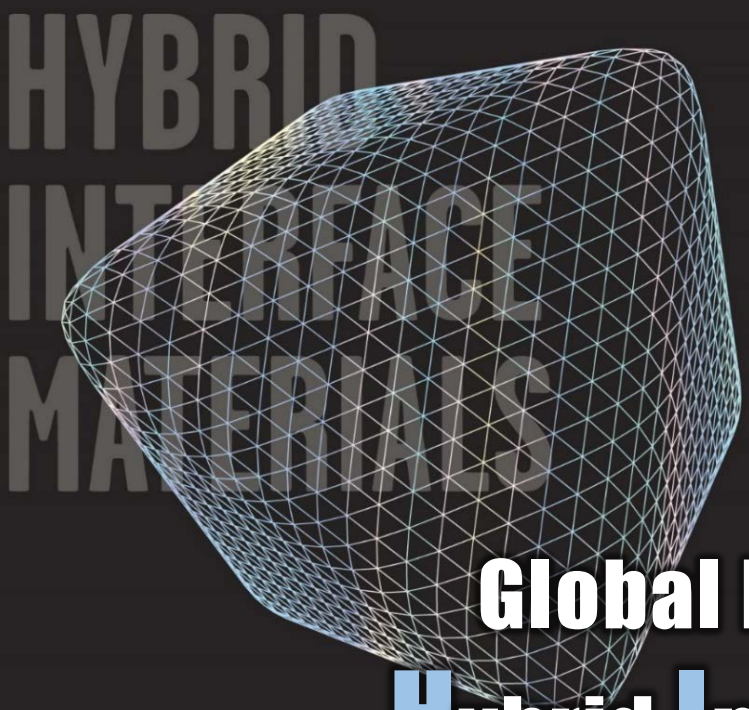


과학기술정보통신부
Ministry of Science and ICT
Global Frontier Project

Global Frontier Center for Hybrid Interface Materials

About "HIM"

- **Date of establishment : 2013. 11. 26.**
- **Director** : Prof. Kwang-Ho Kim
  (Pusan National University)

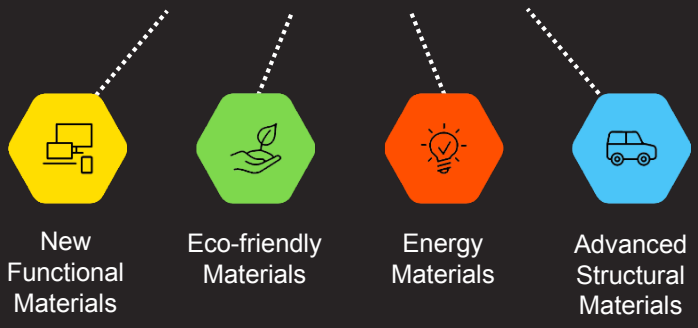
Research Goal

- Development of world best basic/fundamental technologies for innovative products based on Hybrid Interface Technology (HIT)
- Development of future materials/parts/products for commercialization of the core technologies

Project Scope

- Observation of physical/chemical/electrical properties at the interfaces of hybrid materials with materials computation methodology
- Design and development of innovative interface materials with multi-functionality
- Demonstration and categorization of the hybrid materials for the core technologies

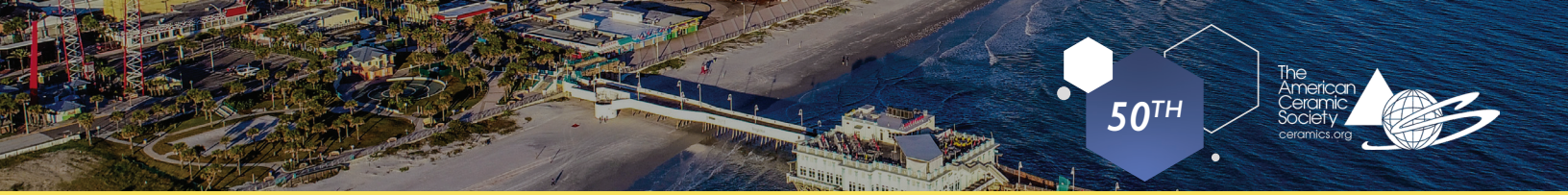
HIM's Platforms



GLOBAL FRONTIER
Hybrid Interface Materials

6th Fl, Hyowon Industry-University Cooperation Building, Pusan National University, Pusandaehak-ro 63 Beon-gil 2, Geumjeong-gu, Busan, Republic of Korea

TEL: +82-51-510-3392~3 **www.gfhim.re.kr**



EXPO PREVIEW

ACROSS INTERNATIONAL LLC
Booth No. 311

Across International is an award-winning ISO 9001:2015 certified manufacturer of heat treatment and material processing equipment. With over 30 years manufacturing experience, we enable scientists to make the world a better place by using our products to further research. Across International offer a complete range of high-end equipment, consumables, and sample testing services.
acrossinternational.com

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Corporate Partner

AdValue Technology is a trusted global supplier of high-performance materials designed to meet the demanding needs of advanced research and industrial production. Our extensive portfolio includes high-temperature ceramics, precision-grown crystals, fused quartz, high-purity powders, refractory metals, and more.
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AMERICAN CERAMIC SOCIETY (THE)
Booth No. 101

More than 10,000 scientists, engineers, researchers, manufacturers, plant personnel, educators, students, marketing and sales professionals from more than 80 countries make up the members of The American Ceramic Society. The Society provides members and subscribers access to an extensive array of periodicals and books, meetings and expositions, and online technical information. In addition, ACerS Journals are three of the most cited ceramic publications in the world. ACerS educates and provides forums to connect individuals working in ceramics-related materials through hosted technical meetings and communities in order to better advance the ceramics community. Since 1898, ACerS has been the hub of the global ceramics community and one of the most trusted sources of ceramic materials & applications knowledge. If ceramic material and technologies are a significant part of your work, then ACerS is the professional society for you.
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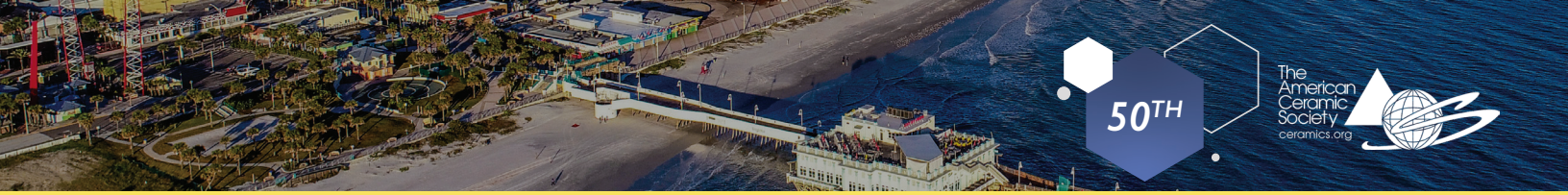

EXPO PREVIEW

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Corporate Partner

AVS specializes in design, engineering, fabrication and complete integration of custom furnaces. We specialize in applications involving combinations of high temperatures to 2400°C, vacuum to 10-6 torr, and gas pressures up to 3000 psig (200 bar). We also manufacture furnaces that include hydraulic hot pressing from 5 tons to over 1000 tons of force, complex gas controls such as MIM and CVD, as well as combination debinding/sintering furnaces. Some AVS furnace applications involve induction heating, but most utilize either graphite or metal resistance heating. AVS leads the industry with its ACE Data Acquisition and Control System, a fully integrated control system that provides graphical user interface screens with point-and-click selection and control of furnace components, run-time parameter displays, recipe screens, user-configurable recipes, status screens, statistics screen and trend screens, including a split-screen feature, allowing direct trend screen comparisons.
sales@avsinc.com | https://www.avsinc.com

CENTORR VACUUM INDUSTRIES
Booth No. 216

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Centorr Vacuum Industries is a manufacturer of vacuum and controlled atmosphere furnaces for sintering, debinding, and heat treatment of advanced ceramics such as SiC, Si3N4, AlN, BN, and B4C, metals, cermets, and UHTC materials. We will be highlighting our laboratory to production size furnaces for emerging markets such as the hypersonic and graphitization industries.
smurphy@centorr.com | https://www.vacuum-furnaces.com

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ceramitec 2026 Leading international trade fair for the high-performance material ceramics. ceramitec brings together the entire spectrum of industry and research. You can discover the latest products, technologies, and trends, make valuable connections and help shape the future of the ceramics industry and its diverse application sectors.
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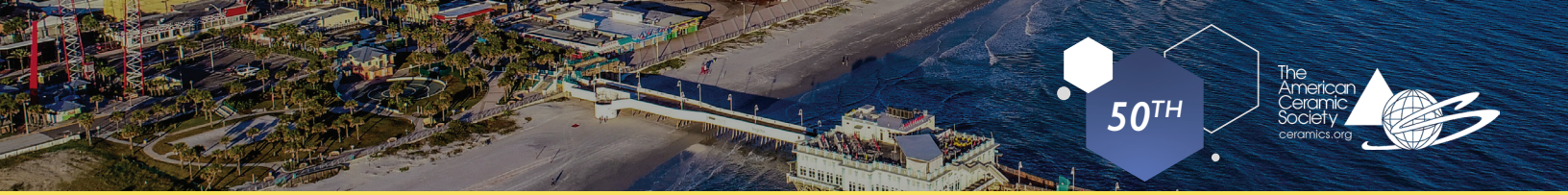
CM Furnaces offers units of standard design and construction, as well as specialized custom units. We manufacture a complete line of Laboratory Furnaces in all configurations, including box and tube furnaces, ranging from 1000°C to 1800°C. These are available in air, inert and reducing atmospheres. CM also offers Production furnaces and our 1700°C Batch, Hydrogen and Box furnaces. A line of furnaces for Additive Manufacturing is provided.
info@cmfurnaces.com



EXPO PREVIEW

DYNAMIC SYSTEMS, INC.
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Dynamic Systems Inc., the creator of the Gleeble, is the global leader in physical simulation systems. Now, with the Ultra-High Temperature Ceramics (UHTC) System, DSI brings a transformative tool to the ceramics research community. Purpose-built for temperatures up to 2500C, 10 tests/day, the system delivers unmatched precision for studying ultra-high temp ceramics
don.olszowy@Gleeble.com | https://gleeble.com/

ELECTROCHEMICAL SAFETY RESEARCH INSTITUTE
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Corporate Partner

At the Electrochemical Safety Research Institute (ESRI), part of UL Research Institutes, our mission is to advance safer design and deployment of energy storage and energy generation through science. Based in Houston, we conduct comprehensive research on a range of energy technologies, from lithium-ion batteries to novel battery materials to hydrogen. Through our research, we lay the foundation for energy storage and energy generation that is reliable and safe.
NFP.ElectrochemicalSafety@UL.org | ul.org/ESRI

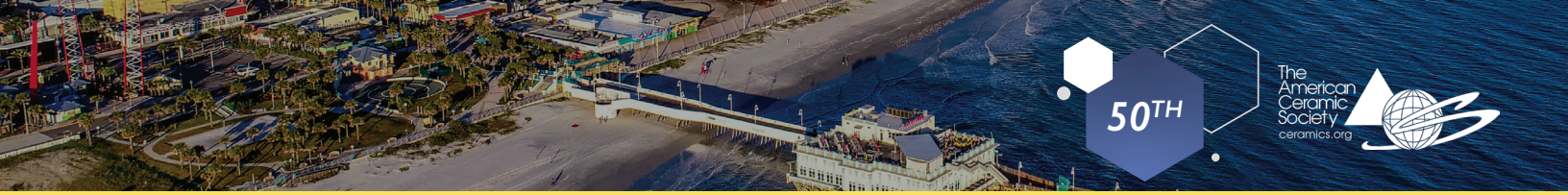
EXPERT LAB SERVICE
Booth No. 319

At ELS, we design and manufacture custom thermal analysis instruments, highly valued in the ceramic, aerospace, energy, and metallurgy industries. Our specialty lies in high-temperature, non-contact optical measurement of key material properties, including: Thermal expansion, Sintering dynamics, Softening and melting points, Viscosity, Pyroplasticity and Internal stresses.
info@expertlabservice.it | https://www.expertlabservice.it

FRAUNHOFER INSTITUTE FOR CERAMIC TECHNOLOGIES AND SYSTEMS IKTS
Booth No. 313

Corporate Partner

As a research and technology service provider, the Fraunhofer IKTS develops advanced high-performance ceramic materials, industrial manufacturing processes as well as prototype components and systems in complete production lines up to the pilot-plant scale.
info@ikts.fraunhofer.de | http://www.ikts.fraunhofer.de/en.html



EXPO PREVIEW

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Corporate Partner

Gasbarre is a full-service OEM offering equipment and services for powder materials, thermal processing, and automation solutions. Products include mechanical, CNC hydraulic, electric, high-speed, and dry-bag isostatic presses, and vacuum and atmosphere furnaces in continuous and batch designs up to 3000ºF. Gasbarre also offers precision tooling for all its products.
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Booth No. 210

Corporate Partner

Haiku Tech offers tape casting (coating) equipment; as well as sheet blankers, stackers, isostatic laminators, furnaces, and materials for the development and manufacturing of Multilayer Ceramic products, including Substrates, SOFC, SOEC, etc. We also offer prototyping and consulting services to develop tape casting formulations for standard or customized ceramic powders.
mdemoya@haikutech.com | http://www.haikutech.com

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Vianessa.ng@linde.com | https://www.linde-amt.com/en/materials-and-equipment/materials/specialty-ceramics

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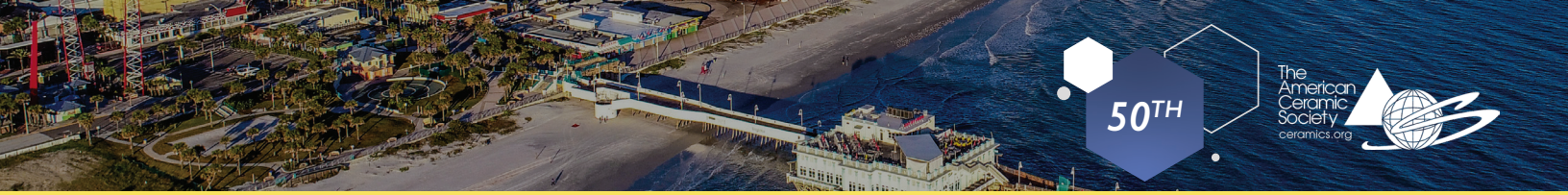
Corporate Partner

Lithoz is the world market and technology leader in 3D printers and materials for high-performance ceramics. The CeraFab family includes an entry-level model, systems for prototyping and manufacturing, and a new multi-material printer. The open material platform allows customers to use Lithoz many standard materials or develop and print their own slurries.
sallan@lithoz-america.com | https://www.lithoz.com



EXPO PREVIEW

MATERIALS RESEARCH FURNACES LLC
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MRF creates High Temperature vacuum and controlled atmosphere established in 1990 MRF focuses vapor deposition (PVT), crystal growth, brazing, annealing and arc melting. System temperatures range from 500 C to 3500 C.
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MiCo Co., Ltd. advances high-tech ceramic materials, driving localization of key semiconductor and display parts and earning global recognition. Since 2008, it has developed SOFC, achieving Korea's first 2kW certification and a 1MW mass-production line.
taesik.bae@mico.kr | https://www.mico.kr/en/

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NETZSCH Instruments provides sensitive, versatile, and reliable thermal analysis and rheology instrumentation for R&D, quality control, process safety, and failure analysis. Our instruments and methods allow for material characterization and the study of properties including Cp, enthalpy, weight change, Young's modulus, conductivity, diffusivity, and evolved gas analysis.
nib_sales@netzsch.com | https://analyzing-testing.netzsch.com/en-US

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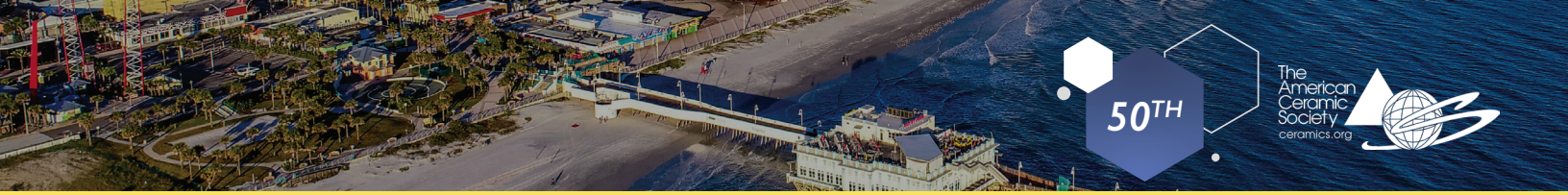
info@onejoon.us | https://www.onejoon.de

ORTON CERAMIC FOUNDATION
Booth No. 218

Orton Ceramic Foundation manufactures a line of instruments to measure the Physical and Thermal Properties of Glass. Orton also produces Pyrometric Monitoring Devices for thermal processing and offers independent Material Testing Services. Orton's instruments include high-temperature viscometers (1000-1700°C, Log10(Poises): 1.2-14.0), gradient furnaces (1200-1600°C, 10°C/in linear gradient), dilatometers (-190-1600°C), instruments for annealing, stain, softening points, and thermal conductivity.
trofimov@ortonceramic.com | www.ortonceramic.com



EXPO PREVIEW

OXY-GON INDUSTRIES, INC.
Booth No. 215

For over 35 years Oxy-Gon has designed and built furnaces for Ceramic Firing, Annealing, Brazing, Hot Pressing, Physical Testing, and more. Oxy-Gon furnaces have temperatures up to 3000°C (5400°F) and controlled atmospheres, rough to ultra-high vacuum, inert gas, nitrogen, hydrogen or reducing gas. Oxy-Gon is “Degrees Ahead in Quality” since 1988.
rfitzgerald@oxy-gon.com | https://www.oxy-gon.com

RAGAN TECHNOLOGIES, INC.
Booth No. 317

Ragan Technologies (RTI) specializes in processing technology for forming tapes of ceramic or metal powders. Besides tape casting, RTI offers the High Shear Compaction (HSC) process for forming thicker tapes in the range from .010” to 0.5” or 250um to 12mm.
RTI manufactures the equipment and offers turn key systems. Development and toll manufacturing are available.
wcbelko@me.com | http://ragantech.com

ROSE MILL COMPANY
Booth No. 309

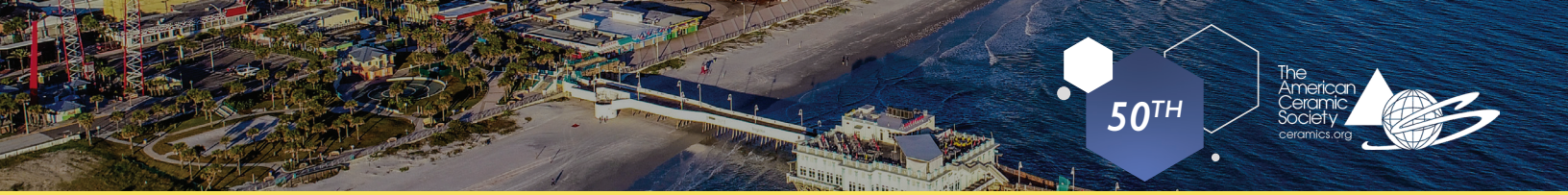
Rose Mill Company is an ISO9001:2015 certified manufacturer operating a 20,000 sf facility in Connecticut. We process boric acid, borax, specialty borates, molybdenum disulfide, minerals, and mineral-based/inorganic chemicals. Many of our products are more environmentally friendly than alternative products. Rose Mill Company offers custom toll processing, including pulverizing/particle reduction, mixing, bagging, screening and packaging. Large and small projects are welcome, and quick turn-around times are often available.
d.ball@rosemill.com | https://www.rosemill.com

SCIENCEEDGE, INC.
Booth No. 315

ScienceEdge Inc. is an innovative Japanese startup pioneering nanoscale thermophysical property analysis with its cutting-edge FDTR (Frequency-Domain ThermoReflectance) microscope.
Our FDTR microscope is the world’s first to measure thermal conductivity of microscale thermal conductive filler particles, offering unprecedented precision for materials science and industry.
tomoya.uchiyama@scienceedge.com | https://scienceedge.com

SHANGHAI CHENHUA SCIENCE TECHNOLOGY CORP., LTD.
Booth No. 301

Shanghai Chenhua has 21 years of experience, mainly producing and selling the following products: Spark plasma sintering furnace; hot press sintering furnace; gas pressing sintering furnace; vacuum sintering furnace and vacuum melting furnace. Owning ISO9001:2015 certification, CE certification. Tools of Leica laser tracker, etc. used to inspect and ensure quality. Annual capacity of 300 sets of vacuum furnaces and other high-temperature equipment.
zf@chenhua.cn | www.chenhua.cn



EXPO PREVIEW

SHANGHAI HAOYUE TECHNOLOGY CO., LTD.
Booth No. 303

Shanghai Haoyue Technology Co., Ltd., founded in 2009, is a high-tech enterprise integrating R&D, production and sales. Its products cover three core fields: advanced ceramic composite material equipment, semiconductor material equipment, and lithium battery & new energy equipment. With over 15 years of experience in industrial furnaces, the company specializes in SPS/DCS
linda@haoyue-group.com | www.haoyue-group.com

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Trent@tethon3d.com | www.tethon3d.com

TEVTECH LLC
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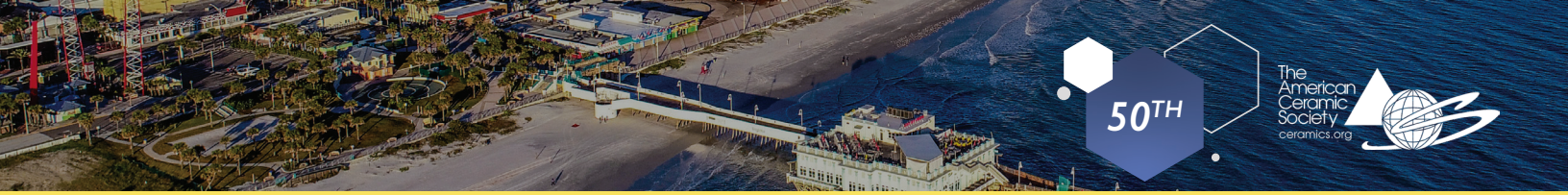
Corporate Partner

TevTech provides custom designed vacuum furnaces and components for CVD, CVI, Sintering, Annealing and Purification systems. From laboratory to Production furnaces, with metal or graphite hot zones, high vacuum to atmospheric pressure, temperatures to 3,000C and exceptional automated control systems for improved product quality. Worldwide commissioning, training and services.
sales@tevtechllc.com | www.TEVTECHLLC.com



SYMPOSIA ORGANIZERS

2026 PROGRAM CHAIR:
Federico Smeacetto,
Politecnico di Torino, Italy

SYMPOSIUM 1:
Mechanical Behavior and Performance of Advanced Ceramics & Composites

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- Amjad Almansour, NASA Glenn Research Center, USA
- Dong (Lilly) Liu, University of Oxford, UK
- Jonathan Salem, NASA Glenn Research Center, USA
- Monica Ferraris, Politecnico di Torino, Italy
- Gerard L. Vignoles, University of Bordeaux, France
- Dileep Singh, Argonne National Laboratory, USA
- Craig Przybyla, Air Force Research Laboratory, USA
- Dietmar Koch, University of Augsburg, Germany
- Bob Zhou, GE Aerospace, USA
- Kamala Raghavan, U.S. Department of Energy, USA
- Stefan Schafföner, University of Bayreuth, Germany
- Fredric Laurin, Onera, Paris, France
- Stefano De la Pierre, Politecnico di Torino, Italy
- Koshika Pandey, Politecnico di Torino, Italy

SYMPOSIUM 2:
Advanced Ceramic Coatings for Structural, Environmental, and Functional Applications

Symposium Organizers
- Peter Mechnich, German Aerospace Center (DLR), Germany
- Douglas E. Wolfe, The Pennsylvania State University, USA
- Jie Zhang, Institute of Metal Research, CAS, China
- Bryan Harder, NASA Glenn Research Center, USA
- Elizabeth Opila, University of Virginia, USA
- Ravisankar Naraparaju, German Aerospace Center (DLR), Germany
- Nadia Rohbeck, Pratt and Whitney, USA
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- Kang N. Lee, NASA Glenn Research Center, USA
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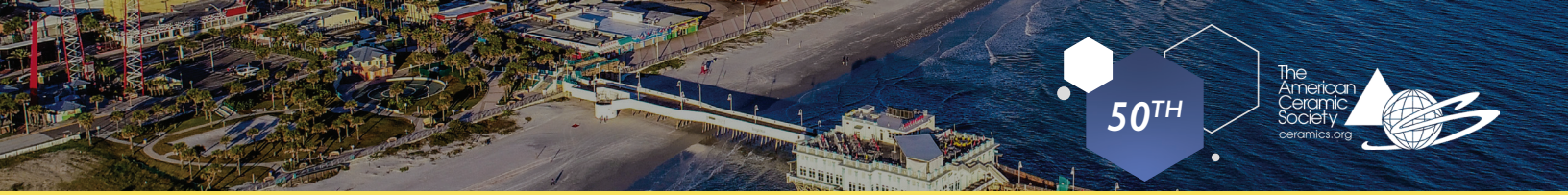
- Robert Vaßen, Forschungszentrum Jülich, Germany
- Julin Wan, GE Global Research, USA
- Satoshi Kitaoka, Japan Fine Ceramics Center, Japan
- Byung-Koog Jang, Kyushu University, Japan
- David Poerschke, University of Minnesota, USA
- Ping Xiao, University of Manchester, UK
- Rodney W. Trice, Purdue University, USA
- Yutaka Kagawa, The University of Tokyo, Japan

SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology

Symposium Organizers
- Tae Ho Shin, Korea Institute of Ceramic Engineering & Technology, Republic of Korea (lead organizer)
- Mihails Kusnezoff, Fraunhofer IKTS, Germany
- Federico Smeacetto, Politecnico di Torino, Italy
- Scott A. Barnett, Northwestern University, USA
- John Hardy, Pacific Northwest National Laboratory, USA
- Olga Marina, Pacific Northwest National Laboratory, USA
- Henrik Lund Frandsen, DTU Energy Conversion and Storage, Denmark
- Prabhakar Singh, University of Connecticut, USA
- Sebastian Molin, Gdansk University of Technology, Poland
- Julie Mougin, CEA, France
- Vincenzo Esposito, DTU Energy Conversion and Storage, Denmark
- Ruey-Yi Lee, Institute of Nuclear Energy Research, Taiwan
- Tatsumi Ishihara, Kyushu University, Japan
- Toshiaki Matsui, Kyoto University, Japan
- Aline Leon, European Institute for Energy Research, Germany
- Luca Mastropasqua, University of Wisconsin, Madison, USA
- Xingbo Liu, West Virginia University, USA

SYMPOSIUM 4: Advanced Materials for Thermoelectric and Thermionic Energy Conversion

Symposium Organizers
- Michitaka Ohtaki, Kyushu University, Japan
- Hyun-Sik Kim, University of Seoul, Republic of Korea
- Armin Feldhoff, Leibniz University Hannover, Germany
- Sunmi Shin, National University of Singapore, Singapore
- Kyu Hyoung Lee, Yonsei University, Republic of Korea
- Umut Aydemir, Koç University, Turkey
- Mona Zebarjadi, University of Virginia, USA
- Mari-Ann Einarsrud, Norwegian University of Science and Technology, Norway
- Jon C. Goldsby, NASA Glenn Research Center, USA
- Peng Jiang, Dalian Institute of Chemical Physics, China
- Theodora Kyratsi, University of Cyprus, Cyprus
- Takao Mori, National Institute for Materials Science, Japan
- Amin Nozariasbmarz, The Pennsylvania State University, USA
- Daryoosh Vashaee, North Carolina State University, USA
- George Nolas, University of South Florida, USA
- Winnie Wong-Ng, National Institute of Standards and Technology (NIST), USA
- Takayoshi Katase, Tokyo Institute of Technology, Japan
- Kyu Hyoung Lee: khlee2018@yonsei.ac.kr



SYMPOSIA ORGANIZERS

SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites

Symposium Organizers
- Katalin Balazsi, Center for Energy Research, Hungary
- Hui-Suk Yun, Korea Institute of Materials Science, Republic of Korea
- Cristina Balagna, Politecnico di Torino, Italy
- Lee Sungho, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Eva Hemmer, University of Ottawa, Canada
- Akiyoshi Osaka, Okayama University, Japan
- Antonia Ressler, Tampere University, Finland
- Ashutosh Kumar Dubey, Indian Institute of Technology, Varanasi, India

SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage

Symposium Organizers
- Palani Balaya, National University of Singapore, Singapore
- Naoaki Yabuuchi, Yokohama National University, Japan
- Olivier Guillon, Forschungszentrum Jülich, Germany
- Valerie Pralong, CNRS CRISMAT, France
- Mali Balasubramanian, Oak Ridge National Laboratory, USA
- Prabeer Barpanda, Indian Institute of Science, India
- Donald Dornbush, NASA Glenn Research Center, USA
- Byounwoo Kang, Pohang University of Science and Technology, Republic of Korea
- Shih-Kang Lin, National Cheng Kung University, Taiwan
- Wan Si Tang, Underwriters Laboratories Research Institute, USA

SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications

Symposium Organizers
- Muhammet S. Toprak, KTH Royal Institute of Technology, Sweden
- Sanjay Mathur, University of Cologne, Germany
- Andreu Cabot, Catalonia Institute for Energy Research, Spain
- Sedat Ballikaya, Istanbul University, Turkey
- Ender Suvaci, Eskisehir University, Turkey
- Elisa Moretti, University of Venice, Italy
- Theodora Kyratsi, University of Cyprus, Cyprus
- Ji-Hyun Jang, Ulsan National Institute of Science and Technology, Republic of Korea
- Ayan Roy Chaudhuri, Indian Institute of Technology, Kharagpur, India
- Do Kyung Kim, Konyang University, Republic of Korea
- Bin Zhu, Southeast University, China
- Ruth Adam, University of Cologne, Germany
- Ziyaad Aytuna, University of Cologne, Germany

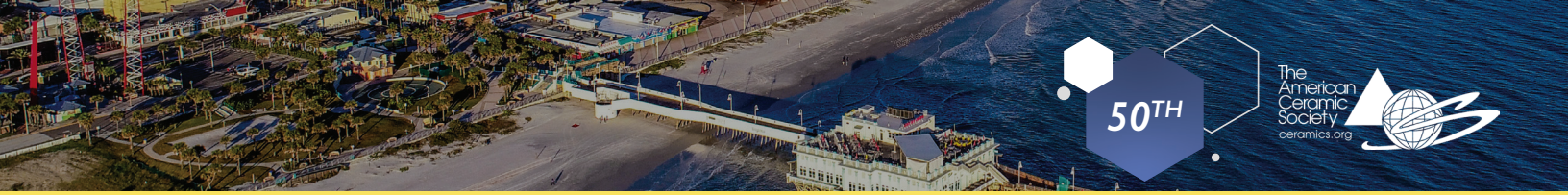
SYMPOSIUM 8: 20th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems (APMT20)

Symposium Organizers
- Do Thi Mai Dung, Nagaoka University of Technology, Japan
- B V Manoj Kumar, Indian Institute of Technology, Roorkee, India
- Tatsuki Ohji, YNU/NITech/AIST, Japan
- Hisayuki Suematsu, Nagaoka University of Technology, Japan
- Young-Wook Kim, WORLDEX Industry & Trading Co., Ltd., Republic of Korea
- Weimin Wang, Wuhan University of Technology, China
- Enrico Bernardo, University of Padova, Italy
- Surojit Gupta, University of North Dakota, USA
- Yiquan Wu, Alfred University, USA
- Manuel Belmonte, Institute of Ceramics and Glass (ICV-CSIC), Spain
- Csaba Balazsi, HUN-REN Centre for Energy Research, Hungary
- Wei Ji, Wuhan University of Technology, China
- Hyun Sik Kim, University of Seoul, Republic of Korea
- Tohru Suzuki, National Institute for Materials Science, Japan

SYMPOSIUM 9: Porous Ceramics: Novel Developments and Applications

Symposium Organizers
- Tobias Fey, Friedrich-Alexander University of Erlangen-Nürnberg, Germany
- Manabu Fukushima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Paolo Colombo, University of Padova, Italy
- Samuel Bernard, Institute of Research for Ceramics-CNRS, France
- Jian-feng Yang, Xi'an Jiaotong University, China
- NV Ravikumar, Indian Institute of Technology, Madras, India
- Eliandra de Sousa Triches, Federal University of São Paulo, Brazil
- Gisele Lecomte-Nana, University of Limoges, France

SYMPOSIUM 10: Integrated Computational-Experimental Modeling and Design of Ceramics and Composites
Symposium Organizers
- Gerard L. Vignoles, University of Bordeaux, France
- Sathiskumar Anusuya Ponnusami, University of London, UK
- Jingyang Wang, Institute of Metal Research, Chinese Academy of Sciences, China
- Ghatu Subhash, University of Florida, USA
- Joaquin Garcia Suarez, École Polytechnique Fédérale de Lausanne, Switzerland
- Vignesh Kannan, École Polytechnique, Palaiseau, France
- Peter Kroll, The University of Texas, USA
- Jian Luo, University of California, San Diego, USA
- Yixiu Luo, Institute of Metal Research, Chinese Academy of



SYMPOSIA ORGANIZERS

Sciences, China
- Sergei Manzhos, Tokyo Institute of Technology, Japan
- Bin Liu, Shanghai University, China
- Katsuyuki Matsunaga, Nagoya University, Japan
- Paul Rulis, University of Missouri, Kansas City, USA

SYMPOSIUM 11: Advanced Materials and Innovative Processing Ideas for Production Root Technologies

Symposium Organizers
- Chisung Ahn, Korea Institute of Industrial Technology, Republic of Korea
- Sungwook Mhin, Dongguk University, Republic of Korea
- Ayahisa Okawa, Tohoku University, Japan
- Son Thanh Nguyen, National Institute of Technology, Japan
- Kyoung Il Moon, Korea Institute of Industrial Technology, Republic of Korea
- Hyuksu Han, Sungkyunkwan University, Republic of Korea
- Yuya Takimoto, Nagaoka University of Technology, Japan

SYMPOSIUM 12: Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates

Symposium Organizers:
- Surojit Gupta, University of North Dakota, USA
- Miladin Radovic, Texas A&M University, USA
- Konstantina Lambrinou, University of Huddersfield, UK
- Jochen M. Schneider, RWTH Aachen University, Germany
- Thierry Cabioch, Université de Poitiers, France
- Sylvain Dubois, Université de Poitiers, France
- Per Eklund, Uppsala University, Sweden
- Johanna Rosen, Linköping University, Sweden
- Jesus Gonzalez, Laboratoire des Composites ThermoStructuraux UMR, France
- Chenxu Wang, Peking University, China

SYMPOSIUM 13: Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

Symposium Organizers
- Takaaki Koyanagi, Oak Ridge National Laboratory, USA
- Dong (Lilly) Liu, University of Oxford, UK
- Monica Ferraris, Politecnico di Torino, Italy
- Tatsuya Hinoki, Kyoto University, Japan
- Samuel Humphry-Baker, Imperial College London, UK
- Gyanender Singh, Idaho National Laboratory, USA
- David Sprouster, Stony Brook University, USA

SYMPOSIUM 14: Crystalline Materials for Electrical, Optical and Medical Applications

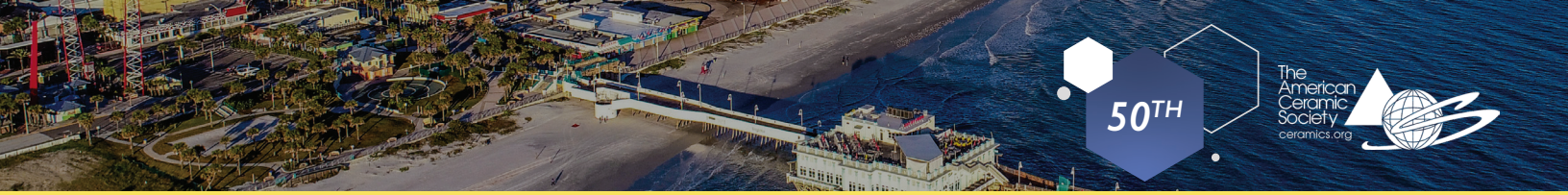
Symposium Organizers
- Kiyoshi Shimamura, National Institute for Materials Science, Japan
- Nerine J. Cherepy, Lawrence Livermore National Laboratory, USA
- Kenji Toda, Niigata University, Japan
- Takayuki Yanagida, Nara Institute of Science and Technology, Japan
- Mariya Zhuravleva, University of Tennessee, USA
- Hiroaki Furuse, National Institute for Materials Science, Japan
- Philippe Veber, West University of Timișoara, Romania
- Hiroki Tanaka, Leibniz-Institut für Kristallzüchtung, Germany
- Rong-Jun Xie, Xiamen University, China
- Tetsuo Tsuchiya, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Javier E. Garay, University of California, San Diego, USA

SYMPOSIUM 15: 10th International Symposium on Additive Manufacturing and 3D Printing Technologies

Symposium Organizers
- Soshu Kirihara, Osaka University, Japan
- Michael Halbig, NASA Glenn Research Center, USA
- Mrityunjay Singh, Ohio Aerospace Institute, NASA Glenn Research Center, USA
- Martin Schwentenwein, Lithoz GmbH, Austria
- Hui-Suk Yun, KIMS, Republic of Korea
- Majid Minary, The University of Texas, USA
- Alberto Ortona, SUPSI, Switzerland
- Corson L. Cramer, Oak Ridge National Laboratory, USA
- Giorgia Franchin, Università di Padova, Italy
- Yan Li, Dartmouth College, USA
- Russell Maier, National Institute of Standards and Technology (NIST), USA
- Fiona Sprirret, Osaka University, Japan
- Michael Stuer, EMPA, Switzerland
- Lynnora Grant, The University of North Carolina at Charlotte, USA

SYMPOSIUM 16: Geopolymers, Inorganic Polymer-Derived Ceramics And Sustainable Construction Materials
Symposium Organizers

- Waltraud M. Kriven, University of Illinois at Urbana-Champaign, USA
- Joseph Davidovits, Geopolymer Institute, St. Quentin, France
- Henry A. Colorado, Universidad de Antioquia, Colombia
- Cristina Leonelli, University of Modena and Reggio Emilia, Italy
- Sylvie Rossignol, University of Limoges, France
- Ana Trindade, University of São Paulo (USP), Brazil



SYMPOSIA ORGANIZERS

SYMPOSIUM 17: Advanced Ceramic Materials and Processing for Photonics and Energy

Symposium Organizers
- Alberto Vomiero, Luleå University of Technology, Sweden
- Elisa Moretti, University of Venice, Italy
- Federico Rosei, University of Trieste, Italy
- Yasuhiro Tachibana, RMIT University, Australia
- Isabella Concina, Luleå University of Technology, Sweden
- Haiguang Zhao, Qingdao University, China
- Francesco Enrichi, University of Verona, Italy
- Kassa Belay Ibrahim, Ca' Foscari University of Venice, Italy
- Adam Duong, University of Picardy, France

SYMPOSIUM 18: Ultrahigh Temperature Ceramics

Symposium Organizers
- Bai Cui, University of Nebraska-Lincoln, USA
- William G. Fahrenholtz, Missouri University of Science and Technology, USA
- Sea-Hoon Lee, Korea Institute of Materials Science, Republic of Korea
- Frederic Monteverde, National Research Council-Institute of Science and Technology for Ceramics, Italy
- Guo-Jun Zhang, Donghua University, China
- Ji Zou, Wuhan University of Technology, China
- Lisa Rueschhoff, Air Force Research Laboratory, USA
- Lavina Backman, Naval Research Laboratory, USA
- Simon Middleburgh, Bangor University, UK
- Jon Binner, University of Birmingham, UK
- Theresa Davey, Bangor University, UK
- Scott McCormack, University of California, Davis, USA
- Chris Weinberger, Colorado State University, USA

SYMPOSIUM 19: Molecular-level Processing and Chemical Engineering of Functional Materials

Symposium Organizers
- Peter Kroll, The University of Texas, USA
- Yoshiyuki Sugahara, Waseda University, Japan
- Samuel Bernard, University of Limoges, France
- Christina Birkel, Arizona State University, USA
- Emanuel Ionescu, Technische Universität Darmstadt, Germany
- Thomas Konegger, TU Wien, Austria
- Ravi Kumar NV, Indian Institute of Technology, Madras, India
- Sanjay Mathur, University of Cologne, Germany
- Christelle Salameh, University of Montpellier, France
- Gurpreet Singh, Kansas State University, USA

SYMPOSIUM 20: Golden Jubilee: Engineered Ceramics for Achieving Net-Zero Carbon Emissions

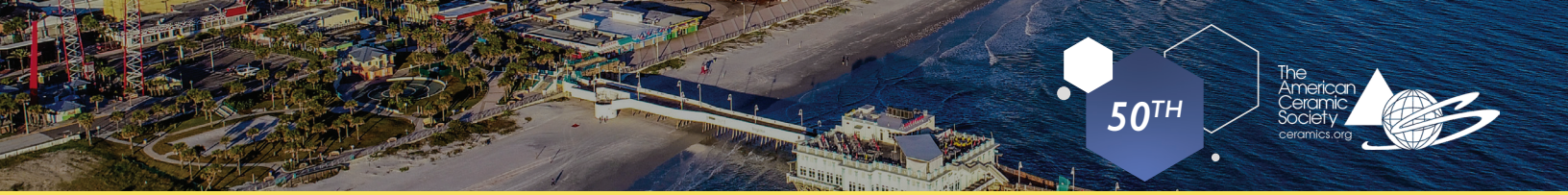
Symposium Organizers:
- Michael C. Halbig, NASA Glenn Research Center, USA
- Manabu Fukushima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Palani Balaya, National University of Singapore, Singapore
- Mrityunjay Singh, Ohio Aerospace Institute, NASA Glenn Research Center, USA
- Tatsuki Ohji, YNU/NITech/AIST, Japan
- Monica Ferraris, Politecnico di Torino, Italy
- Alexander Michaelis, Fraunhofer IKTS, Germany
- Hui-Suk Yun, Korea Institute of Materials Science, Republic of Korea
- Dileep Singh, Argonne National Laboratory, USA
- Sanjay Mathur, University of Cologne, Germany
- Jingyang Wang, Institute of Metal Research, Chinese Academy of Sciences, China
- Young-Wook Kim, WORLDEX Industry & Trading Co., Ltd., Korea
- Csaba Balazsi, HUN-REN Centre for Energy Research, Hungary
- Stuart Hampshire, University of Limerick, Ireland
- Walter Krenkel, University of Bayreuth, Germany
- Lalit Mohan Manocha, UGC-IUAC, India

Focused Session 1: Bioinspiration, Design, Green Processing, and Related Technologies of Advanced Materials

Symposium Organizers
- Zhaoyong Zou, Wuhan University of Technology, China
- Manoj K Mahapatra, University of Alabama at Birmingham, USA
- Zhao Qin, Syracuse University, USA
- Ling Li, University of Pennsylvania, USA
- Wei Zhai, National University of Singapore, Singapore
- Ziqi Sun, Queensland University of Technology, Australia
- Florian Bouville, Imperial College London, UK
- Hang Ping, Wuhan University of Technology, China

Focused Session 2: Ceramics to Shape the Future of Low-Carbon and Carbon-Negative Technologies

Symposium Organizers
- Charles Lewinsohn, Rational Solutions, LLC, USA
- Marta Boaro, Università di Udine, Italy
- Federico Smeacetto, Politecnico di Torino, Italy
- Alexander Michaelis, Fraunhofer IKTS, Germany
- Takashi Makino, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Lyndsey McMillon-Davis, NASA Glenn Research Center, USA



SYMPOSIA ORGANIZERS

Focused Session 3: Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials

Session Organizers
- B.V. Manoj Kumar, Indian Institute of Technology, Roorkee, India
- Yuki Nakashima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Taeseup Song, Hanyang University, Republic of Korea
- Junichi Tatami, Yokohama National University, Japan
- Hyuksu Han, Sungkyunkwan University, Republic of Korea
- Marta Boaro, University of Udine, Italy
- Sandan Kumar Sharma, Indian Institute of Technology, Patna, India
- Kunihiko Kato, Gifu University, Japan
- Yiquan Wu, Alfred University, USA

Focused Session 4: Ceramic/Carbon Reinforced Polymers

Symposium Organizers
- Satoshi Kobayashi, Tokyo Metropolitan University, Japan
- Takenobu Sakai, Saitama University, Japan
- Toshio Ogasawara, Tokyo University of Agriculture and Technology, Japan
- Shinji Ogihara, Tokyo University of Science, Japan
- Tomohiro Yokozeki, The University of Tokyo, Japan
- Masahito Ueda, Nihon University, Japan
- Sota Oshima, Tokyo University of Agriculture and Technology, Japan
- Mohammad Fikry, Tokyo University of Science, Japan
- Manabu Fukushima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Carlos Rolando Rios Soberanis, Centro de Investigación Científica de Yucatan, Mexico
- Musthafa Akbar, University of Riau, Indonesia
- Lea A.C. Lecointre Isaka, The University of Tokyo, Japan

Focused Session 5: High Voltage Materials for Advanced High Power Electrical Applications

Symposium Organizers
- Dong (Lilly) Liu, University of Oxford, UK
- Maricela Lizcano, NASA Glenn Research Center, USA
- Diana Santiago, NASA Glenn Research Center, USA
- Amjad Almansour, NASA Glenn Research Center, USA
- Michael F. Mulzer, DuPont, USA
- Gian Carlo Montanari, University of Bologna, Italy / Florida State University, USA
- Ian Cotton, University of Manchester / aerospace HV Ltd., UK
- Michael Cullinan, The University of Texas, USA
- Mehran Tehrani, University of California, San Diego, USA
- Vesselin Shanov, University of Cincinnati, USA
- Marina Gandini, Prysmian Group, Italy
- Chanyeop Park, University of Wisconsin, USA
- Zhiting Tian, Cornell University, USA

Focused Session 6: Innovative Material Processing for Diverse Resource Circulation Loops

Symposium Organizers
- Sonia Lucia Fiorilli, Politecnico di Torino, Italy
- Chiharu Tokoro, Waseda University, Japan
- Beihai Ma, Argonne National Laboratory, USA
- Henry Colorado, Universidad de Antioquia, Colombia
- Enrico Bernardo, Università di Padova, Italy
- Hidehiro Kamiya, Waseda University, Japan
- Motoyuki Iijima, Yokohama National University, Japan
- Anna Schneller, University of Augsburg, Germany
- Majda Pavlin, Slovenian National Building and Civil Engineering Institute, Slovenia
- Manabu Fukushima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Ziqi Sun, Queensland University of Technology, Australia

Special Focused Session on Entrepreneurship and Commercialization

Symposium organizer
- Valerie Wiesner, NASA Langley Research Center, USA
- Young-Wook Kim, WORLDEX Industry & Trading Co., Ltd., Republic of Korea
- Surojit Gupta, University of North Dakota, USA
- Jie Zhang, Institute of Metal Research, China

15th Global Young Investigator Forum on Sustainability

Symposium Organizers
- Yuki Nakashima, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- Dong (Lilly) Liu, University of Oxford, UK
- Meelad Ranaiefar, NASA Glenn Research Center, USA
- Bai Cui, University of Nebraska-Lincoln, USA
- Stefano De la Pierre, Politecnico di Torino, Italy
- Mark Du, Argonne National Laboratory, USA
- Ho Jin Ma, Korea Institute of Materials Science, Republic of Korea
- Fiona Spirrett, Osaka University, Japan
- Nor Ezzaty Ahmad, Universiti Teknologi Malaysia, Malaysia
- Xiangyu Li, University of Tennessee, Knoxville, USA
- Anna Schneller, University of Augsburg, Germany
- Minh Chu Ngo, National Institute of Advanced Industrial Science and Technology (AIST), Japan

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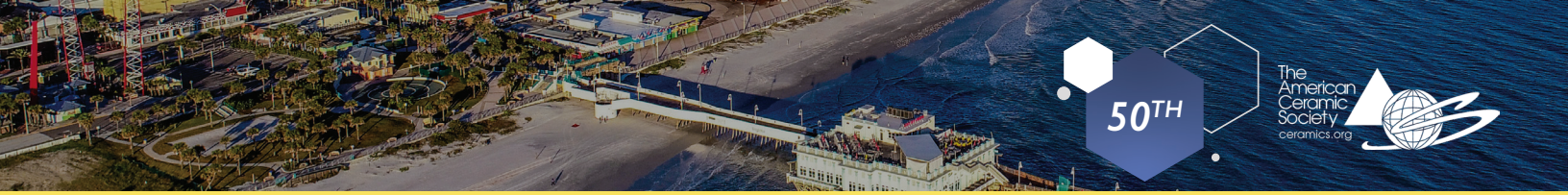
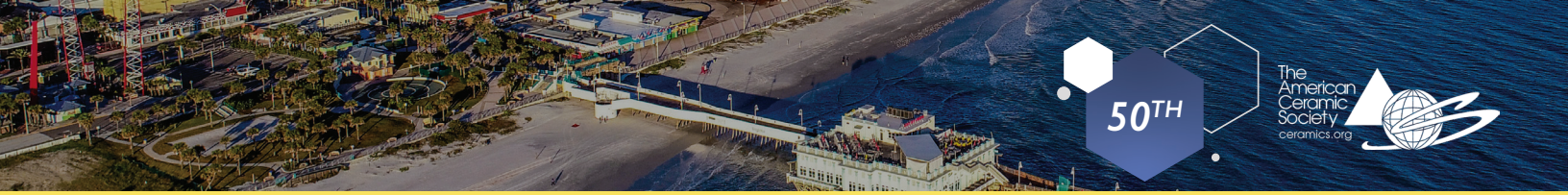


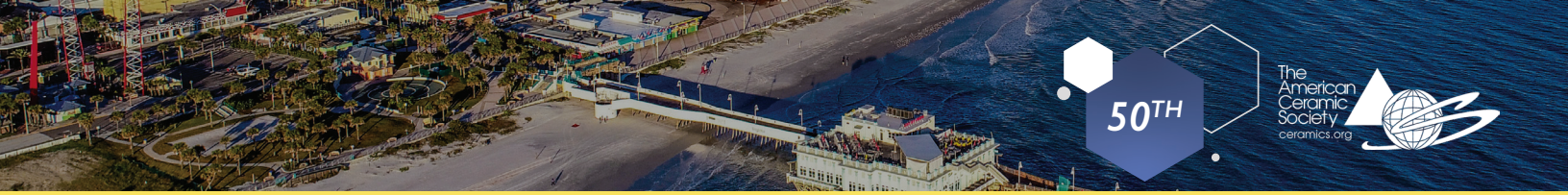
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
Plenary and Award Talks			
James I. Mueller Memorial Award: Li Batteries: 50 years old and the future challenges for an American based industry	Monday, January 26, 2026	8:50 - 9:30 a.m.	Coquina D/E
Mrityunjay Singh Bridge Building Award: Oxide ceramics LSI devices to mitigate global extreme weather due to computers in the AI era	Monday, January 26, 2026	9:30 - 10:10 a.m.	Coquina D/E
Plenary: High performance ceramics for extreme environments: Applications for fission and fusion energy	Monday, January 26, 2026	10:40 - 11:20 a.m.	Coquina D/E
Plenary: Multimodal analytics and data-driven optimization of ceramic composite materials for energy and electronic applications	Monday, January 26, 2026	11:20 - Noon	Coquina D/E
Jubilee Global Excellence Award	Monday, January 26, 2026	1:30 - 3:10 p.m.	Ballroom 3
Special Focused Session on Entrepreneurship and Commercialization	Monday, January 26, 2026	3:20 - 5:02 p.m.	Ballroom 3
15th Global Young Investigator Forum on Sustainability			
15th GYIF- Sustainable Materials Development I	Monday, January 26, 2026	1:30 - 3:20 p.m.	Ballroom 5
15th GYIF- Sustainable Materials Development II	Monday, January 26, 2026	3:20 - 5:10 p.m.	Ballroom 5
15th GYIF- Efficient Manufacturing Processes I	Tuesday, January 27, 2026	8:40 - 10:30 a.m.	Ballroom 5
15th GYIF- Efficient Manufacturing Processes II/Design and Performance of Functional Ceramics	Tuesday, January 27, 2026	10:30 a.m. - Noon	Ballroom 5
15th GYIF- Green Chemistry and Sustainable Synthesis Methods	Tuesday, January 27, 2026	1:30 - 3:20 p.m.	Ballroom 5
15th GYIF- Thermo-Mechanical Behavior of Ceramics and Composites I	Tuesday, January 27, 2026	3:20 - 4:32 p.m.	Ballroom 5
15th GYIF- Thermo-Mechanical Behavior of Ceramics and Composites II	Wednesday, January 28, 2026	9 - 10:20 a.m.	Ballroom 5
Focused Session 1: Bioinspiration, Design, Green Processing, and Related Technologies of Advanced Materials			
FS1- Bioinspiration, Green Processing, and Related Technologies of Advanced Materials	Monday, January 26, 2026	1:30 - 5:20 p.m.	Coquina G
Focused Session 2: Ceramics to Shape the Future of Low-Carbon and Carbon-Negative Technologies			
FS2- Catalysts, ceramics and processes for CO_2 valorization and energy storage	Wednesday, January 28, 2026	8:30 - 11:52 a.m.	Flagler C
FS2- Technologies and ceramics for emerging low-carbon processes and hydrogen production	Wednesday, January 28, 2026	1:30 - 4:20 p.m.	Flagler C



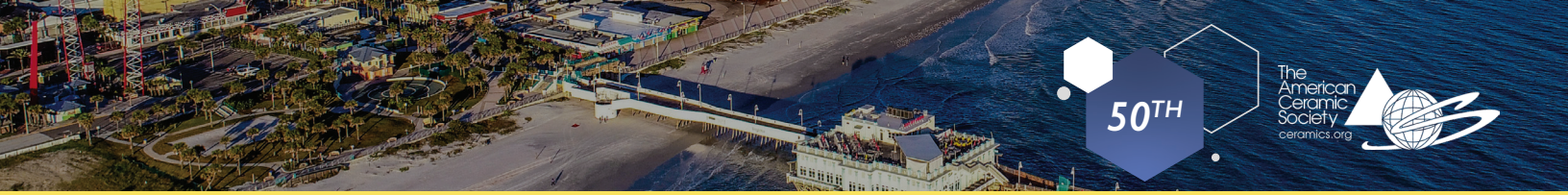
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
Focused Session 3: Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials			
FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials I	Wednesday, January 28, 2026	8:30 - 10:30 a.m.	Ballroom 1-2
FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials II	Wednesday, January 28, 2026	10:30 - 11:50 a.m.	Ballroom 1-2
FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials III	Wednesday, January 28, 2026	1:30 - 3:10 p.m.	Ballroom 1-2
FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials IV	Wednesday, January 28, 2026	3:10 - 4:40 p.m.	Ballroom 1-2
Focused Session 4: Ceramic/Carbon Reinforced Polymers			
FS4- Polymer and Polymer Composites	Wednesday, January 28, 2026	8:30 - 10:12 a.m.	Ballroom 3
Focused Session 5: High Voltage Materials for Advanced High Power Electrical Applications			
FS 5- High Voltage Materials for Advanced High Power Electrical Applications	Wednesday, January 28, 2026	1:30 - 3 p.m.	Coquina C
Focused Session 6: Innovative Material Processing for Diverse Resource Circulation Loops			
FS 6- Innovative material processing for diverse resource circulation loops I	Thursday, January 29, 2026	1:30 - 3:20 p.m.	Ballroom 3
FS 6- Innovative material processing for diverse resource circulation loops II	Thursday, January 29, 2026	3:20 - 5:30 p.m.	Ballroom 3
FS 6- Innovative material processing for diverse resource circulation loops III	Friday, January 30, 2026	8:30 - 9:40 a.m.	Ballroom 3
SYMPOSIUM 1: Mechanical Behavior and Performance of Advanced Ceramics & Composites			
S1- Ceramics for concentrated solar-thermal power and industrial process heat	Monday, January 26, 2026	1:30 - 4:40 p.m.	Coquina E
S1- Functionally graded materials and multilayer ceramic systems	Monday, January 26, 2026	4:40 - 5:30 p.m.	Coquina E
S1- Processing - microstructure - mechanical properties correlation	Tuesday, January 27, 2026	8:30 a.m. - Noon	Coquina E
S1- Design, reliability and life prediction modeling of materials, devices and components	Tuesday, January 27, 2026	1:30 - 3:50 p.m.	Coquina E
S1- Novel computational approaches to enhance performance and characterization	Tuesday, January 27, 2026	3:50 - 5 p.m.	Coquina E
S1- Small-scale testing and in-situ characterization using electrons, photons & neutrons	Tuesday, January 27, 2026	5 - 5:20 p.m.	Coquina E
S1- Mechanical and thermal characterization of ceramics and composites, techniques & equipment	Wednesday, January 28, 2026	8:30 a.m. - Noon	Coquina E
S1- Mechanical characterization of ceramics and composites, techniques & equipment	Wednesday, January 28, 2026	1:30 - 2:10 p.m.	Coquina E



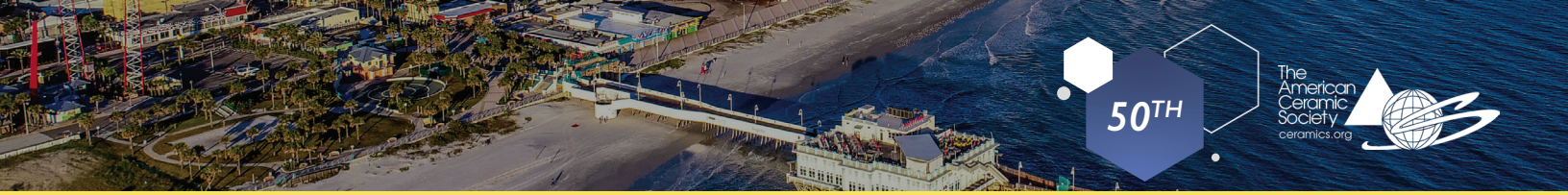
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S1- Role of fibers, matrices, coatings, and interfaces in mechanical behavior	Wednesday, January 28, 2026	2:10- 4:20 p.m.	Coquina E
S1- Manufacturing and testing of joined and integrated components and structures	Wednesday, January 28, 2026	4:20 - 5 p.m.	Coquina E
S1- Ceramics for aerospace and other transport applications	Thursday, January 29, 2026	8:30 - 10:50 a.m.	Coquina E
S1- Ceramics for energy generation, turbines, and environmental applications I	Thursday, January 29, 2026	10:50 - 11:50 a.m.	Coquina E
S1- Ceramics for energy generation, turbines, and environmental applications II	Thursday, January 29, 2026	1:30 - 2:10 p.m.	Coquina E
S1- Fracture mechanics, failure analysis and fractography	Thursday, January 29, 2026	2:10 - 5 p.m.	Coquina E
SYMPOSIUM 2: Advanced Ceramic Coatings for Structural, Environmental, and Functional Applications			Coquina C
S2- CMAS-type degradation of T/EBC: Fundamentals, modeling, and mitigation strategies	Monday, January 26, 2026	1:30 - 4 p.m.	Coquina C
S2- Processing of ceramic coatings (thermal spraying, PVD, CVD, aerosol-, polymer-, and powder-deposition and sintering)	Monday, January 26, 2026	4 - 4:40 p.m.	Coquina C
S2- Advanced destructive and non-destructive characterization methods	Monday, January 26, 2026	4:40 - 5:20 p.m.	Coquina C
S2- Thermal and environmental barrier coatings for CMC, intermetallics, and alloys I	Tuesday, January 27, 2026	8:30 - 11:50 a.m.	Coquina C
S2- Thermal and environmental barrier coatings for CMC, intermetallics, and alloys II	Tuesday, January 27, 2026	1:30 - 5 p.m.	Coquina C
S2- Ceramic coatings for protection against oxidation, corrosion, erosion, and wear	Wednesday, January 28, 2026	8:30 - 10:20 a.m.	Coquina C
S2- New coating materials - MAX phases, high-entropy phases, etc., Micro-structure-property relationships and Modeling and simulation	Wednesday, January 28, 2026	10:20 - 11:40 a.m.	Coquina C
SYMPOSIUM 3: 23rd International Symposium on Solid Oxide Cells (SOC): Materials, Science and Technology			
S3-System design and demonstration	Monday, January 26, 2026	1:30 - 3:20 p.m.	Coquina H
S3-Worldwide status of SOC Development	Monday, January 26, 2026	3:20 - 5:28 p.m.	Coquina H
S3-Manufacturing technology development	Tuesday, January 27, 2026	8:30 - 10:20 a.m.	Coquina H
S3-Applications	Tuesday, January 27, 2026	10:20 - 11:40 a.m.	Coquina H
S3-Upscaling of manufacturing	Tuesday, January 27, 2026	1:30 - 3:20 p.m.	Coquina H
S3-Novel processing and design	Tuesday, January 27, 2026	3:20 - 5:10 p.m.	Coquina H
S3-Infiltration / exsolution enhanced electrodes	Wednesday, January 28, 2026	8:30 - 10:20 a.m.	Coquina H
S3-Electrode design	Wednesday, January 28, 2026	10:20 - 11:40 a.m.	Coquina H
S3-Operation and electrochemical characterization	Wednesday, January 28, 2026	1:30- 3:10 p.m.	Coquina H



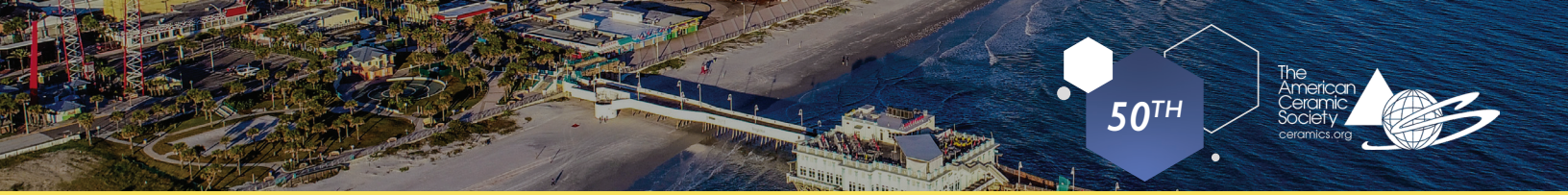
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S3-Simulation & Modeling	Wednesday, January 28, 2026	3:10 - 5:50 p.m.	Coquina H
S3-Electrolyte: performance and mechanical properties	Thursday, January 29, 2026	8:30 - 10:20 a.m.	Coquina H
S3-Durability & Degradation	Thursday, January 29, 2026	10:20 a.m. - Noon	Coquina H
S3-Protective coatings and sealants	Thursday, January 29, 2026	1:30 - 3:30 p.m.	Coquina H
S3-Proton conducting cells	Thursday,January 29, 2026	3:30 - 5 p.m.	Coquina H
SYMPOSIUM 4: Advanced Materials for Thermoelectric and Thermionic Energy Conversion			
S4- Nanomaterials and nanocomposites	Thursday, January 29, 2026	9 - 11:32 a.m.	Ballroom 1-2
S4- Selenides and tellurides	Thursday, January 29, 2026	1:30 - 3:20 p.m.	Ballroom 1-2
S4- Devices and applications	Thursday, January 29, 2026	3:20 - 5:10 p.m.	Ballroom 1-2
S4- Theories and machine learning	Friday, January 30, 2026	9 - 11 a.m.	Ballroom 1-2
SYMPOSIUM 5: Next Generation Bioceramics and Biocomposites			
S5- Bioactive, resorbable and porous bioceramics and composites	Wednesday, January 28, 2026	1:30 - 5:48 p.m.	Flagler A
S5-Additive manufacturing and hybrid bioceramic-polymer systems	Thursday, January 29, 2026	8:30 - 9:30 a.m.	Flagler A
S5- In vitro & in vivo biocompatibility & Bioceramics for implantable devices, biosensor and cosmetic application	Thursday, January 29, 2026	9:30 - 11:30 a.m.	Flagler A
S5- Ceramics and composites with antimicrobial, antiviral and drug delivery properties	Thursday, January 29, 2026	1:30 - 4:50 p.m.	Flagler A
SYMPOSIUM 6: Advanced Materials and Technologies for Rechargeable Energy Storage			
S6- Ordered and Disordered Oxide-based Electrode Materials I	Tuesday, January 27, 2026	8:30- 11:50 a.m.	Coquina G
S6- Na Battery Technology	Tuesday, January 27, 2026	1:30 - 5 p.m.	Coquina G
S6- Solid State Batteries	Wednesday, January 28, 2026	8:30 a.m. - Noon	Coquina G
S6- Negative Electrode Materials and Ordered and Disordered Oxide-based Electrode Materials II	Wednesday, January 28, 2026	1:30 -5:10 p.m.	Coquina G
S6- Ionics, Interface, characterization and modeling I	Thursday, January 29, 2026	8:30 a.m. - Noon	Coquina G
S6- Ionics, Interface, characterization and modeling II and Advances in Beyond-Lithium Battery Technologies	Thursday, January 29, 2026	1:30 - 5:20 p.m.	Coquina G
SYMPOSIUM 7: 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications			
S7- Nanomaterials for thermoelectrics, photocatalysis, electrocatalysis, and solar hydrogen	Monday, January 26, 2026	1:30 - 3:50 p.m.	Flagler A



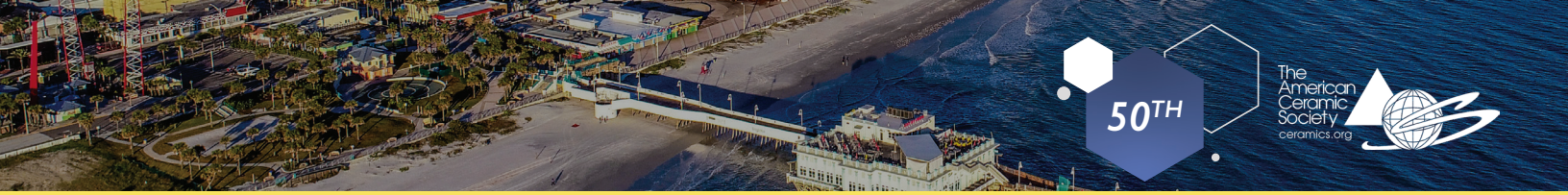
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S7- Nanomaterials for sensing, batteries and water-splitting applications	Monday, January 26, 2026	3:50 - 5:40 p.m.	Flagler A
S7- Synthesis, functionalization and assembly of inorganic and hybrid nano-structures	Tuesday, January 27, 2026	8:30 - 11 a.m.	Flagler A
S7- Nanotoxicity, bio-imaging, drug-delivery and tissue engineering with tailored nano-bioconjugates	Tuesday, January 27, 2026	11 - 11:30 a.m.	Flagler A
S7- Functional coatings and innovative thin film techniques	Tuesday, January 27, 2026	11:30 a.m. - 12:10 p.m.	Flagler A
S7- Nanomaterials for energy conversion, storage and catalysis I	Tuesday, January 27, 2026	1:30 - 4:50 p.m.	Flagler A
S7- Nanomaterials for energy conversion, storage and catalysis II	Wednesday, January 28, 2026	8:30 - 10:54 a.m.	Flagler A
SYMPOSIUM 8: 20th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems (APMT20)			
S8- Advanced manufacturing of ceramic coatings and composites	Monday, January 26, 2026	1:30 - 5:30 p.m.	Coquina B
S8- Field-Assisted and Extreme Processing: Mechanisms and Functional Materials	Tuesday, January 27, 2026	8:40 - 11:50 a.m.	Coquina B
S8- Advanced and Accelerated Processing of High-Performance Materials I	Tuesday, January 27, 2026	1:30 - 3:22 p.m.	Coquina B
S8- Advanced and Accelerated Processing of High-Performance Materials II	Tuesday, January 27, 2026	3:22 - 4:44 p.m.	Coquina B
S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics I	Wednesday, January 28, 2026	8:40 - 10:30 a.m.	Coquina B
S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics II	Wednesday, January 28, 2026	10:30 - 11:30 a.m.	Coquina B
S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics III	Wednesday, January 28, 2026	1:30 - 3:30 p.m.	Coquina B
S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics IV	Wednesday, January 28, 2026	3:30 - 4:10 p.m.	Coquina B
SYMPOSIUM 9: Porous Ceramics: Novel Developments and Applications			
S9- Future approach for porous ceramics	Wednesday, January 28, 2026	1:30 - 3:10 p.m.	Ballroom 3
S9- Engineering Porous Architectures	Wednesday, January 28, 2026	3:10 - 4:20 p.m.	Ballroom 3
S9- Additive Manufacturing and Functional Design	Thursday, January 29, 2026	8:30 - 10:20 a.m.	Ballroom 3
S9- Innovative Processing and Characterization Techniques	Thursday, January 29, 2026	10:20 a.m. - Noon	Ballroom 3
SYMPOSIUM 10: Integrated Computational-Experimental Modeling and Design of Ceramics and Composites			
S10- Multi-scale modeling of processing, microstructure, and performance	Wednesday, January 28, 2026	1:30 - 3:40 p.m.	Ballroom 4
S10 - Material Informatics and machine learning	Wednesday, January 28, 2026	3:40 - 4:42 p.m.	Ballroom 4



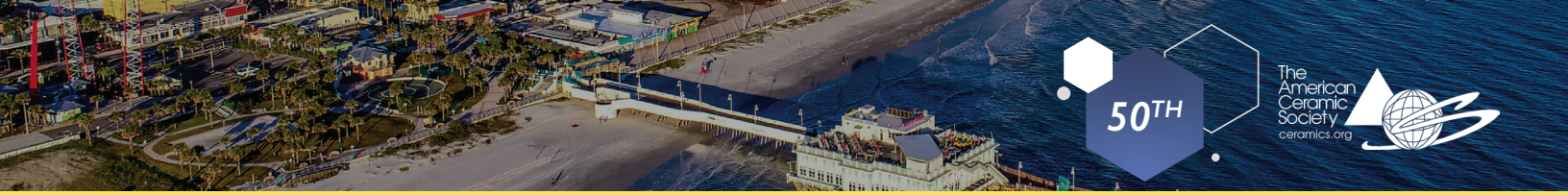
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S10- Modeling of structure and property of ceramics and composites I	Thursday, January 29, 2026	8:30 - 11 a.m.	Ballroom 4
S10- Modeling of structure and property of ceramics and composites II	Thursday, January 29, 2026	1:30 - 2:50 p.m.	Ballroom 4
S10- Modeling of surfaces, interfaces, and grain boundaries at multiple scales	Thursday, January 29, 2026	2:50 - 4 p.m.	Ballroom 4
S10- Multifunctional ceramics and composites- multiphysics modeling, characterization and design	Thursday, January 29, 2026	4 - 4:30 p.m.	Ballroom 4
S10- Modeling defects and amorphous matter and their evolution	Thursday, January 29, 2026	4:30 - 5:30 p.m.	Ballroom 4
S10- Integrated computational-experimental modeling and design of ceramics and composites	Friday, January 30, 2026	8:30 - 9:50 a.m.	Ballroom 4
SYMPOSIUM 11: Advanced Materials and Innovative Processing Ideas for Production Root Technologies			
S11- Innovative manufacturing processes for recycling, sustainable energy, or the semiconductor industry	Tuesday, January 27, 2026	9 - 10:30 a.m.	Ballroom 3
S11- Fundamental materials: Mining, particles, bulk, and functional materials and precursors I	Tuesday, January 27, 2026	10:30 a.m. - Noon	Ballroom 3
S11- Fundamental materials: Mining, particles, bulk, and functional materials and precursors II	Tuesday, January 27, 2026	1:30 - 2:40 p.m.	Ballroom 3
S11- Emerging intelligent technologies and Future-oriented techniques in ceramic material engineering	Tuesday, January 27, 2026	2:40 - 3:40 p.m.	Ballroom 3
SYMPOSIUM 12: Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates			
S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates I	Thursday, January 29, 2026	8:30 a.m. - Noon	Flagler C
S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates II	Thursday, January 29, 2026	1:30 - 4:40 p.m.	Flagler C
S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates III	Friday, January 30, 2026	8:30 - 10:20 a.m.	Flagler C
SYMPOSIUM 13: Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems			
S13- Novel nuclear ceramics I	Monday, January 26, 2026	1:30 - 3:20 p.m.	Coquina F
S13- Ultra-high temperature ceramics for nuclear applications	Monday, January 26, 2026	3:20 - 5:30 p.m.	Coquina F
S13- Functional materials for fission and fusion	Tuesday, January 27, 2026	8:30 - 10:20 a.m.	Coquina F
S13- Advanced processing of nuclear ceramics	Tuesday, January 27, 2026	10:20 a.m. - Noon	Coquina F
S13- Chemical compatibility and corrosion	Tuesday, January 27, 2026	1:30 - 2:40 p.m.	Coquina F
S13- Nuclear fuel R&D	Tuesday, January 27, 2026	2:40 - 4:10 p.m.	Coquina F
S13- Material technologies for core structures of light water reactors I	Wednesday, January 28, 2026	8:30 - 10:20 a.m.	Coquina F
S13- Material technologies for core structures of light water reactors II	Wednesday, January 28, 2026	10:20 a.m. - Noon	Coquina F



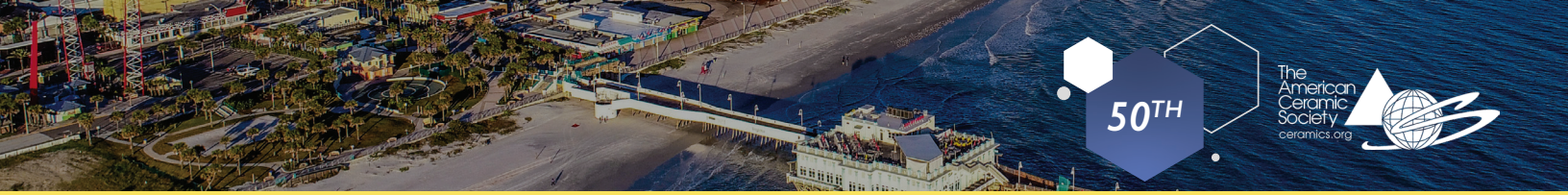
TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S13- Overview of nuclear ceramics development	Wednesday, January 28, 2026	1:30 - 3:20 p.m.	Coquina F
S13- Function materials for nuclear applications	Wednesday, January 28, 2026	3:20 - 5:04 p.m.	Coquina F
S13- Advanced characterization techniques and methods	Thursday, January 29, 2026	8:30 - 10:20 a.m.	Coquina F
S13- SiC-based material development for nuclear fission ad fusion	Thursday, January 29, 2026	10:20 a.m. - Noon	Coquina F
S13- Novel nuclear ceramics II	Thursday, January 29, 2026	1:30 - 3:30 p.m.	Coquina F
S13- Novel nuclear ceramics III	Thursday, January 29, 2026	3:30 - 4:10 p.m.	Coquina F
SYMPOSIUM 14: Crystalline Materials for Electrical, Optical and Medical Applications			
S14- Optical material I	Monday, January 26, 2026	1:30 -5:20 p.m.	Ballroom 4
S14- Optical material II	Tuesday, January 27, 2026	8:30 - 10:40 a.m.	Ballroom 4
S14- Semiconductor and electronic material I	Tuesday, January 27, 2026	10:40 - 11:30 a.m.	Ballroom 4
S14- Semiconductor and electronic material II	Tuesday, January 27, 2026	1:30 - 3:50 p.m.	Ballroom 4
S14- Scintillator	Wednesday, January 28, 2026	8:30 - 11:50 a.m.	Ballroom 4
SYMPOSIUM 15: 10th International Symposium on Additive Manufacturing and 3D Printing Technologies			
S15- Defect Functions in Additive Manufacturing	Monday, January 26, 2026	1:30 - 4:30 p.m.	Ponce de Leon
S15- Powder bed fusion/selective laser melting and sintering	Monday, January 26, 2026	4:30 - 5:30 p.m.	Ponce de Leon
S15- Direct writing/ink jet printing technologies	Tuesday, January 27, 2026	8:50 - 10:50 a.m.	Ponce de Leon
S15- AM of particulate and fiber reinforced composites	Tuesday, January 27, 2026	10:50 - 11:30 a.m.	Ponce de Leon
S15- Material extrusion/fused deposition modeling	Tuesday, January 27, 2026	1:30 - 3:40 p.m.	Ponce de Leon
S15- Applications of AM materials and components	Tuesday, January 27, 2026	3:40 - 4:40 p.m.	Ponce de Leon
S15- Vat photopolymerization/stereolithography	Wednesday, January 28, 2026	8:30 - 11:06 a.m.	Ponce de Leon
S15- Vat photopolymerization/stereolithography II	Wednesday, January 28, 2026	1:30 - 2:30 p.m.	Ponce de Leon
S15- Materials and process characterization tools and Multi-material and hybrid printing techniques	Wednesday, January 28, 2026	2:30 - 3:10 p.m.	Ponce de Leon
S15- Binder jetting processes	Wednesday, January 28, 2026	3:10 - 3:50 p.m.	Ponce de Leon
SYMPOSIUM 16: Geopolymers, Inorganic Polymer-Derived Ceramics and Sustainable Construction Materials			
S16- Alkali-based geopolymers and Acid-based phosphate geopolymers	Wednesday, January 28, 2026	1:30 - 5:22 p.m.	Ballroom 5



TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S16- Sustainable construction materials I	Thursday, January 29, 2026	8:30 - 11:20 a.m.	Ballroom 5
S16- Use of waste materials to make geopolymers	Thursday, January 29, 2026	11:20 a.m. - 12:10 p.m.	Ballroom 5
S16- Sustainable construction materials II	Thursday, January 29, 2026	1:30 - 3:40 p.m.	Ballroom 5
S16- Synthesis, processing microstructure	Thursday, January 29, 2026	3:40 - 5:40 p.m.	Ballroom 5
SYMPOSIUM 17: Advanced Ceramic Materials and Processing for Photonics and Energy			
S17- Multi-functional materials I	Monday, January 26, 2026	1:30 - 5:20 p.m.	Flagler C
S17- Multi- functional materials II	Tuesday, January 27, 2026	8:30 - 9:20 a.m.	Flagler C
S17- Advanced and nanostructured materials for photo-voltaics and solar fuels I	Tuesday, January 27, 2026	9:20 a.m. - Noon	Flagler C
S17- Advanced and nanostructured materials for photo-voltaics and solar fuels II	Tuesday, January 27, 2026	1:30 - 2:30 p.m.	Flagler C
S17- Advanced and nanostructured materials for photonics, electronics and sensing	Tuesday, January 27, 2026	2:30 - 4:20 p.m.	Flagler C
SYMPOSIUM 18: Ultrahigh Temperature Ceramics			
S18- Compositionally complex UHTCs	Monday, January 26, 2026	1:30 - 5:40 p.m.	Coquina A
S18- Response in extreme environments (irradiation, ultra-high temperature, etc.) I	Tuesday, January 27, 2026	8:30 - 11:30 a.m.	Coquina A
S18- Response in extreme environments (irradiation, ultra-high temperature, etc.) II	Tuesday, January 27, 2026	1:30 - 3:10 p.m.	Coquina A
S18- Processing-microstructure-property relationships of existing or new systems	Tuesday, January 27, 2026	3:10 - 4:30 p.m.	Coquina A
S18-Super-hard UHTCs	Wednesday, January 28, 2026	8:30 - 10:20 a.m.	Coquina A
S18- Simulation and theory for predicting stability or behavior under extreme environments	Wednesday, January 28, 2026	10:20 - 11:10 a.m.	Coquina A
S18- Novel processing methods for bulk, coatings, thin films, fibers, and/or composites	Wednesday, January 28, 2026	11:10 a.m. - 12:20 p.m.	Coquina A
S18- Precursors for powders, coatings, and matrix or fibers of composites	Wednesday, January 28, 2026	1:30 - 2:40 p.m.	Coquina A
S18- Characterization methods and lifetime assessment	Wednesday, January 28, 2026	2:40 - 3:42 p.m.	Coquina A
SYMPOSIUM 19: Molecular-level Processing and Chemical Engineering of Functional Materials			
S19- Precursor chemistry – structural and thermal transformations	Monday, January 26, 2026	1:30 - 5:34 p.m.	Ballroom 1-2
S19- New processing methods, 3D printing, and knowledge-driven processing	Tuesday, January 27, 2026	8:30 - 10:10 a.m.	Ballroom 1-2
S19- Chemically processed nanostructures and on-surface nanochemistry	Tuesday, January 27, 2026	10:10 - 10:40 a.m.	Ballroom 1-2



TECH SESSIONS BY SYMPOSIA

Session Title CURRENT CATEGORY	SESSION DAY & DATE	SESSION TIME	SESSION LOCATION
S19- Molecular precursor approaches for vapor-phase synthesis (ALD, CVD) of materials	Tuesday, January 27, 2026	10:40 - 11:02 a.m.	Ballroom 1-2
S19- Materials integration and device applications & Two-dimensional materials and their chemical functionalization	Tuesday, January 27, 2026	1:30 - 2:50 p.m.	Ballroom 1-2
SYMPOSIUM 20: Golden Jubilee: Engineered Ceramics for Achieving Net-Zero Carbon Emissions			
S20- Advanced materials and manufacturing technologies for energy generation and storage systems and artificial intelligence and machine learning	Monday, January 26, 2026	1:30 - 5:20 p.m.	Coquina D
S20- New and innovative strategies and technologies for sustainable and self-sufficient solutions	Tuesday, January 27, 2026	8:30 - 10:50 a.m.	Coquina D
S20- Multifunctional Ceramics for healthcare and biomedical applications	Tuesday, January 27, 2026	10:50 - 11:20 a.m.	Coquina D
S20- Current trends and future directions for research and technology on advanced ceramics, composites, and multifunctional materials I	Tuesday, January 27, 2026	1:30 - 5:20 p.m.	Coquina D
S20- Challenges and prospects for various ceramic technologies	Wednesday, January 28, 2026	8:30 - 11:50 a.m.	Coquina D
S20- Innovative manufacturing processes for greening of ceramics manufacturing industrial processes	Wednesday, January 28, 2026	1:30 - 3:50 p.m.	Coquina D
S20- Advanced technologies to increase energy efficiency and reduce the carbon footprint of energy production and consumption	Wednesday, January 28, 2026	3:50 - 4:50 p.m.	Coquina D
S20- Current trends and future directions for research and technology on advanced ceramics, composites, and multifunctional materials II	Thursday, January 29, 2026	8:30 a.m. - 12:20 p.m.	Coquina D

Oral Presenters

Name	Date	Time	Room	Page Number
A				
Abernathy, H.W.	28-Jan	4:00PM	Coquina H	43
Ahn, J.	27-Jan	8:30AM	Coquina G	18
Akhtar, F.	26-Jan	2:00PM	Flagler C	14
Akhtar, F.	28-Jan	3:10PM	Ballroom 3	46
Akiba, Y.	26-Jan	3:50PM	Ballroom 5	9
Akono, A.	29-Jan	3:10PM	Ballroom 5	63
Alexander, J.	28-Jan	4:40PM	Coquina E	43
Alexander-Roy, L.R.	27-Jan	2:00PM	Ponce de Leon	29
Allen, A.J.	26-Jan	2:40PM	Ponce de Leon	14
Aman, B.	27-Jan	3:42PM	Coquina B	27
Amaral, M.M.	27-Jan	1:30PM	Ballroom 1 -2	30
Amaral, M.M.	27-Jan	2:10PM	Ballroom 1 -2	30
Ambekar, R.	27-Jan	10:50AM	Coquina C	18
Anasori, B.	28-Jan	1:30PM	Ballroom 1 -2	42
Anasori, B.	29-Jan	9:30AM	Flagler C	55
Ando, Y.	29-Jan	9:30AM	Coquina G	54
Anelli, S.	29-Jan	4:00PM	Coquina H	59
Annino, G.	27-Jan	4:02PM	Coquina B	27
Anthoniappen, J.	29-Jan	5:00PM	Coquina G	61
Araki, J.	26-Jan	3:20PM	Ballroom 5	9
Ardrey, K.D.	27-Jan	3:40PM	Coquina C	25
Aretz, L.R.	29-Jan	4:00PM	Flagler C	62
Armijo, K.	26-Jan	2:20PM	Coquina E	10
Arregui-Mena, J.D.	29-Jan	9:20AM	Coquina F	56
Asghar, M.	27-Jan	4:30PM	Coquina H	26
Atkinson, C.	29-Jan	10:20AM	Ballroom 4	55
Ayguzer Yasar, Z.	27-Jan	3:50PM	Coquina A	30
Aytuna, Z.	26-Jan	4:50PM	Ballroom 1 -2	16
Azam, M.	28-Jan	3:30PM	Coquina B	45
B				
Bagci, C.	28-Jan	4:10PM	Flagler A	44
Bagci, C.	29-Jan	11:20AM	Ballroom 5	57
Bakkar, K.	26-Jan	5:10PM	Coquina F	13
Balagna, C.	27-Jan	10:50AM	Coquina D	24
Balaya, P.	26-Jan	4:20PM	Coquina D	16
Balazsi, C.	27-Jan	8:30AM	Ballroom 1 -2	23
Balazsi, C.	28-Jan	10:20AM	Coquina D	41
Balazsi, C.	28-Jan	3:20PM	Flagler A	44
Ballikaya, S.	26-Jan	1:30PM	Flagler A	11
Ballikaya, S.	26-Jan	2:30PM	Flagler A	12
Ban, C.	28-Jan	10:50AM	Coquina G	37
Bandyopadhyay, A.	27-Jan	3:40PM	Ponce de Leon	29
Barsoum, M.	29-Jan	8:30AM	Flagler C	55
Bartlett, E.	26-Jan	3:20PM	Coquina C	10
Bartoletti, A.	27-Jan	9:10AM	Ponce de Leon	21
Barua, B.	26-Jan	2:40PM	Coquina E	10
Basoli, F.	29-Jan	3:20PM	Flagler A	60
Beanerjee, P.	26-Jan	2:20PM	Ponce de Leon	14
Begand, S.	27-Jan	8:50AM	Ballroom 4	21
Begand, S.	29-Jan	9:30AM	Flagler A	53
Begand, S.	29-Jan	10:50AM	Flagler A	54
Benelli, A.	28-Jan	4:20PM	Coquina E	43
Bermejo, R.	26-Jan	1:30PM	Ponce de Leon	14
Bermejo, R.	27-Jan	1:30PM	Coquina B	27
Bermejo, R.	29-Jan	9:00AM	Coquina H	52
Bernard, S.	26-Jan	1:30PM	Ballroom 1 -2	15
Bernardo, E.	28-Jan	8:40AM	Coquina B	38
Bernardo, E.	29-Jan	8:30AM	Ballroom 5	56
Bernardo, E.	30-Jan	9:00AM	Ballroom 3	63
Bhootpur, N.	28-Jan	10:50AM	Coquina B	38
Biasetto, L.	27-Jan	9:30AM	Ponce de Leon	22
Biasetto, L.	28-Jan	2:00PM	Ballroom 3	46
Bicer, H.	27-Jan	4:10PM	Coquina A	30
Bickermann, M.	27-Jan	1:30PM	Ballroom 4	29
Binner, J.	26-Jan	4:40PM	Coquina E	10
Birkel, C.	29-Jan	9:00AM	Flagler C	55
Bissell, E.	28-Jan	9:30AM	Ballroom 1 -2	35
Blosi, M.	27-Jan	10:20AM	Flagler A	19
Boaro, M.	28-Jan	2:00PM	Ballroom 1 -2	42
Bock, K.	27-Jan	4:40PM	Coquina E	25
Bonaldo, B.	26-Jan	4:10PM	Coquina G	9
Bose, S.	28-Jan	5:10PM	Flagler A	44
Bowman, W.M.	28-Jan	9:10AM	Ballroom 4	39
Bowman, W.M.	28-Jan	11:30AM	Ballroom 4	40
Breijaert, T.	27-Jan	10:40AM	Flagler A	19
Bresser, D.	29-Jan	8:30AM	Coquina G	54
Bull, K.C.	26-Jan	3:40PM	Ponce de Leon	14
Bulteel, B.M.	27-Jan	11:10AM	Coquina A	23
Buluc, A.F.	27-Jan	11:00AM	Coquina E	17
Buswell, A.	27-Jan	2:40PM	Ponce de Leon	29
Butler, C.A.	26-Jan	2:00PM	Coquina A	15
C				
Caamino, A.	29-Jan	10:20AM	Ballroom 5	57
Cabot, A.	28-Jan	8:30AM	Flagler A	38
Cakmak, E.	29-Jan	10:20AM	Coquina F	56
Cannillo, V.	28-Jan	1:30PM	Flagler A	44
Carmichael, J.	28-Jan	2:30PM	Ponce de Leon	47
Casalegno, V.	27-Jan	3:20PM	Coquina D	31
Castro, R.	27-Jan	2:50PM	Coquina D	31
Caulfield, M.L.	27-Jan	4:20PM	Coquina C	25
Cavalli, L.	29-Jan	9:30AM	Coquina E	52
Celik, A.	26-Jan	5:00PM	Coquina A	15
Chaker, M.	26-Jan	3:20PM	Flagler C	15
Chang, C.	26-Jan	4:50PM	Coquina H	11
Chelliah, H.	28-Jan	10:50AM	Coquina A	41
Chen, G.	28-Jan	8:30AM	Coquina G	37
Chen, K.	27-Jan	1:30PM	Coquina C	25
Chen, R.	29-Jan	4:20PM	Ballroom 1 -2	59
Chen, S.	28-Jan	5:30PM	Coquina H	44
Chen, Y.	28-Jan	9:30AM	Coquina F	39
Chen, Y.	28-Jan	4:10PM	Ballroom 4	46
Chodisetti, S.	28-Jan	9:50AM	Ballroom 1 -2	35
Choi, S.	26-Jan	3:20PM	Coquina H	11
Christian, K.	26-Jan	4:50PM	Coquina F	13
Christiansen, S.	26-Jan	11:20AM	Coquina D and E	8
Chung, Y.	27-Jan	10:30AM	Ballroom 5	17
Cinbiz, N.	27-Jan	8:30AM	Coquina F	20
Clausner, A.	27-Jan	2:30PM	Ballroom 4	29
Clouse, D.	27-Jan	3:22PM	Coquina B	27
Colin, J.	27-Jan	9:30AM	Coquina G	18
Colombo, P.	27-Jan	8:50AM	Ponce de Leon	21
Colombo, P.	27-Jan	2:00PM	Coquina B	27
Colombo, P.	28-Jan	1:30PM	Coquina D	49
Colorado L., H.A.	28-Jan	2:00PM	Ballroom 5	48
Colorado L., H.A.	29-Jan	9:20AM	Ballroom 5	56
Costa, G.	29-Jan	4:00PM	Ballroom 4	61
Costa, P.	28-Jan	9:00AM	Flagler C	34
Cottrino, S.	26-Jan	3:40PM	Ballroom 4	13
Cottrino, S.	27-Jan	10:50AM	Coquina B	20
Craigs, T.A.	30-Jan	9:30AM	Ballroom 4	64
Cui, B.	26-Jan	5:20PM	Coquina A	15
Cui, B.	28-Jan	9:40AM	Coquina B	38
Cullinan, M.	28-Jan	1:30PM	Coquina C	42
Curtarolo, S.	28-Jan	10:20AM	Coquina A	41
Czudec, M.M.	29-Jan	10:50AM	Ballroom 1 -2	53
D				
D'Isanto, F.	27-Jan	9:40AM	Coquina H	18
Da Prato, F.	29-Jan	1:50PM	Coquina H	59
Dadashov, S.	28-Jan	10:20AM	Flagler A	38
Dal Poggetto, G.	28-Jan	4:50PM	Flagler A	44
Danielis, M.	28-Jan	8:30AM	Flagler C	34
Davey, T.	26-Jan	2:00PM	Coquina F	13
de Souza, F.L.	26-Jan	4:50PM	Flagler A	12
Devitre, A.R.	28-Jan	3:20PM	Coquina F	47
Diamanti, V.	28-Jan	4:30PM	Flagler A	44
Diamanti, V.	29-Jan	11:40AM	Ballroom 3	55
Dickerson, M.B.	26-Jan	4:20PM	Ballroom 1 -2	16
Dieguez, O.	29-Jan	1:30PM	Flagler C	61
Dillon, S.J.	27-Jan	1:30PM	Coquina A	30
Ding, D.	27-Jan	10:20AM	Coquina H	18

Presenting Author List

Oral Presenters

Name	Date	Time	Room	Page Number
Divilov, S.	26-Jan	4:10PM	Coquina A	15
Do, T.	28-Jan	2:30PM	Coquina B	45
Dobosz, A.	28-Jan	11:30AM	Coquina A	41
Doerflinger, P.	29-Jan	3:40PM	Flagler C	62
Donazzi, A.	28-Jan	9:30AM	Flagler C	34
Dornbusch, D.	28-Jan	4:40PM	Coquina G	45
Drüe, M.	27-Jan	8:30AM	Ballroom 4	21
Du, M.	27-Jan	11:10AM	Ponce de Leon	22
Dujovic, M.	26-Jan	4:50PM	Ballroom 5	9
Dujovic, M.	29-Jan	11:20AM	Flagler C	55
Dupre, D.P.	29-Jan	4:20PM	Coquina E	58
E				
Emmanuel, M.	28-Jan	4:20PM	Coquina F	47
Engen, A.	27-Jan	2:00PM	Coquina A	30
Ettahiri, Y.	29-Jan	3:40PM	Ballroom 5	63
Ettahiri, Y.	29-Jan	4:10PM	Ballroom 5	63
F				
Fahrenholtz, W.	26-Jan	1:30PM	Coquina A	15
Fahrenholtz, W.	28-Jan	8:30AM	Ballroom 1 -2	34
Faierson, E.	27-Jan	10:50AM	Ponce de Leon	22
Fanchini, G.	27-Jan	10:30AM	Flagler C	22
Fazi, A.	26-Jan	2:20PM	Coquina F	13
Feldbauer, J.	27-Jan	10:30AM	Ponce de Leon	22
Feldhoff, A.	28-Jan	11:20AM	Coquina H	37
Feldhoff, A.	29-Jan	10:20AM	Ballroom 1 -2	53
Feltrin, A.	27-Jan	3:30PM	Coquina A	30
Feng, Y.	28-Jan	11:40AM	Coquina G	37
Ferraris, M.	28-Jan	2:00PM	Coquina D	49
Fey, T.	28-Jan	2:30PM	Ballroom 3	46
Fey, T.	28-Jan	3:30PM	Ballroom 3	46
Fey, T.	29-Jan	9:40AM	Ballroom 3	54
Feygin, E.M.	29-Jan	3:40PM	Ballroom 4	61
Fiedler, C.S.	29-Jan	2:00PM	Ballroom 1 -2	59
Fischer, T.	27-Jan	10:10AM	Flagler C	22
Fischer, T.	28-Jan	10:50AM	Coquina D	41
Fukushima, M.	26-Jan	4:50PM	Coquina D	16
Furlan, K.P.	28-Jan	1:30PM	Ballroom 3	46
Furudate, K.	29-Jan	2:10PM	Ballroom 4	61
Furuse, H.	26-Jan	3:10PM	Ballroom 4	13
G				
Gadea, C.	27-Jan	9:00AM	Coquina H	18
Galeano Camacho, M.	28-Jan	11:00AM	Coquina E	36
Galliano, S.	27-Jan	11:00AM	Flagler C	22
Gallo, F.	29-Jan	2:50PM	Coquina H	59
Gan, Y.	27-Jan	3:10PM	Coquina A	30
Gan, Y.	29-Jan	4:20PM	Flagler C	62
Gandhi, A.S.	27-Jan	11:30AM	Coquina C	18
Gastaldi, V.	29-Jan	8:30AM	Flagler A	53
Gattucci, F.	29-Jan	4:30PM	Flagler A	60
Geisler, H.	26-Jan	2:30PM	Coquina H	11
Germanton, G.	27-Jan	9:30AM	Ballroom 1 -2	23
Ghosh, S.K.	28-Jan	3:10PM	Coquina G	45
Gibson, A.	29-Jan	11:40AM	Coquina G	54
Gilmer, D.	27-Jan	2:30PM	Ballroom 5	24
Gisser, D.J.	26-Jan	4:20PM	Ballroom 3	8
Gitschthaler, A.	29-Jan	3:20PM	Flagler C	62
Gnanasekar, P.	27-Jan	2:30PM	Ballroom 1 -2	31
Goller, R.	27-Jan	8:30AM	Coquina E	17
Goossens, N.	29-Jan	10:50AM	Flagler C	55
Gou, J.	28-Jan	2:10PM	Ponce de Leon	47
Gou, J.	29-Jan	11:10AM	Coquina E	52
Gou, J.	29-Jan	11:30AM	Coquina E	52
Gourley, A.	27-Jan	9:50AM	Ponce de Leon	22
Gray, F.S.	29-Jan	3:20PM	Coquina G	60
Grill, J.	27-Jan	4:40PM	Coquina G	26
Grill, J.	29-Jan	9:00AM	Coquina G	54
Grindler, E.	29-Jan	11:20AM	Coquina H	52
Grosse, M.K.	27-Jan	2:20PM	Coquina F	28
Gualandris, F.	27-Jan	3:50PM	Coquina H	26
Guitton, A.	30-Jan	9:00AM	Flagler C	64
Gupta, A.	28-Jan	9:00AM	Ponce de Leon	40
Gupta, S.	27-Jan	4:50PM	Coquina D	31
Gurnani, L.	27-Jan	9:00AM	Coquina F	20
Gyekenyesi, A.P.	27-Jan	2:20PM	Ponce de Leon	29
H				
Hahn, R.	26-Jan	4:40PM	Coquina C	11
Halbig, M.C.	29-Jan	9:00AM	Coquina D	57
Hampshire, S.	29-Jan	10:20AM	Coquina D	57
Hara, K.	27-Jan	3:20PM	Coquina H	26
Harrison, S.	27-Jan	10:20AM	Coquina F	21
Harrison, S.	28-Jan	4:00PM	Coquina E	43
Haruyama, D.	29-Jan	4:00PM	Coquina E	58
Hassan, R.	27-Jan	10:40AM	Coquina E	17
Hastak, V.	27-Jan	2:00PM	Coquina C	25
Hattar, K.	29-Jan	8:30AM	Coquina F	56
He, L.	27-Jan	10:20AM	Coquina B	20
He, R.	27-Jan	4:00PM	Flagler A	27
Helmreich, G.W.	28-Jan	2:00PM	Coquina F	47
Heo, M.	29-Jan	2:20PM	Ballroom 1 -2	59
Hintz, E.	28-Jan	2:40PM	Flagler C	41
Hipp, D.	27-Jan	2:00PM	Coquina H	26
Hofuku, K.	27-Jan	9:40AM	Ballroom 5	17
Honma, T.	29-Jan	1:30PM	Coquina G	60
Hopkins, P.E.	29-Jan	8:30AM	Coquina E	52
Hori, S.	28-Jan	10:20AM	Coquina G	37
Hossain, M.	29-Jan	4:30PM	Ballroom 5	63
Howard, A.M.	27-Jan	3:50PM	Ballroom 5	24
Huang, Y.	28-Jan	2:00PM	Coquina A	48
Humphry-Baker, S.A.	27-Jan	9:30AM	Coquina A	23
Hwang, J.	27-Jan	2:30PM	Coquina G	26
I				
Iddir, H.	29-Jan	10:50AM	Coquina G	54
Iijima, M.	28-Jan	1:50PM	Ponce de Leon	47
Iijima, M.	28-Jan	3:50PM	Ballroom 3	46
Imatani, T.	28-Jan	3:20PM	Ballroom 4	46
Ishii, K.	26-Jan	1:30PM	Flagler C	14
Ishii, K.	27-Jan	9:10AM	Ballroom 5	16
Ishtiyaq, M.	27-Jan	10:40AM	Ballroom 4	21
Isotta, E.	29-Jan	9:30AM	Ballroom 1 -2	53
Ito, A.	28-Jan	9:50AM	Ballroom 4	39
Ivekovic, A.	28-Jan	8:30AM	Ponce de Leon	40
J				
Jabr, A.	26-Jan	2:30PM	Coquina G	9
Jabr, A.	28-Jan	9:40AM	Coquina E	35
Jain, V.	27-Jan	4:00PM	Coquina C	25
Jana, S.	26-Jan	4:20PM	Coquina E	10
Jang, J.	26-Jan	4:20PM	Flagler A	12
Janner, D.	27-Jan	2:30PM	Flagler C	30
Jayan, B.	26-Jan	2:10PM	Ballroom 3	8
Jeevarajan, J.	27-Jan	1:30PM	Coquina G	26
Jenkins, M.G.	27-Jan	2:30PM	Coquina E	24
Jenkins, M.G.	29-Jan	9:40AM	Coquina F	56
Jeong, S.	28-Jan	11:10AM	Flagler C	34
Jiang, S.	26-Jan	3:50PM	Ballroom 3	8
Jimba, Y.	29-Jan	11:40AM	Coquina F	56
Jordan, E.H.	27-Jan	2:20PM	Coquina C	25
Jun, Y.	27-Jan	9:30AM	Ballroom 3	20
Jung, F.	30-Jan	10:00AM	Flagler C	64
Junger, A.	28-Jan	2:50PM	Ponce de Leon	47
K				
Kamata, K.	29-Jan	10:40AM	Ballroom 4	55
Kamoda, K.	27-Jan	11:00AM	Ballroom 5	17
Kaplan, W.D.	27-Jan	4:22PM	Coquina B	28
Karandikar, P.	27-Jan	4:10PM	Ponce de Leon	29
Kartuzov, E.	30-Jan	8:30AM	Ballroom 4	64
Kata, D.B.	28-Jan	10:20AM	Coquina E	36
Kato, K.	27-Jan	1:30PM	Ballroom 5	24

Oral Presenters

Name	Date	Time	Room	Page Number
Katoh, Y.	28-Jan	1:30PM	Coquina F	47
Katsui, H.	26-Jan	1:30PM	Coquina B	12
Katsui, H.	28-Jan	2:30PM	Ballroom 1 -2	42
Kawada, T.	28-Jan	1:30PM	Coquina H	43
Kaya, P.	27-Jan	4:20PM	Coquina G	26
Khan, S.	28-Jan	11:20AM	Coquina G	37
Kim, H.	27-Jan	4:50PM	Coquina H	26
Kim, H.	28-Jan	4:20PM	Coquina D	49
Kim, H.	29-Jan	2:40PM	Ballroom 1 -2	59
Kim, J.	26-Jan	1:30PM	Coquina H	11
Kim, J.	27-Jan	10:50AM	Coquina G	19
Kim, J.	27-Jan	2:00PM	Coquina G	26
Kim, J.	28-Jan	1:50PM	Coquina E	43
Kim, J.	29-Jan	4:50PM	Ballroom 1 -2	60
Kim, S.	27-Jan	10:10AM	Coquina C	18
Kim, W.	27-Jan	2:00PM	Coquina F	28
Kim, W.	29-Jan	3:50PM	Ballroom 1 -2	59
Kim, Y.	29-Jan	8:30AM	Coquina D	57
Kirihara, S.	26-Jan	2:30PM	Coquina D	16
Kirihara, S.	26-Jan	5:10PM	Ponce de Leon	14
Kirihara, T.	29-Jan	4:20PM	Ballroom 3	58
Kleiner, S.	27-Jan	3:20PM	Ballroom 3	28
Kleinke, H.	30-Jan	9:30AM	Ballroom 1 -2	63
Ko, S.	28-Jan	2:00PM	Coquina G	44
Koch, D.	27-Jan	3:30PM	Coquina E	25
Kocjan, A.	27-Jan	1:30PM	Ponce de Leon	29
Kocjan, A.	29-Jan	10:20AM	Flagler A	53
Kolanti, A.	29-Jan	2:30PM	Coquina F	62
Kondo, S.	27-Jan	10:40AM	Coquina F	21
Koomson, S.	27-Jan	2:20PM	Coquina H	26
Kostogiannes, A.	28-Jan	9:30AM	Ballroom 4	39
Kovar, D.	26-Jan	4:20PM	Coquina C	11
Kovrugin, V.	29-Jan	2:30PM	Coquina G	60
Kowalski, B.	27-Jan	11:10AM	Coquina C	18
Koyanagi, T.	28-Jan	11:20AM	Coquina F	39
Krenkel, W.	28-Jan	11:20AM	Coquina D	41
Krogstad, J.A.	27-Jan	3:50PM	Coquina D	31
Kroll, P.	26-Jan	3:20PM	Ballroom 1 -2	16
Kroll, P.	26-Jan	5:10PM	Ballroom 1 -2	16
Kumar, B.	27-Jan	11:00AM	Ballroom 3	20
Kumar, B.	28-Jan	11:30AM	Ballroom 1 -2	35
Kumar, B.	28-Jan	4:20PM	Ballroom 1 -2	42
Kumar, I.	29-Jan	1:50PM	Coquina F	62
Kusnezoff, M.	28-Jan	2:50PM	Coquina H	43
		L		
Laermans, V.	29-Jan	3:40PM	Coquina E	58
Laguna-Bercero, M.	28-Jan	10:20AM	Coquina H	37
Lambert, T.N.	29-Jan	4:30PM	Coquina G	60
Lambrinou, K.	28-Jan	11:40AM	Coquina F	39
Lambrinou, K.	30-Jan	9:30AM	Flagler C	64
Lamm, B.W.	27-Jan	11:40AM	Coquina F	21
Langhof, N.	27-Jan	9:30AM	Coquina E	17
Langhof, N.	29-Jan	9:20AM	Coquina H	52
Laurencin, J.	28-Jan	3:30PM	Coquina H	43
Lecomte-Nana, G.	29-Jan	11:20AM	Ballroom 3	55
Lee, J.	27-Jan	9:00AM	Ballroom 3	20
Lee, J.	28-Jan	3:30PM	Coquina G	45
Lee, J.	28-Jan	3:40PM	Ballroom 4	46
Lee, J.	29-Jan	11:40AM	Coquina H	53
Lee, K.	29-Jan	11:40AM	Flagler C	55
Lee, S.	27-Jan	2:00PM	Ballroom 5	24
Lee, S.	28-Jan	8:30AM	Coquina H	37
Lee, S.	28-Jan	9:40AM	Coquina H	37
Lee, Y.	28-Jan	1:30PM	Coquina A	48
Lei, Y.	28-Jan	5:10PM	Coquina H	44
Lewin, E.	29-Jan	10:20AM	Flagler C	55
Lewinsohn, C.	28-Jan	10:50AM	Flagler C	34
Li, G.	27-Jan	11:50AM	Flagler A	19
Li, J.	28-Jan	3:50PM	Coquina F	47
Li, L.	26-Jan	1:30PM	Coquina G	9
Li, M.	28-Jan	10:40AM	Ponce de Leon	40
Li, Y.	28-Jan	3:20PM	Coquina D	49
Lichtenberg, A.	28-Jan	9:40AM	Flagler A	38
Lim, H.	29-Jan	10:50AM	Coquina H	52
Lin, H.	28-Jan	3:50PM	Coquina D	49
Lin, J.	29-Jan	11:50AM	Ballroom 5	57
Liu, C.	26-Jan	4:20PM	Coquina H	11
Liu, D.	27-Jan	1:30PM	Coquina D	31
Liu, D.	28-Jan	8:30AM	Coquina E	35
Liu, F.	27-Jan	2:40PM	Coquina H	26
Liu, J.	28-Jan	9:00AM	Coquina H	37
Liu, J.	28-Jan	9:30AM	Coquina G	37
Liu, X.	29-Jan	2:30PM	Coquina H	59
Lizcano, M.	28-Jan	2:30PM	Coquina C	42
Luceri, A.	29-Jan	3:50PM	Flagler A	60
Lundin, S.B.	28-Jan	2:20PM	Flagler C	41
Luo, J.	26-Jan	2:30PM	Ballroom 1 -2	15
Luo, J.	29-Jan	2:50PM	Ballroom 4	61
		M		
Ma, B.	29-Jan	3:20PM	Ballroom 3	58
Ma, K.	30-Jan	8:30AM	Ballroom 3	63
Maeda, T.	27-Jan	2:50PM	Coquina E	24
Magdaluyo, E.d.	27-Jan	8:30AM	Flagler A	19
Magdaluyo, E.d.	27-Jan	11:30AM	Ballroom 3	20
Magdum, R.P.	28-Jan	10:20AM	Coquina C	36
Magnuson, M.	29-Jan	9:00AM	Ballroom 4	55
Magnuson, M.	30-Jan	8:30AM	Flagler C	64
Maier, R.	26-Jan	3:20PM	Ponce de Leon	14
Maier, R.	27-Jan	11:20AM	Coquina E	17
Majee, B.P.	28-Jan	9:40AM	Coquina C	36
Majumder, S.B.	26-Jan	3:50PM	Flagler A	12
Makurunje, P.	28-Jan	3:50PM	Coquina B	45
Mani, N.	26-Jan	2:00PM	Flagler A	12
Mänken, C.F.	28-Jan	2:00PM	Coquina H	43
Mannu, A.	29-Jan	2:00PM	Ballroom 3	57
Manocha, L.M.	27-Jan	9:00AM	Coquina E	17
Marquez Rios, N.O.	28-Jan	9:00AM	Coquina A	40
Marvel, C.	29-Jan	3:20PM	Ballroom 4	61
Massignan, C.	26-Jan	4:00PM	Coquina C	10
Mastropasqua, L.	28-Jan	2:00PM	Flagler C	41
Mastropasqua, L.	29-Jan	4:20PM	Coquina H	59
Masuda, G.	28-Jan	9:30AM	Ballroom 3	35
Mateos, X.	26-Jan	1:30PM	Ballroom 4	13
Mateti, S.	28-Jan	2:00PM	Coquina B	45
Mathur, S.	26-Jan	1:30PM	Coquina D	16
Mathur, S.	27-Jan	9:20AM	Flagler C	22
Mathur, S.	29-Jan	1:30PM	Flagler A	60
Mazzocco, L.	27-Jan	9:40AM	Coquina F	20
Mazzocco, L.	29-Jan	11:20AM	Coquina F	56
Mbarki, I.	27-Jan	11:30AM	Coquina B	20
McCormack, S.J.	27-Jan	8:30AM	Coquina A	22
McCue, I.	26-Jan	4:20PM	Coquina F	13
McMahon, W.	28-Jan	10:40AM	Coquina F	39
McMillon-Brown, L.	26-Jan	1:30PM	Ballroom 5	8
Mear, F.O.	26-Jan	4:50PM	Ponce de Leon	14
Mear, F.O.	29-Jan	1:30PM	Coquina H	58
Mechnich, P.	26-Jan	3:40PM	Coquina C	10
Mehdi, S.	29-Jan	10:20AM	Ballroom 3	54
Mhin, S.	27-Jan	9:50AM	Coquina D	23
Mia, R.	27-Jan	10:20AM	Coquina E	17
Michaelis, A.	26-Jan	3:20PM	Coquina D	16
Mills, S.C.	26-Jan	4:20PM	Ballroom 4	14
Min Young, C.	27-Jan	3:50PM	Coquina F	28
Minary, M.	28-Jan	9:20AM	Ponce de Leon	40
Mirza, F.	28-Jan	1:30PM	Coquina E	42
Mirzaei, A.	28-Jan	2:40PM	Coquina A	48
Mitchell, K.J.	28-Jan	3:20PM	Coquina A	48
Miyagishi, T.	28-Jan	9:00AM	Ballroom 5	34
Mokhtari, P.	28-Jan	4:50PM	Ballroom 5	48
Molin, S.	28-Jan	9:20AM	Flagler A	38
Molin, S.	29-Jan	2:10PM	Coquina H	59
Momai, M.	27-Jan	11:20AM	Coquina H	18

Presenting Author List

Oral Presenters

Name	Date	Time	Room	Page Number
Monteverde, F.	26-Jan	3:20PM	Coquina A	15
Moore, T.W.	28-Jan	11:10AM	Coquina B	39
Moranti, A.	29-Jan	9:40AM	Coquina H	52
Moretti, E.	27-Jan	10:20AM	Coquina D	23
Morita, K.	27-Jan	9:10AM	Coquina B	19
Moyo-Mahlangu, T.	29-Jan	3:50PM	Ballroom 3	58
Mühmer, D.T.	26-Jan	2:20PM	Coquina A	15
Müller, M.	28-Jan	8:30AM	Ballroom 4	39
Müller, M.	28-Jan	10:30AM	Ballroom 4	40
Mundra, R.	27-Jan	9:40AM	Coquina B	19
Mungiguerra, S.	27-Jan	9:00AM	Coquina A	22
N				
Na, Y.	27-Jan	3:30PM	Coquina F	28
Naccache, R.	27-Jan	3:20PM	Flagler C	30
Nair, C.	27-Jan	4:40PM	Coquina C	25
Nakamura, M.	29-Jan	2:00PM	Flagler A	60
Nakhmanson, S.	30-Jan	9:00AM	Ballroom 1 -2	63
Naleway, S.E.	26-Jan	3:50PM	Coquina G	9
Naraparaju, R.	27-Jan	9:00AM	Coquina C	17
Naraparaju, R.	27-Jan	2:30PM	Coquina A	30
Neggaoui, H.	27-Jan	1:50PM	Ballroom 1 -2	30
Nelson, T.	28-Jan	3:30PM	Coquina E	43
Ng, M.	29-Jan	2:30PM	Ballroom 3	57
Ngo, M.	27-Jan	11:10AM	Coquina B	20
Nguyen, S.T.	26-Jan	3:30PM	Coquina B	12
Nguyen, S.T.	27-Jan	2:20PM	Ballroom 3	28
Nishimura, Y.	29-Jan	2:50PM	Coquina F	62
Nomoto, J.	27-Jan	2:00PM	Ballroom 4	29
Numao, G.	29-Jan	4:40PM	Ballroom 3	58
Numata, H.	30-Jan	8:50AM	Ballroom 4	64
O				
Ogiya, T.	27-Jan	8:40AM	Ballroom 5	16
Ohji, T.	28-Jan	9:00AM	Coquina D	41
Ohtaki, M.	29-Jan	11:10AM	Ballroom 1 -2	53
Ojur, J.	29-Jan	3:50PM	Coquina F	62
Okawa, A.	26-Jan	2:00PM	Coquina B	12
Okawa, A.	27-Jan	2:00PM	Ballroom 3	28
Okuma, G.	27-Jan	3:20PM	Ballroom 5	24
Oladosu, O.T.	29-Jan	2:10PM	Coquina F	62
Opila, E.	27-Jan	8:30AM	Coquina C	17
Orgiu, E.	26-Jan	3:50PM	Flagler C	15
Osada, T.	29-Jan	10:50AM	Coquina E	52
Osaka, A.	27-Jan	4:20PM	Flagler A	27
Osborne, R.	26-Jan	4:00PM	Ballroom 4	14
Osborne, R.	28-Jan	11:10AM	Ballroom 4	40
Oshima, S.	28-Jan	8:30AM	Ballroom 3	35
Oshiumi, T.	27-Jan	3:50PM	Coquina E	24
Ott, C.	28-Jan	2:20PM	Coquina A	48
Ozkan, B.	28-Jan	1:30PM	Ponce de Leon	47
P				
Paik, U.	29-Jan	3:45PM	Coquina G	60
Pajo, B.	29-Jan	10:10AM	Coquina E	52
Palmero, P.	28-Jan	9:40AM	Ponce de Leon	40
Palmero, P.	29-Jan	5:00PM	Ballroom 3	58
Park, H.	27-Jan	9:30AM	Coquina C	17
Park, H.	29-Jan	11:20AM	Coquina G	54
Park, Y.	27-Jan	9:50AM	Ballroom 3	20
Parolini, N.D.	28-Jan	10:40AM	Coquina E	36
Patrun, D.	28-Jan	2:30PM	Coquina G	45
Pflug, J.J.	26-Jan	2:20PM	Coquina C	10
Pianou, M.E.	28-Jan	3:50PM	Flagler A	44
Ping, H.	26-Jan	3:20PM	Coquina G	9
Pinna, N.	26-Jan	2:30PM	Flagler C	14
Pinna, N.	28-Jan	1:30PM	Coquina G	44
Pizzinat, A.	29-Jan	10:40AM	Coquina F	56
Poerschke, D.L.	28-Jan	1:30PM	Ballroom 4	46
Polisetty, P.	29-Jan	5:20PM	Ballroom 5	63
Polo, F.	26-Jan	4:20PM	Flagler C	15
Pontillo, K.	29-Jan	4:10PM	Flagler A	60
Pontremoli, C.	27-Jan	9:00AM	Flagler C	22
Poudeu, F.	29-Jan	9:00AM	Ballroom 1 -2	53
Pralong, V.	27-Jan	3:20PM	Coquina G	26
Prikhna, T.	28-Jan	8:30AM	Coquina C	36
Prikhna, T.	28-Jan	9:40AM	Coquina A	40
Prikhna, T.	28-Jan	10:40AM	Coquina C	36
Pritchett, E.A.	26-Jan	2:40PM	Coquina A	15
Prud'homme, É	28-Jan	3:40PM	Ballroom 5	48
Prud'homme, É.	29-Jan	9:00AM	Ballroom 5	56
Prud'homme, É.	29-Jan	9:40AM	Ballroom 5	56
Puchas, G.	28-Jan	2:10PM	Coquina E	43
Q				
Quinn, G.D.	29-Jan	2:10PM	Coquina E	58
R				
Raghavan, K.C.	26-Jan	1:30PM	Coquina E	9
Raghavan, K.C.	26-Jan	2:00PM	Coquina E	9
Rahaman, M.	28-Jan	9:00AM	Coquina C	36
Rahier, H.	28-Jan	4:20PM	Ballroom 5	48
Raj, R.	27-Jan	8:40AM	Coquina B	19
Ramachandran, S.	26-Jan	5:00PM	Coquina C	11
Ramachandran, S.	27-Jan	3:20PM	Coquina C	25
Ramond, L.	27-Jan	2:40PM	Coquina F	28
Ranaiefar, M.	27-Jan	3:20PM	Ponce de Leon	29
Rastelli, A.	27-Jan	3:50PM	Flagler C	30
Rau, A.	28-Jan	4:00PM	Ballroom 1 -2	42
Reimanis, I.	28-Jan	9:20AM	Coquina E	35
Reimanis, I.	28-Jan	3:20PM	Flagler C	42
Ren, S.	26-Jan	2:30PM	Ballroom 5	8
Restrepo Arcila, S.M.	29-Jan	5:00PM	Ballroom 5	63
Ria, N.	27-Jan	2:40PM	Coquina C	25
Ricote, S.	27-Jan	1:30PM	Coquina H	25
Ricote, S.	28-Jan	1:30PM	Flagler C	41
Riedl, H.	27-Jan	10:50AM	Coquina A	23
Riesch, J.	26-Jan	3:50PM	Coquina F	13
Rigano, V.	29-Jan	8:50AM	Flagler A	53
Rigby-Bell, M.T.	28-Jan	2:30PM	Coquina F	47
Riva, M.	27-Jan	4:20PM	Coquina E	25
Rousseau, B.	29-Jan	9:30AM	Ballroom 4	55
Roy, A.	27-Jan	10:40AM	Ballroom 1 -2	23
Rüdinger, A.	28-Jan	2:40PM	Coquina E	43
Rudzik, T.	28-Jan	10:50AM	Ballroom 4	40
Ruggles-Wrenn, M.	28-Jan	11:20AM	Coquina E	36
Rulis, P.	29-Jan	5:00PM	Ballroom 4	61
S				
Sá Ribeiro, M.G.	29-Jan	2:20PM	Ballroom 5	63
Sa Ribeiro, R.A.	29-Jan	10:50AM	Ballroom 5	57
Saidaminov, M.	27-Jan	1:30PM	Flagler C	29
Saini, R.	27-Jan	11:20AM	Coquina F	21
Saint-Jean, L.	26-Jan	2:40PM	Coquina C	10
Saito, J.	27-Jan	11:30AM	Coquina G	19
Saito, J.	28-Jan	9:30AM	Ballroom 5	34
Sakai, H.	29-Jan	3:30PM	Coquina F	62
Sakai, M.	28-Jan	2:00PM	Ballroom 4	46
Sakai, T.	28-Jan	9:50AM	Ballroom 3	35
Salameh, C.	27-Jan	9:00AM	Ballroom 1 -2	23
Salanova Giampaoli, A.	26-Jan	4:40PM	Coquina A	15
Salem, J.	27-Jan	4:20PM	Coquina D	31
Samuel, D.	28-Jan	1:30PM	Ballroom 5	48
Sanson, A.	27-Jan	9:20AM	Coquina H	18
Santarelli, M.	27-Jan	10:50AM	Coquina H	18
Santarelli, M.	28-Jan	10:20AM	Flagler C	34
Santo, L.	26-Jan	4:00PM	Coquina B	12
Sarikhani, A.	26-Jan	3:50PM	Coquina A	15
Sathrum, A.	28-Jan	8:30AM	Coquina F	39
Sato, F.	28-Jan	4:20PM	Coquina G	45
Sato, K.	28-Jan	9:00AM	Ballroom 1 -2	35
Sato, Y.	27-Jan	10:20AM	Ballroom 4	21
Sbi, S.	28-Jan	2:20PM	Ballroom 5	48
Schefold, J.	29-Jan	10:20AM	Coquina H	52

Oral Presenters

Name	Date	Time	Room	Page Number
Schilm, J.	27-Jan	2:30PM	Coquina B	27
Schindler, P.	30-Jan	10:20AM	Ballroom 1 -2	63
Schuetz, D.	29-Jan	11:00AM	Ballroom 3	55
Schwentenwein, M.	28-Jan	10:20AM	Ponce de Leon	40
Schwentenwein, M.	29-Jan	9:20AM	Ballroom 3	54
Sciti, D.	28-Jan	11:10AM	Coquina A	41
Seisenbaeva, G.A.	27-Jan	9:30AM	Flagler A	19
Sekita, S.	30-Jan	9:10AM	Ballroom 4	64
Sendeku, M.G.	26-Jan	3:20PM	Flagler A	12
Sendeku, M.G.	27-Jan	2:00PM	Flagler C	29
Seo, D.	27-Jan	9:00AM	Coquina G	18
Sglavo, V.M.	28-Jan	11:00AM	Ballroom 1 -2	35
Shaik, M.	28-Jan	4:40PM	Coquina F	47
Shaik, M.	29-Jan	2:30PM	Ballroom 4	61
Shan, X.	29-Jan	2:00PM	Coquina G	60
Shanov, V.	28-Jan	2:00PM	Coquina C	42
Shimada, H.	29-Jan	3:30PM	Coquina H	59
Shimamura, A.	28-Jan	3:30PM	Ponce de Leon	47
Shimamura, K.	28-Jan	9:30AM	Coquina D	41
Shin, K.	27-Jan	10:30AM	Ballroom 3	20
Shin, S.	27-Jan	9:00AM	Coquina D	23
Shin, T.	27-Jan	8:30AM	Coquina H	18
Shinoda, K.	26-Jan	2:30PM	Coquina B	12
Siame, B.	27-Jan	4:00PM	Coquina G	26
Sin, P.H.	28-Jan	4:00PM	Ballroom 5	48
Sinclair, J.	26-Jan	3:50PM	Ballroom 1 -2	16
Singh, A.K.	29-Jan	9:00AM	Coquina E	52
Singh, D.	26-Jan	2:00PM	Coquina D	16
Singh, D.	26-Jan	3:20PM	Coquina E	10
Singh, D.	26-Jan	3:50PM	Coquina E	10
Singh, G.	28-Jan	11:00AM	Coquina F	39
Smeacetto, F.	29-Jan	9:30AM	Coquina D	57
Smith, T.	27-Jan	9:20AM	Coquina F	20
Snead, L.	26-Jan	3:20PM	Coquina F	13
Soudant, T.	27-Jan	3:40PM	Coquina G	26
Sprouster, D.	26-Jan	2:40PM	Coquina F	13
Srivastava, A.	29-Jan	2:30PM	Flagler C	62
Steck, J.	28-Jan	11:00AM	Coquina C	36
Stein, Z.	26-Jan	1:30PM	Coquina C	10
Stokes, J.L.	26-Jan	2:00PM	Coquina C	10
Stuer, M.	28-Jan	9:10AM	Coquina B	38
Subhash, G.	27-Jan	2:00PM	Coquina D	31
Subhash, G.	29-Jan	9:00AM	Coquina F	56
Suematsu, H.	26-Jan	4:30PM	Coquina B	12
Suematsu, H.	27-Jan	1:30PM	Ballroom 3	28
Sun, Q.	27-Jan	3:40PM	Flagler A	27
Suyama, S.	28-Jan	10:20AM	Coquina F	39
Suzuki, K.	29-Jan	1:50PM	Ballroom 4	61
Suzuki, T.	28-Jan	10:50AM	Coquina H	37
Suzuki, T.S.	28-Jan	10:30AM	Coquina B	38
Swartz, S.	26-Jan	3:50PM	Coquina H	11
Swiatowska, J.	29-Jan	10:20AM	Coquina G	54
T				
Tallon, C.	28-Jan	10:30AM	Ballroom 1 -2	35
Tallon, C.	28-Jan	11:50AM	Coquina A	41
Tallon, C.	29-Jan	10:50AM	Coquina D	57
Tamaru, Y.	26-Jan	2:00PM	Ballroom 4	13
Tamayo, A.	27-Jan	9:10AM	Ballroom 4	21
Tamayo, A.	27-Jan	10:10AM	Ballroom 1 -2	23
Tamerler, C.	28-Jan	2:30PM	Flagler A	44
Tanaka, H.	26-Jan	2:30PM	Ballroom 4	13
Tang, T.	26-Jan	2:00PM	Coquina G	9
Tang, W.	26-Jan	3:50PM	Coquina D	16
Tang, Y.	26-Jan	2:00PM	Ponce de Leon	14
Tatami, J.	28-Jan	3:40PM	Ballroom 1 -2	42
Tesovnik, A.	29-Jan	1:30PM	Ballroom 5	62
Tesovnik, A.	29-Jan	2:00PM	Ballroom 5	62
Thompson, G.	27-Jan	4:00PM	Coquina E	25
Thompson, G.	29-Jan	2:40PM	Coquina E	58
Toda, K.	27-Jan	9:30AM	Ballroom 4	21
Toda, K.	27-Jan	11:00AM	Ballroom 4	21
Toda, K.	28-Jan	3:10PM	Ballroom 5	48
Tokoro, C.	29-Jan	11:20AM	Coquina D	57
Tokoro, C.	29-Jan	1:30PM	Ballroom 3	57
Topfer, J.	29-Jan	3:20PM	Ballroom 1 -2	59
Toprak, M.S.	27-Jan	11:00AM	Flagler A	19
Toprak, M.S.	27-Jan	1:30PM	Flagler A	27
Torazzi, F.	29-Jan	4:40PM	Coquina H	59
Torrell, M.	26-Jan	2:00PM	Coquina H	11
Torrell, M.	27-Jan	4:10PM	Coquina H	26
Tran, H.D.	26-Jan	5:10PM	Coquina B	13
Tran, H.D.	27-Jan	3:30PM	Coquina E	24
Tran, T.	29-Jan	3:20PM	Coquina E	58
Trofimov, A.A.	29-Jan	10:40AM	Ballroom 3	54
Tsuchiya, S.	27-Jan	2:40PM	Ballroom 3	28
Tsuchiya, T.	26-Jan	4:50PM	Ballroom 4	14
Tsuchiya, T.	27-Jan	11:30AM	Flagler A	19
Tsutaki, S.	26-Jan	2:00PM	Ballroom 5	8
Tucker, G.	29-Jan	2:00PM	Flagler C	62
U				
Uematsu, M.	28-Jan	3:10PM	Ballroom 1 -2	42
Uematsu, M.	29-Jan	8:30AM	Ballroom 3	54
Uthayasekaran, S.	29-Jan	1:30PM	Coquina F	62
V				
Varghese, O.K.	27-Jan	8:30AM	Flagler C	22
Vasudeva, K.	29-Jan	11:00AM	Coquina F	56
Vernè, E.	29-Jan	2:30PM	Flagler A	60
Vetrone, F.	26-Jan	4:50PM	Flagler C	15
Vignoles, G.L.	27-Jan	2:00PM	Coquina E	24
Vignoles, G.L.	28-Jan	2:30PM	Ballroom 4	46
Vomiero, A.	27-Jan	2:30PM	Flagler A	27
von Witzleben, M.M.	26-Jan	3:20PM	Ballroom 3	8
Vu, A.D.	28-Jan	3:50PM	Coquina G	45
W				
Wagri, N.	28-Jan	4:00PM	Flagler C	42
Wang, K.	26-Jan	1:30PM	Coquina F	13
Wang, K.	26-Jan	4:20PM	Ballroom 5	9
Wang, Q.	26-Jan	4:30PM	Coquina G	9
Wang, Y.	26-Jan	5:10PM	Coquina E	10
Webster, R.I.	27-Jan	10:30AM	Coquina C	18
Weill, F.	29-Jan	4:10PM	Coquina G	60
Weinberger, C.R.	28-Jan	8:30AM	Coquina A	40
Wekwejt, M.	29-Jan	9:10AM	Flagler A	53
Westin, G.	26-Jan	2:00PM	Ballroom 1 -2	15
Westin, G.	27-Jan	11:30AM	Flagler C	22
Wexler, T.A.	28-Jan	9:20AM	Coquina C	36
Wheeler, K.	29-Jan	1:30PM	Coquina E	58
Wheeler, K.	29-Jan	1:50PM	Coquina E	58
Whittingham, S.	26-Jan	8:50AM	Coquina D and E	8
Wickramathilaka, K.Y.	29-Jan	10:30AM	Coquina E	52
Wicks, G.	27-Jan	8:30AM	Coquina D	23
Wiesner, V.L.	28-Jan	8:30AM	Coquina D	41
Wilding, K.P.	27-Jan	4:10PM	Ballroom 5	24
Wojewoda-Budka, J.	26-Jan	1:30PM	Ballroom 3	8
Wolfe, D.E.	27-Jan	10:20AM	Coquina A	23
Wolfe, D.E.	28-Jan	9:20AM	Coquina A	40
Wu, L.	28-Jan	9:20AM	Coquina H	37
X				
Xi, J.	27-Jan	1:30PM	Coquina F	28
Xing, C.	27-Jan	9:00AM	Flagler A	19
Xu, P.	28-Jan	9:00AM	Coquina F	39
Xue, F.	28-Jan	4:50PM	Coquina H	44
Xue, F.	29-Jan	1:30PM	Ballroom 4	61
Y				
Yabutsuka, T.	28-Jan	2:00PM	Flagler A	44
Yabuuchi, N.	27-Jan	10:20AM	Coquina G	19
Yager, R.A.	28-Jan	9:00AM	Flagler A	38
Yamada, H.	28-Jan	9:00AM	Coquina G	37

Presenting Author List

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Yamamoto, R.	27-Jan	11:30AM	Ballroom 5	17
Yamane, Y.	27-Jan	11:10AM	Coquina G	19
Yamashita, Y.	26-Jan	2:50PM	Coquina B	12
Yamazaki, S.	26-Jan	9:30AM	Coquina D and E	8
Yang, B.	27-Jan	11:40AM	Coquina E	17
Yang, J.	28-Jan	2:50PM	Coquina B	45
Yao, G.	28-Jan	2:30PM	Coquina H	43
Yegingil, H.	29-Jan	11:10AM	Flagler A	54
Yoon, B.	29-Jan	8:30AM	Coquina H	52
Yoshida, K.	28-Jan	1:30PM	Coquina B	45
Yuan, S.	28-Jan	9:00AM	Ballroom 3	35
Yüksel, G.	27-Jan	3:20PM	Flagler A	27
Yun, H.	28-Jan	2:30PM	Coquina D	49
		Z		
Zachariou, A.	28-Jan	8:50AM	Ballroom 4	39
Zancan, E.	27-Jan	11:00AM	Coquina F	21
Zarkadoula, E.	29-Jan	4:30PM	Ballroom 4	61
Zebarjadi, M.	29-Jan	1:30PM	Ballroom 1 -2	59
Zeng, G.	26-Jan	5:20PM	Flagler A	12
Zhai, K.	28-Jan	3:40PM	Flagler C	42
Zhai, S.	28-Jan	11:30AM	Flagler C	34
Zhai, S.	28-Jan	3:40PM	Flagler C	42
Zhang, J.	29-Jan	11:50AM	Coquina D	57
Zhang, Y.	27-Jan	2:00PM	Flagler A	27
Zhao, L.	28-Jan	11:20AM	Coquina C	36
Zhao, Y.	30-Jan	10:40AM	Ballroom 1 -2	64
Zhong, Y.	28-Jan	4:30PM	Coquina H	43
Zhong, Y.	29-Jan	8:30AM	Ballroom 4	55
Zhou, Y.	28-Jan	9:00AM	Coquina E	35
Zhou, Y.	28-Jan	9:50AM	Ballroom 5	34
Zilio, A.	26-Jan	4:50PM	Coquina B	12
Zilio, A.	29-Jan	9:00AM	Ballroom 3	54
Zinkle, S.J.	26-Jan	10:40AM	Coquina D and E	8
Zou, Z.	26-Jan	4:50PM	Coquina G	9
Zubair, Y.O.	30-Jan	9:20AM	Ballroom 3	63
Zughbi, M.	27-Jan	3:20PM	Ballroom 4	29

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		A		
Adachi, T.	28-Jan	5:00PM	Ocean Center	51
Akiba, Y.	28-Jan	5:00PM	Ocean Center	50
Alemu, W.Y.	27-Jan	5:00PM	Ocean Center	31
Anelli, S.	27-Jan	5:00PM	Ocean Center	33
Annino, G.	28-Jan	5:00PM	Ocean Center	51
Araki, J.	28-Jan	5:00PM	Ocean Center	49
Aytuna, Z.	27-Jan	5:00PM	Ocean Center	32
		B		
Bartov, G.	27-Jan	5:00PM	Ocean Center	33
Bi, X.	27-Jan	5:00PM	Ocean Center	33
Braghò, F.	27-Jan	5:00PM	Ocean Center	32
		C		
Caamino, A.	28-Jan	5:00PM	Ocean Center	51
Capraro, B.	27-Jan	5:00PM	Ocean Center	32
Chai, J.	27-Jan	5:00PM	Ocean Center	32
Chang, X.	27-Jan	5:00PM	Ocean Center	33
Cheng, Y.	27-Jan	5:00PM	Ocean Center	32
Choi, J.	27-Jan	5:00PM	Ocean Center	31
Choi, Y.	27-Jan	5:00PM	Ocean Center	32
Cobuci, B.N.	28-Jan	5:00PM	Ocean Center	50
		D		
Da Prato, F.	27-Jan	5:00PM	Ocean Center	32
Dadashov, S.	28-Jan	5:00PM	Ocean Center	51
Delia, D.	28-Jan	5:00PM	Ocean Center	51
Diamanti, V.	28-Jan	5:00PM	Ocean Center	50
Diep, J.	28-Jan	5:00PM	Ocean Center	49
Dujovic, M.	28-Jan	5:00PM	Ocean Center	51
		E		
Erdag Basoglu, D.	27-Jan	5:00PM	Ocean Center	33
		F		
Furuse, H.	27-Jan	5:00PM	Ocean Center	33
		G		
Gallo, F.	27-Jan	5:00PM	Ocean Center	31
Gattucci, F.	28-Jan	5:00PM	Ocean Center	49
Gillespie, M.	28-Jan	5:00PM	Ocean Center	51
		H		
Haque, A.	27-Jan	5:00PM	Ocean Center	32
Heo, J.	27-Jan	5:00PM	Ocean Center	32
Hosna, A.	27-Jan	5:00PM	Ocean Center	32
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Ilyas, S.	28-Jan	5:00PM	Ocean Center	51
Imai, Y.	28-Jan	5:00PM	Ocean Center	51
		J		
Jang, M.	28-Jan	5:00PM	Ocean Center	50
Jenkins, M.G.	27-Jan	5:00PM	Ocean Center	33
Jenkins, M.G.	28-Jan	5:00PM	Ocean Center	51
Jeong, Y.	28-Jan	5:00PM	Ocean Center	50
Jung, F.	28-Jan	5:00PM	Ocean Center	49
		K		
Kato, Y.	28-Jan	5:00PM	Ocean Center	50
Kelley, M.	27-Jan	5:00PM	Ocean Center	32
Kim, J.	28-Jan	5:00PM	Ocean Center	50
Kim, Y.	27-Jan	5:00PM	Ocean Center	32
Kita, K.	27-Jan	5:00PM	Ocean Center	33
Kobayashi, S.	28-Jan	5:00PM	Ocean Center	50
Kumar, B.	28-Jan	5:00PM	Ocean Center	50
Kwon, J.	27-Jan	5:00PM	Ocean Center	32
		L		
Langhof, N.	27-Jan	5:00PM	Ocean Center	33
Lecomte-Nana, G.	28-Jan	5:00PM	Ocean Center	51
Lee, J.	27-Jan	5:00PM	Ocean Center	32
Lee, K.	27-Jan	5:00PM	Ocean Center	32
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Lee, Y.	28-Jan	5:00PM	Ocean Center	51
Li, M.	27-Jan	5:00PM	Ocean Center	33
Li, Z.	28-Jan	5:00PM	Ocean Center	51
Lichtenberg, A.	27-Jan	5:00PM	Ocean Center	33
Luceri, A.	28-Jan	5:00PM	Ocean Center	51
M				
Makino, T.	28-Jan	5:00PM	Ocean Center	50
McCormick, J.W.	28-Jan	5:00PM	Ocean Center	49
Meyer, K.	28-Jan	5:00PM	Ocean Center	50
Mirakhory, M.	27-Jan	5:00PM	Ocean Center	32
Mirzaei, A.	28-Jan	5:00PM	Ocean Center	51
Miura, D.	28-Jan	5:00PM	Ocean Center	50
Moranti, A.	27-Jan	5:00PM	Ocean Center	32
Morshed, M.	28-Jan	5:00PM	Ocean Center	49
O				
Ogihara, S.	28-Jan	5:00PM	Ocean Center	50
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Olaleye, O.	28-Jan	5:00PM	Ocean Center	51
Oshima, S.	28-Jan	5:00PM	Ocean Center	51
Ozaki, S.	27-Jan	5:00PM	Ocean Center	32
P				
Pandey, K.	27-Jan	5:00PM	Ocean Center	31
Park, S.	27-Jan	5:00PM	Ocean Center	31
Patrun, D.	28-Jan	5:00PM	Ocean Center	49
Phand, K.C.	28-Jan	5:00PM	Ocean Center	50
Pizzinat, A.	27-Jan	5:00PM	Ocean Center	31
R				
Ryu, S.	28-Jan	5:00PM	Ocean Center	49
S				
Sakai, T.	28-Jan	5:00PM	Ocean Center	51
Sandoval, L.	27-Jan	5:00PM	Ocean Center	33
Sato, K.	28-Jan	5:00PM	Ocean Center	50
Seong, J.	28-Jan	5:00PM	Ocean Center	49
Sim, J.	27-Jan	5:00PM	Ocean Center	33
Son, Y.	27-Jan	5:00PM	Ocean Center	32
Stanislawska, K.	28-Jan	5:00PM	Ocean Center	49
Szumowski, J.	27-Jan	5:00PM	Ocean Center	31
T				
Takebayashi, Y.	27-Jan	5:00PM	Ocean Center	31
Takeuchi, K.	28-Jan	5:00PM	Ocean Center	50
Tang, Y.	27-Jan	5:00PM	Ocean Center	32
Tasyagan, M.	28-Jan	5:00PM	Ocean Center	50
V				
Virtudazo, R.V.	27-Jan	5:00PM	Ocean Center	33
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Wang, C.	28-Jan	5:00PM	Ocean Center	50
Wellmann, M.	27-Jan	5:00PM	Ocean Center	32
Wilson, L.	28-Jan	5:00PM	Ocean Center	50
Wereszczak, A.	27-Jan	5:00PM	Ocean Center	33
X				
Xue, Q.	27-Jan	5:00PM	Ocean Center	32
Y				
Yamamoto, K.	28-Jan	5:00PM	Ocean Center	51
Yang, L.	27-Jan	5:00PM	Ocean Center	33
Yang, W.	28-Jan	5:00PM	Ocean Center	50
Yegingil, H.	27-Jan	5:00PM	Ocean Center	33
Yoon, G.	27-Jan	5:00PM	Ocean Center	33
Yoon, J.	27-Jan	5:00PM	Ocean Center	31
You, Y.	28-Jan	5:00PM	Ocean Center	51
Yu, J.	27-Jan	5:00PM	Ocean Center	31
Yuan, S.	28-Jan	5:00PM	Ocean Center	51
Z				
Zhao, Y.	28-Jan	5:00PM	Ocean Center	51
Zilio, A.	27-Jan	5:00PM	Ocean Center	32

Monday, January 26, 2026

Plenary Session

Plenary and Award Talks

Room: Coquina D and E

Session Chairs: Amjad Almansour, NASA Glenn Research Center; Federico Smeacetto, Politecnico di Torino

8:20 AM

Opening remarks and presentation for 2025 Best Paper

8:50 AM

(ICACC-PLEN-001-2026) James I. Mueller Memorial Award: Li Batteries: 50 years old and the future challenges for an American based industry (Invited)

S. Whittingham*[1]

1. Binghamton University, USA

9:30 AM

(ICACC-PLEN-002-2026) Mrityunjay Singh Bridge Building Award: Oxide ceramics LSI devices to mitigate global extreme weather due to computers in the AI era (Invited)

S. Yamazaki*[1]

1. Semiconductor Energy Laboratory Co., Ltd., Japan

10:10 AM

Break

10:40 AM

(ICACC-PLEN-003-2026) Plenary: High performance ceramics for extreme environments: Applications for fission and fusion energy (Invited)

S. J. Zinkle*[1]

1. University of Tennessee, USA

11:20 AM

(ICACC-PLEN-004-2026) Plenary: Multimodal analytics and data-driven optimization of ceramic composite materials for energy and electronic applications (Invited)

S. Christiansen*[1]

1. Helmholtz-Zentrum für Materialien und Energie Berlin (HZB), Germany

Jubilee Global Excellence Awards

Jubilee Global Excellence Awards

Room: Ballroom 3

Session Chairs: Cristina Balagna, Politecnico di Torino; Federico Smeacetto, Politecnico di Torino

1:30 PM

(ICACC-AWARD-001-2026) The peculiar self-assembling product phases formed via in-situ reactions (Invited)

J. Wojewoda-Budka*[1]

1. Polish Academy of Sciences, Institute of Metallurgy and Materials Science, Poland

2:10 PM

(ICACC-AWARD-002-2026) The spark between fields: Emerging materials opportunities with electromagnetic control (Invited)

B. Jayan*[1]

1. Carnegie Mellon University, USA

2:50 PM

Break

Special Focused Session on Entrepreneurship and Commercialization

Special Focused Session on Entrepreneurship and Commercialization

Room: Ballroom 3

Session Chair: Young-Wook Kim, WORLDEX Industry & Trading, Co. Ltd.

3:20 PM

(ICACC-SPEC-001-2026) Foundation of a start-up in the field of technical ceramics (Invited)

M. M. von Witzleben*[1]

1. INMATEC Technologies GmbH, Administration, Germany

3:50 PM

(ICACC-SPEC-002-2026) From materials to machines: A journey in laser innovation (Invited)

S. Jiang*[1]

1. AdValue Photonics Inc, USA

4:20 PM

(ICACC-SPEC-003-2026) R&D grant funding opportunities for innovative small ceramics businesses

D. J. Gisser*[1]

1. Tillerline Associates LLC, USA

4:40 PM

Poster Preview Pitch-Toward pore-free SiC ceramics for advanced applications

15th Global Young Investigator Forum on Sustainability

15th GYIF- Sustainable Materials Development I

Room: Ballroom 5

Session Chairs: Meelad Ranaiefar, NASA Glenn Research Center; Nor Ezzaty Ahmad, UTM

1:30 PM

(ICACC-GYIF-001-2026) Next generation materials for advanced energy applications (Invited)

L. McMillon-Brown*[1]

1. NASA Glenn Research Center, Photovoltaics and Electrochemical Systems Branch, USA

2:00 PM

(ICACC-GYIF-002-2026) Design of interparticle photo-cross-linkable Pickering emulsion for rapid manufacturing process of 3D-printed porous ceramics (Invited)

S. Tsutaki*[1]; M. Iijima[1]; J. Tatami[2]

1. Yokohama National University, Graduate School of Environment and Information Sciences, Japan
2. Yokohama National University, Japan

2:30 PM

(ICACC-GYIF-003-2026) Pyrolyzed preceramic precursors to compositionally complex ceramics (Invited)

S. Ren*[1]

1. University of Maryland, USA

3:00 PM

Break

15th GYIF- Sustainable Materials Development II

Room: Ballroom 5

Session Chairs: Mark Du, Argonne National Laboratory; Shenqiang Ren, University of Maryland

3:20 PM

(ICACC-GYIF-004-2026) Assessment of electric field enhancement of ceramics including microdefects by using FEM analysis (Invited)

J. Araki*[1]; Y. Nakashima[2]; M. Fukushima[2]; W. Nakao[1]

1. Yokohama Kokuritsu Daigaku, Japan
2. National Institute of Advanced Industrial Science and Technology (AIST), Japan

3:50 PM

(ICACC-GYIF-005-2026) Fully synthetic SEM dataset generation for machine learning based microstructure recognition in sintered alumina (Invited)

Y. Akiba*[1]; T. Mitani[1]; T. Murakami[1]; K. Aoki[1]; Y. Nakashima[2]; K. Hirao[2]; M. Fukushima[2]

1. Chukyo University, School of Engineering, Japan
2. National Institute of Advanced Industrial Science and Technology (AIST), Japan

4:20 PM

(ICACC-GYIF-006-2026) Accelerated discovery of oxidation-resistant ultra-high temperature ceramics via data-driven methodology (Invited)

K. Wang*[1]

1. Alfred University, USA

4:50 PM

(ICACC-GYIF-007-2026) The making and breaking of Max Phases: From processing and stability to deformation

M. Dujovic*[1]; A. Srivastava[1]; M. Radovic[1]

1. Texas A&M University, Department of Materials Science and Engineering, USA

FS1 Bioinspiration/Green Processing & Related Technologies of Advanced Materials

FS1- Bioinspiration, Green Processing, and Related Technologies of Advanced Materials

Room: Coquina G

Session Chairs: Hang Ping, Wuhan University of Technology; Tengteng Tang, University of Virginia

1:30 PM

(ICACC-FS1-001-2026) Calcitic skeletal structures in selected organisms: Form, function, and formation (Invited)

L. Li*[1]

1. University of Pennsylvania, Materials Science and Engineering, USA

2:00 PM

(ICACC-FS1-002-2026) Bioinspiration from mouse epiphysis gradient: Coupling tissue porosity and mineralization to balance mechanical and biological demands (Invited)

T. Tang*[1]; J. Zhong[2]; J. Hu[3]; V. Schemenz[4]; A. Davydok[5]; R. Brunner[6]; J. Zhou[7]; W. Wagermaier[2]; A. Pitsillides[8]; W. Landis[9]; P. Fratzl[2]; J. Chen[3]

1. University of Virginia, Mechanical and Aerospace Engineering, USA
2. Max-Planck-Institut fur Kolloid und Grenzflachenforschung, Biomaterials, Germany
3. University of Exeter, Faculty of Engineering, United Kingdom
4. Charite - Universitatsmedizin Berlin, Department for Operative, Preventive and Pediatric Dentistry, Germany
5. Helmholtz Zentrum Hereon, Institute of Materials Physics, Germany
6. Materials Center Leoben Forschung GmbH, Austria
7. Showa Daigaku, Department of Biomaterials and Engineering, Japan
8. Royal Veterinary College, Comparative Biomedical Sciences, United Kingdom
9. University of California San Francisco, Department of Preventive and Restorative Dental Sciences, USA

2:30 PM

(ICACC-FS1-003-2026) Understanding the strength and fracture behavior of cold sintered ceramics (Invited)

A. Jabr*[1]; P. Supancic[1]; C. Randall[2]; R. Bermejo[1]

1. Montanuniversitat Leoben, Department of Materials Science, Austria
2. The Pennsylvania State University, Department of Materials Science and Engineering, USA

3:00 PM

Break

3:20 PM

(ICACC-FS1-004-2026) Bioprocessing-inspired synthesis of prestressed artificial composites with high performance (Invited)

H. Ping*[1]; H. Xie[1]; Z. Fu[2]

1. Wuhan University of Technology, China
2. Wuhan University of Technology, State Key Lab of Advanced Technology for Materials Synthesis and Processing, China

3:50 PM

(ICACC-FS1-005-2026) Controlling freeze casting through energized fields

S. E. Naleway*[1]

1. University of Utah, Department of Mechanical Engineering, USA

4:10 PM

(ICACC-FS1-006-2026) Toward a greener synthesis of boron carbide

B. Bonaldo*[1]; S. Dirè[1]; E. Callone[1]; R. Rovai[2]; S. Signorello[2]; G. S. Arroyo Palacios[2]; V. M. Sglavo[1]

1. Universita degli Studi di Trento, Italy
2. Industrie Bitossi SpA, Italy

4:30 PM

(ICACC-FS1-007-2026) Stabilization and crystallization mechanism of amorphous calcium carbonate

Q. Wang*[1]

1. Wuhan University of Technology, China

4:50 PM

(ICACC-FS1-008-2026) Bioprocessing-inspired mineralization technology (Invited)

Z. Zou*[1]; Z. Fu[2]

1. Wuhan University of Technology, China
2. Wuhan University of Technology, State Key Lab of Advanced Technology for Materials Synthesis and Processing, China

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Ceramics for concentrated solar-thermal power and industrial process heat

Room: Coquina E

Session Chairs: Dileep Singh, Argonne National Lab; Kamala Raghavan, Department of Energy

1:30 PM

(ICACC-S1-001-2026) Towards scale-up and testing of ceramic components for concentrating solar thermal technologies: Current status and future directions (Invited)

K. C. Raghavan*[1]

1. Department of Energy, USA

2:00 PM

(ICACC-S1-002-2026) Performance evaluation of an additively manufactured High Operating Temperature SiC Solar-Thermal Air Receiver Test Module

R. Sarrafi-Nour[1]; J. Shiang[3]; K. Armijo[4]; K. C. Raghavan*[2]

1. GE Aerospace, Research Center, USA
2. Department of Energy, USA
3. GE Aerospace, USA
4. Sandia National Laboratories, NTSS, USA

2:20 PM

(ICACC-S1-003-2026) Design and construction of a Test Bed for On-Sun Testing of an ultra- High Operating Temperature SiC Solar-Thermal Air Receiver (HOTSSTAR) Test Module

K. Armijo*[3]; J. Shiang[2]; R. Sarrafi-Nour[2]; K. C. Raghavan[1]

1. Department of Energy, USA
2. GE Aerospace, USA
3. Sandia National Laboratories, NSTTF, USA

2:40 PM

(ICACC-S1-004-2026) Reliability testing of ceramic tubes for concentrating solar power applications

B. Barua*[1]; W. Yu[1]; F. Sultana[1]; M. C. Messner[1]; D. Singh[1]

1. Argonne National Laboratory, USA

3:00 PM

Break

3:20 PM

(ICACC-S1-005-2026) SiC based heat exchanger for high temperature high pressure (HTHP) applications (Invited)

D. Singh*[1]

1. Argonne National Lab, USA

3:50 PM

(ICACC-S1-006-2026) Tribological Behavior of Ti_3SiC_2-SiC MAX Phase composites (Invited)

D. Singh*[1]; S. Bajpai[2]; O. Ajayi[2]; C. Martin[2]

1. Argonne National Lab, USA
2. Argonne National Laboratory, Applied Materials Division, USA

4:20 PM

(ICACC-S1-007-2026) Joining of SiC to metals by tape casting and reaction sintering method

S. Jana*[1]; J. Matyas[2]

1. Pacific Northwest National Laboratory, USA
2. PNNL, Radiological Materials & Detection, USA

S1- Functionally graded materials and multilayer ceramic systems

Room: Coquina E

Session Chair: Kamala Raghavan, Department of Energy

4:40 PM

(ICACC-S1-008-2026) Graded CMCs (Invited)

J. Binner*[1]; B. Steadman[1]; V. Venkatachalam[1]

1. University of Birmingham, Ceramic Science & Engineering, United Kingdom

5:10 PM

(ICACC-S1-009-2026) Laser cladding of Fe/WC composite coatings on ductile iron using Inconel 625 transition layer for industrial wear and corrosion applications

Y. Wang*[1]

1. Northeastern University, Mechanical Engineering, China

S2 Advanced Ceramic Coatings for Structural/ Environmental & Functional Applications

S2- CMAS-type degradation of T/EBC: Fundamentals, modeling, and mitigation strategies

Room: Coquina C

Session Chair: Douglas Wolfe, Pennsylvania State University

1:30 PM

(ICACC-S2-001-2026) Investigating the spatiotemporal effects of CMAS on thermal barrier coatings (Invited)

Z. Stein*[1]; P. Kenesei[2]; J. Park[2]; J. Almer[2]; J. Wischek[3]; M. Bartsch[3]; U. Schulz[3]; R. Naraparaju[3]; S. Raghavan[1]

1. Embry-Riddle Aeronautical University, Aerospace Engineering, USA
2. Argonne National Laboratory Advanced Photon Source, USA
3. Deutsches Zentrum fur Luft- und Raumfahrt DLR, Institute for Frontiers Materials on Earth and in Space, Germany

2:00 PM

(ICACC-S2-002-2026) Evaluation of particle degradation of a ytterbium disilicate gas turbine coating in a combustion environment *WITHDRAWN*

J. L. Stokes*[1]; M. J. Presby[1]

1. NASA Glenn Research Center, Environmental Effects and Coatings Branch, USA

2:20 PM

(ICACC-S2-003-2026) Post-corrosion analysis of CMAS attacked high-entropy rare-earth zirconates

J. J. Pflug*[1]; M. E. Schweser[1]; M. Lepple[1]

1. Justus-Liebig-Universitat Giessen, Institute of Inorganic and Analytical Chemistry, Germany

2:40 PM

(ICACC-S2-004-2026) Interactions between CMAS and Nd_2O_3/Yb_2O_3: effect of the magnesia content

L. Saint-Jean*[1]; C. Petitjean[1]; P. Panteix[1]; D. Bonina[1]; S. Arnal[2]; M. Vilasi[1]

1. Universite de Lorraine, Institut Jean Lamour, France
2. Safran SA, France

3:00 PM

Break

3:20 PM

(ICACC-S2-005-2026) Multi-phase, rare earth-based thermal barrier coatings for enhanced CMAS resistance and mechanical durability

E. Bartlett*[1]; D. L. Poerschke[1]

1. University of Minnesota, Chemical Engineering and Materials Science, USA

3:40 PM

(ICACC-S2-006-2026) CMAS corrosion studies with single crystals of T/EBC materials

P. Mechnich*[1]

1. DLR - German Aerospace Center, Institute of Frontier Materials on Earth and in Space, Germany

S2- Processing of ceramic coatings (thermal spraying, PVD, CVD, aerosol-, polymer-, and powder-deposition and sintering)

Room: Coquina C

Session Chair: Peter Mechnich, DLR - German Aerospace Center

4:00 PM

(ICACC-S2-007-2026) Formulation and microstructural evolution of multi-component rare earth oxide thermal barrier coatings via slurry deposition

C. Massignan*[1]; P. Nape[1]; C. Whiting[1]; M. Vempuluru[1]; C. Tallon[1]

1. Virginia Polytechnic Institute and State University, Materials Science and Engineering, USA

4:20 PM

(ICACC-S2-008-2026) Cold spray and micro-cold spray of ceramic films using vented nozzles

L. McAuliffe[1]; S. Bierschenk[1]; C. Roper[2]; J. Williamson[2]; S. Murray[2]; D. Kovar*[1]

1. The University of Texas at Austin Cockrell School of Engineering, USA
2. Sandia National Laboratories, USA

S2- Advanced destructive and non-destructive characterization methods

Room: Coquina C

Session Chair: Peter Mechnich, DLR - German Aerospace Center

4:40 PM

(ICACC-S2-010-2026) Assessing ductility and slip behavior by micropillar compression testing – A case study for transition metal nitrides

R. Hahn*[1]; M. Lorentzon[4]; Y. Huang[5]; V. Maier-Kiener[6]; N. Ghafoor[4]; Z. Zhang[5]; C. Mitterer[6]; P. Polcik[7]; S. Kolozsvári[7]; K. Boebel[3]; H. Riedl[2]

1. Christian Doppler Laboratory for Surface Engineering of high-performance Components, TU Wien, Austria, Austria
2. TU Wien, Institute of Materials Science and Technology, Austria
3. Oerlikon Surface Solutions AG, Switzerland
4. Linkopings universitet, Thin Film Physics Division, Sweden
5. Osterreichische Akademie der Wissenschaften, Erich Schmid Institute, Austria
6. Montanuniversitat Leoben, Department of Materials Science, Austria
7. Plansee Composite Materials GmbH, Germany

5:00 PM

(ICACC-S2-011-2026) Non-destructive stress measurement in TBCs via rare-earth-doped YSZ and photoluminescence piezo spectroscopy

S. Batna[1]; S. Ramachandran*[1]; A. S. Gandhi[1]

1. Indian Institute of Technology Bombay, Department of Metallurgical Engineering and Materials Science, India

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-System design and demonstration

Room: Coquina H

Session Chair: Tae Ho Shin, Korea Institute of Ceramic Engineering & Technology

1:30 PM

(ICACC-S3-001-2026) The SOFC Program at the DOE's Office of Fossil Energy (FE) and National Energy Technology Laboratory (NETL) (Invited)

J. Kim*[1]; P. Burke[2]

1. U.S Department of Energy, Office of Fossil Energy, USA
2. U.S Department of Energy, National Energy Technology Laboratory, USA

2:00 PM

(ICACC-S3-002-2026) Advanced 100kW rSOC System for Zero Emissions Energy Networks: Development from materials to system in the 24/7 ZEN Project (Invited)

M. Torrell*[1]; L. Bernadet[2]; D. Montinaro[3]; S. Anelli[7]; F. Smeacetto[4]; D. K. Niakolas[5]; A. Tarancón[6]

1. Institut de Recerca en Energia de Catalunya, Advanced Materials for Energy, Spain
2. Catalonia Institute for Energy Research, Advanced Materials for Energy Applications, Spain
3. Solydera, Italy
4. Politecnico di Torino, Applied Science and Technology, Italy
5. FORTH/ICE-HT, Greece
6. IREC / ICREA, Spain
7. Politecnico di Torino, DISAT, Italy

2:30 PM

(ICACC-S3-003-2026) Modelling and simulation of lightweight solid oxide fuel cells and stacking concept for aviation (Invited)

H. Geisler*[1]; P. Nehter[1]; V. Ahilan[1]; O. Rohr[2]; C. Metzner[2]

1. Airbus Deutschland GmbH, Germany
2. Airbus Defence and Space GmbH, Germany

3:00 PM

Break

S3-Worldwide status of SOC Development

Room: Coquina H

Session Chair: Massimo Santarelli, Politecnico di Torino

3:20 PM

(ICACC-S3-004-2026) MiCoPower's approaches to SOC applications for sustainable distributed power (Invited)

S. Choi*[1]; J. Park[1]; J. Park[1]

1. MiCoPower Co., Republic of Korea

3:50 PM

(ICACC-S3-005-2026) Powering forward: The latest in solid oxide stack technology at Nexceris (Invited)

G. Slupski[1]; S. Swartz*[1]

1. Nexceris, Electochemical, USA

4:20 PM

(ICACC-S3-006-2026) Development of solid oxide cells technology at National Atomic Research Institute, Taiwan (Invited)

C. Liu*[1]; R. Lee[2]; C. Chang[3]; Y. Cheng[1]; S. Wu[1]; W. Kao[1]

1. National Atomic Research Institute, Department of Material Research, Taiwan
2. National Atomic Research Institute, Advisory Committee, Taiwan
3. National Atomic Research Institute, Department of Physics, Taiwan

4:50 PM

(ICACC-S3-007-2026) Durable high-performance metal-supported solid oxide cells fabricated by plasma spraying (Invited)

C. Chang*[2]; C. Tsai[2]; C. Yang[1]; C. Yang[1]; H. He[1]; S. Wu[3]; Y. Wu[3]; R. Lee[3]

1. Institute of Nuclear Energy Research, Physics Division, Taiwan
2. National Atomic Research Institute, Department of Physics, Taiwan
3. National Atomic Research Institute, Department of Materials, Taiwan

5:20 PM

Poster Preview Pitch- Sealing and steam-electrode development for the integration of protonic ceramic electrolysis cells

5:22 PM

Poster Preview Pitch- Formulation of novel glass sealants for protonic ceramic electrolysis cells

5:24 PM

Poster Preview Pitch- Mixed ionic-electronic conductors based on high-entropy oxides synthesized via sol-gel and nebulized spray pyrolysis

5:26 PM

Poster Preview Pitch- Multiphysics model for protonic ceramic electrolysis cells and olefins electrochemical production

S7 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications

S7- Nanomaterials for thermoelectrics, photocatalysis, electrocatalysis, and solar hydrogen

Room: Flagler A

Session Chair: Muhammet Toprak, KTH Royal Institute of Technology

1:30 PM

(ICACC-S7-001-2026) Performance enhancement in n type Bi-Sb-Te and magnetic Fe_3O_4 co-doped PANI (Invited)

S. Ballikaya*[1]; M. Boroglu[2]; A. Yusuf[1]

1. Istanbul Universitesi-Cerrahpasa Muhendislik Fakultesi, Engineering Sciences, Turkey
2. Istanbul Universitesi-Cerrahpasa, Chemical engineering, Turkey

2:00 PM

(ICACC-S7-002-2026) Lead-free 0D halide $Cs_3Bi_2I_9$ as a phonon glass: Designing efficient thermoelectric materials for low grade heat recovery (Invited)

N. Mani*[1]

1. SRM Institute of Science and Technology (Deemed to be University), Nanotechnology Research Centre, India

2:30 PM

(ICACC-S7-003-2026) Ag_2Se based TE modules with enhanced power output (Invited)

S. Ballikaya*[1]; A. Yusuf[2]; M. Toprak[3]

1. Istanbul University, Elec. Engineering Dept., Turkey
2. Istanbul Universitesi-Cerrahpasa, Engineering Sciences, Turkey
3. Kungliga Tekniska Hogskolan, Applied Physics, Sweden

3:00 PM

Break

3:20 PM

(ICACC-S7-004-2026) Engineered 2D metal thiophosphates for energy conversion and storage (Invited)

M. G. Sendeku*[1]

1. Lulea tekniska universitet Institutionen for teknikvetenskap och matematik, Sweden

S7- Nanomaterials for sensing, batteries and water-splitting applications

Room: Flagler A

Session Chair: Sedat Ballikaya, Istanbul University

3:50 PM

(ICACC-S7-005-2026) Hybrid Bat - Cap electrodes for high power density energy storage (Invited)

S. B. Majumder*[1]

1. Indian Institute of Technology Kharagpur, Materials Science Center, India

4:20 PM

(ICACC-S7-006-2026) Photoelectrochemical water splitting via an in situ formed S-scheme heterojunction of hematite and oxygen-deficient double perovskite co-catalyst (Invited)

J. Jang*[1]

1. Ulsan National Institute of Science and Technology, school of energy and chemical engineering, Republic of Korea

4:50 PM

(ICACC-S7-007-2026) Unbiased full photoelectrochemical cell for solar-driven green hydrogen production (Invited)

F. A. Pires[1]; I. J. Silva[1]; I. Rodríguez-Gutiérrez[1]; G. H. Morais[1]; F. L. de Souza*[1]

1. Centro Nacional de Pesquisa em Energia e Materiais, Brazilian Nanotechnology National Laboratory, Brazil

5:20 PM

(ICACC-S7-008-2026) Preparation of nanomaterials for cathode catalysis

G. Zeng*[1]; Q. Sun[1]; A. Cabot[1]

1. Catalonia Institute for Energy Research, Spain

S8 20th Intl Symp on APMT for Structural & Multifunctional Materials & Systems

S8- Advanced manufacturing of ceramic coatings and composites

Room: Coquina B

Session Chairs: B Venkata Manoj Kumar, Indian Institute of Technology Roorkee; Lingfeng He, North Carolina State University

1:30 PM

(ICACC-S8-001-2026) High-speed and facile vapor-phase coating of boron nitride-related materials under a localized high-temperature field (Invited)

H. Katsui*[1]; K. Shimoda[2]; M. Hotta[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan
2. National Institute for Materials Science (NIMS), Research Center for Structural Materials, Japan

2:00 PM

(ICACC-S8-002-2026) Thermally activated crack-healing strategies toward robust environmental barrier coatings (Invited)

A. Okawa*[1]; K. Ogawa[2]; T. Hasegawa[1]; S. Yin[1]

1. Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Japan
2. Tohoku University, Fracture and Reliability Research Institute, Japan

2:30 PM

(ICACC-S8-003-2026) Interface enhancement and engineering in solid-state kinetic spray deposition of ceramics by utilizing a fiber laser

K. Shinoda*[1]; M. Sato[1]; T. Nagoshi[1]; T. Ghara[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Core Manufacturing Technology Research Institute, Japan

2:50 PM

(ICACC-S8-004-2026) A new manufacturing and pyrolysis method for SiC fibers with low oxygen content

Y. Yamashita*[1]; T. Goto[1]; K. Hofuku[1]; R. Iuchi[1]

1. Kureha corporation, Japan

3:10 PM

Break

3:30 PM

(ICACC-S8-005-2026) Mechanical and thermal properties, corrosion resistance and self-healing ability of yttrium titanate, a candidate oxide for ODS steels (Invited)

S. T. Nguyen*[1]

1. Kokuritsu Kushiro Kogyo Koto Senmon Gakko, Department of Creative Engineering, Japan

4:00 PM

(ICACC-S8-006-2026) Geopolymerization of Lunar and Martian regolith simulants for the production of structural shields (Invited)

L. Santo*[1]; F. Quadrini[1]; A. Proietti[1]

1. Universita degli Studi di Roma Tor Vergata, Industrial Engineering, Italy

4:30 PM

(ICACC-S8-007-2026) Synthesis of novel copper and molybdenum oxides under high oxygen partial pressures

H. Suematsu[1]; Z. Feng[1]; J. Zhao[1]; T. Do*[1]; T. Nakayama[1]

1. Nagaoka University of Technology, Extreme Energy-Density Research Institute, Japan

4:50 PM

(ICACC-S8-008-2026) Electroceramics from advanced photocurable silicone-based blends

A. Zilio*[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Department of Industrial Engineering, Italy

5:10 PM

(ICACC-S8-009-2026) PUMA: A scalable framework for simulating powder post-processing in advanced manufacturing

H. D. Tran*[1]; S. Kounouho[2]; F. Sultana[1]; M. Du[1]; M. C. Messner[1]; G. Hu[1]

1. Argonne National Laboratory, USA
2. Duke University, USA

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Novel nuclear ceramics I

Room: Coquina F

Session Chair: Ian McCue, Northwestern University

1:30 PM

(ICACC-S13-001-2026) Radiation damage of ion-irradiated high entropy ceramics (Invited)

K. Wang*[1]

1. Alfred University, USA

2:00 PM

(ICACC-S13-002-2026) Compositionally-complex rare earth ceramics for fusion applications

T. Davey*[1]; H. M. Gardner[2]; D. M. Nguyen[2]; J. Wade-Zhu[2]; S. Middleburgh[1]

1. Bangor University, Nuclear Futures Institute, United Kingdom
2. UKAEA, Materials Division, United Kingdom

2:20 PM

(ICACC-S13-003-2026) Zirconium niobium carbide as promising first wall material for fusion reactors

D. Marchesi[1]; P. Cervenka[1]; A. Fazi*[1]; L. Mazzocco[1]; A. Seshadri[1]; K. Shirvan[2]

1. Massachusetts Institute of Technology, Nuclear Science and Engineering, USA
2. Massachusetts Institute of Technology, USA

2:40 PM

(ICACC-S13-004-2026) Fabrication, plasma performance, and neutron radiation effects in ultra high temperature ceramics

D. Sprouster*[1]; K. Christian[1]; J. Li[1]; M. Cusentino[3]; J. D. Coburn[2]; L. Snead[1]; R. Kolasinski[2]

1. Stony Brook University, USA
2. Sandia National Laboratories California, USA
3. Sandia National Laboratories, USA

3:00 PM

Break

S13- Ultra-high temperature ceramics for nuclear applications

Room: Coquina F

Session Chair: David Sprouster, Brookhaven National Laboratory

3:20 PM

(ICACC-S13-005-2026) Understanding electron and phonon transport in high temperature carbides as a means to develop high-performance nuclear ceramics (Invited)

L. Snead*[1]; K. Christian[1]; D. Sprouster[2]

1. Stony Brook University, USA
2. Brookhaven National Laboratory, Nuclear Science and Technology, USA

3:50 PM

(ICACC-S13-006-2026) Tungsten fibre-reinforced tungsten - perspectives and challenges of using a brittle matrix composite as a material for fusion reactors (Invited)

J. Riesch*[1]; Y. Mao[2]; B. Böswirth[1]; D. Dickes[1]; H. Gietl[1]; T. Höschen[1]; A. Lau[2]; A. von Müller[1]; J. W. Coenen[2]; R. Neu[1]

1. Max-Planck-Institut fur Plasmaphysik, Germany
2. Forschungszentrum Julich GmbH, Germany

4:20 PM

(ICACC-S13-007-2026) Design and evaluation of nanoporous ultra-high temperature ceramics (Invited)

I. McCue*[1]; C. Ott[1]

1. Northwestern University, Materials Science and Engineering, USA

4:50 PM

(ICACC-S13-008-2026) Design and development of low-activation UHTC materials for fusion first wall application

K. Christian*[2]; J. Li[2]; D. Sprouster[2]; L. Snead[2]; K. Shirvan[1]; K. Hattar[4]; B. Wirth[4]; S. J. Zinkle[4]; R. Kolasinski[3]

1. Massachusetts Institute of Technology, USA
2. Stony Brook University, USA
3. Sandia National Laboratories, USA
4. University of Tennessee, USA

5:10 PM

(ICACC-S13-009-2026) Lattice strain reversal and thermal degradation in irradiated tungsten carbide

K. Bakkar*[1]; T. Zagyva[1]; M. T. Rigby-Bell[2]; J. Wade-Zhu[2]; F. Hofmann[3]; M. Wenman[1]; S. A. Humphry-Baker[1]

1. Imperial College London, Materials, United Kingdom
2. UKAEA, Materials Division, United Kingdom
3. University of Oxford Department of Engineering Science, United Kingdom

S14 Crystalline Materials for Electrical Optical and Medical Applications

S14- Optical material I

Room: Ballroom 4

Session Chairs: Xavier Mateos, University Rovira i Virgili; Tetsuo Tsuchiya, National Institute of Advanced Industrial Science and Technology (AIST)

1:30 PM

(ICACC-S14-001-2026) Engineered materials for micro-scale lasers operating at 2 microns (Invited)

X. Mateos*[1]

1. University Rovira i Virgili, Spain

2:00 PM

(ICACC-S14-002-2026) Nd,La:CaF_2 transparent ceramics for high-power lasers (Invited)

Y. Tamaru*[1]; K. Fujioka[1]; Y. Matsumoto[1]; H. Yoshida[1]; J. Ogino[1]; S. Tokita[1]; K. Tsubakimoto[1]; K. Yamamoto[1]; A. Yogo[1]; J. Kawanaka[1]; N. Miyanaga[2]

1. Osaka Daigaku, Institute of Laser Engineering, Japan
2. Institute for Laser Technology, Japan

2:30 PM

(ICACC-S14-003-2026) Solid-state optical refrigeration of ytterbium-doped fluoride crystals

H. Tanaka*[1]

1. Leibniz-Institut fur Kristallzuchtung im Forschungsverbund Berlin eV, Germany

2:50 PM

Break

3:10 PM

(ICACC-S14-004-2026) Development of transparent hexagonal fluorapatite ceramics with c-axis orientation and fine crystal grains (Invited)

H. Furuse*[1]; S. Koizumi[1]; T. S. Suzuki[2]

1. National Institute for Materials Science (NIMS), Japan
2. National Institute for Materials Science, Optical Ceramics Group, Japan

3:40 PM

(ICACC-S14-005-2026) Influence of LiF doping on tricalcium phosphate transparency sintered by Spark Plasma Sintering

K. Prokop[2]; S. Cottrino*[1]; V. Garnier[1]; G. Fantozzi[1]; Y. Guyot[3]; M. Guzik[2]

1. MATEIS Laboratory, Material, France
2. Faculty of Chemistry, University of Wroclaw, Poland
3. ILM Laboratory, France

4:00 PM

(ICACC-S14-006-2026) Transparent ceramic channel waveguide lasers via direct-ink-write

R. Osborne*[1]; A. Brandl[1]; N. Cherepy[1]; S. A. Payne[1]; N. Ter-Gabrielyan[2]; M. Dubinskiy[2]

1. Lawrence Livermore National Laboratory, Materials Science Division, USA
2. US Army Combat Capabilities Development Command Army Research Laboratory, USA

4:20 PM

(ICACC-S14-007-2026) Grain size and phase dependence on optical properties of bulk nanocrystalline hafnia and hafnia zirconia (Invited)

S. C. Mills*[1]; E. Anguish[2]; E. Patterson[2]; K. Anderson[2]; L. Kuna[2]; B. Feigelson[2]; J. Andrew[3]; J. Wollmershauser[1]

1. U.S. Naval Research Laboratory, Material Science and Technology, USA
2. US Naval Research Laboratory, USA
3. University of Florida, USA

4:50 PM

(ICACC-S14-008-2026) Photoreactive ceramic coatings for advanced infrastructure materials: Enhancing durability and functionality of polymers and steels (Invited)

T. Tsuchiya*[1]; J. Nomoto[1]; Y. Uzawa[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

S15 10th International Symposium on Additive Manufacturing and 3-D Printing Technologies

S15- Defect Functions in Additive Manufacturing

Room: Ponce de Leon

Session Chairs: Russell Maier, National Institute of Standards and Technology; Andrew Allen, NIST

1:30 PM

(ICACC-S15-001-2026) Architectural design and testing of 3D-printed alumina-based multimaterial components with enhanced damage tolerance (Invited)

R. Bermejo*[1]; J. Schlacher[1]; M. Staudacher[1]; T. Lube[1]; S. Nohut[2]; M. Schwentenwein[2]

1. Montanuniversitat Leoben, Materials Science, Austria
2. Lithoz GmbH, Austria

2:00 PM

(ICACC-S15-002-2026) High-loading 3D-printed open-cell zeolite catalysts with enhanced structural integrity

Y. Tang*[1]; X. Zhao[2]; Y. Li[1]

1. Dartmouth College, Thayer School of Engineering, USA
2. Oak Ridge National Laboratory, USA

2:20 PM

(ICACC-S15-003-2026) Evaluation of coherent scanning interferometry to identify defects in ceramics

P. Beanerjee*[1]; R. Maier[2]; L. O. Grant[1]

1. UNC Charlotte The William States Lee College of Engineering, Mechanical Engineering and Engineering Sciences, USA
2. National Institute of Standards and Technology, USA

2:40 PM

(ICACC-S15-004-2026) New characterization paths to quantify ceramic additive manufacturing feedstock slurries

A. J. Allen*[1]; R. Maier[1]; B. Dolata[1]; I. Kuzmenko[2]; J. Ilavsky[2]

1. National Institute of Standards and Technology, USA
2. Argonne National Laboratory Advanced Photon Source, USA

3:00 PM

Break

3:20 PM

(ICACC-S15-005-2026) Development of slurry-based metrologies for ceramic additive manufacturing

R. Maier*[1]

1. National Institute of Standards and Technology, USA

3:40 PM

(ICACC-S15-006-2026) Analysis on the necessity of porosity for successful thermo-oxidative stabilization of CF-PEEK

K. C. Bull*[1]; D. Gilmer[2]; G. Larsen[3]; R. Walker[2]; C. L. Cramer[3]

1. The University of Tennessee Knoxville Tickle College of Engineering, Mechanical and Aerospace Engineering, USA
2. The University of Tennessee Knoxville Tickle College of Engineering, Material Science and Engineering, USA
3. Oak Ridge National Laboratory, Manufacturing Science Division, Oak Ridge National Lab, USA

4:00 PM

Discussion

S15- Powder bed fusion/selective laser melting and sintering

Room: Ponce de Leon

Session Chairs: Lynnora Grant, Rice University

4:30 PM

Break

4:50 PM

(ICACC-S15-007-2026) Use of glass for additive manufacturing by powder bed fusion

F. O. Mear*[1]; L. Sennoun[1]

1. Universite de Lille Faculte des Sciences et Technologies, France

5:10 PM

(ICACC-S15-008-2026) Stereolithographic additive manufacturing of fine ceramic components with geometric modulations

S. Kirihara*[1]; F. Spirrett[1]

1. Osaka University, Joining and Welding Research Institute, Japan

S17 Advanced Ceramic Materials and Processing for Photonics and Energy

S17- Multi-functional materials I

Room: Flagler C

Session Chairs: Alberto Vomiero, Lulea University of Technology; Elisa Moretti, Ca' Foscari University of Venice

1:30 PM

(ICACC-S17-001-2026) Synthesis of hollow silica nanoparticles using emulsion droplet templates and their application to thermal insulating composite materials (Invited)

K. Ishii*[1]; M. Fuji[1]

1. Nagoya Institute of Technology, Japan

2:00 PM

(ICACC-S17-002-2026) Processing and properties of nano-porous sorbents and satalysts for carbon capture and conversion (Invited)

F. Akhtar*[1]

1. Lulea University of Technology, Division of Materials Science, Sweden

2:30 PM

(ICACC-S17-003-2026) Novel materials chemistry for applications in energy storage and conversion (Invited)

N. Pinna*[1]

1. Humboldt-Universität zu Berlin, Department of Chemistry, Germany

3:00 PM

Break

3:20 PM

(ICACC-S17-004-2026) Engineering high-performance $TiO_2/BiVO_4$ photocatalysts for enhanced water treatment and solar hydrogen production (Invited)

A. El Hattab[1]; A. Mirzaei[2]; A. Nada[3]; Z. Shayegan[4]; S. Roualdes[5]; M. Chaker*[1]

1. Institut National de la Recherche Scientifique, Centre Energie Materlaux Telecommunications, Canada
2. Western University, Physics and Astronomy, Canada
3. Luxembourg Institute of Science and Technology, Material Research and Technology Department, Luxembourg
4. National Research Council, Clean energy innovation, Canada
5. Institut Europeen des Membranes, France

3:50 PM

(ICACC-S17-005-2026) Understanding organic magnetoresistance in conjugated polymers (Invited)

E. Orgiu*[1]

1. Institut national de la recherche scientifique, Energy Materials and Telecommunications, Canada

4:20 PM

(ICACC-S17-006-2026) Effect of selenization on the catalytic performances of Ni-hexacyanoferrate-based nanocubes (Invited)

F. Polo*[1]; E. Lushaj[2]; T. A. Shifa[1]

1. Universita Ca' Foscari, Department of Molecular Sciences and Naosystems, Italy
2. Fraunhofer-Institut fur Fertigungstechnik und Angewandte Materialforschung IFAM, Germany

4:50 PM

(ICACC-S17-007-2026) Light-triggered NIR theranostic nanoplatforms (Invited)

F. Vetrone*[1]

1. INRS, Université du Québec, Centre Énergie, Matériaux et Télécommunications, Canada

S18 Ultra-High Temperature Ceramics

S18- Compositionally complex UHTCs

Room: Coquina A

Session Chairs: William Fahrenholtz, Missouri University of Science & Technology; Frederic Monteverde, CNR-ISTEC

1:30 PM

(ICACC-S18-001-2026) Metal segregation in boride-carbide dual phase high entropy ceramics (Invited)

W. Fahrenholtz*[1]; A. Feltrin[2]; S. Divilov[3]; S. Curtarolo[3]; G. Hilmas[1]

1. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA
2. Missouri University of Science and Technology, Materials Research Center, USA
3. Duke University, Mechanical Engineering and Materials Science, USA

2:00 PM

(ICACC-S18-002-2026) The thermal stability of high-entropy carbides

C. A. Butler*[1]; E. Saiz[1]; F. Giuliani[1]

1. Imperial College London, United Kingdom

2:20 PM

(ICACC-S18-003-2026) Examination of entropy-stabilized oxides by lowering the configurational entropy through the elimination of one cation

D. T. Mühmer*[1]; J. Nießen[1]; T. Tonnesen[1]

1. Rheinisch-Westfalische Technische Hochschule Aachen, Institute of Mineral Engineering, Germany

2:40 PM

(ICACC-S18-004-2026) The role of constituent elements in thermal properties of high-entropy carbides

E. A. Pritchett*[1]; G. Hilmas[1]; W. Fahrenholtz[1]

1. Missouri University of Science and Technology, Materials Science and Engineering, USA

3:00 PM

Break

3:20 PM

(ICACC-S18-005-2026) Transition metal diboride solid solutions for future space missions (Invited)

F. Monteverde*[1]; S. Mungiguerra[2]; S. Cassese[2]; D. De Prisco[2]; R. Savino[2]

1. Consiglio Nazionale delle Ricerche, ISSMC, Italy
2. University of Naples Federico II, Department of Industrial Engineering, Italy

3:50 PM

(ICACC-S18-006-2026) Fundamental thermal and electrical properties of a $(Cr,Mo,Ta,V,W)C_{1-x}$ high-entropy carbide ceramic

A. Sarikhani*[1]; W. Fahrenholtz[2]; G. E. Hilmas[2]; Y. Hor[1]

1. Missouri University of Science and Technology, Materials Research Center, USA
2. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA

4:10 PM

(ICACC-S18-007-2026) Variable-temperature plasmonic high-entropy carbides (Invited)

S. Divilov*[1]

1. Duke University, Materials Science, USA

4:40 PM

(ICACC-S18-008-2026) Processing and thermal properties of high-entropy carbides for ultrahigh temperature applications

A. Salanova Giampaoli*[1]; E. Gorzkowski[1]; J. Wollmershauser[2]

1. US Naval Research Laboratory, USA
2. U.S. Naval Research Laboratory, Materials Science & Technology Division, USA

5:00 PM

(ICACC-S18-009-2026) Synthesis and characterization of complex UHTC carbide solid solutions via arc melting

A. Celik*[1]; A. Mann[1]; R. Haber[1]

1. Rutgers University, Materials Science and Engineering, USA

5:20 PM

(ICACC-S18-010-2026) Compositionally complex (Hf,Zr,Nb,Ti) B_2-LaB_6 ceramics

B. Cui*[1]; X. Chen[1]; L. Trinh[1]; Z. Hua[2]; K. Bawane[2]; Y. Lu[1]

1. University of Nebraska-Lincoln, USA
2. Idaho National Laboratory, USA

S19 Molecular-level Processing and Chemical Engineering of Functional Materials

S19- Precursor chemistry – Structural and thermal transformations

Room: Ballroom 1 -2

Session Chairs: Peter Kroll, University of Texas, Arlington; Samuel Bernard, CNRS; Aitana Tamayo, Institute of Ceramics and Glass, CSIC

1:30 PM

(ICACC-S19-001-2026) Polymer-derived micro/macroporous SiCON-based ceramics with integrated catalytically active metal sites to stimulate superior HER and OER activities (Invited)

S. Bernard*[1]

1. CNRS, IRCER, France

2:00 PM

(ICACC-S19-002-2026) Synthesis and atomic structures of Europium doped oxides (Invited)

G. Westin*[1]

1. Uppsala University, Sweden

2:30 PM

(ICACC-S19-003-2026) From high-entropy ceramics (HECs) to compositionally complex ceramics (CCCs) (Invited)

J. Luo*[1]

1. University of California San Diego, USA

3:00 PM

Break

3:20 PM

(ICACC-S19-004-2026) A machine-learning Interatomic potential for predictive simulations of SiCN materials (Invited)

S. Haseen[1]; P. Kroll*[1]

1. University of Texas, Arlington, USA

3:50 PM

(ICACC-S19-005-2026) Multilayer 3D printed carbonaceous structures with hyperbranched pre-ceramic polymeric coatings and MAX phase composites. (Invited)

J. Sinclair*[1]; C. Birkel[1]; A. Das[1]; T. Long[1]; M. Madsen[1]

1. Arizona State University, School of Molecular Sciences, USA

4:20 PM

(ICACC-S19-006-2026) Preceramic polymers and hybrid systems for the fabrication of high-temperature ceramics (Invited)

M. B. Dickerson*[1]; J. Ponder[1]; J. Zackasee[1]; T. Pruyn[1]; J. Delcamp[1]

1. Air Force Research Laboratory, Materials and Manufacturing Directorate, USA

4:50 PM

(ICACC-S19-007-2026) Molecular precursors as building blocks for Phase-controlled synthesis of high entropy oxides

Z. Aytuna*[1]; D. Patrun[1]; T. Fischer[2]; S. Mathur[2]

1. Institute of Inorganic and Materials Chemistry, Department of Chemistry, University of Cologne, Germany
2. University of Cologne, Institute of Inorganic Chemistry, Germany

5:10 PM

(ICACC-S19-008-2026) Polymer pyrolysis simulations of high-temperature ceramics

P. Kroll*[1]

1. University of Texas, Arlington, USA

5:30 PM

Poster Preview Pitch- From alkoxides to thiolates: Precursor chemistry for high entropy oxides and high entropy sulfides

5:32 PM

Poster Preview Pitch- Atomistic insights into PND polymer conversion to B/C solids with enhanced ReaxFF modeling

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- Advanced materials and manufacturing technologies for energy generation and storage systems and artificial intelligence and machine learning

Room: Coquina D

Session Chairs: Manabu Fukushima, National Institute of Advanced Industrial Science and Technology (AIST); Alexander Michaelis, Fraunhofer IKTS

1:30 PM

(ICACC-S20-001-2026) Advanced ceramics as efficient catalysts for green hydrogen and ammonia synthesis (Invited)

S. Mathur*[1]

1. University of Cologne, Institute of Inorganic and Materials Chemsitry, Germany

2:00 PM

(ICACC-S20-002-2026) Chemically bonded phosphate ceramics for geothermal applications (Invited)

D. Singh*[1]

1. Argonne National Lab, USA

2:30 PM

(ICACC-S20-003-2026) Stereolithographic additive manufacturing of engineering ceramic components with functional geometries (Invited)

S. Kirihara*[1]; F. Spirrett[1]

1. Osaka University, Joining and Welding Research Institute, Japan

3:00 PM

Break

3:20 PM

(ICACC-S20-004-2026) Advanced ceramics for CCU (carbon capture and utilization) technology. (Invited)

A. Michaelis*[1]

1. Fraunhofer IKTS, Germany

3:50 PM

(ICACC-S20-005-2026) Solid-state electrolytes with fast-ion conductivity: Material structures & phase transitions (Invited)

W. Tang*[1]

1. Underwriters Laboratories Inc, Electrochemical Safety Research Institute, USA

4:20 PM

(ICACC-S20-006-2026) Impact of vibration on the storage performance of Li-ion batteries (Invited)

P. Balaya*[1]; N. Vangapally[1]

1. National University of Singapore, Department of Mechanical Engineering, Singapore

4:50 PM

(ICACC-S20-007-2026) AI-Driven microstructure design to predict mechanical properties of alumina ceramics (Invited)

M. Fukushima*[1]; K. Aoki[2]; S. Ozaki[3]; Y. Akiba[2]; T. Maeda[3]; M. Ngo[1]; K. Hirao[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan
2. Chukyo Daigaku Kogakubu, Japan
3. Yokohama National University, Japan

Tuesday, January 27, 2026

15th Global Young Investigator Forum on Sustainability

15th GYIF- Efficient Manufacturing Processes I

Room: Ballroom 5

Session Chairs: Ying Chung, Tokyo Institute of Technology; Ryota Yamamoto, Sangyo Gijutsu Sogo Kenkyujo Chubu Center

8:40 AM

(ICACC-GYIF-008-2026) Multifractal analysis of self-assembled composite microstructures: Toward applications to hollow silica nanoparticle-polymer systems (Invited)

T. Ogiya*[1]; K. Ishii[1]; Y. Sato[2]; Y. Takagi[3]; M. Ishihara[1]; F. Munakata[2]; M. Fuji[1]

1. Nagoya Institute of Technology, Japan
2. Tokyo City University, Japan
3. Tokyo University of Science, Japan

9:10 AM

(ICACC-GYIF-009-2026) Development of low-temperature co-sintering process for LATP electrolyte materials toward realization of oxide-based all-solid-state batteries (Invited)

K. Ishii*[1]; A. Miura[2]; S. Miyoshi[4]; K. Takada[4]; G. Kawamura[3]; H. Muto[3]; A. Matsuda[3]; M. Fuji[4]; T. Uchikoshi[4]

1. Nagoya Institute of Technology, Japan
2. Hokkaido University, Japan
3. Toyohashi University of Technology, Japan
4. National Institute for Materials Science, Japan

9:40 AM

(ICACC-GYIF-010-2026) Manufacturing strategies for SiC fibers that enable reduction of energy consumption (Invited)

K. Hofuku*[1]; T. Goto[1]; Y. Yamashita[1]; R. Iuchi[1]

1. Kureha corporation, Japan

10:10 AM

Break

15th GYIF- Efficient Manufacturing Processes II/ Design and Performance of Functional Ceramics

Room: Ballroom 5

Session Chairs: Kento Ishii, Nagoya Institute of Technology; Dustin Gilmer, The University of Tennessee Knoxville Tickle College of Engineering

10:30 AM

(ICACC-GYIF-011-2026) Fabrication and evaluation of alumina paste with the addition of cellulose nano fiber for direct ink writing (Invited)

Y. Chung*[1]; A. Shimamura[1]; N. Kondo[1]; M. Hotta[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

11:00 AM

(ICACC-GYIF-012-2026) Binder jetting technology for structural ceramics: Defect formation mechanisms and improvement of mechanical properties (Invited)

K. Kamoda*[1]

1. Ricoh Company, Ltd., Advanced technology R&D Division, Japan

11:30 AM

(ICACC-GYIF-013-2026) Design and evaluation of energy harvesting materials using thermal and vibration energy (Invited)

R. Yamamoto*[1]; K. Mimura[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Processing - microstructure - mechanical properties correlation

Room: Coquina E

Session Chairs: Dietmar Koch, University of Augsburg; Dong Liu, University of Oxford

8:30 AM

(ICACC-S1-010-2026) A comparative study of short fiber reinforced C/SiC with recycled and commercial carbon fibers (Invited)

R. Goller*[1]

1. University of Applied Sciences, Mechanical Engineering, Germany

9:00 AM

(ICACC-S1-011-2026) Carbon in various forms as ceramic for high end applications (Invited)*WITHDRAWN*

L. M. Manocha*[1]

1. IUAC, Materials, India

9:30 AM

(ICACC-S1-012-2026) Reactive melt infiltration-derived C/C-SiC – "Looking for the missing link" processing – Microstructure – Properties correlations (Invited)

N. Langhof*[1]; F. Wich[1]; S. Schafföner[1]

1. University of Bayreuth, Ceramic Materials Engineering, Germany

10:00 AM

Break

10:20 AM

(ICACC-S1-013-2026) Quantifying grain growth kinetics of RE-doped $MgAl_2O_4$ using polycrystalline diffusion couples

R. Mia*[1]; F. Shaon[1]; C. Marvel[1]

1. Louisiana State University, Mechanical and Industrial Engineering, USA

10:40 AM

(ICACC-S1-014-2026) (Hf,Nb,Ta,Ti,Zr) based single phase and dual phase high entropy ceramics

R. Hassan*[1]; W. Fahrenholtz[1]; G. Hilmas[1]

1. Missouri University of Science and Technology, Materials Science and Engineering, USA

11:00 AM

(ICACC-S1-015-2026) The effect of hot forging on the thermal and mechanical properties of spark plasma sintered SiC-TiB_2-B_4C composites with CeO_2 addition

A. F. Buluc*[1]; S. Turan[1]; Y. Kim[2]

1. Eskisehir Technical University, Materials Science and Engineering, Turkey
2. WORLDEX Industry & Trading Co., Ltd., Republic of Korea

11:20 AM

(ICACC-S1-016-2026) Novel processing of sub-100 nm CeO_2/Al_2O_3 composite microstructures via a eutectoid reactive sintering route

R. Maier*[1]

1. National Institute of Standards and Technology, USA

11:40 AM

(ICACC-S1-017-2026) Hot forging boron carbide using spark plasma sintering

B. Yang*[1]; A. Amon[1]; M. Koelle[1]; J. Cahill[1]; K. Luo[2]; Q. An[2]; A. Bokaei[3]; M. Jafari[3]; A. Zare[3]

1. Lawrence Livermore National Laboratory, Materials Science Division, USA
2. Iowa State University, Materials Science and Engineering, USA
3. Washington State University, School of Mechanical and Materials Engineering, USA

S2 Advanced Ceramic Coatings for Structural/ Environmental & Functional Applications

S2- Thermal and environmental barrier coatings for CMC, intermetallics, and alloys I

Room: Coquina C

Session Chairs: Eric Jordan, University of Connecticut; Kuiying Chen, National Research Council Canada

8:30 AM

(ICACC-S2-012-2026) Stability of rare earth orthophosphate EBC candidate materials in high temperature steam (Invited)

I. Hawthorne[1]; S. Ryu[1]; E. Opila*[1]

1. University of Virginia, USA

9:00 AM

(ICACC-S2-013-2026) High temperature isothermal and cyclic oxidation studies of sputtered and EB-PVD Si-bond coated EBC system on SiC-SiC_f substrates (Invited)

R. Naraparaju*[1]; C. Y. Guijosa Garcia[1]; A. Ebach-Stahl[1]; U. Schulz[1]

1. Institute for Frontier Materials on Earth and in Space, Germany

9:30 AM

(ICACC-S2-015-2026) Porosity dependence of furnace thermal cycling lifetime and failure characteristics of multi-layer thermal barrier coatings

H. Park*[1]; N. Ayersa[1]; V. Larsen[1]; Y. Sohn[1]

1. University of Central Florida College of Engineering and Computer Science, USA

9:50 AM

Break

10:10 AM

(ICACC-S2-016-2026) Phase formation and thermal conductivity of rare-earth co-doped zirconia systems for TBC application

S. Kim*[1]; M. Nam[1]; J. Kim[1]; Y. Oh[1]

1. Korea Institute of Ceramic Engineering and Technology, Cross-Functional Ceramics R&D Group, Republic of Korea

10:30 AM

(ICACC-S2-017-2026) Cyclic steam oxidation of slurry-deposited high-temperature environmental barrier coatings on SiC

R. I. Webster*[1]; K. Lee[1]; B. J. Harder[2]; J. Stuckner[1]; B. Puleo[1]

1. NASA Glenn Research Center, USA
2. NASA Glenn Research Center, Environmental Effects and Coatings, USA

10:50 AM

(ICACC-S2-018-2026) Understanding phase stability and sintering behavior of EB-PVD TBC systems under hydrogen combustion conditions

R. Ambekar*[1]; R. Naraparaju[1]

1. Deutsches Zentrum fur Luft- und Raumfahrt DLR, Institute for Frontier Materials on Earth and in Space, Germany

11:10 AM

(ICACC-S2-019-2026) Non-silicate barrier coatings for high temperature applications

B. Kowalski*[1]; R. I. Webster[1]

1. NASA Glenn Research Center, USA

11:30 AM

(ICACC-S2-020-2026) Monazite-structured multicomponent rare earth phosphates for advanced high-temperature coating applications

T. Natarajan[1]; Z. Alam[2]; A. S. Gandhi*[1]

1. Indian Institute of Technology Bombay, Department of Metallurgical Engineering and Materials Science, India
2. DRDO Defence Metallurgical Research Laboratory, India

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Manufacturing technology development

Room: Coquina H

Session Chair: Miguel Laguna-Bercero, Instituto de Nanociencia y Materiales de Aragon

8:30 AM

(ICACC-S3-008-2026) Strategies for achieving high performance in solid oxide cells using LSGM @ KICET (Invited)

T. Shin*[1]; S. Lee[1]; S. Lee[1]

1. Korea Institute of Ceramic Engineering and Technology (KICET), Republic of Korea

9:00 AM

(ICACC-S3-009-2026) Advancing SOEC oxygen electrode fabrication through optimized ceramic processing

C. Gadea*[1]; F. Palmerini[1]; S. Pirou[1]; E. Marzia Sala[1]; A. Krishnakumar Padinjarethil[1]; J. Godet[1]; J. Hanne Kurtz[1]; A. Hauch[1]

1. Topsoe A/S, Power-to-X, Denmark

9:20 AM

(ICACC-S3-010-2026) Manufacturing of proton conducting solid cells

A. Gondolini[1]; A. Bartoletti[1]; E. Mercadelli[1]; A. Sanson*[1]

1. ISSMC, Italy

9:40 AM

(ICACC-S3-011-2026) Laser-processed interfaces for high-pressure difference in solid oxide electrolysers: Advanced surface engineering and material design

F. D'Isanto*[1]; S. Anelli[1]; A. Baggio[1]; M. Salvo[1]; D. Menon[1]; D. Janner[1]; A. Sabato[2]; A. Tarancón[3]; F. Smeacetto[1]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy
2. IREC, Nanoionics and Fuel Cells, Catalonia Institute for Energy Research, Spain
3. IREC, ICREA, Spain

10:00 AM

Break

S3-Applications

Room: Coquina H

Session Chair: Xingbo Liu, West Virginia University

10:20 AM

(ICACC-S3-012-2026) A new insight for solid oxide electrochemical technology via utilization of traditional energy resources at Idaho National Laboratory (Invited)

D. Ding*[1]

1. Idaho National Lab, Hydrogen and electrochemistry, USA

10:50 AM

(ICACC-S3-013-2026) First tests of direct conversion of H_2O/CO_2 to light olefins by means of solid oxide cells (Invited)

M. Santarelli*[1]; F. Smeacetto[2]; S. Esposito[2]; D. Ferrero[1]; S. Anelli[3]; A. Moranti[4]; M. Ferri[1]; F. Puleo[1]

1. Politecnico di Torino, Energy, Italy
2. Politecnico di Torino, Applied Science and Technology, Italy
3. Politecnico di Torino, DISAT, Italy
4. Politecnico di Torino, Italy

11:20 AM WITHDRAWN

(ICACC-S3-015-2026) Electrochemical property of solid oxide fuel cell using fuel gas mixture containing CO and CO_2

M. Momai*[1]; H. Sumi[1]; T. Kawamura[2]; R. Yoshiie[3]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan
2. Gifu University, Graduate school of Natural Science & Technology, Japan
3. Gifu University, Chemistry and Biomolecular Science, Faculty of Engineering, Japan

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Ordered and Disordered Oxide-based Electrode Materials I

Room: Coquina G

Session Chairs: Naoaki Yabuuchi, Yokohama National University; Mahalingam Balasubramanian, Oak Ridge National Lab

8:30 AM

(ICACC-S6-001-2026) Tailoring chemistry, structure, and particles for disordered cathode materials (Invited)

J. Ahn*[1]

1. University of Wyoming, USA

9:00 AM

(ICACC-S6-002-2026) High-rate Mn-based disordered rock-salt oxides enabled by rapid Joule-heating synthesis (Invited)

S. Park[1]; H. Kim[1]; K. Kim[2]; W. Jang[1]; H. Lee[1]; S. Bae[1]; H. Kim[2]; J. Lee[3]; K. Kang[4]; D. Seo*[1]

1. Korea Advanced Institute of Science and Engineering (KAIST), Republic of Korea
2. Korea Atomic Energy Research Institute, Republic of Korea
3. McGill University, Canada
4. Seoul National University, Republic of Korea

9:30 AM

(ICACC-S6-003-2026) Development of disordered rock-salts for Li-ion batteries (Invited)

J. Colin*[1]; M. Cogniard[1]; D. Mambert[1]; D. Louise[1]; Y. Biecher[1]; I. Profatilova[1]; D. Sotta[1]

1. Université Grenoble Alpes, CEA-LITEN, France

10:00 AM

Break

10:20 AM

(ICACC-S6-004-2026) Designing advanced lithium insertion materials for practical Li-ion batteries (Invited)

N. Yabuuchi*[1]; Y. Ugata[1]

1. Yokohama National University, Japan

10:50 AM

(ICACC-S6-005-2026) Cation-disordered rocksalt interphases for nickel-rich layered oxide cathodes

D. Yan[1]; J. Kim*[1]

1. Stevens Institute of Technology, Chemical Engineering & Materials Science, USA

11:10 AM

(ICACC-S6-006-2026) Development of non-flammable lithium cobalt oxide (LCO)-based lithium-ion secondary batteries

Y. Yamane*[1]; T. Ishimoto[1]; R. Narukawa[1]; T. Takahashi[1]; S. Nihongi[1]; K. Kuriki[1]; T. Nakamura[1]; K. Tomoya[1]; T. Ochiai[1]; K. Ogita[1]; K. Kajiyama[1]; H. Murakami[1]; T. Kubota[1]; T. Kakehata[1]

1. Kabushiki Kaisha Handotai Energy Kenkyujo, Japan

11:30 AM

(ICACC-S6-007-2026) Improvement of $LiCoO_2$ by Mg-F treatment and occurrence of a different phase transition at high voltage

J. Saito*[1]; M. Mikami[1]; M. Takahashi[1]; T. Takahashi[1]; K. Kuriki[1]; F. Sekikawa[1]; A. Kawatsuki[1]; T. Ochiai[1]; T. Kakehata[1]

1. Kabushiki Kaisha Handotai Energy Kenkyujo, BT division, Japan

S7 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications

S7- Synthesis, functionalization and assembly of inorganic and hybrid nanostructures

Room: Flagler A

Session Chair: Andreu Cabot, Catalonia Institute for Energy Research

8:30 AM

(ICACC-S7-009-2026) Preparation and characterization of nanocellulose crystal/zinc oxide/titanium dioxide (NCC/ZnO/TiO_2) hybrid composite (Invited)

E. d. Magdaluyo*[1]; S. Motita[1]

1. University of the Philippines, Philippines

9:00 AM

(ICACC-S7-010-2026) Facet-engineered and oxygen-deficient TiO_2 nanocrystals as high-performance anodes for electrochromic devices (Invited)

C. Xing*[1]

1. Zhejiang University Institute of Wenzhou, China

9:30 AM

(ICACC-S7-011-2026) Environmental technologies applying advanced hybrid silica-based materials (Invited) *WITHDRAWN*

G. A. Seisenbaeva*[1]

1. Sveriges lantbruksuniversitet, Molecular Sciences, Sweden

10:00 AM

Break

10:20 AM

(ICACC-S7-012-2026) Nanoceramics meet microalgae toward sustainable wastewater remediation *WITHDRAWN*

M. Blosi*[1]; S. Amadori[1]; I. Zanoni[1]; A. Brigliadori[1]; S. Ortelli[1]; A. L. Costa[1]

1. Consiglio Nazionale delle Ricerche Istituto di Scienza Tecnologia e Sostenibilita per lo Sviluppo dei Materiali Ceramici, Italy

10:40 AM

(ICACC-S7-013-2026) Natural clay based systems applying green biocatalysts for water purification *WITHDRAWN*

A. Vardanyan[1]; G. A. Seisenbaeva[1]; T. Breijaert*[1]

1. Sveriges lantbruksuniversitet, Molecular sciences, Sweden

S7- Nanotoxicity, bio-imaging, drug-delivery and tissue engineering with tailored nano-bioconjugates

Room: Flagler A

Session Chair: Sedat Ballikaya, Istanbul University

11:00 AM

(ICACC-S7-014-2026) Development of inorganic contrast-agents for emerging X-ray fluorescence bioimaging (Invited)

M. S. Toprak*[1]

1. KTH Royal Institute of Technology, Dept. of Applied Physics, Sweden

S7- Functional coatings and innovative thin film techniques

Room: Flagler A

Session Chair: Sedat Ballikaya, Istanbul University

11:30 AM

(ICACC-S7-015-2026) Flexible ceramic film fabrication and functional control via photo-assisted thin-film processes

T. Tsuchiya*[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

11:50 AM

(ICACC-S7-016-2026) A novel low-temperature sintering method of aerosol jet printing via particle free ink for conductive films additive manufacturing

G. Li*[1]; Y. Sun[3]; Q. Sun[1]; A. Cabot[2]

1. Institut de Recerca en Energia de Catalunya, Spain
2. Catalonia Institute for Energy Research, Spain
3. Harbin Institute of Technology, China

S8 20th Intl Symp on APMT for Structural & Multifunctional Materials & Systems

S8- Field-Assisted and Extreme Processing: Mechanisms and Functional Materials

Room: Coquina B

Session Chairs: Thi Mai Dung Do, Nagaoka University of Technology; Raul Bermejo, Montanuniversitaet Leoben

8:40 AM

(ICACC-S8-010-2026) A new "phase" of matter produced by proliferation of defects (Invited)

R. Raj*[1]

1. University of Colorado, USA

9:10 AM

(ICACC-S8-011-2026) Acceleration of high temperature processing of 8YSZ under electric field/current (Invited)

K. Morita*[1]

1. National Institute for Materials Science (NIMS), Japan

9:40 AM

(ICACC-S8-012-2026) Enhanced kinetics during flash joining of TiO_2 and ZnO

R. Mundra*[1]; S. Kumar[1]; K. Kulkarni[1]; S. K. Jha[1]

1. Indian Institute of Technology Kanpur, Materials Science and Engineering, India

10:00 AM

Break

10:20 AM

(ICACC-S8-013-2026) Fabrication and irradiation of non-oxide nuclear fuels and ceramics (Invited)

L. He*[1]

1. North Carolina State University, Nuclear Engineering, USA

10:50 AM

(ICACC-S8-014-2026) Effect of high pressure on microstructure and properties of nano-structured transparent ceramics fabricated by high pressure spark plasma sintering

S. Cottrino*[1]; T. Douillard[1]; N. Blanchard[2]; S. Meille[1]; L. Gremillard[3]; S. Le Floch[2]

1. MATEIS Laboratory, Material, France
2. Institut Lumiere Matiere, France
3. INSA, Materials, Engineering and Science, France

11:10 AM

(ICACC-S8-015-2026) Observing in-situ degradation of metallized aluminum nitride substrate under thermal cycling tests by acoustic emission and digital image correlation

M. Ngo*[1]; H. Miyazaki[1]; K. Hirao[1]; T. Ohji[1]; M. Fukushima[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Multi-material Research Institute, Japan

11:30 AM

(ICACC-S8-036-2026) Performance evaluation of new polymer additives for technical ceramic shaping processes

I. Mbarki*[1]; A. Aimable[2]; F. Rossignol[2]; A. Graham[3]; S. Crabtree[3]

1. Institute of Research for Ceramics – IRCER, The Dow Chemical Company, France
2. UMR CNRS 7315, Institute of Research for Ceramics (IRCER), France
3. Monomers and plastic additives, The Dow Chemical Company, USA

S11 Advanced Materials and Innovative Processing Ideas for Production Root Technologies

S11- Innovative manufacturing processes for recycling, sustainable energy, or the semiconductor industry

Room: Ballroom 3

Session Chair: Ayahisa Okawa, Tohoku University

9:00 AM

(ICACC-S11-001-2026) Green pathways from CO_2 to polyurethane (Invited)

J. Lee*[1]; Y. You[1]

1. Korea Research Institute of Chemical Technology, CO2 & Energy Research Center, Republic of Korea

9:30 AM

(ICACC-S11-002-2026) Halloysite nanotube decorated with Fe_3O_4@NiO_x hybrid catalyst for enhanced oxygen evolution in alkaline electrolytes

Y. Jun*[1]; S. Mhin[1]

1. Dongguk University, Energy and Materials Engineering, Republic of Korea

9:50 AM

(ICACC-S11-003-2026) Na_2SO_4-modified electrolytes toward stable and high-performance aqueous zinc ion batteries

Y. Park*[1]; S. Mhin[2]

1. Dongguk University, Department of Energy and New Materials, Republic of Korea
2. Dongguk University, Energy and Materials Engineering, Republic of Korea

10:10 AM

Break

S11- Fundamental materials: Mining, particles, bulk, and functional materials and precursors I

Room: Ballroom 3

Session Chair: Ayahisa Okawa, Tohoku University

10:30 AM

(ICACC-S11-004-2026) Beyond linear scaling: Innovations in catalyst optimization (Invited)

K. Shin*[1]

1. Hanbat National University, Republic of Korea

11:00 AM

(ICACC-S11-005-2026) Scratch-induced damage evolution of SiC-Zr_2CN composites (Invited)

N. V. Dorkar[1]; Y. Kim[2]; B. Kumar*[1]

1. Indian Institute of Technology Roorkee, Metallurgical and Materials Engineering, India
2. WORLDEX Industry & Trading Co., Ltd., Republic of Korea

11:30 AM

(ICACC-S11-006-2026) Turning mine wastes into structures: Hybrid geopolymer–Cement mortars for sustainable construction applications (Invited)

D. Quinagoran[1]; J. Narvaez[1]; A. Ventura[1]; M. Plata[1]; J. Maniaul[1]; J. Cruz[1]; D. Tungpalan[1]; K. Baladad[1]; E. d. Magdaluyo*[1]

1. University of the Philippines, Philippines

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Functional materials for fission and fusion

Room: Coquina F

Session Chair: Kun Wang, Alfred University

8:30 AM

(ICACC-S13-010-2026) Readiness of substoichiometric yttrium dihydride in nuclear systems: Irradiation performance perspective (Invited)

N. Cinbiz*[1]

1. Oak Ridge National Laboratory, USA

9:00 AM

(ICACC-S13-011-2026) Phase stability, microstructure and hydrogen retention in entrained hydride ceramic composite moderators

L. Gurnani*[1]; M. A. Shawon[1]; D. Doyle[2]; N. Brown[2]; C. N. Taylor[3]; W. Zhong[4]; D. Sprouster[1]; L. Snead[1]; J. Trelewicz[1]

1. Stony Brook University, USA
2. The University of Tennessee Knoxville, USA
3. Idaho National Laboratory, USA
4. Oak Ridge National Laboratory, USA

9:20 AM

(ICACC-S13-012-2026) Tritium diffusion in lithium breeder blankets: A density functional theory investigation

T. Smith*[1]; C. Cockrell[1]; T. Davey[1]

1. Bangor University, Nuclear Futures Institute, United Kingdom

9:40 AM

(ICACC-S13-058-2026) High-throughput analysis of ultra-high temperature ceramics for first wall fusion applications

D. Marchesi[2]; L. Mazzocco*[1]; O. S. Houghton[1]; D. Pettinari[3]; A. Seshadri[1]; L. Snead[4]; K. Shirvan[1]

1. Massachusetts Institute of Technology, USA
2. Politecnico di Milano, Italy
3. Politecnico di Torino, Italy
4. Stony Brook University, USA

10:00 AM

Break

S13- Advanced processing of nuclear ceramics

Room: Coquina F

Session Chair: Jianqi Xi, University of Illinois Urbana-Champaign

10:20 AM

(ICACC-S13-014-2026) Hybrid silicon carbide-based CMCs fabricated by embedded wire CVD

J. Pegna[1]; S. Shuster[1]; S. Harrison*[1]; L. Czerniak[2]; E. J. Lahoda[2]

1. Free Form Fibers, USA
2. Westinghouse Electric Company LLC, USA

10:40 AM

(ICACC-S13-015-2026) SiC coatings for fusion and dission applications from liquid precursors

S. Kondo*[1]; K. Okada[2]; H. Katsui[3]; H. Yu[1]; Y. Ogino[1]; M. Park[1]; K. Yabuuchi[1]; R. Kasada[1]

1. Tohoku University, Institute for Materials Research, Japan
2. Tohoku Daigaku Daigakuin Kogaku Kenkyuka Kogakubu, Department of Quantum Science and Energy Engineering, Japan
3. National Institute of Advanced Industrial Science and Technology (AIST), Multi-Material Research Institute, Japan

11:00 AM

(ICACC-S13-016-2026) Additive manufacturing of nuclear ceramics

E. Zancan*[1]; I. Marshall[1]; G. Stephens[1]; T. Davey[1]; P. Makurunje[2]; Y. Chiu[3]; S. Middleburgh[1]

1. Bangor University, Nuclear Futures Institute, United Kingdom
2. Nuclear Futures Institute, Bangor University, United Kingdom
3. University of Birmingham, Metallurgy and Materials, United Kingdom

11:20 AM

(ICACC-S13-017-2026) Designing cermet waste forms for immobilizing advanced reactor waste streams

R. Saini*[1]; A. Goel[1]

1. Rutgers University, Materials Science and Engineering, USA

11:40 AM

(ICACC-S13-018-2026) Practical CVI SiC process development: A case study in infiltration optimization

B. W. Lamm*[1]; V. I. Ramirez[1]; A. Rogers[2]; T. Koyanagi[1]

1. Oak Ridge National Laboratory, Materials Science and Technology Division, USA
2. Oak Ridge National Laboratory, Nuclear Energy and Fuel Cycle Division, USA

S14 Crystalline Materials for Electrical Optical and Medical Applications

S14- Optical material II

Room: Ballroom 4

Session Chairs: Sandrine Cottrino, MATEIS Laboratory; Hiroki Tanaka, Leibniz-Institut fur Kristallzuchtung im Forschungsverbund Berlin eV

8:30 AM

(ICACC-S14-009-2026) Transparent $MgAl_2O_4$, Y_2O_3 and MgO Ceramics for infrared sensor applications

M. Drüe*[1]; A. Frickel[1]; J. Krech[2]; A. Isserstedt-Trinke[3]; P. Sachse[3]; S. Apel[3]; L. Dittrich[2]; S. Begand[4]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS - Standort Hermsdorf, Oxide Ceramics, Germany
2. 5microns GmbH, Germany
3. Micro-Hybrid Electronic GmbH, Germany
4. Fraunhofer-Gesellschaft zur Forderung der angewandten Forschung eV, Oxide Ceramics, Germany

8:50 AM

(ICACC-S14-010-2026) Implant housing with transparent spinel ceramic optical window

S. Begand*[1]; M. Drüe[1]; S. Spange[1]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS - Standort Hermsdorf, Oxide Ceramics, Germany

9:10 AM

(ICACC-S14-011-2026) Effect of ZnO and ZrO_2 content on the structural, mechanical and electrical properties of photocatalytic glasses suitable for electric melting

A. Tamayo*[1]; M. Rubio[1]; J. Rubio[1]

1. Institute of Ceramics and Glass, CSIC, Spain

9:30 AM

(ICACC-S14-012-2026) Design rules for Eu^{2+} and Ce^{3+}-doped long-wavelength-emitting oxide phosphors (Invited)

K. Toda*[1]

1. Niigata University, Japan

10:00 AM

Break

10:20 AM

(ICACC-S14-013-2026) Photoluminescence behavior of Eu^{2+} in Ca–Y–Si–O phosphors: Role of Ca/Y ratio and crystal site occupancy

Y. Sato*[1]; A. Yamanaka[1]; M. Kobayashi[2]; K. Tomita[4]; M. Kakihana[3]

1. Okayama Rika Daigaku, Graduate School of Science and Engineering, Japan
2. Nagoya Daigaku, Institute of Materials and Systems for Sustainability, Japan
3. Osaka Daigaku, SANKEN, Japan
4. Tokai Daigaku, Department of Chemistry, Japan

S14- Semiconductor and electronic material I

Room: Ballroom 4

Session Chairs: Matthias Bickermann, Leibniz-Institut fur Kristallzuchtung im Forschungsverbund Berlin eV; Kenji Toda, Niigata University

10:40 AM

(ICACC-S14-015-2026) Predictive evaluation of electro-optic properties of crystals

M. Ishtiyaq*[1]; S. Nakhmanson[1]

1. University of Connecticut, Materials Science and Engineering, USA

11:00 AM

(ICACC-S14-016-2026) Elucidation of the mechanism of water-assisted solid-state reactions (Invited)

K. Toda*[1]

1. Niigata University, Japan

S15 10th International Symposium on Additive Manufacturing and 3-D Printing Technologies

S15- Direct writing/ink jet printing technologies

Room: Ponce de Leon

Session Chairs: Paolo Colombo, University of Padova; Lisa Biasetto, University of Padova

8:50 AM

(ICACC-S15-010-2026) Additive manufacturing of continuous-fiber reinforced CMCs

A. De Marzi[1]; R. Giometti[1]; A. De Zanet[3]; A. Kumar[3]; G. Franchin[2]; P. Colombo*[2]

1. Università degli Studi di Padova, Department of Industrial Engineering, Italy
2. University of Padova, Industrial Engineering, Italy
3. Leonardo SpA, Innovation Hub - Materials Labs, Italy

9:10 AM

(ICACC-S15-011-2026) 3D printed proton conducting ceramic membranes

A. Bartoletti*[1]; E. Mercadelli[1]; A. Gondolini[1]; A. Sanson[1]

1. ISSMC, Italy

9:30 AM

(ICACC-S15-012-2026) High temperature latent heat thermal energy storage systems by direct ink writing technology

L. Biasetto*[1]; A. Stoppato[1]; E. Setten[1]; S. Shalby[1]

1. Universita degli Studi di Padova Dipartimento di Ingegneria Industriale, Italy

9:50 AM

(ICACC-S15-013-2026) Strategies for scaling aqueous ceramic material extrusion through temporal control

A. Gourley*[2]; C. Wyckoff[3]; J. Kaufman[3]; J. Hardin[1]; L. M. Rueschhoff[1]

1. Air Force Research Laboratory Materials & Manufacturing Directorate, USA
2. National Academies of Sciences Engineering and Medicine, USA
3. Aerovironment Inc, USA

10:10 AM

Break

10:30 AM

(ICACC-S15-014-2026) Analysis of mixing parameters on rheology and polymer stability in aqueous silicon carbide slurries

J. Feldbauer*[1]; C. L. Cramer[2]; D. Gilmer[3]; P. Snarr[4]; T. G. Aguirre[2]; B. L. Armstrong[5]; A. Townsend[3]

1. The University of Tennessee Knoxville Tickle College of Engineering, USA
2. Oak Ridge National Lab, Manufacturing Science Division, USA
3. The University of Tennessee Knoxville Tickle College of Engineering, Material Science and Engineering, USA
4. The University of Texas at Austin, USA
5. Oak Ridge National Lab, Material Science & Technology, USA

S15- AM of particulate and fiber reinforced composites

Room: Ponce de Leon

Session Chairs: Lisa Biasetto, University of Padova; Paolo Colombo, University of Padova

10:50 AM

(ICACC-S15-015-2026) Additive construction using concrete-Influences of composition, infill, and curing on mechanical properties

E. Faierson*[1]; B. Nelson[1]

1. Iowa State University, USA

11:10 AM

(ICACC-S15-016-2026) Micro-architected lightweight Al-Sic metal matrix composite with 3D-printed SiC scaffold

M. Du*[1]; R. R. Kamath[1]; C. Zheng[1]; P. S. Chaugule[1]; N. Paulson[1]; A. C. Chuang[1]; D. Singh[1]; M. C. Messner[1]

1. Argonne National Laboratory, USA

S17 Advanced Ceramic Materials and Processing for Photonics and Energy

S17- Multi- functional materials II

Room: Flagler C

Session Chair: Nicola Pinna, Humboldt-Universität zu Berlin

8:30 AM

(ICACC-S17-018-2026) Application of the finite difference time domain method to reveal novel photonic properties of ordered nanostructures (Invited)

O. K. Varghese*[1]; D. Waligo[1]; M. Paulose[2]

1. University of Houston, Department of Physics and Texas Center for Superconductivity, USA
2. University of Houston, Department of Physics, USA

9:00 AM

(ICACC-S17-009-2026) Surface-tailored nanomaterials for enzyme immobilization: hybrid, stable, and recyclable biocatalysts

C. Pontremoli*[1]; F. Careddu[1]; S. Rojas-Buzo[2]; N. Barbero[1]; F. C. Bonino[1]; C. Barolo[1]

1. Universita degli Studi di Torino, Department of Chemistry, Italy
2. Universitat Politecnica de Valencia, Spain

S17- Advanced and nanostructured materials for photo-voltaics and solar fuels I

Room: Flagler C

Session Chair: Rafik Naccache, Concordia University

9:20 AM

(ICACC-S17-010-2026) Advanced ceramic interfaces for small-molecule activation in hydrogen and ammonia photo-, electro- and piezo-catalysis (Invited)

T. Fischer[1]; S. Mathur*[1]

1. University of Cologne, Institute of Inorganic and Materials Chemistry, Germany

9:50 AM

Break

10:10 AM

(ICACC-S17-011-2026) Green processing of perovskite solar cells

T. Fischer*[1]; N. Heshmati[1]; S. Mathur[1]

1. University of Cologne, Institute of Inorganic and Materials Chemistry, Germany

10:30 AM

(ICACC-S17-012-2026) Organic solar cells: Advanced nanoscale characterization towards biodegradable photovoltaics (Invited)

G. Fanchini*[1]

1. University of Western Ontario, Physics and Astronomy, Canada

11:00 AM

(ICACC-S17-013-2026) Solution-processable coordination polymers as efficient catalysts for counter-electrodes in dye-sensitized solar cells (Invited)

S. Galliano*[1]; M. Franzini[1]; M. Raimondo[1]; K. Sasitharan[2]; G. Morritt[2]; G. Spinelli[1]; L. Cavinato[1]; M. Borri[3]; M. Zanetti[1]; B. Civalleri[1]; A. Reale[4]; M. Freitag[2]; C. Barolo[1]

1. Universita degli Studi di Torino, Department of Chemistry, Italy
2. Newcastle University, School of Natural and Environmental Science, United Kingdom
3. Martur Italy, Italy
4. Universita degli Studi di Roma Tor Vergata, Department of Electronic Engineering, Italy

11:30 AM

(ICACC-S17-020-2026) Synthesis of molecule-like metal-oxide clusters in ZnO nano-sponges (Invited)

G. Westin*[1]

1. Uppsala University, Sweden

S18 Ultra-High Temperature Ceramics

S18- Response in extreme environments (irradiation, ultra-high temperature, etc.) I

Room: Coquina A

Session Chairs: Douglas Wolfe, Pennsylvania State University; Scott McCormack, University of California, Davis

8:30 AM

(ICACC-S18-011-2026) Eutectics observed in group (IV,V) psuedobinary transition metal diborides (Invited)

S. Ness[2]; A. N. Dorner[3]; W. Rosenberg[2]; P. Spencer[4]; G. Hilmas[3]; W. Fahrenholtz[3]; S. J. McCormack*[1]

1. University of California, Davis, Materials Science and Engineering, USA
2. University of California Davis, Chemical Engineering, USA
3. Missouri University of Science & Technology, Materials Science and Engineering, USA
4. The Spencer Group Inc, USA

9:00 AM

(ICACC-S18-012-2026) Earth and mars hypersonic entry and ceramic thermal protection systems (Invited)

S. Mungiguerra*[1]; G. Corbi[1]; R. Costanzo[1]; D. De Prisco[1]; S. Cassese[1]; A. Cecere[1]; R. Savino[1]

1. Universita degli Studi di Napoli Federico II, Department of Industrial Engineering, Italy

9:30 AM

(ICACC-S18-013-2026) Loss of hardness anisotropy in tungsten carbide under irradiation (Invited)

A. Mullins[1]; K. Bakkar[1]; T. Zagyva[1]; J. Wade-Zhu[2]; M. T. Rigby-Bell[2]; S. A. Humphry-Baker*[1]

1. Imperial College London, Materials, United Kingdom
2. UKAEA, Materials Division, United Kingdom

10:00 AM

Break

10:20 AM

(ICACC-S18-014-2026) Plasmonic resonance of refractory high entropy carbides and carbonitrides synthesize via Field Assisted Sintering Technology (FAST) (Invited)

D. E. Wolfe*[1]; L. Wilson[1]; R. Koennecker[1]; A. Marin[1]; S. Divilov[2]; H. Eckert[2]; X. Campilongo[2]; S. Curtarolo[3]

1. Pennsylvania State University, USA
2. Duke University, USA
3. Duke University, Materials Science, Electrical Engineering and Physics, USA

10:50 AM

(ICACC-S18-015-2026) Unraveling the oxidation characteristics of binary, ternary, and quaternary transition metal carbides

S. Richter[2]; D. Danner[2]; A. Hirle[2]; T. Wojcik[1]; E. Ntemou[3]; D. Primetzhofer[3]; K. Boebel[5]; S. Kolozsvári[4]; P. Polcik[4]; J. Ramm[5]; H. Riedl*[1]

1. Technische Universitat Wien, Institute of Materials Science and Technology, Austria
2. TU Wien CDL-SEC, Austria
3. Uppsala Universitet, Department of Physics and Astronomy, Uppsala University, Sweden
4. Plansee Composite Materials GmbH, Germany
5. Oerlikon Surface Solutions AG, Oerlikon Balzers, Switzerland

11:10 AM

(ICACC-S18-016-2026) Synthesis of binderless WC with brick-and-mortar structure for enhanced toughness and damage tolerance at high temperatures

B. M. Bulteel*[1]; J. Wade-Zhu[3]; F. Bouville[2]; S. A. Humphry-Baker[1]

1. Imperial College London, Materials, United Kingdom
2. ETH Zürich, Complex Materials, United Kingdom
3. UKAEA, Materials Division, United Kingdom

S19 Molecular-level Processing and Chemical Engineering of Functional Materials

S19- New processing methods, 3D printing, and knowledge-driven processing

Room: Ballroom 1 -2

Session Chair: Gurpreet Singh, Kansas State University

8:30 AM

(ICACC-S19-009-2026) Morphology study of electrospun cellulose acetate fibers using various solvents and concentrations (Invited)

W. Alkaron[1]; K. Balazsi[1]; C. Balazsi*[1]

1. HUN-REN Energiatudomanyi Kutatokozpont, Hungary

9:00 AM

(ICACC-S19-010-2026) 3D-printed polymer-derived ceramics as platforms for catalytic processes (Invited) ***WITHDRAWN***

M. Obeid[1]; C. Youssef[1]; A. Bayout[1]; C. Salameh*[1]

1. Institut Européen des Membranes, France

9:30 AM

(ICACC-S19-011-2026) Nanoparticle core size effects on rheology, ceramic yield, and thermal stability in preceramic polymer-grafted nanoparticle-based materials

G. Germanton*[1]; P. Gnanasekar[1]; J. Ponder[2]; P. Polisetty[1]; D. Hallinan[1]; M. Dickerson[2]; S. Ramakrishnan[1]

1. Florida State University, FAMU-FSU COLLEGE OF ENGINEERING, USA
2. Air Force Research Laboratory, USA

9:50 AM

Break

S19- Chemically processed nanostructures and on-surface nanochemistry

Room: Ballroom 1 -2

Session Chairs: Murilo Amaral, Universidade Estadual de Campinas; Arijit Roy, Kansas State University

10:10 AM

(ICACC-S19-013-2026) Porous SiOC(H) as drug carriers in vaginal composite films (Invited)

S. Gómez-Peral[1]; F. Notario[2]; A. Tamayo*[1]

1. Institute of Ceramics and Glass, CSIC, Spain
2. Universidad Complutense de Madrid, Spain

S19- Molecular precursor approaches for vapor-phase synthesis (ALD, CVD) of materials

Room: Ballroom 1 -2

Session Chairs: Murilo Amaral, Universidade Estadual de Campinas; Arijit Roy, Kansas State University

10:40 AM

(ICACC-S19-014-2026) Preparation and characterization of polymer-derived HfOC/SiOC ceramic composite powders and fibermats

A. Roy*[1]; G. Singh[1]

1. Kansas State University, Mechanical and Nuclear Engineering, USA

11:00 AM

Poster Preview Pitch- Molecular actinide precursors for chemical vapors deposition of actinide-based thin films

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- New and innovative strategies and technologies for sustainable and self-sufficient solutions

Room: Coquina D

Session Chair: Palani Balaya, National University of Singapore

8:30 AM

(ICACC-S20-033-2026) Swords to plowshares: Unique nanoporous hollow glass microspheres open new opportunities in security, energy, environmental remediation and medicine (Invited)

G. Wicks*[1]

1. Applied Research Center, USA

9:00 AM

(ICACC-S20-009-2026) Experimental race to detect heat transfer mediated by surface phonon polaritons (Invited)

S. Shin*[1]

1. National University of Singapore, Department of Mechanical Engineering, Singapore

9:30 AM

(ICACC-S20-010-2026) Strategies for advanced cathode and anode materials in zinc-ion batteries (Invited)

S. Mhin*[1]

1. Dongguk University, Energy and Materials Engineering, Republic of Korea

10:00 AM

Break

10:20 AM

(ICACC-S20-011-2026) Defect and morphology engineering in nanomaterials for efficient photocatalysis (Invited)

E. Moretti*[1]

1. Ca' Foscari University of Venice, Department of Molecular Sciences and Nanosystems, Italy

S20- Multifunctional Ceramics for healthcare and biomedical applications

Room: Coquina D

Session Chair: Michael Halbig, NASA Glenn Research Center

10:50 AM

(ICACC-S20-013-2026) Sustainable antimicrobial composite coatings for air filters (Invited)

C. Balagna*[1]; A. Luceri[2]; F. Gattucci[2]; M. Ferraris[1]

1. Politecnico di Torino, Dept. Applied Science and Technology, Italy
2. Politecnico di Torino, DISAT, Italy

15th Global Young Investigator Forum on Sustainability

15th GYIF- Green Chemistry and Sustainable Synthesis Methods

Room: Ballroom 5

Session Chairs: Minh Chu Ngo, National Institute of Advanced Industrial Science and Technology (AIST); Yue Zhou, Missouri University of Science & Technology

1:30 PM

(ICACC-GYIF-014-2026) Next-generation metal oxide/carbon composite catalysts via sustainable mechanochemical synthesis for advanced water purification (Invited)

K. Kato*[1]

1. Gifu Daigaku, Japan

2:00 PM

(ICACC-GYIF-015-2026) Novel fabrication process for bioactive phosphate glasses without heat treatment (Invited)

S. Lee*[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

2:30 PM

(ICACC-GYIF-016-2026) Sustainable synthesis of compositionally complex Ultra-High Temperature Ceramics (Invited)

D. Gilmer*[1]; R. Walker[1]; J. Fischer[1]

1. The University of Tennessee Knoxville Tickle College of Engineering, Material Science and Engineering, USA

3:00 PM

Break

15th GYIF- Thermo-Mechanical Behavior of Ceramics and Composites I

Room: Ballroom 5

Session Chairs: Dong Liu, University of Oxford; Kunihiko Kato, Gifu Daigaku

3:20 PM

(ICACC-GYIF-017-2026) Evolution of strength-limiting defects from heterogeneities during sintering of high-purity submicron alumina (Invited)

G. Okuma*[1]

1. Busshitsu Zairyo Kenkyu Kiko, Japan

3:50 PM

(ICACC-GYIF-018-2026) Peridynamic modeling of surface degradation from lunar plume-surface interactions

A. M. Howard*[1]; U. Can[1]; B. Alicioglu[1]; K. P. Wilding[3]; K. Lorenzo[3]; A. Hatfield[2]; I. Guven[1]; V. L. Wiesner[2]; S. Prameela[3]; C. Wohl[2]

1. Virginia Commonwealth University, Mechanical and Nuclear, USA
2. NASA Langley Research Center, Advanced Materials Processing Branch, USA
3. The University of Utah John and Marcia Price College of Engineering, Materials Science and Engineering, USA

4:10 PM

(ICACC-GYIF-019-2026) High-throughput laser-induced particle impact testing for erosion assessment of ceramic-coated substrates in simulated plume–surface conditions

K. P. Wilding*[1]; K. Lorenzo[4]; A. M. Howard[2]; I. Guven[2]; V. L. Wiesner[3]; S. Prameela[1]

1. The University of Utah John and Marcia Price College of Engineering, Materials Science and Engineering, USA
2. Virginia Commonwealth University, Mechanical and Nuclear, USA
3. NASA Langley Research Center, Advanced Materials and Processing Branch, USA
4. The University of Utah John and Marcia Price College of Engineering, Mechanical Engineering, USA

4:30 PM

PPP- Evaluating the rheology of lunar regolith simulant melts and their interaction with crucible refractory materials *WITHDRAWN*

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Design, reliability and life prediction modeling of materials, devices and components

Room: Coquina E

Session Chair: Monica Ferraris, Politecnico di Torino

1:30 PM

(ICACC-S1-018-2026) Lifetime of SiC filaments and tows under tensile stress and oxidation: Experiments and interpretative models (Invited)

S. Mazerat[1]; R. Pailler[2]; G. L. Vignoles*[1]

1. University Bordeaux, LCTS - Lab for ThermStructural Composites, France
2. French National Centre for Scientific Research, LCTS, France

2:00 PM

(ICACC-S1-019-2026) International standards for properties and performance of advanced ceramics – ASTM Commitee C28 - 40 Years of technical rigor and high quality (Invited)

M. G. Jenkins*[1]; A. Horner[5]; J. Salem[2]; G. D. Quinn[3]; T. Thornton[4]; J. Westbrook[6]

1. Bothell Engineering and Science Technologies, USA
2. NASA Glenn Research Center, Materials and Structures, USA
3. National Institute of Standards and technology, Materials Measuremenet Sciences Division, USA
4. Micromeritics Instrument Corporation, USA
5. Scalar Scientific LLC, USA
6. Corning Incorporated, USA

2:30 PM

(ICACC-S1-020-2026) Numerical prediction of temperature-dependent strength scatter in alumina

T. Maeda*[1]; T. Osada[2]; S. Ozaki[3]

1. Yokohama National University, Graduate School of Engineering Science, Japan
2. National Institute for Materials Science, Research Center for Structural Materials, Japan
3. Yokohama National University, Faculty of Engineering, Japan

2:50 PM

Break

3:10 PM

(ICACC-S1-021-2026) Liquid silicon infiltration in porous C/SiC: pore-scale and statistical effects on kinetics and residual stress with multiphysics modeling

H. D. Tran*[1]; F. Sultana[1]; S. Kounouho[2]; M. Du[1]; M. C. Messner[1]; G. Hu[1]

1. Argonne National Laboratory, USA
2. Duke University, USA

3:30 PM

(ICACC-S1-022-2026) Design of self-healing ceramics composites with Vanadium-type healing activator

T. Oshiumi*[1]; T. Hara[1]; M. Goto[1]; T. Osada[1]

1. Busshitsu Zairyo Kenkyu Kiko, Japan

S1- Novel computational approaches to enhance performance and characterization

Room: Coquina E

Session Chair: Gerard Vignoles, University Bordeaux

3:50 PM

(ICACC-S1-023-2026) "Digital CMC" - AI-enabled inverse design of non-oxide ceramic composite (Invited)

D. Koch*[1]; N. Jain[1]

1. University of Augsburg, Institute for Materials Resource Management MRM, Materials Engineering, Germany

4:20 PM

(ICACC-S1-024-2026) Machine learning assisted serial sectioning to enable rapid 3D crack network reconstruction

A. Stubbers[2]; B. Swartley[2]; E. S. Castrejon[3]; S. Durkee[2]; E. Schwind[1]; A. Ramírez-Acosta[3]; C. R. Weinberger[4]; O. A. Graeve[5]; M. García-Vázquez[3]; G. Thompson*[1]

1. University of Alabama, Metallurgical & Materials Engineering, USA
2. University of Alabama, Alabama Materials Institute, USA
3. Instituto Politécnico Nacional, Mexico
4. Colorado State University, Department of Mechanical Engineering, USA
5. University of California, San Diego, Mechanical and Aerospace Engineering, USA

4:40 PM

(ICACC-S1-025-2026) Prediction of pyrolysis-induced deformation and damage in LSI-produced C/C-SiC

M. Riva*[1]; L. Cavalli[2]; M. Morandini[1]; M. De Stefano Fumo[3]; A. Airoldi[1]

1. Politecnico di Milano, Department of Aerospace Science and Technology, Italy
2. Petroceramics S.p.A., Italy
3. Centro Italiano Ricerche Aerospaziali, Italy

S1- Small-scale testing and in-situ characterization using electrons, photons & neutrons

Room: Coquina E

Session Chair: Gerard Vignoles, University Bordeaux

5:00 PM

(ICACC-S1-026-2026) Transmission electron microscopy study of processing-induced interphase modifications in LSI SiC/SiC

K. Bock*[1]; J. Moosburger-Will[1]; K. Postler[1]; D. Koch[1]

1. Universitat Augsburg, Institute of Materials Resource Management, Germany

S2 Advanced Ceramic Coatings for Structural/ Environmental & Functional Applications

S2- Thermal and environmental barrier coatings for CMC, intermetallics, and alloys II

Room: Coquina C

Session Chairs: Elizabeth Opila, University of Virginia; Ravisankar Naraparaju, DLR - German Aerospace Center

1:30 PM

(ICACC-S2-021-2026) Damage and failure behaviour of thermally grown oxide SiO_2 of environmental barrier coatings under extreme environment: multi-physics modelling (Invited)

K. Chen*[1]

1. NRC, Aerospace, Canada

2:00 PM

(ICACC-S2-022-2026) Role of deposition parameters and heat treatment on the phase stability and Nb_2O_5 loss in suspension plasma sprayed gadolinium niobate coatings

V. Hastak*[1]; K. Leng[1]; N. Curry[2]; T. Hussain[1]

1. University of Nottingham Faculty of Engineering, Centre of Excellence in Coatings and Surface Engineering, United Kingdom
2. Thermal Spray Innovations, Austria

2:20 PM

(ICACC-S2-023-2026) Thermal barrier coatings for supercritical carbon dioxide, one old and one new

E. H. Jordan*[1]; C. Jiang[1]

1. Solution Spray Technologies LLC, USA

2:40 PM

(ICACC-S2-024-2026) Understanding interfacial stability between rare-earth oxide (REO) based T/EBC and alumina thermally grown oxide (TGO)

N. Ria*[1]; D. L. Poerschke[1]

1. University of Minnesota Twin Cities, Chemical Engineering and Material Science, USA

3:00 PM

Break

3:20 PM

(ICACC-S2-025-2026) Pushing the limits of compositionally complex oxides with five to ten stabilizers in zirconia for lowering thermal conductivity

S. Ramachandran*[2]; Z. Alam[1]; A. S. Gandhi[2]

1. DRDO Defence Metallurgical Research Laboratory, India
2. Indian Institute of Technology Bombay, Department of Metallurgical Engineering and Materials Science, India

3:40 PM

(ICACC-S2-026-2026) Evaluating environmental barrier coating systems in high-temperature, high-pressure steam environments

K. D. Ardrey*[1]; M. Lance[1]; M. Ridley[1]

1. Oak Ridge National Laboratory, USA

4:00 PM

(ICACC-S2-027-2026) Nitride-based ceramic composite coatings via atmospheric/reactive plasma spray

V. Jain*[1]; T. Namikas[1]; S. Murillo[1]; C. Marvel[1]

1. Louisiana State University, Mechanical and Industrial Engineering, USA

4:20 PM

(ICACC-S2-028-2026) Advancing enviromental barrier coating testing using a high-temperature, high-velocity steam jet enviroment

M. L. Caulfield*[1]; E. J. Opila[2]

1. University of Virginia, Mechanical and Aerospace Engineering, USA
2. University of Virginia, Materials Science and Engineering, USA

4:40 PM

(ICACC-S2-029-2026) Pressure effects on thermochemical stability of hot-pressed $Yb_2Si_2O_7$ EBCs in high-temperature and high-velocity steam *WITHDRAWN*

C. Nair*[1]; H. Chelliah[1]

1. University of Virginia School of Engineering and Applied Science, Mechanical and Aerospace Engineering, USA

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Upscaling of manufacturing

Room: Coquina H

Session Chair: Alessandra Sanson, CNR-ISTEC

1:30 PM

(ICACC-S3-016-2026) Upscaling protonic ceramic electrolysis cells (Invited)

Y. Kim[1]; J. Shah[2]; C. Schiller[3]; S. Ricote*[1]; S. Ricote[2]

1. Colorado School of Mines, Metallurgical and Materials Engineering, USA
2. HyET, USA
3. ATS, USA

2:00 PM

(ICACC-S3-017-2026) Model-based development of industrial kilns for SOC production

D. Hipp*[1]; R. Gfrörer[2]; J. Schmiing[3]

1. ONEJOON, Engineering, Germany
2. ONEJOON, Sales, Germany
3. ONEJOON Inc., CEO, USA

2:20 PM

(ICACC-S3-018-2026) Scaling proton-conducting ceramic electrolysis cells: Performance and engineering challenges from button cells to 25 cm^2

S. Koomson*[1]; W. Wang[1]; Z. Zhao[1]; J. Y. Gomez[1]; W. Bian[1]; D. Ding[1]

1. Idaho National Lab, Hydrogen and electrochemistry, USA

2:40 PM

(ICACC-S3-019-2026) Advanced manufacturing and characterizations enabled high performance protonic ceramic electrolysis cells at Idaho National Laboratory

F. Liu*[1]; Z. Wang[1]; W. Bian[1]; Z. Zhao[1]; M. Li[1]; D. Ding[1]

1. Idaho National Laboratory, Energy & Environmental Science and Technology, USA

3:00 PM

Break

S3-Novel processing and design

Room: Coquina H

Session Chair: Luca Mastropasqua, University of Wisconsin-Madison

3:20 PM

(ICACC-S3-020-2026) Development of the metal-supported solid oxide fuel cell with the alumina-forming ferritic stainless-steel substrate (Invited)

K. Hara*[1]; Y. Miura[1]; Y. Cho[1]; T. Shiomi[1]; Y. Shibata[2]; S. Taniguchi[2]; K. Sasaki[2]

1. Nissan Jidosha Kabushiki Kaisha, Nissan Research Center, Japan
2. Kyushu Daigaku, Japan

3:50 PM

(ICACC-S3-021-2026) Innovative manufacturing for low-cost, high-performance SOCs

F. Gualandris*[1]

1. Hydrospark, Italy

4:10 PM

(ICACC-S3-022-2026) Improved SOEC pocessing through Additive Manufacturing and Ultrafast Sintering (UHS) in the frame of "CleanHyPro-Open innovation Test Bench".

M. Torrell*[1]; A. Maria Asensio[1]; A. Sabato[1]; I. Babeli[1]; L. Martinho Serra[1]; A. Tarancón[2]

1. IREC, Nanoionics and Fuel Cells, Spain
2. IREC / ICREA, Spain

4:30 PM

(ICACC-S3-023-2026) Additive manufacturing for next-generation protonic ceramic fuel cells *WITHDRAWN*

S. Virtanen[1]; A. Savikko[1]; B. Bilbey[1]; M. Asghar*[1]

1. Tampereen yliopisto Tekniikan ja luonnontieteiden tiedekunta, Renewable Energy Technologies Group, Finland

4:50 PM

(ICACC-S3-025-2026) Multifunctional (Gd,Yb,Bi)CeO_2 buffer layer enabling single-step low-temperature co-sintering of $LaGaO_3$-based SOFCs *WITHDRAWN*

H. Kim*[1]; Y. Lee[2]; T. Shin[1]

1. Korea Institute of Ceramic Engineering and Technology, Republic of Korea
2. Gyeongsang National University, Republic of Korea

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Na Battery Technology

Room: Coquina G

Session Chairs: Jeom-Soo Kim, Dong-A University; Wan Si Tang, Underwriters Laboratories Inc

1:30 PM

(ICACC-S6-008-2026) Sodium-ion cells and modules – Performance and safety (Invited)

J. Jeevarajan*[1]; D. RajagopalanKannan[1]; V. Premnath[1]

1. UL Resarch Institutes, Electrochemical Safety Research Institute (ESRI), USA

2:00 PM

(ICACC-S6-010-2026) Effect of precursor co-precipitation conditions on the properties of $NaNi_{1/3}Fe_{1/3}Mn_{1/3}O_2$ as a cathode material for sodium-ion batteries (Invited)

H. Ryu[1]; M. Cho[1]; J. Kim*[1]

1. Dong-A University, Chemical Engineering, Republic of Korea

2:30 PM

(ICACC-S6-011-2026) Charged-state Na metal batteries with high energy density and stable cyclability (Invited)

J. Hwang*[1]; F. Nozaki[1]; S. Zhang[1]; K. Matsumoto[1]

1. Kyoto Daigaku, Japan

3:00 PM

Break

3:20 PM

(ICACC-S6-012-2026) Design of new material used as cathode for Metal-ion batteries

A. Sagot[2]; L. Stievano[3]; V. Kovrugin[2]; T. Soudant[4]; V. Pralong*[1]

1. CNRS ENSICAEN, France
2. Ecole Nationale Superieure d'Ingenieurs de Caen, CRISMAT, France
3. Universite de Montpellier, Institut Charles Gernardt Montpellier, France
4. Laboratoire de Cristallographie et Sciences des Materiaux, France

3:40 PM

(ICACC-S6-013-2026) Synthesis, chemical, physical and electrochemical characterizations of $Na_{10}Mn_4O_9$

T. Soudant*[1]; V. Kovrugin[1]; G. Rousse[2]; A. Maignan[1]; L. Stievano[3]; A. Iadecola[4]; J. Tarascon[2]; M. Doublet[3]; V. Pralong[1]

1. Laboratoire de Cristallographie et Sciences des Materiaux, France
2. College de France, France
3. Universite de Montpellier, Institut Charles Gernardt Montpellier, France
4. Physicochimie des Electrolytes et Nanosystemes Interfaciaux, France

4:00 PM

(ICACC-S6-014-2026) Cold-sintered $Na_{1+x}Zr_2Si_xP_{3-x}O_{12}$–$Na_{0.7}CoO_2$ composites for solid-state batteries *WITHDRAWN*

B. Siame*[1]; A. J. Adetona[1]; C. Grimes[1]; M. J. Myszczynski[1]; C. J. Shaw[1]; D. C. Sinclair[1]; I. M. Reaney[1]

1. The University of Sheffield, Chemical, Biological, and Materials Engineering, United Kingdom

4:20 PM

(ICACC-S6-015-2026) Influence of synthesis parameters on the conductivity of pristine and Cl/Br-doped Na_3PS_4 solid electrolytes

L. Trezecik Silvano[1]; R. Ucuncuoglu[1]; V. Knoblauch[1]; P. Kaya*[1]

1. IMFAA, Aalen University of Applied Sciences, Germany

4:40 PM

(ICACC-S6-016-2026) Sulfide-based electrolytes for next generation solid-state potassium batteries

J. Grill*[1]; J. Popovic-Neuber[1]

1. University of Stavanger, Norway

S7 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications

S7- Nanomaterials for energy conversion, storage and catalysis I

Room: Flagler A

Session Chair: Ji-Hyun Jang, Ulsan National Institute of Science and Technology

1:30 PM

(ICACC-S7-017-2026) Rapid large-scale synthesis and performance boosting of hybrid thermoelectric generators guided by simulation (Invited)

M. S. Toprak*[1]; B. Hamawandi[2]; J. F. Serrano-Claumarchirant[1]

1. KTH Royal Institute of Technology, Dept. of Applied Physics, Sweden
2. Latvijas Universitate, Institute of Solid State Physics, Latvia

2:00 PM

(ICACC-S7-018-2026) Band-engineering-stabilized $AgSbTe_2$ with high thermoelectric performance (Invited) *WTHDRAWN*

Y. Zhang*[1]

1. Zhejiang University, China

2:30 PM

(ICACC-S7-019-2026) Composite semiconducting nanostructures for energy harvesting (Invited)

A. Vomiero*[1]

1. Lulea University of Technology, Engineering Sciences & Mathematics, Sweden

3:00 PM

Break

3:20 PM

(ICACC-S7-020-2026) Critical role of design components in flexible ZnO-based piezoelectric nanogenerators

G. Yüksel*[1]; E. Suvaci[1]

1. Eskisehir Teknik Universitesi, Materials Science and Engineering, Turkey

3:40 PM

(ICACC-S7-021-2026) Amorphous solid-electrolyte interface formation driven by solvation regulation on zinc battery anodes

Q. Sun*[1]

1. Institut de Recerca en Energia de Catalunya, Spain

4:00 PM

(ICACC-S7-022-2026) Active-site switching in high-entropy phosphides under electric-field regulation for enhanced bifunctional catalysts

R. He*[1]; A. Cabot[1]

1. Institut de Recerca en Energia de Catalunya, Spain

4:20 PM

(ICACC-S7-023-2026) Preparation and in vitro biocompatibility of hydroxyapatite hollow microspheres (Invited)

S. Chen[2]; A. Osaka*[1]

1. Okayama University, Faculty of Engineering, Japan
2. Taiyuan University of Technology, College of Artificial Intelligence, China

S8 20th Intl Symp on APMT for Structural & Multifunctional Materials & Systems

S8- Advanced and Accelerated Processing of High-Performance Materials I

Room: Coquina B

Session Chair: Koji Morita, National Institute for Materials Science (NIMS)

1:30 PM

(ICACC-S8-016-2026) Towards tough and strong alumina-based ceramics through rapid sintering (Invited)

T. Prötsch[1]; J. Schlacher[1]; I. Kraleva[1]; R. Bermejo*[1]

1. Montanuniversitat Leoben, Materials Science, Austria

2:00 PM

(ICACC-S8-017-2026) Additive manufacturing of glass (Invited)

P. Colombo*[1]; G. Franchin[1]

1. University of Padova, Industrial Engineering, Italy

2:30 PM

(ICACC-S8-018-2026) Powder-based near-net-shape forming technologies for glass ceramics (Invited)

J. Schilm*[1]; D. Wagner[1]; A. Mannschatz[1]; E. Schwarzer-Fischer[1]; R. Lenk[2]; M. Meegdes[3]; T. Moritz[4]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS, Energy, Germany
2. Rauschert Heinersdorf-Pressig GmbH, Germany
3. Dentsply Sirona, Germany
4. Fraunhofer IKTS, Processes/Components, Germany

3:00 PM

Poster Preview Pitch- Development of aluminum nitride (AlN) dispersion strengthened austenitic stainelss steel through powder metallurgy route

3:02 PM

Break

S8- Advanced and Accelerated Processing of High-Performance Materials II

Room: Coquina B

Session Chairs: Thi Mai Dung Do, Nagaoka University of Technology; Son Nguyen, Kokuritsu Kushiro Kogyo Koto Senmon Gakko

3:22 PM

(ICACC-S8-019-2026) Rapid high-temperature heating of silicon carbide fibers using radio frequency fields

D. Clouse*[1]; S. Panicker[1]; S. Dasari[1]; T. Goto[2]; R. Iuchi[3]; M. Radovic[4]; M. Green[1]

1. Texas A&M University, Chemical Engineering, USA
2. Kureha Corporation, Japan
3. Kureha Corporation, Process Innovation Department, Japan
4. Texas A&M University, Materials Science & Engineering, USA

3:42 PM

(ICACC-S8-020-2026) Adopting microwave sintering for 3D-printed complex ceramic geometries

B. Aman*[1]; B. Jayan[2]

1. Carnegie Mellon University, Mechanical Engineering, USA
2. Carnegie Mellon University, USA

4:02 PM

(ICACC-S8-021-2026) Microwave-assisted chemical vapor infiltration of SiC-based composites – Results and perspectives of a multifrequency approach *WITHDRAWN*

G. Annino*[1]; R. D'Ambrosio[1]; A. Cintio[1]; A. Lazzeri[2]

1. Istituto per i Processi Chimico-Fisici Consiglio Nazionale delle Ricerche Sede Secondaria di Pisa, Dipartimento di Scienze Chimiche e Tecnologie dei Materiali, Italy
2. University of Pisa, Department of Civil and Industrial Engineering, Italy

4:42 PM

Poster Preview Pitch- High temperature behavior of molten magnesium on oxides vs. oxidized metallic substrates

4:22 PM

(ICACC-S8-022-2026) Electrical fields and grain growth of alumina

A. Kazmirsky[1]; R. Marder[1]; W. D. Kaplan*[1]

1. Technion - Israel Institute of Technology, Dept. of Materials Science and Engineering, Israel

S11 Advanced Materials and Innovative Processing Ideas for Production Root Technologies

S11- Fundamental materials: mining, particles, bulk, and functional materials and precursors II

Room: Ballroom 3

Session Chair: Sungwook Mhin, Dongguk University

1:30 PM

(ICACC-S11-007-2026) Medical radioactive isotope production using hot atoms produced in neutron irradiated β-MoO_3 (Invited)

H. Suematsu[1]; Y. Yang; M. Ngo[3]; T. Kitagawa[1]; Y. Fujita[4]; Y. Takahashi[2]; T. Suzuki[5]; T. Nakayama[1]; T. Do*[1] ; K. Niihara[6]

1. Nagaoka University of Technology, Extreme Energy-Density Research Institute, Japan
2. Nagaoka University of Technology, Japan
3. National Institute of Advanced Industrial Science and Technology (AIST), Multi-material Research Institute, Japan
4. Nihon Genshiryoku Kenkyu Kaihatsu Kiko, Japan
5. Nagaoka University of Technology, Nuclear Technology, Japan
6. Nagaoka Sutoku Daigaku, Japan

2:00 PM

(ICACC-S11-009-2026) Surface structure and gas sensing behavior of Nb_2CT_x dependent on synthesis route

A. Okawa*[1]; L. Miao[1]; T. Hasegawa[1]; Y. Xue[1]; S. Yin[1]

1. Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Japan

2:20 PM

(ICACC-S11-010-2026) Fabrication of ZnO/MXene composites by cold sintering process and investigation their self healing ability at low temperatures

S. T. Nguyen*[1]; A. Okawa[2]; T. Do[4]; Y. Seo[3]; H. Suematsu[4]; T. Nakayama[4]

1. Kokuritsu Kushiro Kogyo Koto Senmon Gakko, Department of Creative Engineering, Japan
2. Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Japan
3. Osaka University, SANKEN, Japan
4. Nagaoka University of Technology, Japan

S11- Emerging intelligent technologies and Future-oriented techniques in ceramic material engineering

Room: Ballroom 3

Session Chair: Sungwook Mhin, Dongguk University

2:40 PM

(ICACC-S11-011-2026) Application of AI in Japan's Fine Ceramics Industry and PR activities

K. Okano[1]; S. Tsuchiya*[1]

1. Japan Fine Ceramics Association, Japan

3:00 PM

Break

3:20 PM

(ICACC-S11-012-2026) Method for 3D-machining of a near-net-shape manufactured ceramic matrix composite aviation turbine structure using a diamond coated milling tool

S. Kleiner*[1]; A. Rösiger[2]; R. Goller[2]

1. Technische Hochschule Augsburg, Faculty of Mechanical Engineering, Germany
2. University of Applied Sciences, Mechanical Engineering, Germany

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Chemical compatibility and corrosion

Room: Coquina F

Session Chair: Takaaki Koyanagi, Oak Ridge National Laboratory

1:30 PM

(ICACC-S13-019-2026) Mechanistic understanding of silicon carbide corrosion degradation in nuclear reactor environments (Invited)

J. Xi*[1]; N. Dailey[1]; Y. Xu[1]; W. Leng[1]

1. University of Illinois Urbana-Champaign, Nuclear, Plasma & Radiological Engineering, USA

2:00 PM

(ICACC-S13-020-2026) Corrosion behavior of SiC-based ceramics in NaCl-$MgCl_2$ molten salt at 650°C

W. Kim*[1]; J. Kim[1]; C. Kim[1]; H. Lee[1]; D. Kim[1]

1. Korea Atomic Energy Research Institute, Republic of Korea

2:20 PM

(ICACC-S13-022-2026) High-temperature steam oxidation behavior of SiC-based materials for LWRs

M. K. Grosse*[1]; M. Steinbrück[1]; T. Fey[2]; K. Lambrinou[3]

1. Karlsruhe Institute of Technology, Institute for Applied Materials, Germany
2. Friedrich-Alexander University Erlangen-Nürnberg, Department Material Science and Engineering, Germany
3. University of Huddersfield, School of Computing and Engineering, United Kingdom

S13- Nuclear fuel R&D

Room: Coquina F

Session Chair: Nedim Cinbiz, Oak Ridge National Laboratory

2:40 PM

(ICACC-S13-023-2026) Innovative processes for MOX fuel fabrication (Invited)

L. Ramond*[1]; F. La Lumia[1]; F. Lebreton[1]; G. Bernard-Granger[1]; C. Pagnoux[2]; M. Roucayrol[1]; R. Caprani[1]; J. Martinez[1]; P. Martin[1]

1. CEA, DES, ISEC, DMRC, Université de Montpellier, France
2. Institut de Recherche sur les Ceramiques, France

3:10 PM

Break

3:30 PM

(ICACC-S13-025-2026) Development status of candidate burnable absorbers for i-SMR in Korea

Y. Na*[1]; S. Ha[1]; C. Kim[1]; K. Lim[1]; Y. Kim[1]

1. KEPCO NF, Republic of Korea

3:50 PM

(ICACC-S13-026-2026) The results of preliminary fabrication of high content Gd_2O_3 added UO_2 pellet by AUH mixing process

C. Min Young*[1]; Y. Na[1]; S. Ha[1]; M. Ju[1]; K. Lim[1]

1. Korea Nuclear Fuel Co Ltd, ATF development Department, Republic of Korea

S14 Crystalline Materials for Electrical Optical and Medical Applications

S14- Semiconductor and electronic material II

Room: Ballroom 4

Session Chair: Romain Gaume, University of Central Florida

1:30 PM

(ICACC-S14-017-2026) Crystals and substrates for next-generation oxide semiconductor devices (Invited)

M. Bickermann*[1]; Z. Galazka[1]; A. Popp[1]; A. Fiedler[1]; C. Guguschev[1]; R. Blukis[1]; S. Ganschow[1]; T. Schröder[1]

1. Leibniz-Institut fur Kristallzuchtung im Forschungsverbund Berlin eV, Oxides and Fluorides, Germany

2:00 PM

(ICACC-S14-018-2026) Realization of flexible high-mobility transparent conductive films using photo-crystallization techniques and their device applications (Invited)

J. Nomoto*[1]; T. Tsuchiya[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

2:30 PM

(ICACC-S14-019-2026) Advanced characterization of Gallium nitride wide-bandgap semiconductors for next-gen power electronics (Invited)

A. Clausner*[1]; C. Corley-Wiciak[2]; M. Reisinger[3]; C. Chisholm[3]; A. Tailor[4]; M. Legros[5]; A. Guitton[6]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS, Germany
2. ESRF, France
3. Kompetenzzentrum Automobil- und Industrieelektronik GmbH, Austria
4. Infineon Technologies AG, Austria
5. Centre d'Elaboration de Materiaux et d'Etudes Structurales, France
6. Université de Lorraine – CNRS – Arts et Métiers Institute of Technology – LEM3, France

3:00 PM

Break

3:20 PM

(ICACC-S14-020-2026) SiGe nanocrystalline thermoelectric material synthesis (Invited)

M. Zughbi*[1]; K. Anderson[2]; J. Wollmershauser[2]; B. Feigelson[2]

1. Lehigh University, Materials Science and Engineering, USA
2. US Naval Research Laboratory, USA

S15 10th International Symposium on Additive Manufacturing and 3-D Printing Technologies

S15- Material extrusion/fused deposition modeling

Room: Ponce de Leon

Session Chairs: Eric Faierson, Iowa State University; Andraz Kocjan, Jozef Stefan Institute

1:30 PM

(ICACC-S15-017-2026) Rapid radiation sintering of additively manufactured alumina ceramics (Invited)

A. Kocjan*[1]; M. Krizaj[2]; A. Vishwakarma[1]; A. Ivekovic[1]

1. Jozef Stefan Institute, Slovenia
2. Medical Faculty, University of Ljubljana, Slovenia

2:00 PM

(ICACC-S15-018-2026) Effect of processing parameters on the mechanical behavior of 3D printed ceramic particulate reinforced polylactic acid composites

L. R. Alexander-Roy*[1]; M. C. Halbig[2]; M. Ranaiefar[2]; M. Singh[3]

1. Case Western Reserve University, USA
2. NASA Glenn Research Center, USA
3. Ohio Aerospace Institute, USA

2:20 PM

(ICACC-S15-019-2026) Fused filament fabrication and characterization of silicon carbide and zirconium silicate particulates Reinforced Polylactic Acid (PLA) Composites

A. P. Gyekenyesi*[1]; M. Ranaiefar[2]; M. C. Halbig[2]; M. Singh[3]

1. Cleveland State University, USA
2. NASA Glenn Research Center, USA
3. Ohio Aerospace Institute, USA

2:40 PM

(ICACC-S15-020-2026) Effect of continuous carbon fiber architecture on mechanical properties of additively manufactured nylon composites

A. Buswell*[1]; M. Singh[2]; M. Ranaiefar[3]; M. C. Halbig[3]

1. University of Connecticut, USA
2. Ohio Aerospace Institute, USA
3. NASA Glenn Research Center, USA

3:00 PM

Break

3:20 PM

(ICACC-S15-021-2026) Fused filament fabrication additive manufacturing and characterization of alumina and zirconia ceramics

M. Ranaiefar*[1]; M. Singh[2]; M. C. Halbig[1]

1. NASA Glenn Research Center, USA
2. Ohio Aerospace Institute, USA

S15- Applications of AM materials and components

Room: Ponce de Leon

Session Chair: Michael Halbig, NASA Glenn Research Center

3:40 PM

(ICACC-S15-022-2026) Processing of metal-ceramic composites using additive manufacturing (Invited)

A. Bandyopadhyay*[1]

1. Washington State University, Mechanical and Materials Engineering, USA

4:10 PM

(ICACC-S15-023-2026) Additive manufacturing of large, complex ceramic components (Invited)

P. Karandikar*[1]; B. Erwin[1]; R. Albano[1]; T. Sensenig[1]

1. Coherent Corp, Additive Manufacturing, USA

S17 Advanced Ceramic Materials and Processing for Photonics and Energy

S17- Advanced and nanostructured materials for photo-voltaics and solar fuels II

Room: Flagler C

Session Chair: Giovanni Fanchini, University of Western Ontario

1:30 PM

(ICACC-S17-014-2026) Solution-processed perovskite photovoltaics (Invited)

M. Saidaminov*[1]

1. University of Victoria, Chemistry, Canada

2:00 PM

(ICACC-S17-015-2026) Controllable growth of 2D metal thiophosphates for photo- and electrochemical energy conversion (Invited)

M. G. Sendeku*[1]

1. Lulea Tekniska Universitet Institutionen for Teknikvetenskap och Matematik, Sweden

S17- Advanced and nanostructured materials for photonics, electronics and sensing

Room: Flagler C

Session Chairs: Farid Akhtar, Lulea University of Technology; Fiorenzo Vetrone, INRS, Université du Québec

2:30 PM

(ICACC-S17-017-2026) Specialty glass materials and their processing for functional surfaces, biophotonics, and sensing (Invited)

D. Menon[1]; P. Kalai[1]; M. Nagar[1]; S. Russo[1]; J. T. Pandayil[2]; N. Russo[1]; J. Lousteau[3]; N. Boetti[2]; D. Janner*[1]

1. Politecnico di Torino, DISAT, Italy
2. Fondazione LINKS, Italy
3. Politecnico di Milano, Italy

3:00 PM

Break

3:20 PM

(ICACC-S17-008-2026) Sustainable organic and inorganic materials for clean energy applications (Invited)

R. Naccache*[1]

1. Concordia University, Chemistry and Biochemistry, Canada

3:50 PM

(ICACC-S17-019-2026) Microprocessed piezoelectric actuators for tunable quantum photonics (Invited)

A. Rastelli*[1]

1. Johannes Kepler Universitat Linz, Insitute of Semiconductor and Solid State Physics, Austria

S18 Ultra-High Temperature Ceramics

S18- Response in extreme environments (irradiation, ultra-high temperature, etc.) II

Room: Coquina A

Session Chair: Shen Dillon, University of California, Irvine

1:30 PM

(ICACC-S18-018-2026) Ultra high temperature interfacial and bulk creep and deformation: In situ experiments and new models (Invited)

S. J. Dillon*[1]

1. University of California, Irvine, USA

2:00 PM

(ICACC-S18-019-2026) Building the Hypersonic Materials Workforce: A comprehensive approach to national defense training (Invited)

A. Engen*[1]

1. The American Ceramic Society, USA

2:30 PM

(ICACC-S18-020-2026) Advancements and implications in the development of oxidation protective coatings for ZrB_2-based UHTC materials

R. Naraparaju*[1]; J. Foerster[2]; P. Mechnich[1]

1. Institute for Frontier Materials on Earth and in Space, Germany
2. DLR - German Aerospace Center, Institute of Materials Research, Germany

2:50 PM

Break

S18- Processing-microstructure-property relationships of existing or new systems

Room: Coquina A

Session Chair: Kun Wang, Alfred University

3:10 PM

(ICACC-S18-021-2026) MXene reinforced ultra-high temperature ceramics

Y. Gan*[1]; L. S. Viswanadha[1]; J. Dai[1]; K. Y. Xie[1]; J. Watts[2]; M. Naraghi[1]; C. Wu[1]

1. Texas A&M University, USA
2. Missouri University of Science and Technology, USA

3:30 PM

(ICACC-S18-022-2026) Thermodynamic analysis of metal segregation in two metal boride-carbide ceramics containing V with Cr, Hf, Ti, or Zr

A. Feltrin*[1]; S. Divilov[2]; G. Hilmas[3]; S. Curtarolo[2]; W. Fahrenholtz[1]

1. Missouri University of Science and Technology, Materials Research Center, USA
2. Duke University, Materials Science, Electrical Engineering and Physics, USA
3. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA

3:50 PM

(ICACC-S18-023-2026) Synthesis and densification of TaB_2-HfB_2 binary solid solution powders

Z. Ayguzer Yasar*[1]; I. Savkliyildiz[2]; R. Haber[1]; A. Mann[1]

1. Rutgers The State University of New Jersey, Material Science and Engineering, USA
2. Konya Teknik Universitesi, Material Science and Engineering, Turkey

4:10 PM

(ICACC-S18-024-2026) Influence of Gd_2O_3 and Sm_2O_3 rare earth oxides on the densification behavior and thermal diffusivity of ZrB_2–SiC composites

H. Bicer*[2]; A. Celik[1]; R. Haber[1]; A. Mann[1]; E. Akdogan[1]

1. Rutgers The State University of New Jersey, Materials Science & Engineering, USA
2. Kutahya Dumlupinar University, Turkey

S19 Molecular-level Processing and Chemical Engineering of Functional Materials

S19- Materials integration and device applications & Two-dimensional materials and their chemical functionalization

Room: Ballroom 1 -2

Session Chairs: Gunnar Westin, Uppsala University; Peter Kroll, University of Texas, Arlington

1:30 PM

(ICACC-S19-015-2026) Boron-modified silicon carbonitride as a sulfur host for lithium-sulfur batteries

M. M. Amaral*[1]; A. Roy[2]; H. G. Zanin[1]; J. Nelson Weker[3]; G. Singh[2]

1. Universidade Estadual de Campinas, Electrical and Computer Engineering, Brazil
2. Kansas State University, Mechanical and Nuclear Engineering, USA
3. Stanford Linear Accelerator Center, USA

1:50 PM

(ICACC-S19-016-2026) Reinforced biocomposites from potato residues: A sustainable approach to thermoformable materials

H. Neggaoui*[1]; F. Erchiqui[1]

1. Universite du Quebec en Abitibi-Temiscamingue, Canada

2:10 PM

(ICACC-S19-017-2026) Unveiling the stability of sulfur-impregnated titanium-modified silicon oxycarbide as a cathode for lithium-sulfur batteries

M. M. Amaral*[1]; O. Marques[3]; S. Bin Mujib[2]; H. G. Zanin[1]; J. Nelson Weker[3]; G. Singh[2]

1. Universidade Estadual de Campinas, Electrical and Computer Engineering, Brazil
2. Kansas State University, Mechanical and Nuclear Engineering, USA
3. Stanford Linear Accelerator Center, USA

2:30 PM

(ICACC-S19-018-2026) Lightweight, thermally stable conductive ceramic thin-film composites for high-temperature EMI shielding applications

P. Gnanasekar*[1]; O. Ekuase[3]; G. Germanton[1]; M. Kurilich[2]; Z. Yu[3]; S. Ramakrishnan[1]

1. Florida Agricultural and Mechanical University, Department of Chemical and Biomedical Engineering, USA
2. Florida State University, Department of Materials Science and Engineering, USA
3. Florida Agricultural and Mechanical University, Department of Industrial and Engineering, USA

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- Current trends and future directions for research and technology on advanced ceramics, composites, and multifunctional materials I

Room: Coquina D

Session Chairs: Jonathan Salem, NASA Glenn Research Center; Dong Liu, University of Oxford

1:30 PM

(ICACC-S20-014-2026) Micromechanical testing of ceramic coatings for nuclear applications up to 1000°C (Invited)

D. Liu*[1]

1. University of Oxford, Engineering Science, United Kingdom

2:00 PM

(ICACC-S20-015-2026) Unraveling experimental anomalies in the shock loaded boron carbide using a machine learned interatomic potential (Invited)

G. Subhash*[1]; K. Ghaffari[1]; S. Bavdekar[2]; D. Spearot[1]

1. University of Florida, Mechanical and Aerospace Engineering, USA
2. Illinois State University, Department of Mechanical Engineering, USA

2:30 PM

(ICACC-S20-016-2026) Strength at the nanoscale: Hardness, toughness, and the limits of oxide nanoceramics (Invited) R. Castro*[1]

1. Lehigh University, Material Science & Engineering, USA

3:00 PM

Break

3:20 PM

(ICACC-S20-017-2026) Engineered CMCs and joining strategies as enablers for net-zero energy systems (Invited)

V. Casalegno*[1]; M. Salvo[2]; C. Malinverni[1]

1. Politecnico di Torino, DISAT, Italy
2. Politecnico di Torino, Italy

3:50 PM

(ICACC-S20-018-2026) Advancing understanding of defect structure and behavior in advanced ceramics through indirect and correlative microscopy methods (Invited)

J. A. Krogstad*[1]

1. University of Illinois at Urbana-Champaign, Materials Science and Engineering, USA

4:20 PM

(ICACC-S20-019-2026) Elevated temperature fracture properties yittrium-disilicate based EBCs (Invited)

J. Salem*[1]; M. J. Presby[2]; J. L. Stokes[2]; L. C. Hoffman[2]; C. Smith[3]; R. I. Webster[3]

1. NASA Glenn Research Center, Materials and Structures, USA
2. NASA Glenn Research Center, Environmental Effects and Coatings Branch, USA
3. NASA Glenn Research Center, USA

4:50 PM

(ICACC-S20-020-2026) A review of different types of Additive Manafacturing (AM) Processes (Invited)

S. Gupta*[1]

1. University of North Dakota, Mechanical Engineering, USA

Poster Session A

Room: Ocean Center

5:00 PM

(ICACC-PA001-2026) Evaluating the rheology of lunar regolith simulant melts and their interaction with crucible refractory materials

J. Szumowski*[1]; V. L. Wiesner[2]; A. Goel[1]

1. Rutgers The State University of New Jersey, Materials Science & Engineering, USA
2. NASA Langley Research Center, Advanced Materials and Processing Branch, USA

(ICACC-PA002-2026) Toughening and densification of Ti-Mo-B_2 ceramics by liquid-phase reactive sintering at a reduced temperature of 1550 °C

W. Y. Alemu*[1]; J. Chen[1]

1. National Taipei University of Technology, Institute of Materials Science and Engineering, Taiwan

(ICACC-PA003-2026) Laser-Assisted Joining of SiC/SiC Composite for High-Temperature Applications *WITHDRAWN*

K. Pandey*[1]; M. Ferraris[1]; M. De Maddis[2]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy
2. Politecnico di Torino, Department of Management and Production Engineering, Italy

(ICACC-PA005-2026) Impact of post-CMP stagnation time on via corrosion and reliability in TSV structures

J. Yoon*[1]

1. Sungkyunkwan University College of Engineering, Republic of Korea

(ICACC-PA006-2026) Influences of composition and sintering condition on microstructure and mechanical properties of Ti(C, N)-stainless steel composites

Y. Takebayashi*[1]; S. Nariki[1]

1. Tohoku Daigaku Daigakuin Kankyo Kagaku Kenkyuka, Frontier Sciences for Advanced Environment, Japan

(ICACC-PA007-2026) Porosity effects on strength of oxide-CMC coatings and joints with preceramic polymers

A. Pizzinat*[1]; M. Ferraris[1]; A. Benelli[1]

1. Politecnico di Torino, Department of Applied Science and Technology (DISAT), Italy

(ICACC-PA008-2026) Study on the effect of high temperature on defects in tungsten Chemical Mechanical Planarization

J. Yu*[1]

1. Sungkyunkwan University, Department of Semiconductor and Display Engineering, Republic of Korea

(ICACC-PA009-2026) Investigation of wear caused by spherical ceramic flow in CMP Head

J. Choi*[1]; T. Kim[1]

1. Sungkyunkwan University - Natural Sciences Campus, Republic of Korea

(ICACC-PA010-2026) Novel strategies for high-performance electrophoretically deposited coatings in reversible solid oxide cells

F. Gallo*[1]; N. H. Menzler[2]; M. Hilger[2]; S. Molin[4]; J. Ignaczak[3]; S. Anelli[5]; F. D'Isanto[6]; F. Smeacetto[6]

1. Politecnico di Torino, Italy
2. Forschungszentrum Jülich GmbH, IEK-1, Germany
3. Politechnika Gdanska, Poland
4. Gdansk University of Technology, Laboratory of Functional Materials, Faculty of Electronics, Telecommunications and Informatics, Poland
5. Politecnico di Torino, DISAT, Italy
6. Politecnico di Torino, Department of Applied Science and Technology, Italy

(ICACC-PA011-2026) Electrochemical implications of preferential nitridation of Ni current collectors in ammonia-fueled SOFCs

S. Park*[1]; J. Lee[1]; W. Kang[3]; H. Lim[2]

1. Changwon National University, Materials Convergence and System Engineering, Republic of Korea
2. Changwon National University, Republic of Korea
3. Changwon National University College of Engineering, Materials Science and Engineering, Republic of Korea

(ICACC-PA012-2026) Sealing and steam-electrode development for the integration of protonic ceramic electrolysis cells

F. Da Prato*[1]; S. Gross-Barsnick[2]; W. Deibert[3]; S. Ricote[5]; W. Meulenberg[3]; M. Santarelli[1]; F. Smeacetto[4]

1. Politecnico di Torino, Energy Department - DENERG, Italy
2. Forschungszentrum Jülich GmbH, Institute of Technology and Engineering (ITE), Germany
3. Forschungszentrum Jülich GmbH, Institute of Energy Materials and Devices (IMD), Germany
4. Politecnico di Torino, Applied Science and Technology, Italy
5. Colorado School of Mines, Mechanical Engineering, USA

(ICACC-PA013-2026) Steam-induced Ni oxidation in direct-ammonia fuel cells: electrode-dependent degradation behavior in SOFCs

J. Lee*[1]; S. Park[1]; Y. Jeong[1]; H. Lim[2]

1. Changwon National University, Materials Convergence and System Engineering, Republic of Korea
2. Changwon National University, Republic of Korea

(ICACC-PA014-2026) Formulation of novel glass sealants for protonic ceramic electrolysis cells

F. Braghò*[1]; S. Anelli[1]; S. Ricote[2]; M. Ferraris[3]; F. Smeacetto[3]

1. Politecnico di Torino, DISAT, Italy
2. Colorado School of Mines, Mechanical Engineering, USA
3. Politecnico di Torino, Applied Science and Technology, Italy

(ICACC-PA015-2026) Mixed ionic-electronic conductors based on high-entropy oxides synthesized via sol-gel and nebulized spray pyrolysis

M. Wellmann*[1]; Z. Zhao[3]; M. Thiem[2]; A. Rashid[2]; F. Steinbach[1]; M. Widenmeyer[2]; W. Xie[2]; A. Weidenkaff[2]; A. Feldhoff[1]

1. Leibniz University Hannover, Institute of Physical Chemistry and Electrochemistry, Germany
2. Technische Universitat Darmstadt, Germany
3. Freie Universitat Berlin, Germany

(ICACC-PA016-2026) Multiphysics model for protonic ceramic electrolysis cells and olefins electrochemical production

A. Moranti*[1]; D. Ferrero[2]; F. Da Prato[2]; S. Anelli[3]; F. Smeacetto[4]; M. Santarelli[5]

1. Politecnico di Torino, Italy
2. Politecnico di Torino, Energy Department - DENERG, Italy
3. Politecnico di Torino, DISAT, Italy
4. Politecnico di Torino, Applied Science and Technology, Italy
5. Politecnico di Torino, Energy, Italy

(ICACC-PA017-2026) Photoelectrochemically driven valence-charge control for defect inactivation and VO_2 passivation in $BiVO_4$ photoanodes

K. Lee*[1]; D. Kim[1]; H. Cho[2]

1. Sungkyunkwan University College of Natural Science, School of Advanced Materials Science and Engineering, Republic of Korea
2. Sungkyunkwan University, Republic of Korea

(ICACC-PA018-2026) Local structure evolution in thin film chalcogenides explains property differences

M. Kelley*[1]; D. N. Alverson[1]; J. Langhout[1]; M. Butala[1]

1. University of Florida, Materials Science & Engineering, USA

(ICACC-PA019-2026) Rechargeable urea-assisted Zn–air battery with high energy efficiency and fast charging via Ni phase transitions and lattice distortion design

Q. Xue*[1]

1. Institut de Recerca en Energia de Catalunya, Spain

(ICACC-PA022-2026) Construction of hard carbon with oxidized-crosslinked structure for sodium-ion batteries

J. Chai*[1]

1. Institut de Recerca en Energia de Catalunya, Functional nanomaterials, Spain

(ICACC-PA023-2026) The critical role of electronic spin states in Fe-N_4 moieties on enhancing oxygen reduction activity

Y. Cheng*[1]

1. Institut de Recerca en Energia de Catalunya, Spain

(ICACC-PA024-2026) Study on property changes through slurry filtration

J. Kwon*[1]

1. Sungkyunkwan University, Department of Semiconductor and Display Engineering, Republic of Korea

(ICACC-PA025-2026) Influence of sintering atmospheres on dielectric properties and redox behavior of KNN-based dielectrics for MLCCs

J. Heo*[1]; J. Seong[1]; J. Lee[1]; Y. Son[1]; S. Lee[1]

1. Changwon National University College of Engineering, School of Materials Science and Engineering / Department of Materials Convergence and System Engineering, Republic of Korea

(ICACC-PA026-2026) Defect chemistry and dielectric property changes induced by A-site doping of Ca in bismuth sodium titanate ($Bi_{0.5}Na_{0.5}TiO_3$)

Y. Son*[1]; S. Lee[1]; J. Lee[1]

1. Changwon National University College of Engineering, School of Materials Science and Engineering / Department of Materials Convergence and System Engineering, Republic of Korea

(ICACC-PA027-2026) Novel conductive glass-ceramic matrix composites from printable silicone-based emulsion

A. Zilio*[1]; K. Vezzù[1]; V. Di Noto[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Department of Industrial Engineering, Italy

(ICACC-PA028-2026) Direct exfoliation of hexagonal boron nitride in silicone polymer: A novel feedstock for additive manufacturing of flexible micro vapor chambers

A. Haque*[1]; G. Mantilla[2]; A. Ridoy[1]; A. Ashraf[3]

1. University of South Florida, Mechanical and Aerospace Engineering, USA
2. University of South Florida College of Engineering, Chemical, Biological and Materials Engineering, USA
3. University of South Florida, Mechanical Engineering, USA

(ICACC-PA029-2026) Direct Ink Writing of high zeolite catalysts for enhanced structural durability

Y. Tang*[1]; X. Zhao[2]; Y. Li[1]

1. Dartmouth College, Thayer School of Engineering, USA
2. Oak Ridge National Laboratory, USA

(ICACC-PA030-2026) Atomistic insights into PND polymer conversion to B/C solids with enhanced ReaxFF modeling

A. Hosna*[1]; A. van Duin[1]

1. The Pennsylvania State University, Mechanical Engineering, USA

(ICACC-PA031-2026) Development of the ReaxFF Reactive Force Field for titanium diboride: Thermochemical, thermophysical, and oxidation behavior

M. Mirakhory*[1]; S. Ness[2]; S. J. McCormack[2]; A. van Duin[1]

1. The Pennsylvania State University - University Park Campus, Mechanical Engineering, USA
2. University of California, Davis, Materials Science and Engineering, USA

(ICACC-PA032-2026) From alkoxides to thiolates: Precursor chemistry for high entropy oxides and high entropy sulfides

Z. Aytuna*[1]; T. Fischer[2]; S. Mathur[2]

1. Institute of Inorganic Chemistry, Department of Chemistry, Germany
2. University of Cologne, Institute of Inorganic Chemistry, Germany

(ICACC-PA033-2026) Toward pore-free SiC ceramics for advanced applications

D. Kim[1]; H. Kim[1]; Y. Kim*[1]

1. WORLDEX Industry & Trading Co., Ltd., Republic of Korea

(ICACC-PA034-2026) Fabrication of thin alumina membranes for pressure sensors by tape casting

B. Capraro*[1]; C. Motzkus[1]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS, Germany

(ICACC-PA035-2026) Dielectric thin film properties of co-sputtered BZNO/TiO_2 for capacitor applications

Y. Choi*[1]

1. Gyeongsang National University, Major in Ceramic Engineering, Republic of Korea

(ICACC-PA036-2026) Stereology-based estimation of three-dimensional internal defect distribution in alumina ceramics

S. Ozaki*[1]; D. Ishida[1]; T. Osada[2]; K. Hirao[3]; Y. Nakashima[3]; M. Ngo[3]; M. Fukushima[3]

1. Yokohama National University, Japan
2. Busshitsu Zairyo Kenkyu Kiko, Japan
3. National Institute of Advanced Industrial Science and Technology (AIST), Japan

(ICACC-PA037-2026) ASTM international standards for properties/performance of advanced ceramics-Helping our world work better by Advancing Standards/Transforming Markets

M. G. Jenkins*[1]; A. Horner[2]; G. D. Quinn[3]; J. Salem[4]; T. Thornton[5]; J. Westbrook[6]

1. Bothell Engineering and Science Technologies, USA
2. Scalar Scientific LLC, USA
3. National Institute of Standards and technology, Materials Measuremenet Sciences Division, USA
4. NASA Glenn Research Center, Materials and Structures, USA
5. Micromeritics Instrument Corporation, USA
6. Corning Incorporated, USA

(ICACC-PA038-2026) In-SEM high-temperature nanoindentation of ultra-thin ceramic matrix composites

N. Langhof*[1]; F. Wich[1]; S. Schafföner[2]

1. University of Bayreuth, Ceramic Materials Engineering, Germany
2. University of Bayreuth, Chair of Ceramic Materials Engineering, Germany

(ICACC-PA039-2026) Methods for characterization of different electrolytes and solid oxide cells (SOCs)

N. Langhof*[1]; I. Bombarda[1]; B. Manam[1]; S. Schafföner[2]

1. University of Bayreuth, Ceramic Materials Engineering, Germany
2. University of Bayreuth, Chair of Ceramic Materials Engineering, Germany

(ICACC-PA041-2026) Self-supported NiO/CuO electrodes to boost urea oxidation in direct urea fuel cells

L. Yang*[1]; R. He[1]; A. Cabot[2]

1. Institut de Recerca en Energia de Catalunya, Spain
2. Catalonia Institute for Energy Research, Spain

(ICACC-PA042-2026) Mitigating the rock-salt phase transformation in disordered LNMO through synergetic solid-state AlF_3 and LiF modifications

X. Chang*[1]; A. Cabot[2]

1. Institut de Recerca en Energia de Catalunya, Spain
2. Catalonia Institute for Energy Research, Spain

(ICACC-PA043-2026) Ca^{2+}-preintercalated V_2O_5 as a dual-function cathode additive for polyiodide anchoring in Zn-I_2 batteries

X. Bi*[1]; A. Cabot[1]

1. Catalonia Institute for Energy Research, Spain

(ICACC-PA044-2026) Hybrid nanomaterial-cold atmospheric Plasma approach for synergistic cancer cell inhibition

L. Yalcintepe[3]; D. Erdag Basoglu*[1]; M. S. Toprak[2]

1. Biruni Universitesi, Biophysics, Turkey
2. Kungliga Tekniska Hogskolan, Applied Physics, Sweden
3. Istanbul Universitesi Istanbul Tip Fakultesi, Biophysics, Turkey

(ICACC-PA045-2026) Preliminary investigation on non-firing ceramics from local diatomaceous earth and treated fly ash for dye and copper sulfate adsorption applications

D. Cabatu-ana[1]; H. D. Melendrez[1]; E. Limbaga[1]; C. Cahimtong[1]; L. Jabile[1]; I. B. Arugay[1]; V. Resabal[1]; M. Fuji[2]; R. V. Virtudazo*[1]

1. Mindanao State University-Iligan Institute of Technology, Department of Materials and Resources Engineering and Technology, Philippines
2. Nagoya Institute of Technology, Japan

(ICACC-PA046-2026) Experimental study on the fabrication of silicon carbide based fibers derived from silicone resins

K. Kita*[1]; C. Urata[1]

1. AIST, National Institute of Advanced Industrial Science and Technology, Integrated Research Center for Resilient Infrastructure, Japan

(ICACC-PA047-2026) Structural and dielectric properties of anti-ferroelectric $AgNbO_3$ with La_2O_3 and Ta_2O_5 additions

J. Sim*[1]; K. Moon[1]

1. Gyeongsang National University, Material Engineering and Convergence Technology, Republic of Korea

(ICACC-PA048-2026) Synthesis and electrochemical characterization of Zr-Fe oxide/hydroxide nanosheets

G. Yoon*[1]; G. Ryu[1]

1. Gyeongsang National University, Department of Materials Engineering and Convergence Technology, Republic of Korea

(ICACC-PA049-2026) Development of transparent Eu^{3+}:fluorapatite ceramics for red luminescence

S. Koizumi[1]; Y. Abu[1]; Y. Mochizuki[2]; T. Ohno[2]; K. Morita[1]; T. S. Suzuki[1]; H. Furuse*[1]

1. National Institute for Materials Science (NIMS), Japan
2. Kitami Kogyo Daigaku, Japan

(ICACC-PA050-2026) Fabrication and fluorescence properties of transparent Er^{3+} doped (Y, La)$_2O_3$ mixed sesquioxides ceramics

Z. Xu[1]; H. Furuse*[1]; T. S. Suzuki[2]

1. National Institute for Materials Science (NIMS), Japan
2. National Institute for Materials Science, Optical Ceramics Group, Japan

(ICACC-PA051-2026) Sustainable 3D Printing of Bio-Based Ceramic Slurries Using Second-Life Glass-Derived Materials

M. Porcarello[1]; M. Salvo[1]; F. Smeacetto[1]; S. Anelli*[1]; M. Sangermano[1]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy

(ICACC-PA052-2026) Full elemental survey of aluminum scandium alloy Scalmalloy®

G. Bartov*[1]; K. Putyera[1]

1. Eurofins EAG Materials Sciences LLC, USA

(ICACC-PA053-2026) Manufacturing of meta-composite thermoelectric devices with high energy generation and mechanical performance

Y. Tang[1]; M. Li*[1]; Y. Li[1]

1. Dartmouth College, Thayer School of Engineering, USA

(ICACC-PA054-2026) Molecular actinide precursors for chemical vapor deposition of actinide-based thin films

A. Lichtenberg*[1]; S. Mathur[2]

1. University of Cologne, Inorganic and Material Chemistry, Germany
2. University of Cologne, Institute of Inorganic Chemistry, Germany

(ICACC-PA055-2026) Ultra-High Temperature (UHT) Processing of Refractory Metal Borides and Carbides at 2500°C

L. Sandoval*[1]; S. Shantha-Kumar[2]; A. Bronson[2]

1. California State University Long Beach, USA
2. University of Texas at El Paso University Research Institute, Aerospace and Mechanical Engineering, USA

(ICACC-PA056-2026) Biaxial Radiography of Thermal Expansion and Sintering-Induced Shrinkage

D. Delia[1]; L. Jones[1]; J. Baker[2]; A. Wereszczak*[1]

1. Oak Ridge National Lab, USA
2. University of Tennessee, USA

(ICACC-PA057-2026) CoorsTek advanced ceramic technologies powering tomorrow's energy landscape

H. Yegingil*[1]; A. Shobe[1]; B. Shawn[1]; L. Strong[1]

1. CoorsTek Inc, Medical & Clean Technologies (MCT), USA

(ICACC-PA058-2026) Enhancing the thermoelectric performance of InTe through structural-distortion-induced band gap opening

M. Oh*[1]; B. Frimpong[1]

1. Hanbat National University, Materials Science and Engineering, Republic of Korea

(ICACC-PA059-2026) Coal-enhanced silicon oxycarbide composite as a stable Li-ion battery anode

M. Mohayman*[1]; A. Kushima[1]

1. University of Central Florida, Materials Science and Engineering, USA

(ICACC-PA060-2026) He plasma treatment in ALD In2O3: Overcoming precursor screening and in-Situ annealing for high-mobility TFTs.

S. Lee*[1]; Y. Kim[1]

1. Seoul National University College of Engineering, Chemical and Biological Engineering, Republic of Korea

Wednesday, January 28, 2026

15th Global Young Investigator Forum on Sustainability

15th GYIF- Thermo-Mechanical Behavior of Ceramics and Composites II

Room: Ballroom 5

Session Chairs: Minh Chu Ngo, National Institute of Advanced Industrial Science and Technology (AIST); Gaku Okuma, Busshitsu Zairyo Kenkyu Kiko

9:00 AM

(ICACC-GYIF-020-2026) Anomalous crack healing in oxide ceramics induced by ion irradiation: Material dependence and critical width (Invited)

T. Miyagishi*[2]; S. Kondo[1]; Y. Ogino[1]; K. Yabuuchi[1]; H. Yu[1]; M. Park[1]; A. Hasegawa[1]; R. Kasada[1]

1. Tohoku University, Institute for Materials Research, Japan
2. Tohoku University, Grauate School of Engineering, Japan

9:30 AM

(ICACC-GYIF-021-2026) Robotic automation of DUSTE Testbed for lunar/Martian Dust Tribological Experimentation

J. Saito*[1]; C. Schappi[4]; B. Widener[3]; A. Hatfield[3]; V. L. Wiesner[2]

1. University of Hawai'i at Manoa, College of Engineering, USA
2. NASA Langley Research Center, Advanced Materials and Processing Branch, USA
3. Analytical Mechanics Associates Inc, USA
4. Old Dominion University, College of Engineering, USA

9:50 AM

(ICACC-GYIF-022-2026) Densification, mechanical and thermal properties of zirconium diboride ceramics (Invited)

Y. Zhou*[1]; W. Fahrenholtz[2]; G. Hilmas[2]

1. Radiation Monitoring Devices Inc, USA
2. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA

FS2- Ceramics to Shape the Future of Low-Carbon and Carbon-Negative Technologies

FS2- Catalysts, ceramics and processes for CO_2 valorization and energy storage

Room: Flagler C

Session Chairs: Federico Smeacetto, Politecnico di Torino; Sandrine Ricote, Colorado School of Mines

8:30 AM

(ICACC-FS2-001-2026) A mechanochemical synthesis approach to Dual-Function Materials (DFMs) for the integrated capture and valorization of waste CO_2 (Invited)

M. Danielis*[1]

1. Universita degli Studi di Udine, Polytechnic Department, Italy

9:00 AM

(ICACC-FS2-002-2026) Polycationic oxide catalysts for CO_2 reduction: design strategies from thermo- to electrocatalysis (Invited)

P. Costa*[1]; A. Osti[1]; J. Cavazzani[1]; B. Senoner[1]; D. Chinello[1]; S. Costa[1]; A. Gilsenti[1]

1. Universita degli Studi di Padova, Italy

9:30 AM

(ICACC-FS2-003-2026) Electrochemical and chemical effects of CO_2/O_2 mixtures on state of the art SOFC cathodes for application in the novel SOS-CO_2 hybrid cycle (Invited)

M. Pagliari[1]; M. Marasi[1]; A. Cammarata[1]; D. Vandoni[4]; D. Montinaro[2]; D. McLarty[3]; E. Martelli[1]; S. Campanari[1]; A. Donazzi*[1]

1. Politecnico di Milano, Department of Energy, Italy
2. SolydEra s.p.a, Italy
3. Alternative Energy Materials, USA
4. Eni s.p.a, Technology, R&D and Digital, Italy

10:00 AM

Break

10:20 AM

(ICACC-FS2-004-2026) Analysis of perovskite redox materials in a full-cycle reactor model for solar thermochemical fuel production (Invited)

M. Santarelli*[1]; D. Ferrero[1]; F. Orsini[1]

1. Politecnico di Torino, Department of Energy, Italy

10:50 AM

(ICACC-FS2-005-2026) The effect of corrosion of silicon carbide in molten chloride salts for energy storage

C. Lewinsohn*[1]; J. Fellows[2]; M. Flinders[3]; M. Anderson[4]

1. Rational Solutions, LLC, USA, USA
2. Ceramic Theory, Inc, USA
3. Ultra Safe Nuclear Corporation, USA
4. University of Wisconsin System, USA

11:10 AM

(ICACC-FS2-006-2026) Long-duration electrically charged thermal energy storage enabled by ceramic heating

S. Jeong*[1]; R. Afzal[2]; Z. Ma[3]

1. University of Central Florida, Mechanical and Aerospace Engineering, USA
2. Blasch Precision Ceramics, USA
3. National Renewable Energy Laboratory, USA

11:30 AM

(ICACC-FS2-016-2026) Resolving conversion fluctuations in chemical looping dry reforming of methane via solid carbon management

M. Kim[1]; J. Cheon[2]; I. Jung[2]; S. Zhai*[1]

1. The Ohio State University, USA
2. Seoul National University, Republic of Korea

11:50 AM

Poster Preview Pitch- MAXCarbon hybrid fibres for durable electrochemical components in hydrogen technologies towards net-zero carbon emissions

FS3 Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials

FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials I

Room: Ballroom 1 -2

Session Chair: Taeseup Song, Hanyang University

8:30 AM

(ICACC-FS3-001-2026) Tailoring the composition and properties of compositionally complex carbide ceramics (Invited)

W. Fahrenholtz*[1]

1. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA

9:00 AM

(ICACC-FS3-002-2026) Inorganic particles excellent for thermal interface material (TIM) fillers (Invited)

K. Sato*[1]; Y. Imai[1]; M. Fukushima[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

9:30 AM

(ICACC-FS3-003-2026) Atomic layer deposition on powders for precisely engineered microstructure and composition control of sintered ceramics

E. Bissell*[1]; A. Kostogiannes[2]; S. Lass[3]; A. Zachariou[1]; T. Mcnealy-James[1]; A. Mora[1]; B. Mauri-Newell[1]; N. G. Rudawski[4]; R. M. Gaume[3]; P. Banerjee[1]

1. University of Central Florida, Materials Science and Engineering, USA
2. Lawrence Livermore National Laboratory, USA
3. University of Central Florida, CREOL, USA
4. University of Florida, USA

9:50 AM

(ICACC-FS3-004-2026) Powder-based processing of machinable SiC composites using SiC with boride and/or nitride reinforcements

S. Chodisetti*[1]; M. Kalin[2]; B. Kumar[1]

1. Indian Institute of Technology Roorkee, Department of Metallurgical and Materials Engineering, India
2. Univerza v Ljubljani, Faculty of Mechanical Engineering, Slovenia

10:10 AM

Break

FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials II

Room: Ballroom 1 -2

Session Chair: Kunihiko Kato, Gifu Daigaku

10:30 AM

(ICACC-FS3-005-2026) Utilizing cellulose nanocrystals to develop multi-scale porous ceramics (Invited)

C. Tallon*[1]

1. Virginia Polytechnic Institute and State University, Materials Science and Engineering, USA

11:00 AM

(ICACC-FS3-006-2026) Production of ceramic components by ultrarapid high-temperature sintering (UHS) (Invited)

V. M. Sglavo*[1]

1. University of Trento, Italy

11:30 AM

(ICACC-FS3-007-2026) Heat treatment induced phase transition in nano SiC powder particles

V. Muthaiah[1]; B. Kumar*[1]

1. Indian Institute of Technology Roorkee, Metallurgical and Materials Engineering, India

FS4 Ceramic/Carbon Reinforced Polymers

FS4- Polymer and Polymer Composites

Room: Ballroom 3

Session Chair: Shinji Ogihara, Tokyo Rika Daigaku

8:30 AM

(ICACC-FS4-001-2026) Characterization of transverse cracking in composite laminates by various experimental techniques (Invited)

S. Oshima*[1]; S. Kobayashi[2]

1. Tokyo Noko Daigaku, Division of Advanced Mechanical Systems Engineering, Japan
2. Tokyo Metropolitan University, Mechanical Engineering, Japan

9:00 AM

(ICACC-FS4-002-2026) Time–temperature superposition of polypropylene based on free volume and potential energy by MD simulation (Invited)

S. Yuan*[1]; T. Sakai[2]

1. Tokyo Rika Daigaku, Japan
2. Saitama University, Japan

9:30 AM

(ICACC-FS4-003-2026) Comparative mechanical properties of thermoplastic and thermoset CFRPs reinforced with spun recycled carbon fibres

G. Masuda*[1]; J. Lee[1]; T. Yokozeki[1]; M. Ueda[2]; T. Koto[3]; S. Tatsuta[3]

1. Tokyo Daigaku, School of engineering, Japan
2. Nihon University, Japan
3. Tatsuta Boseki Co., Ltd., Japan

9:50 AM

(ICACC-FS4-004-2026) Time-temperature superposition principle of polymers and their composites and their applications

T. Sakai*[2]; S. Somiya[1]

1. Keio Gijuku Daigaku Rikogakubu Daigakuin Rikogaku Kenkyuka, Japan
2. Saitama Daigaku, Japan

10:10 AM

PPP- Evaluation of vibrational properties of polymer materials by molecular dynamics simulation

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Mechanical and thermal characterization of ceramics and composites, techniques & equipment

Room: Coquina E

Session Chair: Nico Langhof, University of Bayreuth

8:30 AM

(ICACC-S1-027-2026) Deformation and fracture of C/C-SiC at 1200°C using in situ X-ray micro-tomography imaging (Invited)

G. Yuan[2]; S. Flauder[3]; N. Langhof[4]; S. Schafföner[5]; D. Liu*[1]

1. University of Oxford, Engineering Science, United Kingdom
2. University of Bristol, Physics, United Kingdom
3. Universitat Bayreuth, Germany
4. University of Bayreuth, Ceramic Materials Engineering, Germany
5. University of Bayreuth, Chair of Ceramic Materials Engineering, Germany

9:00 AM

(ICACC-S1-028-2026) Experimental study on tensile strength distribution of Hi-Nicalon Type S Fiber by using Dry Tow Tensile Method

S. Ramasamy[1]; E. Maillet[1]; C. Smith[1]; Y. Zhou*[1]

1. GE Aerospace, USA

9:20 AM

(ICACC-S1-029-2026) Fracture toughness testing of ceramic rods in flexure

I. Reimanis*[1]; R. McGinnis[1]

1. Colorado School of Mines, USA

9:40 AM

(ICACC-S1-030-2026) Strategies for enhancing contact damage resistance through architectural and microstructural design

A. Jabr*[1]; J. Schlacher[1]; R. Bermejo[1]

1. Technical University of Leoben, Department of Materials Science, Austria

10:00 AM

Break

10:20 AM

(ICACC-S1-031-2026) Nanoindentation of B_4C-TiB_2 particulate ceramic composite doped with Cr-B compounds.

D. B. Kata*[2]; P. Rutkowski[2]; N. Orlovskaya[1]; M. Lugovy[1]; G. Cios[3]; T. Telejko[4]; J. Lis[2]

1. University of Central Florida Department of Mechanical and Aerospace Engineering, USA
2. Akademia Gorniczo-Hutnicza im Stanislawa Staszica w Krakowie Wydzial Inzynierii Materialowej i Ceramiki, Department of Ceramics and Refractories, Poland
3. AGH University of Science and Technology, Academic Centre for Materials and Nanotechnology, Poland
4. Akademia Gorniczo-Hutnicza im Stanislawa Staszica w Krakowie Wydzial Inzynierii Metali i Informatyki Przemyslowej, Poland

10:40 AM

(ICACC-S1-032-2026) Evaluating the fracture toughness of advanced ceramic materials using the diametral compression test method *WITHDRAWN*

N. D. Parolini*[1]; A. K. Singh[1]

1. Baylor University, Mechanical Engineering, USA

11:00 AM

(ICACC-S1-033-2026) Mechanical properties of zirconia-yttria-tantala (YTZ) ceramics in non-transformable tetragonal compositions

M. Galeano Camacho*[1]; C. Gutierrez Virgen[3]; H. Ageorges[2]; J. Muñoz Saldaña[1]

1. Cinvestav, Materials, Mexico
2. Universite de Limoges, IRCER, France
3. Arkansas state university, campus querérato, Engineering, Mexico

11:20 AM

(ICACC-S1-034-2026) Fatigue behavior of two advanced C/SiC composites at 1200°C in air (Invited)

C. Adams[1]; M. Ruggles-Wrenn*[1]

1. Air Force Institute of Technology, Aeronautics & Astronautics, USA

11:50 AM

Poster Preview Pitch- ASTM international standards for properties/performance of advanced ceramics-Helping our world work better by Advancing Standards/Transforming Markets

11:52 AM

Poster Preview Pitch- Toughening and densification of Ti-Mo-B2 ceramics by liquid-phase reactive sintering at a reduced temperature of 1550 °C

11:54 AM

Poster Preview Pitch- Laser-Assisted Joining of SiC/SiC Composite for High-Temperature Applications

11:56 AM

Poster Preview Pitch- Porosity effects on strength of oxide-CMC coatings and joints with preceramic polymers

S2 Advanced Ceramic Coatings for Structural/ Environmental & Functional Applications

S2- Ceramic coatings for protection against oxidation, corrosion, erosion, and wear

Room: Coquina C

Session Chair: Peter Mechnich, DLR - German Aerospace Center

8:30 AM

(ICACC-S2-030-2026) Wear- and oxidation-resistant Ti-Al-C, Ti-Nb-Al-C, Ti-Cr-Al-C coatings, obtained by vacuum-arc and hybrid magnetron deposition using MAX-targets (Invited)

T. Prikhna*[1]; V. Podhurska[2]; A. Kuprin[5]; O. Ostash[2]; V. Sverdun[1]; M. Karpets[3]; S. Ponomryov[4]; T. Serbenyuk[1]

1. Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Ukraine
2. Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Ukraine
3. National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute", Ukraine
4. Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine, Ukraine
5. National Science Center Kharkov Institute of Physics and Technology of the National Academy of Sciences of Ukraine, Ukraine

9:00 AM

(ICACC-S2-031-2026) Design and optimization of multi-layer ZrB_2/SiC protective coatings for carbon/carbon composites in high-temperature environments

M. Rahaman*[1]; M. Olima[2]; J. W. McCormick[1]; S. Wang[3]; M. R. Ryder[4]; M. W. Keller[2]; H. Ramsurn[1]

1. The University of Tulsa, Russell School of Chemical Engineering, USA
2. The University of Tulsa, Mechanical Engineering, USA
3. The University of Tulsa, Physics & Engineering Physics, USA
4. Asgard Analytics, United Kingdom

9:20 AM

(ICACC-S2-032-2026) Design, synthesis, and characterization of a high-temperature, ultratough interpenetrating composite coating

T. A. Wexler*[1]; A. Bhattacharya[2]; T. Steyer[2]; Z. C. Cordero[1]

1. Massachusetts Institute of Technology, Aeronautics and Astronautics, USA
2. The Boeing Company, Boeing Technology Innovation, USA

9:40 AM

(ICACC-S2-033-2026) Rare earth phosphate–Based trilayer coatings for EBCs for SiC CMCs: Phase stability, thermal properties, and CMAS resistance

B. P. Majee*[1]; L. Huang[2]; J. Lian[1]

1. Rensselaer Polytechnic Institute, Department Of Mechanical, Aerospace, And Nuclear Engineering and Department of Materials Science and Engineering, USA
2. Rensselaer Polytechnic Institute, Materials Science and Engineering, USA

10:00 AM

Break

S2- New coating materials - MAX phases, high-entropy phases, etc., Microstructure-property relationships and Modeling and simulation

Room: Coquina C

Session Chair: Peter Mechnich, DLR - German Aerospace Center

10:20 AM

(ICACC-S2-035-2026) Phase stability in a non-stoichiometric high-ntropy rare earth zirconate

R. P. Magdum*[1]; W. Fahrenholtz[1]; D. Lipke[1]

1. Missouri University of Science and Technology, Materials Science and Engineering, USA

10:40 AM

(ICACC-S2-036-2026) High-pressure- high temperature oxygenation of YBCO films deposited on STO substrates.

T. Prikhna*[1]; R. Vlad[2]; A. Kethamkuzhi[2]; R. Kluge[3]; B. Büchner[3]; M. Karpets[4]; S. Ponomryov[5]; V. Moshchil[1]; X. Obradors[2]; T. Puig[2]

1. Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Ukraine
2. Institut de Ciencia de Materials de Barcelona, CSIC, Campus UAB, 08193 Bellaterra, Spain, Spain
3. Leibniz-Institut für Festkörper- und Werkstoffforschung Dresden e. V., Helmholtzstrasse 20 01069 Dresden, Germany, Germany
4. National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute", Peremogy Avenue 37, 03056 Kyiv, Ukraine, Ukraine
5. V.E. Lashkaryov Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine, 41, Nauky Ave., Kyiv 03028, Ukraine, Ukraine

11:00 AM

(ICACC-S2-037-2026) Mechanics of mudflat crack patterns with partial delamination

J. Steck*[1]

1. GE Aerospace Research, USA

11:20 AM

(ICACC-S2-038-2026) Extreme Temperature Gradient and Heat Flux in the Laser Rig Testing of Porous Ceramic Coatings

L. Zhao*[1]; P. Hsu[1]

1. Florida Institute of Technology, Mechanical Engineering, USA

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Infiltration / exsolution enhanced electrodes

Room: Coquina H

Session Chair: Tatsuya Kawada, National Institute for Materials Science

8:30 AM

(ICACC-S3-048-2026) Interfacial insights from secondary batteries toward mitigating air electrode delamination in SOECs (Invited)

H. Lim*[1]

1. Changwon National University, Republic of Korea

9:00 AM

(ICACC-S3-027-2026) Solution infiltration based additive manufacturing of air electrode for solid oxide cells *WITHDRAWN*

J. Liu*[2]; B. Guan[1]; Y. Picard[1]; H. W. Abernathy[2]

1. NETL Support Contractor, USA
2. National Energy Technology Laboratory, Thermal Sciences Team, USA

9:20 AM

(ICACC-S3-028-2026) Anchored nanoparticles on perovskite-based anodes for enhanced direct hydrocarbon solid oxide fuel cells

L. Wu*[1]; H. Sharifi[1]; F. Chen[1]

1. University of South Carolina, Mechanical Engineering, USA

9:40 AM

(ICACC-S3-029-2026) Electrochemical characterization of metal-doped ceria electrodes for high-temperature CO_2 electrolysis

J. Lee[1]; S. Lee*[1]

1. Korea Institute of Ceramic Engineering and Technology (KICET), Republic of Korea

10:00 AM

Break

S3-Electrode design

Room: Coquina H

Session Chair: Josef Schefold, European Institute for Energy Research

10:20 AM

(ICACC-S3-030-2026) Scaling of high temperature electrolysis cells for hydrogen production using advanced electrodes (Invited)

M. Laguna-Bercero*[1]; J. Zueco-Vincelle[1]; A. Campos-Galera[1]; A. Alconchel-Allue[1]; C. De La Torre-Gamarra[1]; A. Orera[1]

1. Instituto de Nanociencia y Materiales de Aragon, Spain

10:50 AM

(ICACC-S3-031-2026) Development of proton conducting solid oxide cells for fuel cell and electrolysis applications (Invited)

T. Suzuki*[1]; M. Dewa[1]; N. Cameron[1]; C. Junaedi[1]; S. Roychoudhury[1]

1. Precision Combustion, Inc., USA

11:20 AM

(ICACC-S3-032-2026) Optimizing oxygen transport in Ruddlesden-Popper oxides through crystal facet engineering and magnetic grain alignment

A. Feldhoff*[1]; M. Wellmann[1]; Z. Zhao[2]; G. Escobar Cano[1]; F. Steinbach[1]; B. Breidenstein[3]; H. Petersen[3]; A. Graff[4]; M. Thiem[5]; W. Xie[5]; M. Widenmeyer[5]; A. Weidenkaff[5]; M. Matsuda[6]

1. Leibniz University Hannover, Institute of Physical Chemistry and Electrochemistry, Germany
2. Freie Universitat Berlin, Institute of Chemistry and Biochemistry, Germany
3. Leibniz Universitat Hannover, IFW – Institute of Production Engineering and Machine Tools, Germany
4. Fraunhofer-Institut fur Mikrostruktur von Werkstoffen und Systemen IMWS, Germany
5. Technische Universitat Darmstadt, Institute of Materials Science, Germany
6. Kumamoto University, Department of Materials and Engineering, Japan

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Solid State Batteries

Room: Coquina G

Session Chairs: Guoying Chen, E O Lawrence Berkeley National Laboratory; Hirotoshi Yamada, Nagasaki Daigaku

8:30 AM

(ICACC-S6-017-2026) Advanced high-energy all-solid-state batteries (Invited)

G. Chen*[1]

1. E O Lawrence Berkeley National Laboratory, USA

9:00 AM

(ICACC-S6-018-2026) Low-temperature sintering of NASICON-type $Li_{1.5}Al_{0.5}Ge_{1.5}(PO_4)_3$ and its application to all-solid-state batteries (Invited)

H. Yamada*[1]

1. Nagasaki Daigaku, Japan

9:30 AM

(ICACC-S6-019-2026) Structure and superionic transition of Li_3YCl_6 and Li_3YBr_6 (Invited)

J. Liu*[1]; Y. Zhang[1]; P. Cuillier[1]; Z. Liu[2]; H. Chen[2]

1. Oak Ridge National Laboratory, USA
2. Georgia Institute of Technology, Mechanical Engineering, USA

10:00 AM

Break

10:20 AM

(ICACC-S6-020-2026) Measurement of ion transportation in solid-state battery electrodes with $Li_{10}GeP_2S_{12}$-type solid electrolytes (Invited)

S. Hori*[1]

1. Institute of Science Tokyo, Japan

10:50 AM

(ICACC-S6-021-2026) Designing catholytes for argyrodite solid-state batteries (Invited)

C. Ban*[1]

1. University of Colorado, Boulder, Mechanical Engineering, USA

11:20 AM

(ICACC-S6-022-2026) Tuning ionic and thermal conductivity in LLZO via mechanical strain: An atomistic approach

S. Khan*[1]; X. S. Chen[1]

1. UNC Charlotte, Mechanical Engineering, USA

11:40 AM

(ICACC-S6-023-2026) Solution-based synthesis and ultrafast high-temperature sintering of LLZO for scalable solid electrolytes

Y. Feng*[1]; J. Libera[1]; S. Liu[2]; Y. Wen[2]; L. Hu[2]; J. Li[1]

1. Argonne National Laboratory, Applied Materials Division, USA
2. Yale University, USA

S7 20th International Symposium on Functional Nanomaterials and Thin Films for Sustainable Energy, Environmental and Biomedical Applications

S7- Nanomaterials for energy conversion, storage and catalysis II

Room: Flagler A

Session Chair: Muhammet Toprak, KTH Royal Institute of Technology

8:30 AM

(ICACC-S7-024-2026) High entropy alloy nanoparticle catalysts (Invited)

A. Cabot*[1]

1. Catalonia Institute for Energy Research, Spain

9:00 AM

(ICACC-S7-025-2026) Development of boron-alumina/silica nanofiber catalytic membranes structures for plasma catalysis in space applications

R. A. Yager*[1]; K. Kajal[1]; A. Stanishevsky[1]

1. University of Alabama at Birmingham, Physics, USA

9:20 AM

(ICACC-S7-026-2026) Defective oxide engineering: Electrostrictive Ceria–Zirconia layers from spray pyrolysis

M. Mehdizade[1]; A. Kabir[2]; V. Esposito[2]; S. Molin*[1]

1. Politechnika Gdanska Wydzial Elektroniki Telekomunikacji i Informatyki, Department of Functional Materials Engineering, Poland
2. Technical University of Denmark, Denmark

9:40 AM

(ICACC-S7-027-2026) Beyond nuclear: Rethinking actinide (Th, U) oxides for alternative energy applications

A. Lichtenberg*[1]; S. Mathur[2]

1. University of Cologne, Inorganic and Material Chemistry, Germany
2. University of Cologne, Institute of Inorganic Chemistry, Germany

10:00 AM

Break

10:20 AM

(ICACC-S7-028-2026) Influence of microstructural engineering in PVC polymers films on the electrical output performance of triboelectric nanogenerators

S. Dadashov*[1]; G. Güdücü[3]; B. Göl[3]; E. Suvaci[2]

1. Eskisehir Teknik Universitesi, Chemical Engineering, Turkey
2. Eskisehir Teknik Universitesi, Material Science and Engineering, Turkey
3. Eskisehir Teknik Universitesi, Material Science, Turkey

10:40 AM

Poster Preview Pitch- The critical role of electronic spin states in Fe-N4 moieties on enhancing oxygen reduction activity *WITHDRAWN*

10:42 AM

Poster Preview Pitch- Construction of hard carbon with oxidized-crosslinked structure for sodium-ion batteries *WITHDRAWN*

10:44 AM

Poster Preview Pitch- Local structure evolution in thin film chalcogenides explains property differences

10:46 AM

Poster Preview Pitch- Hybrid nanomaterial-cold atmospheric Plasma approach for synergistic cancer cell inhibition

10:48 AM

Poster Preview Pitch- Self-supported NiO/CuO electrodes to boost urea oxidation in direct urea fuel cells

10:50 AM

Poster Preview Pitch- Ca2+-preintercalated V2O5 as a dual-function cathode additive for polyiodide anchoring in Zn-I2 batteries

10:54 AM

Poster Preview Pitch- Photoelectrochemically driven valence-charge control for defect inactivation and VO2 passivation in BiVO4 photoanodes

S8 20th Intl Symp on APMT for Structural & Multifunctional Materials & Systems

S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics I

Room: Coquina B

Session Chair: Ayahisa Okawa, Tohoku University

8:40 AM

(ICACC-S8-023-2026) Silicone-based emulsions for advanced additive manufacturing of highly porous biosilicate glass-ceramics (Invited)

H. Elsayed[1]; V. Diamanti[1]; B. Holubova[3]; M. Schwentenwein[2]; E. Bernardo*[1]

1. University of Padova, Department of Industrial Engineering, Italy
2. Lithoz GmbH, Austria
3. Technicka univerzita v Liberci, Czechia

9:10 AM

(ICACC-S8-024-2026) 3D-Printing of highly transparent alumina ceramics (Invited)

A. Erlacher[3]; M. Jiang[2]; P. Bowen[1]; Z. Zhao[2]; M. Stuer*[3]

1. Ecole polytechnique federale de Lausanne, Laboratory of Construction Materials, Switzerland
2. Shanghai Institute of Technology, School of Material Science and Engineering, China
3. Swiss Federal Laboratories for Materials Science and Technology (Empa), Nanopowders and Ceramics Group, Switzerland

9:40 AM

(ICACC-S8-026-2026) Fundamental questions on advanced ceramics fabricated via selective laser sintering (Invited)

B. Cui*[1]; L. Trinh[1]; L. Wadle[1]; X. Zhang[1]; F. Wang[1]; H. Dong[1]; Y. Lu[1]

1. University of Nebraska-Lincoln, USA

10:10 AM

Break

S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics II

Room: Coquina B

Session Chair: Minh Chu Ngo, National Institute of Advanced Industrial Science and Technology (AIST)

10:30 AM

(ICACC-S8-027-2026) Effect of sintering aid on texture and transparency of YVO_4 ceramics

T. S. Suzuki*[1]; L. Liu[2]; J. Li[2]; K. Morita[2]

1. National Institute for Materials Science, Optical Ceramics Group, Japan
2. National Institute for Materials Science (NIMS), Japan

10:50 AM

(ICACC-S8-028-2026) Rapid pressureless sintering of ceramics with graphene-like networks

N. Bhootpur*[1]; S. Drev[4]; B. Wicklein[3]; T. Rojac[2]; C. Manière[5]; A. Kocjan[1]

1. Institut Jozef Stefan, Department for Nanostructured Materials, Slovenia
2. Institut Jozef Stefan, Electronic Ceramics Department, Slovenia
3. Instituto de Ciencia de Materiales de Madrid, Spain
4. Institut Jozef Stefan, Center for Electron Microscopy and Microanalysis (CEMM), Slovenia
5. Laboratoire de Cristallographie et Sciences des Materiaux, France

11:10 AM

(ICACC-S8-029-2026) Additive manufacturing of cold isostatic press molds for low-cost rapid prototyping of near-net shape ceramics

T. W. Moore*[1]; D. H. Burk[2]; S. M. Kilczewski[1]; S. M. Smith[1]

1. US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, USA
2. University of North Texas, USA

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Material technologies for core structures of light water reactors I

Room: Coquina F

Session Chair: L Snead, Stony Brook University

8:30 AM

(ICACC-S13-027-2026) Irradiation performance and length scaling of SiGA® nuclear fuel cladding (Invited)

S. Gonderman[1]; A. Sathrum*[1]; D. Frazer[1]; L. Borowski[1]; R. Haefelfinger[1]; M. Alavi[1]; J. Kosmatka[1]; R. Hon[1]; S. Oswald[1]; A. Giles[1]; W. Campbell[1]; J. Unangst[1]; W. McMahon[1]; D. Kuebler[1]; C. Jones[1]; J. Quan[1]; A. Moore[1]; G. Jacobsen[1]; C. Deck[1]; J. Gazza[1]; T. Koyanagi[2]; D. Kamerman[3]; J. Stockwell[3]; P. Xu[3]

1. General Atomics Electromagnetic Systems Group, Nuclear Technologies and Materials, USA
2. Oak Ridge National Laboratory, USA
3. Idaho National Laboratory, USA

9:00 AM

(ICACC-S13-028-2026) Research update on SiC ceramic matrix composites at Idaho National Laboratory for ATF Development (Invited)

P. Xu*[1]; G. K. Singh[1]; S. Gonderman[2]; J. Gazza[2]

1. Idaho National Lab, USA
2. General Atomics, USA

9:30 AM

(ICACC-S13-029-2026) Micromechanical modelling of thermo-mechanical behaviour in nuclear grade SiC-SiC composites (Invited) ***WITHDRAWN***

Y. Chen*[1]

1. University of Bath, Mechanical Engineering, United Kingdom

10:00 AM

Break

S13- Material technologies for core structures of light water reactors II

Room: Coquina F

Session Chair: Aaron Sathrum, General Atomics Electromagnetic Systems Group

10:20 AM

(ICACC-S13-030-2026) Development of CVI/CVD-SiC/SiC composite for advanced technology fuel for LWR applications

S. Suyama*[1]; M. Ukai[1]; T. Nishimura[1]; S. Kuboya[1]; R. Kojima[1]; F. Sawa[1]; F. Kawahara[1]; M. Akimoto[1]; T. Takada[1]

1. Toshiba Energy Systems & Solutions Corporation, Japan

10:40 AM

(ICACC-S13-031-2026) Mechanical characterization and damage propagation of SiC composite cladding

W. McMahon*[1]; S. Gonderman[1]; G. Jacobsen[1]; D. Frazer[1]; J. Kosmatka[1]; J. Gazza[1]; X. Huang[2]; J. Bao[2]; I. Hopkins[2]; T. Chen[3]; S. Doran[3]

1. General Atomics Electromagnetic Systems Group, Nuclear Technologies and Materials, USA
2. University of South Carolina, Mechanical Engineering, USA
3. Oregon State University College of Engineering, USA

11:00 AM

(ICACC-S13-032-2026) Multiscale modeling of silicon carbide cladding

G. Singh*[1]; J. Yu[1]; P. Xu[1]; F. Xu[1]

1. Idaho National Laboratory, USA

11:20 AM

(ICACC-S13-033-2026) Advancements in SiC material technologies for accident-tolerant fuel cladding applications

T. Koyanagi*[1]; Y. Katoh[1]

1. Oak Ridge National Laboratory, USA

11:40 AM

(ICACC-S13-034-2026) Grain boundary engineered SiC with improved coolant compatibility for LWRs

K. Lambrinou*[1]; C. Sauder[2]; F. Bourlet[2]; M. K. Grosse[3]; M. Steinbrück[3]; J. A. Hinks[1]; P. Wang[4]; S. Huang[5]; J. Vleugels[5]

1. University of Huddersfield, School of Computing and Engineering, United Kingdom
2. CEA, DRMP, France
3. Karlsruhe Institute of Technology, Institute for Applied Materials, Germany
4. University of Michigan, Nuclear Engineering & Radiological Sciences, USA
5. KU Leuven, Materials engineering, Belgium

S14 Crystalline Materials for Electrical Optical and Medical Applications

S14- Scintillator

Room: Ballroom 4

Session Chairs: Thomas Rudzik, Lawrence Livermore National Laboratory; Ross Osborne, Lawrence Livermore National Laboratory

8:30 AM

(ICACC-S14-021-2026) Fabrication of $Li_{6.388}La_3Al_{0.204}Hf_2O_{12}:Ti^{4+}$ dual-mode scintillator

J. Glodo[2]; T. Rudzik[1]; A. Kostogiannes[1]; N. Cherepy[1]; S. A. Payne[1]; Y. Wang[2]; M. Müller*[2]

1. Lawrence Livermore National Laboratory, USA
2. Radiation Monitoring Devices Inc, USA

8:50 AM

(ICACC-S14-022-2026) Fabrication of Cs_2HfCl_6 transparent ceramics via hot forging ***WITHDRAWN***

A. Zachariou*[1]; S. Lass[1]; E. Karacaoglu[1]; S. Motakef[3]; F. Moretti[4]; R. M. Gaume[2]

1. University of Central Florida, CREOL, College of Optics and Photonics, USA
2. University of Central Florida, CREOL, USA
3. CapeSym Inc, USA
4. E O Lawrence Berkeley National Laboratory, USA

9:10 AM

(ICACC-S14-023-2026) Effects of cerium doping concentration on the microstructural, optical, and scintillation properties of GAGG ceramic scintillators

W. M. Bowman*[1]; S. Lass[1]; W. Wolszczak[2]; F. Moretti[2]; R. M. Gaume[1]

1. University of Central Florida, CREOL, USA
2. E O Lawrence Berkeley National Laboratory, USA

9:30 AM

(ICACC-S14-024-2026) Pixelated transparent ceramic x-ray imaging screens fabricated via direct-ink-write

A. Kostogiannes*[1]; T. Rudzik[1]; N. Cherepy[1]; S. A. Payne[1]

1. Lawrence Livermore National Laboratory, Materials Science Division, USA

9:50 AM

(ICACC-S14-025-2026) Yb^{3+}:Lu_2O_3 thick film phosphors rapidly grown via chemical vapor deposition process for fast-response scintillators

A. Ito*[1]; T. Nakayama[1]

1. Yokohama National University, Graduate School of Environment and Information Sciences, Japan

10:10 AM

Break

10:30 AM

(ICACC-S14-026-2026) Development of large and transparent Lu_2O_3:Yb^{3+} ceramic scintillators

M. Müller*[1]; A. Kim[1]; S. Kim[1]; G. Adhikari[1]; L. Zhang[3]; H. Newman[3]; P. E. Albert[2]; J. A. Reiss[2]; Y. Wang[1]; J. Glodo[1]; L. Pandian[1]

1. Radiation Monitoring Devices Inc, Ceramics, USA
2. The Pennsylvania State University - University Park Campus, USA
3. California Institute of Technology, USA

10:50 AM

(ICACC-S14-027-2026) Improved transparency in Gadolinium-doped lutetium oxide ceramics

T. Rudzik*[2]; A. Kostogiannes[3]; N. Cherepy[1]

1. Lawrence Livermore National Lab, Chemistry and Materials Science, USA
2. Lawrence Livermore National Laboratory, USA
3. University of Central Florida, Materials Science and Engineering, USA

11:10 AM

(ICACC-S14-028-2026) Transparent ceramic garnet for gamma spectroscopy and imaging

R. Osborne*[1]; N. Cherepy[1]; S. O'Neal[1]; Z. M. Seeley[1]; S. A. Payne[1]

1. Lawrence Livermore National Laboratory, USA

11:30 AM

(ICACC-S14-029-2026) Effect of porosity on the performance of Ce:GAGG ceramic scintillators

W. M. Bowman*[1]; S. Lass[1]; W. Wolszczak[2]; F. Moretti[2]; R. M. Gaume[1]

1. University of Central Florida, CREOL, USA
2. E O Lawrence Berkeley National Laboratory, USA

S15 10th International Symposium on Additive Manufacturing and 3-D Printing Technologies

S15- Vat photopolymerization/stereolithography

Room: Ponce de Leon

Session Chairs: Majid Minary, University of Texas at Dallas; Aljaz Ivekovic, Institut Jozef Stefan

8:30 AM

(ICACC-S15-025-2026) Additive manufacturing of ceramic catalytic frameworks with magnetic heating functionality (Invited)

A. Ivekovic*[3]; M. Vuksic[3]; T. Konegger[1]; M. Schwentenwein[2]; S. Gyergyek[3]; A. Kocjan[3]

1. TU Wien, Institute of Chemical Technologies and Analytics, Austria
2. Lithoz GmbH, Austria
3. Jozef Stefan Institute, Slovenia

9:00 AM WITHDRAWN

(ICACC-S15-026-2026) Resolving slurry instabilities in ceramic 3D printing with strategic mixing and computer vision tracking

A. Gupta*[1]; R. Ghosh[2]; A. Kumar[2]; K. Balani[1]; S. K. Jha[1]

1. Indian Institute of Technology Kanpur, Department of Materials Science and Engineering, India
2. Indian Institute of Technology Kanpur, Department of Biological sciences and Bioengineering, India

9:20 AM

(ICACC-S15-027-2026) Ultra-fast thermal debinding (UfTD) for 3D-Printed ceramics

M. Minary*[1]

1. The University of Texas at Dallas, Mechanical Engineering, USA

9:40 AM

(ICACC-S15-028-2026) Ceria-stabilized zirconia-based ceramics: overcoming challenges in Digital Light Processing

B. Coppola[1]; E. Rossi[2]; M. Sebastiani[2]; F. Mussano[3]; L. Montanaro[1]; P. Palmero*[1]

1. Politecnico di Torino, Applied Science and Technology, Italy
2. Universita degli Studi Roma Tre Dipartimento di Ingegneria Civile Informatica e delle Tecnologie Aeronautiche, Italy
3. Universita degli Studi di Torino, Scienze Chirurgiche, Italy

10:00 AM

Break

10:20 AM

(ICACC-S15-029-2026) Vat photopolymerization of dielectric and piezoelectric ceramics

M. Schwentenwein*[1]; L. Mikiss[1]; D. Brouczek[1]; S. Gebhardt[2]; C. Molin[2]; H. Neubert[2]; C. Bae[3]

1. Lithoz GmbH, Austria
2. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS, Germany
3. Korea Institute of Materials Science, Department of 3D printing materials, Republic of Korea

10:40 AM

(ICACC-S15-030-2026) Manufacturing of meta-composite thermoelectric devices with high energy generation and mechanical performance

Y. Tang[1]; M. Li*[1]; Y. Li[1]

1. Dartmouth College, Thayer School of Engineering, USA

11:00 AM

Poster Preview Pitch- Manufacturing of meta-composite thermoelectric devices with high energy generation and mechanical performance

11:02 AM

Poster Preview Pitch- Direct Ink Writing of High Zeolite Catalysts for Enhanced Structural Durability

11:04 AM

Poster Preview Pitch- Direct exfoliation of hexagonal boron nitride silicone polymer: A novel feedstock for additive manufacturing of flexible micro vapor chambers

S18 Ultra-High Temperature Ceramics

S18-Super-hard UHTCs

Room: Coquina A

Session Chair: Christopher Weinberger, Colorado State University

8:30 AM

(ICACC-S18-025-2026) Electronic origins of structural energies and hardness trends in the transition metal carbides and nitrides (Invited)

B. Watkins[1]; C. R. Weinberger*[1]

1. Colorado State University, Department of Mechanical Engineering, USA

9:00 AM

(ICACC-S18-026-2026) High entropy carbide superlattice deposition by modulated reactive sputtering

N. O. Marquez Rios*[1]; N. S. McIlwaine[1]; S. Udovenko[1]; J. Maria[1]

1. The Pennsylvania State University, Materials Science and Engineering, USA

9:20 AM

(ICACC-S18-027-2026) Development of superhard high-entropy carbide and carbonitrides for extreme environments via FAST sintering

D. E. Wolfe*[1]; L. Wilson[1]; R. Koennecker[1]; A. Marin[1]; S. Curtarolo[2]; W. Fahrenholtz[3]; J. Maria[1]; D. Brenner[4]; E. Zurek[5]

1. Pennsylvania State University, USA
2. Duke University, Materials Science, Electrical Engineering and Physics, USA
3. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA
4. NC State University, USA
5. University of Buffalo, USA

9:40 AM

(ICACC-S18-028-2026) Mechanical properties and stability against ablation of hot pressed HfB_2 – based ceramics depending on amount and quality of SiC addition

T. Prikhna*[1]; P. Barvitskyi[1]; H. Ünsal[2]; A. Lokatkina[1]

1. Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Ukraine
2. Institute of Inorganic Chemistry, Slovak Academy of Sciences, Dubravska cesta 9, SK-845 36, Slovakia

10:00 AM

Break

S18- Simulation and theory for predicting stability or behavior under extreme environments

Room: Coquina A

Session Chair: Stefano Curtarolo, Duke University

10:20 AM

(ICACC-S18-029-2026) Tuning functional synthesizability of high-entropy ceramics with a variational approach to DEED. (Invited)

S. Curtarolo*[1]

1. Duke University, Materials Science, Electrical Engineering and Physics, USA

10:50 AM

(ICACC-S18-030-2026) Development of a reaction model for silicon-doped boron nitride formation with experimental validation *WITHDRAWN*

A. M. Daniels[1]; C. Cha[2]; H. Koo[2]; H. Chelliah*[1]

1. University of Virginia, Mechanical and Aerospace, USA
2. Rolls-Royce Corporation, USA

S18- Novel processing methods for bulk, coatings, thin films, fibers, and/or composites

Room: Coquina A

Session Chair: Carolina Tallon, Virginia Tech

11:10 AM

(ICACC-S18-031-2026) Liquid phase sintering of Cf – ZrB_2 UHTCMCs *WITHDRAWN*

D. Sciti*[1]; S. Failla[1]; A. Vinci[1]; M. Mor[1]; L. Zoli[1]

1. CNR - ISSMC, Italy

11:30 AM

(ICACC-S18-032-2026) Novel additive manufacturing method of ultra-high temperature ceramics: Electron beam melt assisted in-situ synthesis of TiB_2 – ZrB_2 – TiC

A. Dobosz*[1]; R. Crookes[1]; G. Jones[1]; K. Hadley[1]

1. Lucideon Ltd, Advanced Materials, United Kingdom

11:50 AM

(ICACC-S18-033-2026) Achieving microstructural anisotropy in UHTCs (Invited)

C. Tallon*[1]

1. Virginia Polytechnic Institute and State University, Materials Science and Engineering, USA

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- Challenges and prospects for various ceramic technologies

Room: Coquina D

Session Chairs: Csaba Balazsi, ELKH Centre for Energy Research

8:30 AM WITHDRAWN

(ICACC-S20-021-2026) From lab to lunar surface: Validating dust-mitigation materials for extreme environments (Invited)

V. L. Wiesner*[1]

1. NASA Langley Research Center, Advanced Materials and Processing Branch, USA

9:00 AM

(ICACC-S20-022-2026) Microscale mechanical properties of silicon nitride ceramics (Invited)

T. Ohji*[1]; J. Tatami[1]

1. Yokohama National University, Japan

9:30 AM

(ICACC-S20-023-2026) $Y_{1-x}Tb_xTaO_4$ single crystals as scintillators for X-ray detection (Invited)

K. Shimamura*[1]; E. G. Víllora[1]; Y. Zhou[1]; D. Nakauchi[2]; T. Kato[2]; N. Kawaguchi[2]; T. Yanagida[2]

1. National Institute for Materials Science (NIMS), Japan
2. Nara Institute of Science and Technology, Japan

10:00 AM

Break

10:20 AM

(ICACC-S20-024-2026) The role of interfaces in nanocarbon added ceramics (Invited)

C. Balazsi*[1]; K. Balazsi[1]

1. HUN-REN Energiatudomanyi Kutatokozpont, Hungary

10:50 AM

(ICACC-S20-025-2026) Thin-film processing of functional ceramics: Current challenges and future directions (Invited)

T. Fischer*[1]; S. Mathur[1]

1. University of Cologne, Institute of Inorganic and Materials Chemistry, Germany

11:20 AM

(ICACC-S20-026-2026) Prepreg-based oxide fiber composites (OFC): Materials for lightweight and thermostable structures (Invited) *WITHDRAWN*

W. Krenkel*[1]; G. Puchas[1]; J. Winkelbauer[1]

1. University of Bayreuth, Ceramic Materials Engineering, Germany

FS2- Ceramics to Shape the Future of Low-Carbon and Carbon-Negative Technologies

FS2- Technologies and ceramics for emerging low-carbon processes and hydrogen production

Room: Flagler C

Session Chairs: Maila Danielis, Universita degli Studi di Udine; Massimo Santarelli, Politecnico di Torino; Charles Lewinsohn, Colorado State University System

1:30 PM

(ICACC-FS2-008-2026) Protonic ceramics: overview, transport mechanism, and applications (Invited)

S. Ricote*[1]

1. Colorado School of Mines, Mechanical Engineering, USA

2:00 PM

(ICACC-FS2-009-2026) Solid-state electrochemical reduction of iron oxide: A comparative analysis of protonic and oxygen-ion pathways

V. Dhongde[1]; S. Singh[1]; L. Mastropasqua*[1]

1. University of Wisconsin-Madison, Mechanical Engineering, USA

2:20 PM

(ICACC-FS2-010-2026) Development of impurity-tolerant FAU zeolite membranes for CO_2 separation from industrial flue gases

S. B. Lundin*[1]; A. Ikeda[1]; Y. Kohno[1]; Y. Hasegawa[1]

1. Sangyo Gijutsu Sogo Kenkyujo Tohoku Center, Japan

2:40 PM

(ICACC-FS2-011-2026) $Pr_{0.2}Ce_{0.8}O_{2-\delta}$-$BaCe_{0.5}Hf_{0.3}Y_{0.1}Yb_{0.1}O_{3-\delta}$ solid composite ceramic membrane for efficient hydrogen separation

E. Hintz*[1]; V. Dhongde[1]; L. Mastropasqua[1]

1. University of Wisconsin-Madison, Mechanical Engineering, USA

3:00 PM

Break

3:20 PM

(ICACC-FS2-013-2026) Clay-based ceramics for hydrogen production and gas separation

I. Reimanis*[1]; R. McGinnis[1]; S. Ricote[2]; G. Coors[3]; R. Marder[4]; W. D. Kaplan[4]

1. Colorado School of Mines, USA
2. Colorado School of Mines, Mechanical Engineering, USA
3. Hydrogen Helix, USA
4. Technion - Israel Institute of Technology, Dept. of Materials Science and Engineering, Israel

3:40 PM

(ICACC-FS2-014-2026) Looping-accelerated CO_2 mineralization for cost-competitive cementitious materials and hydrogen

K. Shank[1]; H. Xu[1]; Y. Yunming[1]; A. Arjomand[1]; J. Qin[1]; S. Zhai*[1]

1. The Ohio State University, USA

4:00 PM

(ICACC-FS2-015-2026) Impact of Hydrogen-Rich Metals on Refractory Ceramics

K. Naresh[1]; E. Agyekum[1]; C. Hulme[1]; N. Wagri*[1]

1. Kungliga Tekniska Hogskolan, Department of Materials Science and Engineering, Sweden

FS3 Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials

FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials III

Room: Ballroom 1 -2

Session Chairs: Masako Uematsu, Ippan Zaidan Hojin Fine Ceramics Center; Junichi Tatami, Yokohama National University

1:30 PM

(ICACC-FS3-008-2026) High-entropy carbides with up to nine metals and their order–disorder transition (Invited)

B. Anasori*[1]

1. Purdue University, USA

2:00 PM

(ICACC-FS3-009-2026) Advances on mechanochemistry and what's missing (Invited)

M. Boaro*[1]

1. Universita degli Studi di Udine, Polytechnic Department of Engineering and Architecture, Italy

2:30 PM

(ICACC-FS3-010-2026) Hollow ceramic particles via chemical vapor deposition on template particles

H. Katsui*[2]; Y. Nakashima[2]; N. Kishikawa[1]; S. Kawase[1]; M. Hotta[2]

1. Nagoya Municipal Industrial Research Institute, Japan
2. National Institute of Advanced Industrial Science and Technology (AIST), Japan

2:50 PM

Break

FS3- Smart Powder Processing of Multifunctional Ceramics and Catalyst Materials IV

Room: Ballroom 1 -2

Session Chair: William Fahrenholtz, Missouri University of Science & Technology

3:10 PM

(ICACC-FS3-011-2026) Direct observation of particle deposition dynamics on plaster mold surfaces during slip casting using high-concentration slurry (Invited)

M. Uematsu*[1]; T. Kimura[1]

1. Japan Fine Ceramics Center, Japan

3:40 PM

(ICACC-FS3-012-2026) Spray freeze granulation drying of silicon nitride slurries prepared from tert-butyl alcohol and cyclohexane solvent mixtures

J. Tatami*[1]; R. Yamazaki[1]; M. Iijima[1]; S. Kawaguchi[2]; N. Kondo[3]

1. Yokohama National University, Japan
2. Preci, Japan
3. Sangyo Gijutsu Sogo Kenkyujo Chubu Center, Japan

4:00 PM

(ICACC-FS3-013-2026) Templated growth of metal oxides in montmorillonite-modified SiOC ceramics

A. Rau*[1]; K. Bawane[3]; K. Lu[2]

1. Virginia Polytechnic Institute and State University, USA
2. University of Alabama at Birmingham, USA
3. Idaho National Lab, Characterization, USA

4:20 PM

(ICACC-FS3-014-2026) Exploring in-situ hBN interphase synthesis via dip coating: Engineering the carbon fiber/ SiC matrix interface

B. Kumar*[1]; S. E[1]

1. Indian Institute of Technology Roorkee, Metallurgical and Materials Engineering, India

FS5 High Voltage Materials for Advanced High Power Electrical Applications

FS5- High Voltage Materials for Advanced High Power Electrical Applications

Room: Coquina C

Session Chair: Dong Liu, University of Oxford

1:30 PM

(ICACC-FS5-001-2026) Enhancing high-temperature performance of copper-graphene composites for advanced electrical applications (Invited)

M. Cullinan*[1]

1. The University of Texas at Austin, USA

2:00 PM

(ICACC-FS5-002-2026) Lightweight silver-carbon nanotube composite fibers for high conductivity power transmission (Invited)

V. Shanov*[1]; Q. Fang[1]; H. Tran[1]; A. Raut[3]; M. Khosravifar[3]; D. Mast[2]

1. University of Cincinnati, Department of Chemical and Environmental Engineering, USA
2. University of Cincinnati, Department of Physics, USA
3. University of Cincinnati, Department of Mechanical and Materials Engineering, USA

2:30 PM

(ICACC-FS5-003-2026) Partial discharge test rig considerations for aerospace materials research (Invited)

M. Lizcano*[1]

1. NASA Glenn Research Center, USA

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Mechanical characterization of ceramics and composites, techniques & equipment

Room: Coquina E

Session Chairs: Ralf Goller, University of Applied Sciences; Nico Langhof, University of Bayreuth

1:30 PM

(ICACC-S1-035-2026) Synergistic effects of stress, temperature, and erosion on damage evolution and strength degradation in oxide/oxide ceramic matrix composites

F. Mirza*[1]; G. N. Morscher[1]

1. University of Akron College of Engineering and Polymer Science, USA

1:50 PM

(ICACC-S1-036-2026) Sintering-induced defect control and mechanical performance in additively manufactured silica and porcelain lattices

J. Kim*[1]; K. Trinh[1]; S. Chen[1]; A. Charrue[2]; P. Belleville[2]; K. Lee[1]

1. Los Alamos National Laboratory, USA
2. CEA, France

S1- Role of fibers, matrices, coatings, and interfaces in mechanical behavior

Room: Coquina E

Session Chairs: Ralf Goller, University of Applied Sciences; Nico Langhoff, University of Bayreuth

2:10 PM

(ICACC-S1-037-2026) Defining weakness: How to determine the suitability of weak matrix systems for ceramic matrix composites without using fibers (Invited)

G. Puchas*[1]; L. Wagner[1]; F. Lindner[1]; S. Schafföner[2]

1. University of Bayreuth, Ceramic Materials Engineering, Germany
2. University of Bayreuth, Chair of Ceramic Materials Engineering, Germany

2:40 PM

(ICACC-S1-038-2026) Development of ceramic fibres and CMCs at Fraunhofer ISC Centre HTL (Invited)

A. Rüdinger*[1]

1. Fraunhofer HTL, Ceramicfibre, Germany

3:10 PM

Break

3:30 PM

(ICACC-S1-039-2026) Rare-earth oxide interphases for SiC/SiC ceramic matrix composites (Invited)

T. Nelson*[1]; C. Prentice[1]; O. Gavalda-Diaz[2]; A. J. Leide[3]; D. Andrews[3]; J. Ball[5]; F. W. Zok[4]

1. Archer Technicoat Ltd, United Kingdom
2. Imperial College London, United Kingdom
3. UKAEA, United Kingdom
4. University of California, USA
5. The Henry Royce Institute, United Kingdom

4:00 PM

(ICACC-S1-040-2026) Mechanical performance of silicon carbide CMCs reinforced with laser-driven chemical vapor deposition fibers

S. Harrison*[1]; K. L. Williams[1]; G. Thompson[2]; M. Pavel[2]; S. Winckler[3]

1. Free Form Fibers, USA
2. University of Alabama, Metallurgical & Materials Engineering, USA
3. Global Composites, Inc, USA

S1- Manufacturing and testing of joined and integrated components and structures

Room: Coquina E

Session Chairs: Ralf Goller, University of Applied Sciences; Nico Langhof, University of Bayreuth

4:20 PM

(ICACC-S1-041-2026) Torsion-based Identification of shear properties in bonded joints

A. Benelli*[1]; D. Paolino[2]; L. Goglio[2]

1. Politecnico di Torino, DISAT, Italy
2. Politecnico di Torino, Mechanical and Aerospace Engineering, Italy

4:40 PM

(ICACC-S1-042-2026) Joining techniques for advanced ceramics and composites

J. Alexander*[1]; J. Binner[2]

1. University of Birmingham, United Kingdom
2. University of Birmingham, Ceramic Science & Engineering, United Kingdom

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Operation and electrochemical characterization

Room: Coquina H

Session Chair:

1:30 PM

(ICACC-S3-033-2026) Modeling and validation of high-temperature oxygen electrode reactions in SOCs (Invited)

T. Kawada*[1]; M. Sakai[1]; S. Endo[1]; M. Yamaguchi[1]; K. Yashiro[1]

1. Tohoku University, Graduate School of Environmental Studies, Japan

2:00 PM

(ICACC-S3-034-2026) Pattern recognition in electrochemical impedance spectroscopy measurements for facilitated characterization (Invited)

C. F. Mänken*[1]; D. Schäfer[1]; R. C. Samsun[1]; R. A. Eichel[1]

1. Forschungszentrum Julich GmbH, Institute of Energy Technologies, Fundamental Electrochemistry (IET-1), Germany

2:30 PM

(ICACC-S3-035-2026) Effect of operating mode on patterned Ni–GDC electrodes in solid oxide cells

G. Yao*[1]; A. Sciazko[1]; Y. Komatsu[1]; T. Okabe[1]; K. Nishimura[1]; Z. Lyu[1]; J. Tao[1]; N. Shikazono[1]

1. The University of Tokyo, Institute of Industrial Science, Japan

2:50 PM

(ICACC-S3-036-2026) Thickness dependence of area specific resistance of composite air electrode

M. Kusnezoff*[1]; N. Trofimenko[1]; S. Mosch[1]

1. Fraunhofer IKTS, Germany

S3-Simulation & Modeling

Room: Coquina H

Session Chair: Sandrine Ricote, Colorado School of Mines

3:10 PM

Break

3:30 PM

(ICACC-S3-037-2026) Characterization and modelling of solid oxide cells: An overview of ongoing activities at CEA-Grenoble (Invited)

M. Hubert[1]; D. Cademartori[1]; S. Fournier[1]; G. Tambade[1]; K. Saravanabavan[1]; C. Hartmann[1]; J. Laurencin*[1]

1. CEA, DTCH, France

4:00 PM

(ICACC-S3-038-2026) Using simulation to analyze solid oxide cell degradation and improve durability (Invited) *WITHDRAWN*

H. W. Abernathy*[1]; Y. Lei[2]; F. Xue[3]; W. K. Epting[3]; Y. Picard[2]

1. National Energy Technology Laboratory, Thermal Sciences, USA
2. US DOE National Energy Technology, USA
3. National Energy Technology Laboratory, USA

4:30 PM

(ICACC-S3-039-2026) Machine learning–Guided design of oxygen electrodes for solid oxide electrolysis cells: Doping, interface engineering, and high-entropy strategies

G. Liu[1]; S. Yang[1]; Y. Zhong*[1]

1. Worcester Polytechnic Institute, Mechanical and Materials Engineering, USA

4:50 PM

(ICACC-S3-040-2026) Modeling of void formation driven by inner oxygen pressure in solid oxide electrolysis cells *WITHDRAWN*

F. Xue*[2]; Y. Lei[1]; T. Cheng[2]; W. K. Epting[2]; H. W. Abernathy[3]; Y. Wen[2]

1. US DOE National Energy Technology, USA
2. National Energy Technology Laboratory, USA
3. National Energy Technology Laboratory, Thermal Sciences, USA

5:10 PM

(ICACC-S3-041-2026) A phase-field model on Ni redistribution in the hydrogen electrode of solid oxide cells through surface diffusion of Ni(OH) and NiH *WITHDRAWN*

Y. Lei*[1]; Y. Mantz[2]; W. Saidi[1]; W. K. Epting[1]; H. W. Abernathy[3]; Y. Wen[1]

1. National Energy Technology Laboratory, USA
2. National Energy Technology Laboratory Morgantown, USA
3. National Energy Technology Laboratory, Thermal Sciences, USA

5:30 PM

(ICACC-S3-042-2026) d-Buffer unleashed: Orbital-level electronic modulation decoupling Ce 4f and O 2p states in protonic ceramics

S. Chen*[1]; Q. Li[1]; Y. Mei[2]; H. Tian[1]; X. Li[3]; K. An[4]; Y. Chen[4]; D. Yu[4]; F. Li[2]; W. Li[3]; X. Liu[5]

1. West Virginia University, Mechanical, Materials and Aerospace Engineering, USA
2. NC State University, Chemical and Biomolecular Engineering, USA
3. West Virginia University, Chemical and Biomedical Engineering, USA
4. Oak Ridge National Laboratory, USA
5. West Virginia University, Mechanical & Aerospace Engineering, USA

S5 Next-Generation Bioceramics and Biocomposites

S5- Bioactive, resorbable and porous bioceramics and composites

Room: Flagler A

Session Chairs: Cristina Balagna, Politecnico di Torino; Hui-Suk Yun, Korea Institute of Materials Science

1:30 PM

(ICACC-S5-001-2026) Exploring the potential of bioactive glasses in hard and soft tissue regeneration (Invited)

V. Cannillo*[1]

1. Universita degli Studi di Modena e Reggio Emilia, Italy

2:00 PM

(ICACC-S5-002-2026) Development of bioactive apatite nuclei-incorporated polyetheretherketone with high apatite-forming ability and bone-bonding ability (Invited)

T. Yabutsuka*[1]

1. Kyoto University, Graduate School of Energy Science, Japan

2:30 PM

(ICACC-S5-003-2026) Machine learning guided biomimetic, biohybrid and bioactive biomaterials (Invited)

C. Tamerler*[1]

1. University of Kansas, Mechanical Eng & BioEngineering, USA

3:00 PM

Break

3:20 PM

(ICACC-S5-004-2026) Modelling bone regeneration by ceramic design (Invited)

K. Balazsi[1]; B. Almássy[1]; C. Balazsi*[1]

1. HUN-REN Energiatudomanyi Kutatokozpont, Hungary

3:50 PM

(ICACC-S5-005-2026) 3D printing of borosilicate bioactive glass: From glass preparation to porous scaffolds for bone tissue engineering

M. E. Pianou*[1]; G. Goretti[2]; N. Olivera Jurjo[3]; A. Schiavi[1]; E. Vernè[1]; M. Schwentenwein[2]; P. Vena[3]; F. Baino[1]

1. Politecnico di Torino, Italy
2. Lithoz GmbH, Austria
3. Politecnico di Milano, Italy

4:10 PM

(ICACC-S5-006-2026) Enhancing 45S5 bioactive glass scaffolds with silicon nitride and graphene oxide coatings for mechanical and biological performance

C. Bagci*[1]; F. E. Bastan[2]; A. R. Boccaccini[3]

1. Hitit University, Department of Metallurgical and Materials Engineering, Turkey
2. Sakarya Universitesi, Metallurgical and Materials Engineering, Turkey
3. University of Erlangen-Nuremberg, Institute of Biomaterials, Germany

4:30 PM

(ICACC-S5-007-2026) Advanced direct ink writing of polymer-derived hardystonite-based bioceramics

V. Diamanti*[1]; H. Elsayed[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Industrial Engineering, Italy

4:50 PM

(ICACC-S5-008-2026) Advancing bone regeneration: Biodegradable and biocompatible geopolymer scaffolds

G. Dal Poggetto*[1]

1. NC State University, USA

5:10 PM

(ICACC-S5-009-2026) 3D printed functionalized Calcium Phosphate ceramics and composites with natural medicine for bone healing (Invited)

S. Bose*[1]

1. Washington State University, School of Mechanical and Materials Engineering, USA

5:40 PM

Poster Preview Pitch- A green wall concept: Micro- and nanoparticles for enabling algae growth on concretes

5:42 PM

Poster Preview Pitch- Tailoring magnesium phosphate cements with chitosan-based hydrogels for injectable bone repair

5:44 PM

Poster Preview Pitch- Synergistic approaches for improving antimicrobial activity of electrospun fibers

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Negative Electrode Materials and Ordered and Disordered Oxide-based Electrode Materials II

Room: Coquina G

Session Chairs: Nicola Pinna, Humboldt-Universität zu Berlin; Seongjae Ko, Tokyo Daigaku

1:30 PM

(ICACC-S6-024-2026) Disordered versus ordered niobates as electrode materials for rechargeable batteries (Invited)

N. Pinna*[1]

1. Humboldt-Universität zu Berlin, Department of Chemistry, Germany

2:00 PM

(ICACC-S6-025-2026) Stable Li plating/stripping in $LiPF_6$ ether-based electrolytes (Invited)

P. R. Harks[1]; S. Ko*[1]; W. Zhao[1]; N. Takenaka[1]; Z. Fang[1]; Y. Hao[1]; A. Yamada[1]

1. Tokyo Daigaku, Chemical System Engineering, Japan

2:30 PM

(ICACC-S6-026-2026) Anode-Free vs. Anode-Less: Assessing the realistic limits of anode elimination in alkali metal batteries

D. Patrun*[1]; Z. Aytuna[1]; T. Fischer[1]; S. Mathur[1]

1. Universitat zu Koln, Institute of Inorganic and Materials Chemistry, Germany

2:50 PM

Break

3:10 PM

(ICACC-S6-027-2026) Towards sustainable tribological solutions: Recycled graphite from Li-Ion batteries as low-CoF coatings

S. K. Ghosh*[1]; Z. Frank[1]; S. K. Ghosh[2]

1. University of Arkansas at Little Rock, Mechanical Engineering, USA
2. University of Arkansas at Little Rock, Chemistry, USA

3:30 PM

(ICACC-S6-028-2026) Dual carbon layered silicon composite anode materials for high energy density batteries by optimizing experimental and rational electrode design

J. Lee*[3]; S. Hwang[1]; H. Cho[1]; S. Bae[1]; H. Kim[1]; S. Lee[1]; Y. Woo[2]; H. Lee[2]; Y. Kim[3]

1. LEMON ENERGY Inc., Republic of Korea
2. National Institute for Mathematical Sciences, Republic of Korea
3. Inha University, Materials Science and Engineering, Republic of Korea

3:50 PM

(ICACC-S6-029-2026) Advancing the performance of Mn-rich cathodes: A novel synthesis process for improving volumetric energy densities (Invited)

A. D. Vu*[1]; J. Carter[1]; J. Kim[1]; S. Mallick[1]; M. Sultanov[2]; A. Gutierrez[2]; J. Wen[2]; Y. Ito[3]; J. R. Croy[1]

1. Argonne National Laboratory, Chemical Sciences and Engineering, USA
2. Argonne National Laboratory, USA
3. Northern Illinois University, Department of Physics, USA

4:20 PM

(ICACC-S6-030-2026) Rapid formation of cation-disordered rocksalt type lithium-rich cathodes from layered type cathodes by laser irradiation process

F. Sato*[1]; K. Maki[1]; T. Honma[1]

1. Nagaoka Univeristy of Technology, Department of Materials Science and Bioengineering, Japan

4:40 PM

(ICACC-S6-031-2026) Next generation batteries for aerospace

D. Dornbusch*[1]; W. H. Huddleston[3]; V. Yamakov[4]; R. P. Viggiano[1]; Y. Lin[2]

1. NASA Glenn Research Center, Materials, Chemistry, and Physics Branch, USA
2. NASA Langley Research Center, Advanced Materials and Processing Branch, USA
3. HX5, LLC, USA
4. Analytical Mechanics Associates Inc, USA

5:00 PM

Poster Preview Pitch- Preparation and characterisation of $Na_{0.5}Bi_{0.5}Cu_3Ti_4O_{12}$ (NBCTO) for electrical applications

5:02 PM

Poster Preview Pitch- Conjugated bronze/anatase/rutile TiO_2-carbon anodes engineered from titanium-based metal-organic frameworks for enhanced lithium-ion storage

5:04 PM

Poster Preview Pitch- Exploring fully flexible batteries: Material and morphology design of bendable electrodes

5:06 PM

Poster Preview Pitch- Electrostatics and chemistry combination divalent cobalt ions and alkali treated MXene for high performance lithium ion batteries

S8 20th Intl Symp on APMT for Structural & Multifunctional Materials & Systems

S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics III

Room: Coquina B

Session Chair: Bai Cui, University of Nebraska–Lincoln

1:30 PM

(ICACC-S8-030-2026) Fabrication of dense yttrium oxyfluoride ceramics and their corrosion behavior of under plasma exposure (Invited)

K. Yoshida*[1]; S. Yamamoto[1]; Y. Tazaki[2]; Y. Shigeyoshi[2]; K. Matsukura[2]

1. Tokyo Kagaku Daigaku, Japan
2. Mitsui Mining & Smelting Co.,Ltd., Japan

2:00 PM

(ICACC-S8-031-2026) Boron nitride nanomaterials: From mechanochemical synthesis to cutting edge applicaitons (Invited)

S. Mateti*[1]

1. Deakin University Faculty of Science Engineering and Built Environment, Australia

2:30 PM

(ICACC-S8-032-2026) Sintering and dissolution properties of the MgO-BaO system

T. Do*[1]; Y. Su[1]; R. Andri[1]; N. Osawa[1]; T. Suzuki[1]; H. Suematsu[1]

1. Nagaoka University of Technology, Nuclear System Safety Engineering, Japan

2:50 PM

(ICACC-S8-033-2026) Fabrication of SiC and SiC/Ti_3SiC_2 composites by novel two-step reaction sintering

J. Yang*[1]; N. Zhang[1]

1. Xi'na Jiaotong University, China

3:10 PM

Break

S8- Design, Synthesis, and Advanced Manufacturing of Functional Ceramics IV

Room: Coquina B

Session Chair: Thi Mai Dung Do, Nagaoka University of Technology

3:30 PM

(ICACC-S8-034-2026) Additively manufactured black-zirconia TPMS structures for high-performance solar absorption applications *WITHDRAWN*

M. Azam*[1]; A. Hamza[1]; A. Raza[1]; K. Askar[1]; T. Zhang[1]

1. Khalifa University, Department of Mechanical and Nuclear Engineering, United Arab Emirates

3:50 PM

(ICACC-S8-035-2026) Process-derived fracture networks in vat photopolymerised zirconia ceramics

P. Makurunje*[1]; S. Middleburgh[1]

1. Nuclear Futures Institute, Bangor University, United Kingdom

S9 Porous Ceramics Novel Developments and Applications

S9- Future approach for porous ceramics

Room: Ballroom 3

Session Chair: Farid Akhtar, Lulea University of Technology

1:30 PM

(ICACC-S9-001-2026) ALD-functionalized 3D-printed isoporous ceramic guides for microfluidics (Invited)

A. Jimenez[1]; D. Ribas Gomes[1]; C. Hedrich[2]; K. P. Furlan*[1]

1. Karlsruher Institut fur Technologie, Institute for Applied Materials - Ceramic Materials and Technologies, Germany
2. Technische Universitat Hamburg, Electron Microscopy Unit (BEEM), Germany

2:00 PM

(ICACC-S9-002-2026) Toward auxetic ceramics: 3D printing and characterization of Al_2O_3 and ZrO_2 hexachiral structures (Invited)

L. Biasetto*[1]; J. Guther[2]; A. Corsini[1]; P. Colombo[1]; T. Fey[2]

1. University of Padova, Department of Industrial Engineering, Italy
2. Friedrich-Alexander University Erlangen-Nürnberg, Department Material Science and Engineering, Germany

2:30 PM

(ICACC-S9-003-2026) Automating the future: High-throughput production of porous alumina ceramics

E. Wolf[1]; K. G. Webber[1]; T. Fey*[1]

1. Friedrich-Alexander-Universität Erlangen-Nürnberg, Materials Science and Engineering, Germany

2:50 PM

Break

S9- Engineering Porous Architectures

Room: Ballroom 3

Session Chair: Kaline Furlan, Hamburg University of Technology

3:10 PM

(ICACC-S9-004-2026) Design and structuring of porous materials with expanded ultralow-density microspheres

F. Akhtar*[1]

1. Lulea University of Technology, Division of Materials Science, Sweden

3:30 PM

(ICACC-S9-007-2026) Combination of freeze casting and gelcasting to obtain porous ceramics

I. Klösel[1]; T. Fey*[1]

1. Friedrich-Alexander University Erlangen-Nürnberg, Department Material Science and Engineering, Germany

3:50 PM

(ICACC-S9-006-2026) Fabrication of porous ceramics via DLP-3D printing using nanoparticle suspensions and subsequent rapid thermal processing (Invited)

M. Iijima*[1]; Y. Yamanoi[1]; F. Yokomori[1]; J. Tatami[1]

1. Yokohama National University, Japan

S10 Integrated computational -Experimental modeling ad design of ceramics and composites

S10- Multi-scale modeling of processing, microstructure, and performance

Room: Ballroom 4

Session Chairs: Gustavo Costa, NASA Glenn Research Center; Benoit Rousseau, LTN UMR CNRS 6607

1:30 PM

(ICACC-S10-001-2026) Architecture design for thermal and environmental barrier coatings for next-generation refractory alloys (Invited)

D. L. Poerschke*[1]

1. University of Minnesota, Chemical Engineering and Materials Science, USA

2:00 PM

(ICACC-S10-002-2026) Development of next-generation simulation technologies for advanced ceramic manufacturing processes (Invited)

M. Sakai*[1]

1. Tokyo Daigaku, Department of Nuclear Engineering & Management, Japan

2:30 PM

(ICACC-S10-003-2026) Fronts in multiphysics modeling of fiber-reinforced ceramics preparation or degradation : An overview (Invited)

G. L. Vignoles*[1]

1. University Bordeaux, LCTS - Lab for ThermStructural Composites, France

3:00 PM

Break

3:20 PM

(ICACC-S10-004-2026) Development of an advanced heat transfer model for DEM-CFD simulations

T. Imatani*[1]; M. Sakai[1]

1. Tokyo Daigaku, Department of Nuclear Engineering & Management, Japan

S10 - Material Informatics and machine learning

Room: Ballroom 4

Session Chair: Yu (Michael) Zhong, Worcester Polytechnic Institute

3:40 PM

(ICACC-S10-005-2026) Diffusion–model–driven discovery of ferroelectrics for photocurrent applications (Invited)

B. Yeo[2]; S. Kang[1]; J. Lee*[1]

1. Korea Institute of Science and Technology, Republic of Korea
2. Pukyong National University, Department of Energy Resources Engineering, Republic of Korea

(ICACC-S10-006-2026) Data driven and physics informed machine learning for composite modelling (Invited) ***WITHDRAWN***

Y. Chen*[1]

1. University of Bath, Mechanical Engineering, United Kingdom

4:10PM

Poster Preview Pitch- A style transfer DNN and algorithmic simulation approach for generating SEM images of polycrystals to train segmentation networks

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Overview of nuclear ceramics development

Room: Coquina F

Session Chair: Gyanender Singh, Idaho National Laboratory

1:30 PM

(ICACC-S13-035-2026) Historical and future roles of brittle matrix composites for fusion and fission energy (Invited)

Y. Katoh*[1]

1. Oak Ridge National Laboratory, USA

2:00 PM

(ICACC-S13-036-2026) TRISO development at ORNL: Near-term deployment and long-term development (Invited)

G. W. Helmreich*[1]; T. J. Gerczak[1]; E. Lopez Honorato[1]; W. Cureton[1]

1. Oak Ridge National Laboratory, USA

2:30 PM

(ICACC-S13-037-2026) Overview of UKAEA shielding material development for fusion applications (Invited)

M. T. Rigby-Bell*[3]; M. Emmanuel[3]; J. Sharp[1]; M. Hasegawa[2]; J. Wade-Zhu[3]; R. Mellor[4]; D. Jarvis[4]; D. Sandoval Ravotti[5]; E. Tarrés i Puit[5]

1. University of Birmingham, United Kingdom
2. Imperial College London, United Kingdom
3. UKAEA, Materials Division, United Kingdom
4. VSCA AS, Norway
5. Hyperion Materials & Technologies Spain SL, Spain

3:00 PM

Break

S13- Function materials for nuclear applications

Room: Coquina F

Session Chair: Max Rigby-Bell, UKAEA

3:20 PM

(ICACC-S13-038-2026) Quantifying defect-stored energy in YBCO-based fusion magnets (Invited)

A. R. Devitre*[1]; L. D. Kortman[2]; C. A. Hirst[3]

1. Massachusetts Institute of Technology, University of Tennessee Knoxville, USA
2. University of Michigan, Nuclear Engineering and Radiological Sciences, USA
3. University of Wisconsin-Madison, Department of Nuclear Engineering and Engineering Physics, USA

3:50 PM

(ICACC-S13-039-2026) Processing and properties of $Be_{12}Ti$ for advanced fusion blanket multipliers

J. Li*[1]; K. Christian[1]; D. Bhardwaj[1]; D. Sprouster[1]; L. Snead[1]; N. R. Brown[2]

1. Stony Brook University, USA
2. The University of Tennessee System, Department of Nuclear Engineering, USA

4:20 PM

(ICACC-S13-040-2026) Investigation of cemented tungsten carbide as a shielding material for spherical tokomaks

M. Emmanuel*[1]; M. T. Rigby-Bell[1]; J. Wade-Zhu[1]

1. UKAEA, Materials, United Kingdom

4:40 PM

(ICACC-S13-041-2026) Pyrolysis of SiOC/MXene: Chemical and structural evolution under microgravity and controlled atmospheres

M. Shaik*[1]; K. Lu[1]

1. The University of Alabama at Birmingham School of Engineering, Mechanical and Materials Engineering, USA

5:00 PM

Poster Preview Pitch- Sintering optimization and grain size evaluation of additively manufactured SiC for nuclear applications

5:02 PM

Poster Preview Pitch- CoorsTek advanced ceramic technologies powering tomorrow's energy landscape

S15 10th International Symposium on Additive Manufacturing and 3-D Printing Technologies

S15- Vat photopolymerization/stereolithography II

Room: Ponce de Leon

Session Chairs: Martin Schwentenwein, Lithoz GmbH; Meelad Ranaiefar, NASA Glenn Research Center

1:30 PM

(ICACC-S15-031-2026) Sustainable and reprocessable bio-based binder systems for ceramic vat-photopolymerisation with tunable properties *WITHDRAWN*

B. Ozkan*[1]; A. Goulas[1]; A. Ketharam[1]; S. S. Yarahmadi[1]; B. Vaidhyanathan[1]

1. Loughborough University, Department of Materials, United Kingdom

1:50 PM

(ICACC-S15-032-2026) Aqueous-based photocurable ZrO_2 suspensions for sustainable DLP-3D printing: Design and influence of photo-initiators

M. Iijima*[1]; R. Tomiyama[1]; J. Tatami[1]

1. Yokohama National University, Japan

2:10 PM

(ICACC-S15-033-2026) 3D printing of ceramic combustion chamber for hydrogen combustion

F. Faysal[1]; L. Longas[1]; K. Ahmed[1]; J. Gou*[1]

1. University of Central Florida, Mechanical and Aerospace Engineering, USA

S15- Materials and process characterization tools and Multi-material and hybrid printing techniques

Room: Ponce de Leon

Session Chair: Motoyuki Iijima, Yokohama National University

2:30 PM

(ICACC-S15-035-2026) Alumina green body feedstock for microwave volumetric additive manufacturing

J. Carmichael*[2]; K. T. Strong[2]; T. Diebold[1]

1. Sandia National Laboratories, USA
2. Sandia National Laboratories, Material Mechanics and Tribology, USA

2:50 PM

(ICACC-S15-036-2026) High interconnection density HTCC: Towards space-grade electronics miniaturization via hybrid additive manufacturing

A. Junger*[1]; P. Michaud[1]; V. Pateloup[1]

1. Universite de Limoges, France

S15- Binder jetting processes

Room: Ponce de Leon

Session Chair: Jihua Gou, University of Central Florida

3:10 PM

Break

3:30 PM

(ICACC-S15-037-2026) Improved packing density of powder compacts via binder jetting with binary powder mixing

A. Shimamura*[1]; Y. Chung[1]; C. Matsunaga[1]; M. Hotta[1]; N. Kondo[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

S16 Geopolymers Inorganic Polymers and Sustainable Construction Materials

S16- Alkali-based geopolymers and Acid-based phosphate geopolymers

Room: Ballroom 5

Session Chair: Waltraud Kriven, University of Illinois at Urbana-Champaign

1:30 PM

(ICACC-S16-001-2026) Processing and characterization of silico-aluminum phosphate geopolymer hybridized with a high-temperature polymer (Invited)

D. Samuel*[1]; M. Lee[1]; C. Peruzzi[1]; P. Hewitt[1]; W. Hartt[1]; W. J. Monzel[2]; D. Simone[2]

1. Aerovironment Inc, USA
2. Air Force Research Lab Materials and Manufacturing Directorate, Structural Materials, Composites Branch, USA

2:00 PM

(ICACC-S16-002-2026) Phosphate ceramics made with steel slag waste from the steel making industry

H. A. Colorado L.*[1]

1. Universidad de Antioquia, Colombia

2:20 PM

(ICACC-S16-003-2026) Mechanical and thermo-physical characterization of Na-based geopolymer foams reinforced with phosphate mine waste particulates and fibers. (Invited)

S. Sbi*[1]; A. Stumpf[2]; A. Aboulayt[3]; N. Semlal[4]; J. Alami[1]; Y. Tamraoui[1]; W. M. Kriven[2]

1. Universite Mohammed VI Polytechnique, Morocco
2. University of Illinois Urbana-Champaign, USA
3. Ecole Nationale d'Architecture - Tetouan, Morocco
4. Groupe OCP, Morocco

2:50 PM

Break

3:10 PM

(ICACC-S16-004-2026) Geopolymer application for radioactive wastes resulting from the Fukushima Daiichi Nuclear Power Plant accident (Invited)

K. Toda*[1]; A. Yildirim[2]; L. Lang[2]; M. Viaud[2]; P. Prihutami[1]; Y. Doi[2]; T. Saito[1]

1. The University of Tokyo, Nuclear Professional School, Japan
2. The University of Tokyo, Graduate School of Engineering, Japan

3:40 PM

(ICACC-S16-005-2026) Formulation and properties of porous geopolymers for transportation applications

É. Prud'homme*[1]; M. Mouafon[2]; D. Habans[1]; G. Dusserre[2]; T. Cutard[2]; P. Reynaud[1]

1. Institut National des Sciences Appliquees de Lyon, MATEIS, France
2. Ecole Nationale Superieure des Mines d'Albi-Carmaux, ICA, France

4:00 PM

(ICACC-S16-006-2026) Geopolymer-derived crystallization under hydrothermal conditions

P. H. Sin*[1]; W. M. Kriven[1]

1. University of Illinois Urbana-Champaign, Materials Science and Engineering, USA

4:20 PM

(ICACC-S16-024-2026) Effect of thermal exposure on the mechanical properties of textile reinforced composites with K-metakaolinite geopolymer matrix (Invited)

H. Rahier*[1]; G. Meza-Hernandez[1]; S. Onisei[1]

1. Vrije Universiteit Brussel, Materials and Chemistry, Belgium

4:50 PM

(ICACC-S16-025-2026) Sustainable carbon capture with geopolymer-based zeolite 4A: Low-cost design, high-value performance (Invited)

P. Mokhtari*[1]; P. Sin[1]; M. Wlodarczyk[1]; P. Numkiatsakul[1]; W. Kriven[2]

1. University of Illinois at Urbana-Champaign, Materials Science and Engineering, USA
2. University of Illinois at Urbana-Champaign, USA

5:20 PM

Poster Preview Pitch- Evaluating Mechanical Performance and Optimizing Ratios for Rice Hull Ash and Cement in Shotcrete

S18 Ultra-High Temperature Ceramics

S18- Precursors for powders, coatings, and matrix or fibers of composites

Room: Coquina A

Session Chair: Yoonjoo Lee, Korea Institute of Ceramic Engineering and Technology

1:30 PM

(ICACC-S18-034-2026) Precursor-derived synthesis and crystallization of $HfC_{1-x}N_x$ ceramics: Insights into composition and microstructural evolution (Invited)

Y. Lee*[1]; D. Shin[1]

1. Korea Institute of Ceramic Engineering and Technology, Republic of Korea

2:00 PM

(ICACC-S18-035-2026) Morphology determination and control of transition metal carbides (TMCs) powders

Y. Huang*[1]; C. R. Weinberger[1]

1. Colorado State University, Department of Mechanical Engineering, USA

2:20 PM

(ICACC-S18-036-2026) Reaction synthesis and stability kinetics of nanoporous TaC derived from Ta precursors

C. Ott*[1]; A. Peters[2]; I. McCue[1]

1. Northwestern University, Materials Science and Engineering, USA
2. Stratolaunch LLC, USA

2:40 PM

(ICACC-S18-040-2026) Supply chain resilience of critical ceramic powders for high temperature energy systems

N. Shadzril[1]

1. American Elements, USA

S18- Characterization methods and lifetime assessment

Room: Coquina A

Session Chair: Yue Zhou, Missouri University of Science & Technology

3:00 PM

Break

3:20 PM

(ICACC-S18-037-2026) 4DSTEM characterization of local structure in high-entropy borides

A. Mirzaei*[1]; S. J. Dillon[1]

1. University of California Irvine Henry Samueli School of Engineering, Department of Materials Science and Engineering, USA

3:40 PM

(ICACC-S18-038-2026) The processing space of titanium carbide fibers grown by laser chemical vapor deposition

K. J. Mitchell*[1]; G. Thompson[2]

1. University of Alabama, Interdisciplinary Materials Science PhD Program, USA
2. University of Alabama, Metallurgical & Materials Engineering, USA

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- Innovative manufacturing processes for greening of ceramics manufacturing industrial processes

Room: Coquina D

Session Chairs: Hua-Tay Lin, Guangdong University of Technology; Monica Ferraris, Politecnico di Torino

1:30 PM

(ICACC-S20-027-2026) Additive manufacturing of geopolymers (Invited)

P. Colombo*[1]

1. University of Padova, Industrial Engineering, Italy

2:00 PM

(ICACC-S20-028-2026) Joining of ceramic matrix composites: A contribution to net-zero carbon emission (Invited)

M. Ferraris*[1]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy

2:30 PM

(ICACC-S20-029-2026) Ceramic additive manufacturing: Innovations driving net-zero carbon solutions (Invited)

H. Yun*[1]

1. Korea Institute of Materials Science, Republic of Korea

3:00 PM

Break

3:20 PM

(ICACC-S20-030-2026) A design-to-manufacturing framework for multifunctional piezocomposites in energy harvesting, sensing, and actuation (Invited)

Y. Li*[1]

1. Dartmouth College, Thayer School of Engineering, USA

S20- Advanced technologies to increase energy efficiency and reduce the carbon footprint of energy production and consumption

Room: Coquina D

Session Chair: Michael Halbig, NASA Glenn Research Center

3:50 PM

(ICACC-S20-031-2026) Ultrafast high-temperature sintering technology in manufacturing of advanced ceramics for a NET-zero future (Invited)

H. Lin*[2]; F. Zhu[2]; S. Grasso[1]

1. Queen Mary University of London, United Kingdom
2. Guangdong University of Technology, China

4:20 PM

(ICACC-S20-032-2026) High thermoelectric performance and long-term stability in Indium single-filled $CoSb_3$ Skutterudites via kinetically engineered InSb nanolayers (Invited)

H. Kim*[1]

1. University of Seoul, Republic of Korea

Poster Session B

Room: Ocean Center

5:00 PM

(ICACC-PB-001-2026) Tailoring magnesium phosphate cements with chitosan-based hydrogels for injectable bone repair

K. Stanislawska*[1]; D. Kozien[2]; A. Ronowska[3]; J. Kozlowska[4]; M. Wekwejt[5]

1. Politechnika Gdanska, Scientific Group 'Materials in Medicine', Advanced Materials Center, Poland
2. Akademia Gorniczo-Hutnicza im Stanislawa Staszica w Krakowie, Department of Ceramics and Refractories, Poland
3. Gdanski Uniwersytet Medyczny, Department of Laboratory Medicine, Poland
4. Uniwersytet Mikolaja Kopernika w Toruniu, Department of Biomaterials Technology and Cosmetic Chemistry, Poland
5. Politechnika Gdanska, Department of Biomaterials Technology, Poland

(ICACC-PB-002-2026) Processing development of NASICON-based multilayer ceramic batteries via MLCC-inspired processing

J. Seong*[1]; J. Lee[1]; J. Heo[1]; Y. Son[1]; S. Lee[1]

1. Changwon National University College of Mechatronics, School of Materials Science and Engineering / Department of Materials Convergence and System Engineering, Republic of Korea

(ICACC-PB-003-2026) Development of machine-learned interatomic potentials for modeling amorphization of SiO_2 surfaces via argon bombardment

J. Diep*[1]; D. Keltner[1]; P. Khanal[1]; P. Rulis[1]; A. Usenko[1]

1. University of Missouri-Kansas City, USA

(ICACC-PB-004-2026) Comparative study on oxidation tests for antioxidative carbon/carbon composite coatings: Thermogravimetric analysis versus muffle furnace

J. W. McCormick*[1]; M. Rahaman[1]; H. Ramsurn[1]

1. The University of Tulsa, Russell School of Chemical Engineering, USA

(ICACC-PB-005-2026) MAXCarbon hybrid fibres for durable electrochemical components in hydrogen technologies towards net-zero carbon emissions

F. Jung*[1]; L. R. Aretz[1]; B. Vollbrecht[1]; N. Grigat[1]; K. Jois[1]

1. Rheinisch-Westfalische Technische Hochschule Aachen, Germany

(ICACC-PB-007-2026) Reinterpretation of the dielectric breakdown behavior of ceramics based on electric field enhancement by inherent microdefects

J. Araki*[1]; Y. Nakashima[2]; M. Fukushima[2]; W. Nakao[1]

1. Yokohama Kokuritsu Daigaku, Japan
2. National Institute of Advanced Industrial Science and Technology (AIST), Japan

(ICACC-PB-008-2026) Determination of P-O-H(g) species stability in high temperature oxdiation environment

S. Ryu*[1]; E. Opila[1]

1. University of Virginia, Material Science and Engineering, USA

(ICACC-PB-009-2026) Structural optimization of transport properties in artificial interfacial solids for high-ZT thermoelectrics

M. Morshed*[1]; A. Gautam[2]; C. Ugwumandu[3]; K. Nepal[2]; D. Basaula[4]; B. Greenberg[5]; K. Anderson[5]; S. Rommel[1]; D. Drabold[2]; M. Aindow[1]; B. Feigelson[5]; S. Nakhmanson[1]

1. University of Connecticut, Department of Materials Science and Engineering and Institute of Materials Science, USA
2. Ohio University, Department of Physics & Astronomy, USA
3. Los Alamos National Laboratory, Quantum and Condensed Matter Physics (T-4) Group, USA
4. University of Connecticut, Department of Physics, USA
5. US Naval Research Laboratory, USA

(ICACC-PB-010-2026) Synergistic approaches for improving antimicrobial activity of electrospun fibers

F. Gattucci*[1]; S. Ilyas[2]; C. Balagna[1]; S. Mathur[2]

1. Politecnico di Torino, DISAT, Italy
2. University of Cologne, Institute of Inorganic Chemistry, Germany

(ICACC-PB-011-2026) Exploring fully flexible batteries: Material and morphology design of bendable electrodes

D. Patrun*[1]; A. Vogel[1]; Z. Aytuna[1]; T. Fischer[1]; S. Mathur[1]

1. Universitat zu Koln, Institute of Inorganic and Materials Chemistry, Germany

(ICACC-PB-012-2026) Conjugated bronze/anatase/rutile TiO_2-carbon anodes engineered from titanium-based metal-organic frameworks for enhanced lithium-ion storage

W. Yang*[1]; H. Cho[2]

1. Sungkyunkwan University - Natural Sciences Campus, Department of Advanced Materials Science and Engineering, Republic of Korea
2. Sungkyunkwan University, Republic of Korea

(ICACC-PB-013-2026) Incorporation of partially pre-lithiated silicon anodes into Li-S all-solid-state batteries for dendrite suppression

Y. Jeong*[1]; S. Park[1]; J. Lee[1]; H. Lim[2]

1. Changwon National University, Materials Convergence and System Engineering, Republic of Korea
2. Changwon National University, Republic of Korea

(ICACC-PB-014-2026) Synthesis of metastable triphylite-type $NaMPO_4$ via laser-induced processing for cathodes in sodium-ion batteries

K. Takeuchi*[1]; T. Honma[1]

1. Nagaoka Gijutsu Kagaku Daigaku, Japan

(ICACC-PB-015-2026) Preparation and characterisation of $Na_{0.5}Bi_{0.5}Cu_3Ti_4O_{12}$ (NBCTO) for electrical applications

M. Tasyagan*[1]; S. Turan[3]; E. Izci[2]

1. Eskisehir Teknik Universitesi, Ceramic Science and Engineering, Turkey
2. Eskisehir Technical University, Physics, Turkey
3. Eskisehir Technical University, Materials Science and Engineering, Turkey

(ICACC-PB-017-2026) Thin ceramic-coated polyolefin separators via water-based processing for enhanced battery energy density

M. Jang*[1]; K. Roh[1]

1. Korea Institute of Ceramic Engineering and Technology, Republic of Korea

(ICACC-PB-018-2026) Construction of a materials map using an autoencoder and development of a search method for ion conductive materials

Y. Kato*[1]; S. Terashima[1]; N. Tanibata[1]; H. Takeda[1]; M. Nakayama[1]

1. Nagoya Kogyo Daigaku, Japan

(ICACC-PB-019-2026) Geometry optimization of Al_2O_3 lift pins with weighted structures for mitigating carbon fouling in CVD reactors

J. Kim*[1]; T. Kim[2]

1. Sungkyunkwan University - Natural Sciences Campus, Semiconductor and Display Engineering, Republic of Korea
2. Sungkyunkwan University - Natural Sciences Campus, Mechanical Engineering, Republic of Korea

(ICACC-PB-020-2026) Development of aluminum nitride (AlN) dispersion strengthened austenitic stainelss steel through powder metallurgy route

K. C. Phand*[1]; A. Kashyap[1]; S. Meka[1]

1. Indian Institute of Technology Roorkee, Metallurgical and Materials Engineering, India

(ICACC-PB-022-2026) Effects of Al_2O_3 and MgO precursors on the development of 3D printed cordierite lattice structures by hybrid direct ink writing of silicone emulsions

V. Diamanti*[1]; H. Elsayed[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Industrial Engineering, Italy

(ICACC-PB-023-2026) Integrated multiscale modeling and field validation of 193 nm UV induced compaction in amorphous silica optics for predictive wavefront error control

K. Lee*[1]; K. Lee[2]; W. Lee[1]

1. Seoul National University School of Chemical and Biological Engineering, Republic of Korea
2. Samsung Electronics Device Solutions, Memory Photolithography Technology team, Republic of Korea

(ICACC-PB-024-2026) A style transfer DNN and algorithmic simulation approach for generating SEM images of polycrystals to train segmentation networks

Y. Akiba*[1]; T. Mitani[1]; T. Murakami[1]; K. Aoki[1]; Y. Nakashima[2]; K. Hirao[2]

1. Chukyo University, School of Engineering, Japan
2. National Institute of Advanced Industrial Science and Technology (AIST), Japan

(ICACC-PB-025-2026) Innovative synthesis of solid solution MAX phase $(Nb_xTi_{1-x})_3AlC_2$

C. Wang*[2]; M. Dujovic[2]; K. Lee[1]; J. L. Lutkenhaus[1]; M. Green[1]; M. Radovic[2]

1. Texas A&M University, USA
2. Texas A&M University, Materials Science & Engineering, USA

(ICACC-PB-026-2026) Sintering optimization and grain size evaluation of additively manufactured SiC for nuclear applications

D. Miura*[1]; S. Kondo[2]; H. Yu[2]; Y. Ogino[2]; M. Park[2]; R. Kasada[2]

1. Tohoku University, Graduate School of Engineering, Japan
2. Tohoku University, Institute for Materials Research, Japan

(ICACC-PB-028-2026) In situ transmission electron microscope mechanical testing for ultrahigh temperature ceramics

K. Meyer*[1]; S. J. Dillon[2]

1. University of California Irvine, MSE, USA
2. University of California, Irvine, USA

(ICACC-PB-029-2026) Development of superhard high-entropy carbide and carbonitrides for extreme environments via FAST sintering

L. Wilson*[1]; D. E. Wolfe[1]; R. Koennecker[1]; A. Marin[1]; S. Curtarolo[2]; W. Fahrenholtz[3]; J. Maria[1]; D. Brenner[4]; E. Zurek[5]

1. Pennsylvania State University, USA
2. Duke University, Materials Science, Electrical Engineering and Physics, USA
3. Missouri University of Science & Technology, Dept. of Materials Science and Engineering, USA
4. NC State University, USA
5. University at Buffalo, USA

(ICACC-PB-030-2026) Development and performance of Nb–Ni bonded polycrystalline CBN composites sintered under high pressure and temperature

B. N. Cobuci*[1]; F. P. Lopes[2]; H. A. Colorado L.[1]; M. P. Oliveira[3]

1. Universidad de Antioquia, CCComposites, Colombia
2. Universidade Estadual do Norte Fluminense Darcy Ribeiro, Brazil
3. Universidade Federal do Espirito Santo, Brazil

(ICACC-PB-031-2026) Gas adsorption performance of CO_2 adsorbents after accelerated durability tests with flue gas impurities

S. B. Lundin[1]; A. Ikeda[1]; Y. Kohno[1]; T. Makino*[1]; A. Endo[1]

1. National Institute of Advanced Industrial Science and Technology, Japan

(ICACC-PB-032-2026) Interparticle forces behind plasticity of ceramic pastes

K. Sato*[1]; Y. Hotta[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

(ICACC-PB-033-2026) Electric field-assisted joining of TaC -SiC ceramics without fillers using spark plasma sintering: Influence of SiC content

S. Pandey[1]; B. Kumar*[1]

1. Indian Institute of Technology Roorkee, Department of Metallurgical and Materials Engineering, India

(ICACC-PB-034-2026) Classification of fatigue damage in carbon fiber reinforced plastics laminates using acoustic emission technique

S. Kobayashi*[1]; T. Ibaraki[1]

1. Tokyo Metropolitan University, Mechanical Systems Engineering, Japan

(ICACC-PB-035-2026) Predicting stiffness reduction in fiber-reinforced composites with matrix cracks: A data-driven approach integrating experiments and modeling

M. Fikry[1]; W. Adegawa[1]; K. Ohtsubo[1]; J. Mack[3]; N. Martono[1]; K. Tan[3]; V. Vinogradov[2]; S. Ogihara*[1]

1. Tokyo Rika Daigaku, Japan
2. Newcastle University, United Kingdom
3. University of Akron, USA

(ICACC-PB-036-2026) Effect of stacking sequences on the low-velocity impact response of composite overwrapped pressure vessels

M. Akbar[2]; S. Kobayashi*[1]

1. Tokyo Metropolitan University, Mechanical Engineering, Japan
2. Universitas Riau, Indonesia

(ICACC-PB-037-2026) Evaluation of vibrational properties of polymer materials by molecular dynamics simulation

S. Yuan*[1]; T. Sakai[2]

1. Tokyo Rika Daigaku, Japan
2. Saitama University, Japan

(ICACC-PB-038-2026) Evaluation of the effect of cellulose fiber on the mechanical properties of wood plastic composites

T. Sakai*[2]; S. Kurihara[1]; K. Aoki[1]

1. Shizuoka Daigaku, Japan
2. Saitama Daigaku, Japan

(ICACC-PB-039-2026) Effects of molding conditions on mechanical properties of unidirectional CFRP preforms

S. Oshima*[1]; S. Kobayashi[2]

1. Tokyo Metropolitan University, Division of Advanced Mechanical Systems Engineering, Japan
2. Tokyo Metropolitan University, Mechanical Engineering, Japan

(ICACC-PB-040-2026) Molecular dynamics of weak bonds in CFRP adhesive joints

T. Sakai*[1]; R. Terazawa[1]

1. Saitama Daigaku, Japan

(ICACC-PB-042-2026) Dual-channel phonon transport in two-dimensional materials with low thermal conductivity

Y. Zhao*[1]; C. Zhang[2]; S. Shin[1]; L. Shen[1]

1. National University of Singapore, Department of Mechanical Engineering, Singapore
2. National University of Singapore, Department of Physics, Singapore

(ICACC-PB-043-2026) Spectroscopic analysis of hydroxyapatite and its application to diagnostic techniques in hereditary tooth/skeletal dysplasia

T. Adachi*[1]; K. Adachi[1]; K. Yamamoto[1]; F. Oseko[1]; A. Nakamura- Takahashi[2]; H. Sato[3]; W. Zhu[4]; G. Pezzotti[5]

1. Kyoto Prefectural University of Medicine, Japan
2. Tokyo Dental College, Japan
3. Kagoshima University, Japan
4. Kyoto Institute of Technology, Japan
5. Kansai Medical University, Japan

(ICACC-PB-044-2026) Composite of cross-linked nanogel and directly converted osteoblasts enhance bone regeneration

K. Yamamoto*[1]; T. Kishida[1]; T. Adachi[1]; F. Oseko[1]; K. Akiyoshi[2]; O. Mazda[1]

1. Kyoto Prefectural University of Medicine, Japan
2. Kyoto University, Japan

(ICACC-PB-045-2026) Sustainable composite nanocoatings for antimicrobial/antiviral protection for several applications

A. Luceri*[1]; S. Perero[1]; M. Donalisio[2]; D. Lembo[2]; M. Ferraris[1]; C. Balagna[1]

1. Politecnico di Torino, Dept. Applied Science and Technology, Italy
2. Università degli Studi di Torino, Department of Clinical and Biological Sciences, Italy

(ICACC-PB-046-2026) A green wall concept: Micro- and nanoparticles for enabling algae growth on concretes

S. Ilyas*[1]; J. Kirchhartz[1]; S. Mathur[1]

1. Institute of Inorganic and Materials Chemistry, University of Cologne, Germany

(ICACC-PB-048-2026) Electrostatics and chemistry combination divalent cobalt ions and alkali treated MXene for high performance lithium ion batteries

Z. Li*[1]

1. Universitat de Barcelona, Spain

(ICACC-PB-049-2026) High-temperature dielectric properties characterization: A cornerstone for microwave-assisted process design and modelling

G. Annino*[1]; A. Cintio[1]; R. D'Ambrosio[1]

1. Istituto per i Processi Chimico-Fisici Consiglio Nazionale delle Ricerche Sede Secondaria di Pisa, Dipartimento di Scienze Chimiche e Tecnologie dei Materiali, Italy

(ICACC-PB-051-2026) Comparative study of porous ceramics shaped by freeze tape casting

I. Maury Njoya[2]; G. Lecomte-Nana*[1]; Y. El Hafiane[1]; M. Lacroix[1]; C. Peyratout[1]

1. Universite de Limoges, France
2. Institut de Recherche sur les Ceramiques, France

(ICACC-PB-052-2026) SiC-SiC CMCs & graphite in nuclear reactors: Rules in ASME BPV Code Sec. III, Div. 5 for Nonmetallics - 2027 Edition Proposed Revisions

M. G. Jenkins*[1]; J. W. Geringer[2]; W. Windes[3]

1. Bothell Engineering and Science Technologies, USA
2. Oak Ridge National Lab, Materials Science and Technology, USA
3. Idaho National Laboratory, USA

(ICACC-PB-053-2026) Evaluating mechanical performance and optimizing ratios for rice hull ash and cement in shotcrete

T. Acedo[1]; J. Siago[1]; M. Turtosa[1]; K. Martir[1]; R. Hilot[1]; J. Paez[1]; R. V. Virtudazo[1]; A. Secula[1]; S. D. Kempis[1]; A. Caamino*[1]

1. MSU-Iligan Institute of Technology, Department of Materials and Resources Engineering & Technology, Philippines

(ICACC-PB-054-2026) A simulation-based 4D-STEM workflow for ptychographic analysis of high entropy ceramics

A. Mirzaei*[1]; S. J. Dillon[1]

1. University of California Irvine Henry Samueli School of Engineering, Department of Materials Science and Engineering, USA

(ICACC-PB-055-2026) Microwave-Absorbing Metal Oxides and Their Application to CO_2 Conversion Catalysis

Y. You*[1]; J. Park[1]; J. Lee[1]

1. Korea Research Institute of Chemical Technology, CO2 & Energy Research Center, Republic of Korea

(ICACC-PB-056-2026) Influence of pFIB delayering conditions on surface contamination and PVC sensitivity in SEM for semiconductor pFA

Y. Lee*[1]; B. Lee[2]; H. Park[2]; C. Yang[1]

1. Sungkyunkwan University, School of Advanced Materials Science & Engineering, Republic of Korea
2. Samsung Electronics Co Ltd, Republic of Korea

(ICACC-PB-057-2026) Growth of vertically aligned BaTiO3 nanowire arrays on flexible substrates for piezoelectric energy harvesting

S. Dadashov*[1]; E. Suvaci[2]

1. Eskisehir Teknik Universitesi, Chemical Engineering, Turkey
2. Eskisehir Teknik Universitesi, Material Science and Engineering, Turkey

(ICACC-PB-058-2026) Effect of the mixing fraction of dispersants with different molecular weights on the flow characteristics of non-aqueous silica slurries

Y. Imai*[1]; J. Tatami[1]; M. Iijima[1]

1. Yokohama National University, Japan

(ICACC-PB-059-2026) Correlation of apparent thermal conductivity with specific surface area and relative density of a sintering alumina

D. Delia*[1]; M. Modugno[1]; A. Wereszczak[1]; J. Hemrick[1]

1. Oak Ridge National Laboratory, Materials Science and Technology Division, USA

(ICACC-PB-060-2026) Empowering the next generation of ceramic leaders: The mission and impact of the PCSA

M. Dujovic*[1]; N. Marquez Rios[2]; C. Wang[3]; R. Swanson[4]; S. McCormack[4]; N. McIlwaine[5]

1. Texas A&M University, Materials Science and Engineering (MSEN), USA
2. Pennsylvania State University, Material Science and Engineering, USA
3. Texas A&M University, Materials science and engineering, USA
4. University of California Davis, Materials Science and Engineering, USA
5. Ceramic and Glass Industry Foundation, USA

(ICACC-PB-061-2026) Modifying pore structure in bisque-fired kaolin membranes for hydrogen production and gas separation

O. Olaleye*[1]; S. Ricote[2]; G. Coors[5]; A. Staerz[3]; I. Reimanis[4]

1. Colorado School of Mines, Metallurgical and Materials Engineering, USA
2. Colorado School of Mines, Mechanical Engineering, USA
3. Colorado School of Mines, MME, USA
4. Colorado School of Mines, USA
5. Hydrogen Helix, USA

(ICACC-PB-062-2026) Investigation of Cd and Ga dopants in ultrafast scintillators Cs_2ZnCl_4 and Cs_3ZnCl_5

M. Gillespie*[1]; L. Stand[2]; C. Melcher[2]; M. Zhuravleva[2]

1. The University of Tennessee Knoxville Tickle College of Engineering, Materials Science and Engineering, USA
2. University of Tennessee, Scintillation Materials Research Center, USA

Thursday, January 29, 2026

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Ceramics for aerospace and other transport applications

Room: Coquina E

Session Chair: B Venkata Manoj Kumar, Indian Institute of Technology Roorkee

8:30 AM

(ICACC-S1-043-2026) Ultrahigh temperature measurements of emissivity, thermal conductivity, solidus and liquidus temperatures, and cohesive energy of ceramics (Invited)

P. E. Hopkins*[1]

1. University of Virginia, USA

9:00 AM

(ICACC-S1-044-2026) Microstructural characterization and structural property determination of oxide/oxide ceramic matrix composites upon thermal plasma exposure (Invited) *WITHDRAWN*

H. James[1]; A. K. Singh*[1]

1. Baylor University, Mechanical Engineering, USA

9:30 AM

(ICACC-S1-045-2026) Innovative CMC materials tailored for aerospace applications

L. Cavalli*[1]; F. Giacometti[1]; C. Gigante[1]; M. Arnoldi[1]; M. Cantù[1]; Y. Akram[1]; M. Boiocchi[1]; M. Valle[1]

1. Petroceramics S.p.A., Italy

9:50 AM

Break

10:10 AM

(ICACC-S1-046-2026) Design of energy absorbing and tough ceramics for rotating detonation engines (RDEs)

B. Pajo*[1]; B. Lam[1]; R. Trice[1]; C. Martinez[1]

1. Purdue University, School of Materials Engineering, USA

10:30 AM

(ICACC-S1-047-2026) TiC-based UHTCMCs synthesized via polytitanoxane-derived polymer infiltration and pyrolysis

K. Y. Wickramathilaka*[1]; I. Perera[1]; J. Valus[1]; R. Purgay[1]; S. Salamanca[1]; T. Bliznakov[1]; S. Suib[1]

1. University of Connecticut, USA

S1- Ceramics for energy generation, turbines, and environmental applications

Room: Coquina E

Session Chair: B Venkata Manoj Kumar, Indian Institute of Technology Roorkee

10:50 AM

(ICACC-S1-049-2026) Bioinspired design of self-healing ceramics with 3D network of healing activator

T. Osada*[1]; M. Mitome[1]; T. Hara[1]; T. Abe[1]; W. Nakao[2]; T. Ohmura[1]

1. National Institute for Material Science, Japan
2. Yokohama National University, Japan

11:10 AM

(ICACC-S1-050-2026) YSZ/Si(B)CN ceramic matrix composites coated with BNNT/Si(B)CN nanocomposites for hydrogen combustion conditions

Y. Wang[1]; C. Maitti[1]; Z. Yu[2]; J. Gou*[1]

1. University of Central Florida, Mechanical and Aerospace Engineering, USA
2. FAMU-FSU College of Engineering, Industrial and Manufacturing Engineering, USA

11:30 AM

(ICACC-S1-051-2026) Synthesis and characterization of YSZ fiber reinforced high-entropy carbide composites

C. Maitti[1]; Y. Wang[1]; J. Gou*[1]

1. University of Central Florida, Mechanical and Aerospace Engineering, USA

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Electrolyte: performance and mechanical properties

Room: Coquina H

Session Chair: Sebastian Molin, Gdansk University of Technology

8:30 AM

(ICACC-S3-043-2026) Development and production of SOFC/EC cells based on multipotent zirconia (Invited) *WITHDRAWN*

B. Yoon*[1]

1. Dentium Co Ltd, Republic of Korea

9:00 AM

(ICACC-S3-044-2026) Multi-material design to optimize mechanical strength and ionic conductivity in 8YSZ ceramic SOFCs

A. Jana[1]; J. Schlacher[1]; I. Kraleva[1]; A. Egger[2]; E. Bucher[2]; R. Bermejo*[1]

1. Montanuniversitat Leoben, Materials Science, Austria
2. Montanuniversitat Leoben, General Analytical and Physical Chemistry, Austria

9:20 AM

(ICACC-S3-045-2026) Comparing high temperature tensile properties of 3YSZ-elektrolyte with complete SO-cells

N. Langhof*[1]; I. Bombarda[1]; S. Schafföner[2]

1. University of Bayreuth, Ceramic Materials Engineering, Germany
2. University of Bayreuth, Chair of Ceramic Materials Engineering, Germany

9:40 AM

(ICACC-S3-046-2026) Mechanical characterization of protonic ceramic electrolyte materials: Pristine and post-humidification

A. Moranti*[1]; S. Ricote[2]; F. Smeacetto[3]; M. Santarelli[4]

1. Politecnico di Torino, Italy
2. Colorado School of Mines, Mechanical Engineering, USA
3. Politecnico di Torino, Applied Science and Technology, Italy
4. Politecnico di Torino, Energy, Italy

10:00 AM

Break

S3-Durability & Degradation

Room: Coquina H

Session Chair: Jérôme Laurencin, CEA

10:20 AM

(ICACC-S3-047-2026) Steam electrolysis with solid oxide cells with thin supporting electrolyte: Advances within the German H2Giga R&D project (Invited)

J. Schefold*[1]; A. Leon[1]

1. European Institute for Energy Research, Germany

10:50 AM

(ICACC-S3-026-2026) Metal catalyst infiltration into perovskite oxides for enhanced CO_2 reduction (Invited)

S. Lee*[1]; T. Shin[2]

1. Korea Institute of Ceramic Engineering and Technology, Climate&Energy R&D Group, Republic of Korea
2. Korea Institute of Ceramic Engineering & Technology, Energy Materials Center, Republic

11:20 AM

(ICACC-S3-049-2026) Towards increased stability, performance and robustness of SOEC: The CELCER-EHT project

E. Grindler*[1]; F. Lefebvre-Joud[1]

1. Univ Grenoble Alpes – CEA/LITEN, France

11:40 AM

(ICACC-S3-050-2026) Insights into degradation and oxygen vacancy dynamics in SOECs

J. Lee*[1]; T. Kim[2]; J. Joo[2]; T. Shin[1]

1. Korea Institute of Ceramic Engineering and Technology, Republic of Korea
2. Gwangju Institute of Science and Technology, Republic of Korea

S4 Advanced Materials for Thermoelectric and Thermionic Energy Conversion

S4- Nanomaterials and nanocomposites

Room: Ballroom 1 -2

Session Chairs: Holger Kleinke, University of Waterloo; Serge Nakhmanson, University of Connecticut

9:00 AM

(ICACC-S4-001-2026) Native defects engineering in Cu_2Se-based hierarchical composites (Invited)

F. Poudeu*[1]; Z. Yin[1]; R. Lu[1]; T. Bailey[1]; C. Uher[1]

1. University of Michigan, USA

9:30 AM

(ICACC-S4-002-2026) Investigating microstructure via thermal conductivity imaging: from grain boundaries, to phase segregations and material anisotropy (Invited)

E. Isotta*[1]; O. Balogun[3]; J. Snyder[2]; C. Scheu[1]

1. Max-Planck-Institut fur Nachhaltige Materialien GmbH, Germany
2. Northwestern University, Department of Materials Science and Engineering, USA
3. Northwestern University, Mechanical Engineering, USA

10:00 AM

Break

10:20 AM

(ICACC-S4-003-2026) Dual spark-plasma texturing and electrospun nanoribbons for superior thermoelectric performance of misfit-layered calcium cobaltite ceramics (Invited)

A. Feldhoff*[1]; K. Kruppa[1]; I. Maor[5]; A. Karlin[5]; K. Kebel[1]; F. Steinbach[1]; H. Petersen[2]; D. Stobitzer[3]; W. Xie[4]; A. Weidenkaff[4]; G. E. Shter[5]; M. Mann-Lahav[5]; G. Grader[5]

1. Leibniz University Hannover, Institute of Physical Chemistry and Electrochemistry, Germany
2. Leibniz Universitat Hannover, IFW – Institute of Production Engineering and Machine Tools, Germany
3. NETZSCH-Geratebau GmbH, Germany
4. Technische Universitat Darmstadt, Institute of Materials Science, Germany
5. Technion - Israel Institute of Technology, Chemical Engineering, Israel

10:50 AM

(ICACC-S4-004-2026) Investigating the role of Ag and Ni phases in the thermoelectric properties of Multicomponent Oxides Composites

M. M. Czudec*[1]; M. Gazda[1]; T. Miruszewski[1]

1. Politechnika Gdanska, Poland

11:10 AM

(ICACC-S4-005-2026) Enhanced thermoelectric performance of porous $SrTiO_3$ ceramics with exsolved Ni nanoparticles

M. Ohtaki*[1]; S. Hirata[1]; L. Aoki[1]; K. Suekuni[1]

1. Kyushu Daigaku, Interdisciplinary Graduate School of Engineering Sciences, Japan

11:30 AM WITHDRAWN

Poster Preview Pitch- Dual-channel phonon transport in two-dimensional materials with low thermal conductivity

S5 Next-Generation Bioceramics and Biocomposites

S5-Additive manufacturing and hybrid bioceramic-polymer systems

Room: Flagler A

Session Chair: Enrica Vernè, Politecnico di Torino

8:30 AM

(ICACC-S5-010-2026) Fabrication of sphene-based core-shell structures via co-axial Direct Ink Writing'

V. Gastaldi*[1]; L. Biasetto[1]; D. Bellucci[2]; V. Cannillo[2]

1. Universita degli Studi di Padova, Industrial Engineering, Italy
2. Universita degli Studi di Modena e Reggio Emilia, Department of Engineering "Enzo Ferrari", Italy

8:50 AM

(ICACC-S5-011-2026) Vat photopolymerization of BG1d bioactive glass for the fabrication of bone scaffolds

V. Rigano*[1]; R. Gabrieli[1]; L. D'Andrea[3]; P. Vena[3]; S. Anelli[1]; A. Schiavi[5]; M. Schwentenwein[2]; D. U. Tulyaganov[4]; E. Vernè[1]; F. Baino[1]

1. Politecnico di Torino, DISAT, Italy
2. Lithoz GmbH, Austria
3. Politecnico di Milano, Department of Chemistry, Materials & Chemical Engineering, Italy
4. Turin Polytechnic University in Tashkent, Uzbekistan
5. Istituto Nazionale di Ricerca Metrologica, Italy

9:10 AM

(ICACC-S5-012-2026) Synergistic design of magnesium potassium phosphate with natural hydrogels: An approach to injectable and biofunctional bone cements

M. Wekwejt*[1]; A. Melnyk[2]; R. Jesiolkiewicz[2]; M. Wojtala[2]; A. Mielewczyk-Gryn[3]; D. Kozien[4]; A. Ronowska[5]; J. Kozlowska[6]; U. Gbureck[7]

1. Politechnika Gdanska, Department of Biomaterials Technology, Poland
2. Politechnika Gdanska, Scientific Group 'Materials in Medicine', Poland
3. Politechnika Gdanska, Department of Ceramics, Poland
4. Akademia Gorniczo-Hutnicza im Stanislawa Staszica w Krakowie, Department of Ceramics and Refractories, Poland
5. Gdanski Uniwersytet Medyczny, Department of Laboratory Medicin, Poland
6. Uniwersytet Mikolaja Kopernika w Toruniu, Department of Biomaterials Technology and Cosmetic Chemistry, Poland
7. University of Wurzburg, Department for Functional Materials in Medicine and Dentistry, Germany

S5- In vitro & in vivo biocompatibility & Bioceramics for implantable devices, biosensor and cosmetic application

Room: Flagler A

Session Chair: Katalin Balazsi, Centre for Energy Research HAS

9:30 AM

(ICACC-S5-013-2026) Ceramic pressure slip casting of complex geometries like knee implant (Invited)

S. Begand*[1]; S. Spange[1]; K. Hans[2]; C. Ortmann[2]; M. Liebelt[2]; T. Oberbach[2]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS - Standort Hermsdorf, Oxide Ceramics, Germany
2. Mathys Orthopaedie GmbH, Germany

10:00 AM

Break

10:20 AM

(ICACC-S5-014-2026) Is In vivo ageing of dental zirconia ceramics clinically relevant? (Invited)

A. Kocjan*[1]; P. Jevnikar[2]; T. Douillard[3]; C. Sanon[3]; J. Chevalier[4]; R. Kohal[5]

1. Jozef Stefan Institute, Slovenia
2. Medical Faculty, University of Ljubljana, Slovenia
3. Materiaux Ingenierie et Science, France
4. INSA Lyon, Materials Science, France
5. Albert-Ludwigs-Universitat Freiburg Medizinische Fakultat, Germany

10:50 AM

(ICACC-S5-015-2026) Ceramic finger joint implants: AI designed and manufactured by direct shaping

S. Begand*[1]; T. Moritz[2]; S. Spange[1]

1. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS - Standort Hermsdorf, Oxide Ceramics, Germany
2. Fraunhofer-Institut fur Keramische Technologien und Systeme IKTS, Processes and Components, Germany

11:10 AM

(ICACC-S5-023-2026) CoorsTek Permallon®: Alumina matrix composite advancing ceramic bearing surfaces in total hip arthroplasty

H. Yegingil*[1]; J. Haftel[2]; A. Cafiero[1]; L. Strong[1]

1. CoorsTek Inc, Medical & Clean Technologies (MCT), USA
2. CoorsTek Inc, Bioceramics, USA

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Ionics, Interface, characterization and modeling I

Room: Coquina G

Session Chairs: Chunmei Ban, University of Colorado, Boulder; Dominic Bresser, Karlsruher Institut fur Technologie

8:30 AM

(ICACC-S6-032-2026) Charge transport at and across lithium|Electrolyte interfaces and interphases (Invited)

D. Bresser*[1]

1. Karlsruher Institut fur Technologie, Helmholtz Institute Ulm (HIU), Germany

9:00 AM

(ICACC-S6-033-2026) Battery ionics and electrodics: A tour thorough relevant materials and their interphases (Invited)

J. Popovic-Neuber[1]; J. Grill*[1]

1. University of Stavanger, Norway

9:30 AM

(ICACC-S6-034-2026) Theoretical study on the ionic flow in materials via non-equilibrium stochastic process and molecular dynamics simulations (Invited)

Y. Ando*[1]

1. Tokyo Kagaku Daigaku, Japan

10:00 AM

Break

10:20 AM

(ICACC-S6-035-2026) Characterization of interfacial processes in liquid and solid-state batteries by surface spectroscopic methods (Invited)

J. Swiatowska*[1]; Y. Zhou[1]; S. Zanna[1]; A. Seyeux[1]; B. Tian[2]

1. Centre National de la Recherche Scientifique, Chimie ParisTech, France
2. Shenzhen University, International Collaborative Laboratory of 2D Materials for Optoelectronics Science and Technology of Ministry of Education, Institute of Microscale Optoelectronics, China

10:50 AM

(ICACC-S6-036-2026) Insights from atomistic modeling of battery materials (Invited)

H. Iddir*[1]

1. Argonne National Laboratory, Chemical Sciences and Engineering, USA

11:20 AM

(ICACC-S6-037-2026) Engineering microstructure in dry-processed cathodes via calendering

H. Park*[2]; S. Trask[1]; A. Jansen[1]; J. Li[2]

1. Argonne National Laboratory, USA
2. Argonne National Laboratory, Applied Materials Division, USA

11:40 AM

(ICACC-S6-038-2026) Pilot-scale manufacturing and surface modification strategies of NaSICON membranes

A. Gibson*[1]; K. Lemley[1]; T. Dysert[1]; N. Kidner[1]

1. Nexceris, USA

S9 Porous Ceramics Novel Developments and Applications

S9- Additive Manufacturing and Functional Design

Room: Ballroom 3

Session Chair: Gisele Laure Lecomte-Nana, Universite de Limoges

8:30 AM

(ICACC-S9-008-2026) Novel processing method of porous ceramics using polysaccharide networks grown in green bodies as sacrificial templates (Invited)

M. Uematsu*[2]; K. Ishii[1]; T. Kimura[2]; T. Uchikoshi[3]

1. Nagoya Institute of Technology, Advanced Ceramics Research Center, Japan
2. Japan Fine Ceramics Center, Japan
3. National Institute for Materials Science, Japan

9:00 AM

(ICACC-S9-009-2026) Electrically conductive glass matrix composite scaffolds via digital light processing of silicone-based blends

A. Zilio*[1]; K. Vezzù[1]; V. Di Noto[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Department of Industrial Engineering, Italy

9:20 AM

(ICACC-S9-010-2026) Spatially tailored porosity in alumina by multi-material additive manufacturing

M. Schwentenwein*[1]; S. Nohut[1]; J. Schlacher[2]; R. Bermejo[2]

1. Lithoz GmbH, Austria
2. Montanuniversitaet Leoben, Institut fuer Struktur- und Funktionskeramik, Austria

9:40 AM

(ICACC-S9-011-2026) Shaping the future: Additive manufacturing of porous ceramics

L. Wahl[1]; S. Funk[1]; M. Weichelt[1]; T. Fey*[1]

1. Friedrich-Alexander University Erlangen-Nürnberg, Department Material Science and Engineering, Germany

10:00 AM

Break

S9- Innovative Processing and Characterization Techniques

Room: Ballroom 3

Session Chair: Tobias Fey, Friedrich-Alexander University Erlangen-Nürnberg

10:20 AM

(ICACC-S9-012-2026) Shaping geopolymers into plasma-compatible catalysts for methane decomposition

S. Mehdi*[1]; A. Gharzouni[1]

1. Institut de Recherche sur les Ceramiques, France

10:40 AM

(ICACC-S9-013-2026) Hot Disk method–Fast, easy, and non-destructive thermal conductivity characterization of porous ceramics

A. A. Trofimov*[1]

1. Orton Ceramic Foundation, Instruments, USA

11:00 AM

(ICACC-S9-014-2026) Mercury-free liquid metal intrusion porosimetry for ceramic pore size characterization

C. Baldizar[1]; D. Schuetz*[2]; M. Noisternig[2]; S. Stauder[2]; R. Ahmad[1]

1. Anton Paar Quanta Tec, USA
2. Anton Paar GmbH, Austria

11:20 AM

(ICACC-S9-015-2026) Impact of starch and bone ash on the final properties of kaolin and metakaolin-based porous ceramics.

M. Mouafon[3]; G. Lecomte-Nana*[1]; N. Tessier-Doyen[1]; D. Njoya[3]; M. Lacroix[1]; Y. Launay[1]; A. Njoya[2]

1. Universite de Limoges, France
2. Universite de Dschang, Cameroon
3. Universite de Yaounde I, Cameroon

11:40 AM

(ICACC-S9-016-2026) Highly porous 3D-printed 70S30C bioglass scaffolds from engineered silicone-based emulsions

V. Diamanti*[1]; H. Elsayed[1]; E. Bernardo[1]

1. Universita degli Studi di Padova, Industrial Engineering, Italy

S10 Integrated computational -Experimental modeling ad design of ceramics and composites

S10- Modeling of structure and property of ceramics and composites I

Room: Ballroom 4

Session Chairs: Paul Rulis, University of Missouri - Kansas City; Jung-Hoon Lee, Korea Institute of Science and Technology

8:30 AM

(ICACC-S10-008-2026) An ab initio defect chemistry analysis of $Ln_2NiO_4+\delta$ (Ln = La, Nd, Pr) (Invited)

Y. Zhong*[1]

1. Worcester Polytechnic Institute, Mechanical and Materials Engineering, USA

9:00 AM

(ICACC-S10-009-2026) Electronic structure and surface properties of nitrides from first-principles calculations (Invited)

M. Magnuson*[1]

1. Linköping University, Department of Physics, Chemistry and Biology (IFM), Sweden

9:30 AM

(ICACC-S10-011-2026) Design of 3D SiC-based architectures using topology optimisation for improving the global performances of volumetric solar absorbers (Invited)

A. de la Vauvre[1]; Y. Favennec[1]; L. Cangemi[2]; B. Rousseau*[1]

1. LTeN, France
2. IFP Energies nouvelles, France

10:00 AM

Break

10:20 AM

(ICACC-S10-012-2026) Simulated characterization to aid processing of calcium lanthanum sulfide *WITHDRAWN*

C. Atkinson*[1]; M. C. Guziewski[1]; A. L. Fry[1]

1. US Army Combat Capabilities Development Command Army Research Laboratory Aberdeen Proving Ground, USA

10:40 AM

(ICACC-S10-013-2026) Analysis of catalyst layer structures in polymer electrolyte fuel cell cathodes using neural network molecular dynamics simulation

K. Kamata*[1]; K. Suzuki[1]; S. Fukushima[1]; Y. Ootani[1]; N. Ozawa[2]; M. Kubo[1]

1. Institute for Materials Research, Tohoku University, Japan
2. Tohoku University, New Industry Creation Hatchery Center, Japan

S12 Atomically Layered Carbides, Nitrides, Borides, and Related Materials- From Bulk to Low Dimensional Derivates

S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials- From Bulk to Low Dimensional Derivates I

Room: Flagler C

Session Chairs: Miladin Radovic, Texas A&M University; Konstantina Lambrinou, University of Huddersfield

8:30 AM

(ICACC-S12-001-2026) The MAX phases: A historical perspective and future divinations (Invited)

M. Barsoum*[1]

1. Drexel University, Materials Science and Engineering, USA

9:00 AM

(ICACC-S12-002-2026) Let's talk A: Synthesis and properties of MAX phases with exotic A-elements (Invited)

C. Birkel*[1]; A. Loloee[1]; S. Kale[1]

1. Arizona State University, USA

9:30 AM

(ICACC-S12-003-2026) Defect engineering of 2D MXenes to control stability and phase transformation (Invited)

B. Anasori*[1]

1. Purdue University, USA

10:00 AM

Break

10:20 AM

(ICACC-S12-004-2026) Synthesis and characterisation of Al_5C_3N thin films and bullk– revisiting a layered carbonitride (Invited)

E. Lewin*[1]

1. Uppsala Universitet, Dept. of Chemistry - Ångström, Sweden

10:50 AM

(ICACC-S12-005-2026) Achieving phase-pure MAX phase ceramics via the steric stabilization of complex solid solutions (Invited)

N. Goossens*[1]

1. Empa, High Performance Ceramics, Switzerland

11:20 AM

(ICACC-S12-006-2026) Dissecting the chemistry of MAX phase delamination: Pathways, intermediates, and morphological evolution

M. Dujovic*[3]; S. Celik[3]; V. Deshpande[1]; J. L. Lutkenhaus[2]; M. Green[2]; A. Srivastava[3]; M. Radovic[3]

1. University of Cambridge, Department of Engineering, United Kingdom
2. Texas A&M University, The Artie McFerrin Department of Chemical Engineering, USA
3. Texas A&M University, Department of Materials Science and Engineering, USA

11:40 AM

(ICACC-S12-007-2026) Role of precursor chemistry in reaction pathways and oxygen incorporation in Ti_3AlC_2

K. Lee*[2]; V. R. Sanchez[1]; C. Wang[2]; M. Dujovic[2]; C. Novosad[2]; S. A. Tsipas[1]; J. Lutkenhaus[3]; M. Green[3]; A. Djire[3]; M. Radovic[2]

1. Universidad Carlos III de Madrid, Department of Materials Science and Engineering and Chemical Engineering, Spain
2. Texas A&M University, Department of Materials Science and Engineering, USA
3. Texas A&M University, Department of Chemical Engineering, USA

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Advanced characterization techniques and methods

Room: Coquina F

Session Chair: Dong Liu, University of Oxford

8:30 AM

(ICACC-S13-042-2026) In-situ transmision electron microscopy testing of nuclear relevant ceramics (Invited)

K. Hattar*[1]

1. The University of Tennessee Knoxville Tickle College of Engineering, Nuclear Engineering, USA

9:00 AM

(ICACC-S13-043-2026) Non-destructive evaluation of SiC/SiC composites using guided waves and physics informed machine learning

G. Subhash*[1]; M. P. MacIsaac[1]; C. Tran[2]; A. Beck[3]; W. Eum[2]; J. Harley[2]

1. University of Florida, Mechanical and Aerospace Engineering, USA
2. University of Florida, Department of Electrical and Computer Engineering, USA
3. University of Florida, Department of Physics, USA

9:20 AM

(ICACC-S13-044-2026) Super-resolution enhancement of XCT for SiC/SiC composite tube inspection

J. D. Arregui-Mena*[1]; A. Ziabari[2]; O. Rahman[2]; T. Koyanagi[2]

1. Oak Ridge National Lab, Nuclear Materials Science & Technology Group, USA
2. Oak Ridge National Laboratory, USA

9:40 AM

(ICACC-S13-045-2026) CMC tubular components in High-Temperature Reactor (HTR) nuclear applications: Review of current and draft ASTM standards for CMC tubes

M. G. Jenkins*[1]; J. E. Gallego[1]; G. Singh[2]

1. Bothell Engineering and Science Technologies, USA
2. Idaho National Laboratory, USA

10:00 AM

Break

S13- SiC-based material development for nuclear fission ad fusion

Room: Coquina F

Session Chair: Khalid Hattar, The University of Tennessee Knoxville Tickle College of Engineering

10:20 AM

(ICACC-S13-046-2026) Damage progression and failure of SiC/SiC composites subjected to in-situ 4-point bending

E. Cakmak*[1]; N. Cinbiz[2]; J. D. Arregui-Mena[3]; T. Koyanagi[2]

1. Oak Ridge National Laboratory, Materials Science and Technology Division, USA
2. Oak Ridge National Laboratory, USA
3. Oak Ridge National Lab, Nuclear Materials Science & Technology Group, USA

10:40 AM

(ICACC-S13-047-2026) Joining of SiC/SiC by preceramic polymers for safe nuclear energy applications.

A. Pizzinat*[1]; M. Ferraris[1]; D. Alidoost[1]; A. Benelli[1]

1. Politecnico di Torino, Department of Applied Science and Technology (DISAT), Italy

11:00 AM

(ICACC-S13-048-2026) Evaluation of SiC and SiC-based ceramics for use in advanced fusion vacuum vessels

K. Vasudeva*[1]; M. Rae[2]; A. Wylie[1]; J. Demiane[1]; W. Cairang[1]; W. Zhou[1]; S. Huberman[3]; K. Woller[4]; M. P. Short[1]; S. E. Ferry[4]

1. Massachusetts Institute of Technology Department of Nuclear Science and Engineering, USA
2. Massachusetts Institute of Technology Department of Materials Science and Engineering, USA
3. McGill University, Chemical Engineering, Canada
4. Massachusetts Institute of Technology Plasma Science and Fusion Center, USA

11:20 AM

(ICACC-S13-049-2026) Updates on dry irradiation of SiC/SiC cladding at MITR

L. Mazzocco*[1]; N. Cetiner[2]; A. Seshadri[1]; D. Carpenter[2]; K. Shirvan[1]

1. Massachusetts Institute of Technology, USA
2. Massachusetts Institute of Technology, Nuclear Reactor Laboratory, USA

11:40 AM

(ICACC-S13-050-2026) Effects of high dose neutron irradiation at LWR-relevant temperatures on the mechanical properties of SiC/SiC composites

Y. Jimba*[1]; T. Koyanagi[1]; Y. Katoh[1]

1. Oak Ridge National Laboratory, USA

S16 Geopolymers Inorganic Polymers and Sustainable Construction Materials

S16- Sustainable construction materials I

Room: Ballroom 5

Session Chair: Pozhhan Mokhtari, University of Illinois at Urbana-Champaign

8:30 AM

(ICACC-S16-007-2026) Challenges and opportunities of weak alkali activation of waste glass (Invited)

E. Bernardo*[1]; I. Lancellotti[2]; M. Catauro[3]

1. Universita degli Studi di Padova Dipartimento di Ingegneria Industriale, Italy
2. University of Modena and Reggio Emilia, Engineering Enzo Ferrari, Italy
3. Universita degli Studi della Campania Luigi Vanvitelli, Italy

9:00 AM

(ICACC-S16-008-2026) Effect of mineral binder and vegetal particles on ITZ formation in bio-based concrete

É. Prud'homme*[1]; F. Delhomme[2]; S. Amziane[3]; E. Toussaint[3]; S. Marceau[4]

1. Institut National des Sciences Appliquees de Lyon, MATEIS, France
2. Institut National des Sciences Appliquees de Lyon, GEOMAS, France
3. Institut Pascal, France
4. Universite Gustave Eiffel, France

9:20 AM

(ICACC-S16-009-2026) Sustainable solutions of ceramic composites using additive manufacturing

H. A. Colorado L.*[1]

1. Universidad de Antioquia, Colombia

9:40 AM

(ICACC-S16-010-2026) Development of materials based on raw earth and mycelium

É. Prud'homme*[1]; F. Delhomme[2]; D. Perret[3]

1. Institut National des Sciences Appliquees de Lyon, MATEIS, France
2. Institut National des Sciences Appliquees de Lyon, GEOMAS, France
3. FungiMaker, France

10:00 AM

Break

10:20 AM

(ICACC-S16-011-2026) Assessing the mechanical performance of rice hull ash (RHA) as cement replacement for enhanced grouting applications (Invited)

T. Borongon[1]; R. Esmael[1]; N. Hadji Rakim[1]; K. Martir[1]; J. Paez[1]; R. Hilot[1]; A. Secula[1]; S. D. Kempis[1]; A. Caamino*[1]

1. MSU-Iligan Institute of Technology, Department of Materials and Resources Engineering & Technlology, Philippines

10:50 AM

(ICACC-S16-012-2026) Nondestructive evaluation of sand–bamboo fiber reinforced geopolymer composites for structural applications (Invited)

R. A. Sa Ribeiro*[1]; M. G. Sá Ribeiro[1]; P. Mokhtari[2]; W. M. Kriven[3]

1. INPA-National Institute for Amazonian Research, Green Building and Engineering Laboratory, Brazil
2. University of Illinois at Urbana-Champaign, Materials Science and Engineering, USA
3. University of Illinois at Urbana-Champaign, USA

S16- Use of waste materials to make geopolymers

Room: Ballroom 5

Session Chair: Henry Colorado L., Universidad de Antioquia

11:20 AM

(ICACC-S16-013-2026) Geopolymer-mullite composites derived from alumina based bricks using rice ash as silica modifier (Invited)

C. Bagci*[1]; E. Dolu[1]; W. M. Kriven[2]

1. Hitit University, Department of Metallurgical and Materials Engineering, Turkey
2. University of Illinois at Urbana-Champaign, USA

11:50 AM

(ICACC-S16-014-2026) Using waste materials and geopolymer as a binder for reinforced construction material

J. Lin*[1]; W. M. Kriven[1]

1. University of Illinois Urbana-Champaign, Material Science and Engineering, USA

S20: Golden Jubilee- Engineered Ceramics for Achieving Net-Zero Carbon Emissions

S20- Current trends and future directions for research and technology on advanced ceramics, composites, and multifunctional materials II

Room: Coquina D

Session Chairs: Young-Wook Kim, WORLDEX Industry & Trading Co., Ltd.; Stuart Hampshire, University of Limerick

8:30 AM

(ICACC-S20-034-2026) Silicon Carbide: A multifunctional ceramic material (Invited)

Y. Kim*[1]; D. Kim[1]; H. Kim[2]

1. WORLDEX Industry & Trading Co., Ltd., Republic of Korea
2. University of Seoul, Republic of Korea

9:00 AM

(ICACC-S20-035-2026) Joining, integration, and repair of ceramic matrix composites for aerospace applications: Technical challenges and opportunities (Invited)

M. C. Halbig*[1]; M. Singh[2]; A. S. Almansour[1]

1. NASA Glenn Research Center, USA
2. Ohio Aerospace Institute, USA

9:30 AM

(ICACC-S20-036-2026) Glass and ceramics for hydrogen technologies: Current solutions and perspectives (Invited)

F. Smeacetto*[1]

1. Politecnico di Torino, Applied Science and Technology, Italy

10:00 AM

Break

10:20 AM

(ICACC-S20-037-2026) Review of developments in silicon nitride ceramics: Current trends in power electronics and biomedical applications (Invited)

S. Hampshire*[1]

1. University of Limerick, The Bernal Institute, Ireland

10:50 AM

(ICACC-S20-038-2026) Cost-effective ceramic manufacturing and processing strategies for extreme conditions (Invited)

C. Tallon*[1]

1. Virginia Polytechnic Institute and State University, Materials Science and Engineering, USA

11:20 AM

(ICACC-S20-008-2026) Diversified external separation forces enabling disassembly-Oriented design for creating new resource circulation loops toward carbon neutrality (Invited)

C. Tokoro*[1]

1. Waseda University, Japan

11:50 AM

(ICACC-S20-039-2026) Functional design of rare-earth silicate EBCs (Invited) *WITHDRAWN*

J. Zhang*[1]

1. Institute of Metal Research, Chinese Academy of Sciences, High-performance Ceramics, China

FS6 Innovative material processing for diverse resource circulation loops

FS 6- Innovative material processing for diverse resource circulation loops I

Room: Ballroom 3

Session Chairs: Beihai Ma, Argonne National Laboratory; Kaka Ma, Texas A&M University

1:30 PM

(ICACC-FS6-001-2026) Electric pulse disassembly of epoxy adhesives through conductive nanoparticle dispersion control (Invited)

C. Tokoro*[1]; Y. Okada[2]; S. Yamashita[2]; M. Kubo[3]; T. Saito[3]; K. Sato[1]; K. Matsuo[4]; M. Inutsuka[1]; A. Narita[5]; H. Kamiya[6]

1. Waseda University, Japan
2. Tokyo Noko Daigaku, Japan
3. Tohoku Daigaku, Japan
4. Waseda Daigaku Riko Gakujutsuin, Japan
5. Waseda University, Sustainable Energy & Environmental Society Open Innovation Research Organization (SEES), Japan
6. Tokyo University of Agriculture and Technology, Institute of Engineering, Japan

2:00 PM

(ICACC-FS6-002-2026) Integrating innovation, safety, and sustainability in the recovery of strategic elements from Li-Ion battery black mass (Invited)

A. Mannu*[2]; M. Di pietro[1]; V. Anania[1]; A. Zanoletti[2]; A. Cornelio[2]; A. Mele[1]; L. Depero[2]; E. Bontempi[2]

1. Politecnico di Milano, Italy
2. Universita degli Studi di Brescia, DIMI, Italy

2:30 PM

(ICACC-FS6-003-2026) Advancing the recovery of LIBs: Microwave-assisted direct recycling of end-of-life electric vehicle LIBs with LFP (Invited)

M. Ng*[1]; X. Chen[2]; R. Panchal[2]; S. Bhattacharyya[2]; J. Jeevarajan[1]; P. Ajayan[2]

1. Underwriters Laboratories Inc, UL Research Institutes | Electrochemical Safety, USA
2. Rice University, Department of Materials Science & NanoEngineering, USA

3:00 PM

Break

FS 6- Innovative material processing for diverse resource circulation loops II

Room: Ballroom 3

Session Chairs: Chiharu Tokoro, Waseda University; Migo Szeman Ng, Underwriters Laboratories Inc

3:20 PM

(ICACC-FS6-004-2026) High frequency induction heating delamination for Li-ion battery electrode materials recycling operations (Invited)

B. Ma*[1]; O. Kahvecioglu[1]; B. Polzin[1]; J. S. Spangenberger[1]

1. Argonne National Laboratory, USA

3:50 PM

(ICACC-FS6-005-2026) Towards circular approaches and revenue diversification in wPCB recyling (Invited)

T. Moyo-Mahlangu*[1]

1. The Pennsylvania State University, Energy and Mineral Engineering, USA

4:20 PM

(ICACC-FS6-006-2026) Selective delamination of aluminum-polymer multilayer films by the electric pulsed discharge for the advanced recycling

T. Kirihara*[1]; A. Narita[1]; M. Sasaki[2]; S. Mitsuzuka[2]; S. Kanazawa[2]; C. Tokoro[1]

1. Waseda University, Japan
2. Dai Nippon Printing Company, Japan

4:40 PM

(ICACC-FS6-007-2026) Gravity separation experiment of a low-grade iron ore for securing direct reduced iron production process

G. Numao*[1]; Y. Yamamoto[2]; K. Yoshiya[2]; Y. Takaya[2]; C. Tokoro[3]

1. Waseda Daigaku Riko Gakujutsuin, Department of Earth and Environmental Resources Engineering, Graduate School of Creative Science and Engineering, Japan
2. Tokyo Daigaku, Japan
3. Waseda Daigaku, Japan

5:00 PM

(ICACC-FS6-008-2026) Upcycling of industrial by-products through mineral carbonation and their potential as supplementary cementitious material (Invited)

F. Bonfante[1]; G. Ferrara[1]; P. Humbert[2]; D. Garufi[2]; T. Jean Marc[1]; P. Palmero*[1]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy
2. CRH, Innovation Centre for Sustainable Construction, Netherlands

S1 Mechanical Behavior and Performance of Ceramics & Composites

S1- Ceramics for energy generation, turbines, and environmental applications

Room: Coquina E

Session Chairs: Michael Jenkins, Bothell Engineering and Science Technologies; Jonathan Salem, NASA Glenn Research Center

1:30 PM

(ICACC-S1-052-2026) Development of SiC encapsulation for thulium oxide targets as potential nuclear batteries

C. Ang[1]; B. Shaver[1]; K. Wheeler*[2]

1. University of Tennessee, Knoxville, USA
2. The University of Tennessee Knoxville Tickle College of Engineering, Nuclear Engineering, USA

1:50 PM

(ICACC-S1-053-2026) Oxidation and testing of SiC joins: Development and evaluation for nuclear and aerospace applications

C. Ang[1]; K. Wheeler*[2]; M. Crespillo[2]; K. Hattar[2]; T. Koyanagi[3]

1. University of Tennessee, Knoxville, USA
2. The University of Tennessee Knoxville Tickle College of Engineering, Nuclear Engineering, USA
3. Oak Ridge National Laboratory, USA

S1- Fracture mechanics, failure analysis and fractography

Room: Coquina E

Session Chairs: Michael Jenkins, Bothell Engineering and Science Technologies; Jonathan Salem, NASA Glenn Research Center

2:10 PM

(ICACC-S1-054-2026) On the terminal velocity of cracks in glasses and ceramics: A new modified Mott-Robert-Wells model (Invited)

G. D. Quinn*[1] ***Moved to Tuesday at 9 a.m.***

1. National Institute of Standards and technology, Materials Measuremenet Sciences Division, USA

2:40 PM

(ICACC-S1-055-2026) Understanding microstructure-controlled fracture and toughening through a probabilistic framework

S. Hossain[2]; H. Brumblay[2]; D. P. Dupre[1]; A. Stubbers[1]; X. Tang[2]; G. Thompson*[1]; O. A. Graeve[3]; C. R. Weinberger[4]

1. The University of Alabama, USA
2. Colorado State University, USA
3. University of California, San Diego, Mechanical and Aerospace Engineering, USA
4. Colorado State University, Department of Mechanical Engineering, USA

3:00 PM

Break

3:20 PM

(ICACC-S1-056-2026) Correlation between structural geometry and damage localization of triply periodic minimal surface-based ceramic unit cells

T. Tran*[1]

1. Hochschule Darmstadt, Department of Mathematics and Natural Sciences, Germany

3:40 PM

(ICACC-S1-057-2026) Impact of mechanical recycling on material and process characteristics in powder injection molding

V. Laermans*[1]; T. Evens[1]; J. Vleugels[2]; F. Zhang[2]; A. Van Bael[1]

1. Katholieke Universiteit Leuven, Structural Composites and Alloys, Integrity and Nondestructive Testing (SCALINT), Belgium
2. Katholieke Universiteit Leuven, Surface and Interface Engineered Materials (SIEM), Belgium

4:00 PM

(ICACC-S1-058-2026) Micromechanical model for ceramic matrix composites under static tensile loading

D. Haruyama*[1]

1. IHI Corporation, Japan

4:20 PM

(ICACC-S1-059-2026) Correlating acoustic emissions to cracking in silicon carbide micro-indentations

D. P. Dupre*[1]; A. Stubbers[2]; O. A. Graeve[4]; C. R. Weinberger[3]; G. Thompson[5]

1. The University of Alabama, Material Science, USA
2. The University of Alabama, Alabama Materials Institute, USA
3. Colorado State University, Department of Mechanical Engineering, USA
4. University of California, San Diego, Mechanical and Aerospace Engineering, USA
5. University of Alabama, Metallurgical & Materials Engineering, USA

S3 23rd Intl Symp on Solid Oxide Cells Materials Science & Technology

S3-Protective coatings and sealants

Room: Coquina H

Session Chair:

1:30 PM

(ICACC-S3-051-2026) Self-healing glass seal with mixed composition for electrochemical cell

F. O. Mear*[1]; R. Voivenel[1]; R. Podor[2]

1. Universite de Lille Faculte des Sciences et Technologies, France
2. Institut de Chimie Separative de Marcoule, France

1:50 PM

(ICACC-S3-052-2026) Innovative glass sealants for the integration of protonic ceramic electrolysis cells

F. Da Prato*[1]; S. Gross-Barsnick[2]; W. Deibert[3]; S. Ricote[4]; W. Meulenberg[3]; M. Santarelli[1]; F. Smeacetto[5]

1. Politecnico di Torino, Energy Department - DENERG, Italy
2. Forschungszentrum Jülich GmbH, Institute of Technology and Engineering (ITE), Germany
3. Forschungszentrum Jülich GmbH, Institute of Energy Materials and Devices (IMD), Germany
4. Colorado School of Mines, Mechanical Engineering, USA
5. Politecnico di Torino, Applied Science and Technology, Italy

2:10 PM

(ICACC-S3-053-2026) Processing–Structure–Property Relationships in Mn–Cu–Fe Spinel Oxide Coatings for SOC Interconnect Protection

M. Mehdizade[1]; S. Molin*[1]

1. Politechnika Gdanska, Department of Functional Materials Engineering, Poland

2:30 PM

(ICACC-S3-054-2026) Minimizing Cr-evaporation from balance of plant components by utilizing cost-effective alumina-forming austenitic steels

L. Zhou[1]; M. Brady[2]; W. Li[3]; X. Liu*[1]

1. West Virginia University, Mechanical & Aerospace Engineering, USA
2. Oak Ridge National Laboratory, USA
3. West Virginia University, Chemical & Biomedical Engineering, USA

2:50 PM

(ICACC-S3-055-2026) Advanced sintering strategies for Mn–Cu spinel coatings deposited by EPD on metallic interconnects

F. Gallo*[1]; F. D'Isanto[2]; S. Anelli[3]; M. Torrell[4]; L. Bernadet[4]; D. Montinaro[5]; F. Smeacetto[2]

1. Politecnico di Torino, Italy
2. Politecnico di Torino, Department of Applied Science and Technology, Italy
3. Politecnico di Torino, DISAT, Italy
4. Catalonia Institute for Energy Research, Advanced Materials for Energy Applications, Spain
5. SolydEra, Italy

3:10 PM

Break

S3-Proton conducting cells

Room: Coquina H

Session Chair: Mihails Kusnezoff, Fraunhofer IKTS

3:30 PM

(ICACC-S3-056-2026) Development of high-performance and high-durability protonic ceramic cells with nanocomposite electrode technology (Invited)

H. Shimada*[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

4:00 PM

(ICACC-S3-057-2026) Advancing PCEC fabrication through additive manufacturing and interface optimization

S. Anelli*[2]; D. Ferrero[1]; M. Santarelli[1]; F. Smeacetto[2]

1. Politecnico di Torino, Energy, Italy
2. Politecnico di Torino, Applied Science and Technology, Italy

4:20 PM

(ICACC-S3-058-2026) BZCYYb4411 based protonic ceramic electrolysis cell (PCEC)

Z. Zhuang[1]; V. Dhongde[1]; L. Mastropasqua*[1]

1. University of Wisconsin-Madison, Mechanical Engineering, USA

4:40 PM

(ICACC-S3-059-2026) Proton conductive electrolyte production by water-based tape casting

F. Torazzi*[1]; M. Testi[2]; V. M. Sglavo[1]

1. Universita degli Studi di Trento, Industrial Engineering, Italy
2. Fondazione Bruno Kessler, Center for Sustainable Energy - SE, Italy

S4 Advanced Materials for Thermoelectric and Thermionic Energy Conversion

S4- Selenides and tellurides

Room: Ballroom 1 -2

Session Chairs: Michitaka Ohtaki, Kyushu Daigaku; Armin Feldhoff, Leibniz University Hannover

1:30 PM

(ICACC-S4-006-2026) Thermal transport in supported 2D indium selenide flakes (Invited)

M. Zebarjadi*[1]

1. University of Virginia, Electrical and Computer Eng., USA

2:00 PM

(ICACC-S4-007-2026) Spectator ions determine surface chemistry, dopant Incorporation, and microstructure that govern transport

C. S. Fiedler*[1]; M. Ibáñez[1]

1. Institute of Science and Technology Austria, Austria

2:20 PM

(ICACC-S4-008-2026) Engineering weighted mobility ratio through magnetic nanoparticle inclusion for reduced bipolar effects in Bi–Sb–Te thermoelectrics

M. Heo*[1]; S. Ye[2]; H. Kim[3]; J. Roh[2]

1. Northwestern University, Department of Materials Science and Engineering, USA
2. Kyungpook National University, Department of Hydrogen and Renewable Energy, Republic of Korea
3. University of Seoul, Republic of Korea

2:40 PM

(ICACC-S4-009-2026) Band convergence correlated electronic transport properties of n-type Bi-Te-Se alloys

M. Heo[2]; K. Lee[4]; S. Kim[3]; H. Kim*[1]

1. University of Seoul, Republic of Korea
2. Northwestern University, USA
3. University of Seoul, Department of Materials Science and Engineering, Republic of Korea
4. Yonsei University, Republic of Korea

3:00 PM

Break

S4- Devices and applications

Room: Ballroom 1 -2

Session Chairs: Hyun-Sik Kim, University of Seoul; Mona Zebarjadi, University of Virginia

3:20 PM

(ICACC-S4-010-2026) Transverse thermoelectric generators using thermoelectric oxides (Invited)

J. Topfer*[1]; R. Löhnert[1]; A. Bochmann[1]; A. Ibrahim[2]; B. Capraro[3]

1. Ernst-Abbe-Hochschule Jena, Germany
2. Friedrich-Schiller-Universitat Jena, Germany
3. Fraunhofer IKTS, Ceramic Tapes, Germany

3:50 PM

(ICACC-S4-011-2026) Various device structures of thermoelectric systems (Invited)

W. Kim*[1]

1. Yonsei University, School of Mechanical Engineering, Republic of Korea

4:20 PM

(ICACC-S4-012-2026) Advances in flexible thermoelectric devices for personal cooling under extreme heat conditions (Invited)

R. Chen*[1]

1. University of California, San Diego, Mechanical and Aerospace Engineering, USA

4:50 PM

(ICACC-S4-013-2026) Solid-state suspended micro-thermoelectric bridges for on-chip cooling

J. Kim*[1]; Y. Yoon[1]; S. Shin[2]

1. Korea Advanced Institute of Science and Technology, Department of Mechanical Engineering, Republic of Korea
2. National University of Singapore, Department of Mechanical Engineering, Singapore

S5 Next-Generation Bioceramics and Biocomposites

S5- Ceramics and composites with antimicrobial, antiviral and drug delivery properties

Room: Flagler A

Session Chairs: Andraz Kocjan, Jozef Stefan Institute; Sabine Begand, Fraunhofer-Gesellschaft zur Forderung der angewandten Forschung eV

1:30 PM

(ICACC-S5-016-2026) Stimuli-responsive bioconjugated nanocarriers for tumor-specific drug delivery (Invited)

S. Ilyas[1]; S. Mathur*[1]

1. Institute of Inorganic and Materials Chemistry, University of Cologne, Germany

2:00 PM

(ICACC-S5-017-2026) Fabrication and biomedical applications of calcium phosphate nanoparticles immobilizing functional substances (Invited)

M. Nakamura*[1]

1. National Institute of Advanced Industrial Science and Technology (AIST), Japan

2:30 PM

(ICACC-S5-018-2026) Te-doped bioactive glass powders as filler for electrospun polymeric composite fibers with antibacterial properties (Invited)

M. Miola[1]; E. Piatti[1]; F. Iorio[2]; L. Liverani[2]; A. R. Boccaccini[2]; E. Vernè*[1]

1. Politecnico di Torino, Applied Science and Technology, Italy
2. University of Erlangen-Nuremberg, Germany

3:00 PM

Break

3:20 PM

(ICACC-S5-019-2026) Antimicrobial bioactive glass-loaded nonwoven fabrics: Tailoring BGs to the specific application (Invited)

F. Basoli*[1]; M. Trombetta[1]; D. Bellucci[2]; V. Cannillo[2]

1. Universita Campus Bio-Medico di Roma, Italy
2. Universita degli Studi di Modena e Reggio Emilia, Italy

3:50 PM

(ICACC-S5-020-2026) Tailored nanostructured composite coatings for antiviral and antibacterial air filters via co-sputtering

A. Luceri*[1]; S. Perero[1]; M. Donalisio[2]; D. Lembo[2]; M. Ferraris[1]; C. Balagna[1]

1. Politecnico di Torino, Dept. Applied Science and Technology, Italy
2. San Luigi Gonzaga University Hospital, Department of Clinical and Biological Sciences, Italy

4:10 PM

(ICACC-S5-021-2026) Enhancing antibacterial properties of bioactive glasses through plasma surface modification

K. Pontillo*[1]; M. Miola[1]; K. Costabello[3]; M. Lai[3]; S. Ferraris[1]; Z. Najmi[2]; A. Cochis[2]; L. Rimondini[2]; E. Vernè[1]

1. Politecnico di Torino, Department of Applied Science and Technology, Italy
2. Universita degli Studi del Piemonte Orientale Amedeo Avogadro, Italy
3. IRIS Srl, Italy

4:30 PM

(ICACC-S5-022-2026) Advanced functionalization strategies for antibacterial filtration materials

F. Gattucci*[1]; M. Miola[1]; C. Balagna[1]

1. Politecnico di Torino, DISAT, Italy

S6 Advanced Materials and Technologies for Rechargeable Energy Storage

S6- Ionics, Interface, characterization and modeling 2 and Advances in Beyond-Lithium Battery Technologies

Room: Coquina G

Session Chairs: Valerie Pralong, CNRS ENSICAEN; Frederick Gray, Underwriters Laboratories Inc

1:30 PM

(ICACC-S6-039-2026) Fabrication of oxide-based all-solid-state batteries via laser-induced local melting process (Invited)

T. Honma*[1]; F. Sato[2]

1. Nagaoka Univeristy of Technology, Department of Materials Science and Bioengineering, Japan
2. Nagaoka University of Technology, Japan

2:00 PM

(ICACC-S6-040-2026) Operando optical microscopy to image Li diffusion and chemical reactions in the solid state battery (Invited)

X. Shan*[1]; G. Thomas[1]; W. Tang[2]; B. Kottathodi[2]; J. Jeevarajan[3]

1. University of Houston, Electrical and Computer Engineering, USA
2. Underwriters Laboratories Inc, Electrochemical Safety Research Institute, USA
3. UL Resarch Institutes, Electrochemical Safety Research Institute (ESRI), USA

2:30 PM

(ICACC-S6-041-2026) Geo-inspired crystal chemistries for designing electrode materials (Invited)

V. Kovrugin*[1]

1. Ecole Nationale Superieure d'Ingenieurs de Caen, CRISMAT, France

3:00 PM

Break

3:20 PM

(ICACC-S6-042-2026) The impacts of dry mixing on electrode microstructure and performance in lithium-ion batteries (Invited)

F. S. Gray*[1]; W. Tang[1]; J. Jeevarajan[1]

1. Underwriters Laboratories Inc, Electrochemical Safety Research Institute, USA

3:50 PM

(ICACC-S6-043-2026) The development of a robust PTFE fiber network for homogeneous dry thick electrodes (Invited)

U. Paik*[1]; T. Song[1]; J. Kim[1]; M. Kim[1]; S. Han[1]; J. Sun[1]; I. Hwang[1]

1. Hanyang University, Department of Energy Engineering, Republic of Korea

4:20 PM

(ICACC-S6-044-2026) Local organization in high-voltage spinel $LiNi_{0.5-x}Mn_{1.5+x}O_4$ revealed by 4d-STEM: Influence on electrochemical properties (Invited)

F. Weill*[1]; G. Oney[1]; I. Tertov[1]; F. Adrar[2]; E. Suard[3]; m. Hendrickx[4]; A. Demortiere[2]; P. Calbelguen[4]; C. Masquelier[2]; L. Croguennec[1]

1. Institut de Chimie de la Matiere Condensee de Bordeaux, France
2. Laboratoire Reactivite et Chimie des Solides, France
3. Institut Laue Langevin, France
4. Umicore, Belgium

4:50 PM

(ICACC-S6-045-2026) Investigations into the electrochemical cycling of zinc in mildly acidic electrolytes (Invited)

T. N. Lambert*[1]; C. Quilty[1]; I. Bezsonov[1]

1. Sandia National Laboratories, Photovoltaics and Materials Technology, USA

5:00 PM

(ICACC-S6-046-2026) Ultrahigh energy storage efficiency in high-entropy $BiFeO_3$-$BaTiO_3$-$NaNbO_3$-$NaTaO_3$ relaxor ceramics

J. Anthoniappen*[1]; C. Tu[2]; K. Feng[3]; R. Chien[4] ***WITHDRAWN***

1. University of San Carlos, Physics, Philippines
2. Fu Jen Catholic University, Physics, Taiwan
3. Ming Chi University of Technology, Department of Mechanical Engineering, Taiwan
4. Ming Chi University of Technology, International Ph.D. Program in Innovative Technology of Biomedical Engineering and Medical Devices, Taiwan

S10 Integrated computational -Experimental modeling ad design of ceramics and composites

S10- Modeling of structure and property of ceramics and composites II

Room: Ballroom 4

Session Chairs: Mikio Sakai, Tokyo Daigaku; Eva Zarkadoula, Oak Ridge National Lab

1:30 PM

(ICACC-S10-014-2026) Phase-field modeling of crack growth and interface sliding in ceramic matrix composites ***WITHDRAWN***

F. Xue*[1]; T. Cheng[1]; Y. Lei[2]; R. Oleksak[1]; Y. Wen[1]

1. National Energy Technology Laboratory, USA
2. US DOE National Energy Technology, USA

1:50 PM

(ICACC-S10-015-2026) Oxygen reduction reaction simulation at a polymer electrolyte fuel cell cathode by neural network molecular dynamics method

K. Suzuki*[1]; K. Kamata[1]; S. Fukushima[1]; Y. Ootani[1]; N. Ozawa[2]; M. Kubo[1]

1. Institute for Materials Research, Tohoku University, Japan
2. Tohoku University, New Industry Creation Hatchery Center, Japan

2:10 PM

(ICACC-S10-016-2026) Molecular dynamics simulation analysis of anti-icing properties of hydrophilic concentrated polymer brush

K. Furudate*[1]; Y. Hara[1]; S. Fukushima[1]; Y. Ootani[1]; N. Ozawa[2]; M. Kubo[1]

1. Institute for Materials Research, Tohoku University, Japan
2. Tohoku University, New Industry Creation Hatchery Center, Japan

2:30 PM

(ICACC-S10-017-2026) Investigating the role of nano-Si in Polycarbosilane pyrolysis using ReaxFF simulations

M. Shaik*[1]; K. Lu[1]

1. The University of Alabama at Birmingham School of Engineering, Mechanical and Materials Engineering, USA

S10- Modeling of surfaces, interfaces, and grain boundaries at multiple scales

Room: Ballroom 4

Session Chair: David Poerschke, University of Minnesota

2:50 PM

Break

2:50 PM

(ICACC-S10-018-2026) Deciphering 2D interfacial phases: From computing grain boundary phase diagrams to controlling microstructural evolution with electric fields (Invited)

J. Luo*[1]

1. University of California San Diego, USA

3:20 PM

(ICACC-S10-019-2026) Elucidating abnormal grain growth kinetics of Eu-doped $MgAl_2O_4$ using complexion-governed Monte Carlo grain growth simulations

B. Zalatan[2]; S. Huang[2]; S. Esslestyn[1]; M. Harmer[3]; B. Chen[2]; C. Marvel*[1]

1. Louisiana State University, Mechanical and Industrial Engineering, USA
2. Lehigh University, Department of Computer Science and Engineering, USA
3. Lehigh University, Materials Science and Engineering, USA

3:40 PM

(ICACC-S10-020-2026) Strategies for designing shape-memory ceramics via lattice distortions from applied stresses

E. M. Feygin*[1]; C. A. Schuh[2]

1. Massachusetts Institute of Technology, Department of Materials Science and Engineering, USA
2. Northwestern University, Department of Materials Science and Engineering, USA

S10- Multifunctional ceramics and composites-multiphysics modeling, characterization and design

Room: Ballroom 4

Session Chair: Gerard Vignoles, University Bordeaux

4:00 PM

(ICACC-S10-021-2026) Computational and experimental chemical thermodynamics for predicting the stability of aerospace materials in extreme environments (Invited)

G. Costa*[1]; B. Kowalski[1]; R. I. Webster[1]; J. L. Stokes[2]; C. Bodenschatz[1]; J. Reynolds[3]

1. NASA Glenn Research Center, USA
2. NASA Glenn Research Center, Environmental Effects and Coatings Branch, USA
3. NASA Marshall Space Flight Center, USA

S10- Modeling defects and amorphous matter and their evolution

Room: Ballroom 4

Session Chair: Martin Magnuson, Linkoping University

4:30 PM

(ICACC-S10-022-2026) Modeling ion-induced defects and recovery in semiconductors at the atomic scale (Invited)

E. Zarkadoula*[1]; I. Decebal[2]; A. Hotnog[2]; Y. Zhang[3]; W. J. Weber[4]; G. Velisa[2]

1. Oak Ridge National Laboratory, Center for Nanophase Materials Sciences, USA
2. Horia Hulubei National Institute for Physics and Nuclear Engineering, Romania
3. Queen's University, Smith Engineering, Canada
4. University of Tennessee, Materials Science & Engineering, USA

5:00 PM

(ICACC-S10-023-2026) Structural and electronic modeling of amorphous molecular solids (Invited)

P. Rulis*[1]

1. University of Missouri - Kansas City, Physics and Astronomy, USA

S12 Atomically Layered Carbides, Nitrides, Borides, and Related Materials- From Bulk to Low Dimensional Derivates

S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates II

Room: Flagler C

Session Chairs: Babak Anasori, Purdue University; Ankit Srivastava, Texas A&M University; Garritt Tucker, Baylor University

1:30 PM

(ICACC-S12-008-2026) Exchange Hamiltonian and complex high magnetic field phase diagram in RE-i-MAX phases (Invited)

O. Dieguez*[1]

1. Tel Aviv University, Israel

2:00 PM

(ICACC-S12-009-2026) Atomistic-origins of deformation and damage in MAX Phases: Basal dislocations and kinking (Invited)

G. Tucker*[1]; G. Plummer[2]; A. Gupta[3]

1. Baylor University, USA
2. NASA Ames Research Center, USA
3. Freudenberg Performance Materials Holding SE & Co. KG, Germany

2:30 PM

(ICACC-S12-010-2026) On crystallographic slip in Al-based MAX phases (Invited)

M. Radovic[1]; A. Srivastava*[1]

1. Texas A&M University, USA

3:00 PM

Break

3:20 PM

(ICACC-S12-011-2026) Low-temperature synthesis of Ti_2AC (A = Si or Ge) MAX-based coatings via reactive cathodic arc evaporation

A. Gitschthaler*[1]; P. Doerflinger[1]; R. Hahn[1]; J. Ramm[2]; K. Boebel[2]; S. Kolozsvári[3]; P. Polcik[3]; E. Ntemou[4]; D. Primetzhofer[4]; D. Fuchs[5]; A. Limbeck[5]; A. Davydok[6]; C. Krywka[6]; H. Riedl[7]

1. Christian Doppler Laboratory for Surface Engineering of high-performance Components, TU Wien, Austria, Austria
2. OC Oerlikon Balzers AG, Liechtenstein
3. Plansee SE, Austria
4. Uppsala Universitet, Sweden
5. Technische Universitat Wien Institut fur Chemische Technologien und Analytik, Austria
6. Helmholtz Center Hereon, Institute of Materials Physics, Germany
7. TU Wien, Institute of Materials Science and Technology, Austria

3:40 PM

(ICACC-S12-012-2026) Low temperature synthesis of Ti_3SiC_2 thin films by high power impulse magnetron sputtering

P. Doerflinger*[2]; A. Gitschthaler[2]; R. Hahn[2]; J. Ramm[4]; K. Boebel[4]; S. Kolozsvári[5]; P. Polcik[5]; E. Ntemou[6]; D. Primetzhofer[6]; D. Fuchs[1]; A. Limbeck[1]; A. Davydok[3]; C. Krywka[3]; H. Riedl[2]

1. Technische Universitat Wien Institut fur Chemische Technologien und Analytik, Austria
2. Christian Doppler Laboratory for Surface Engineering of high-performance Components, TU Wien, Austria, Austria
3. Institute of Materials Physics, Helmholtz Zentrum Hereon, Germany
4. Oerlikon Surface Solutions AG, Liechtenstein
5. Plansee Composite Materials GmbH, Germany
6. Department of Physics and Astronomy, Uppsala University, Sweden

4:00 PM

(ICACC-S12-013-2026) Development of a MAX phase CMC using wet winding for high-temperature applications in aggressive environments

L. R. Aretz*[2]; F. Curvers[2]; F. Jung[1]; T. Tonnesen[2]; T. Gries[1]

1. RWTH Aachen University, Institut für Textiltechnik, Germany
2. Institute of Mineral Engineering, RWTH Aachen University, Chair of Ceramics, Germany

4:20 PM

(ICACC-S12-014-2026) In-situ TEM observation of nanoplasticity of high entropy MXenes

Y. Gan*[1]; R. Namakian[1]; C. Wei[1]; S. Xiang[1]; K. Y. Xie[1]; B. C. Wyatt[2]; B. Anasori[2]; C. Wu[1]

1. Texas A&M University, USA
2. Purdue University, USA

S13 Advanced Ceramics and Composites for Nuclear Fission and Fusion Energy Systems

S13- Novel nuclear ceramics II

Room: Coquina F

Session Chair: Takaaki Koyanagi, Oak Ridge National Laboratory

1:30 PM

(ICACC-S13-051-2026) Microstructural optimisation of WC-FeCr low activation neutron shielding material for fusion energy

S. Uthayasekaran*[1]; E. Saiz[1]; T. Sauberlich[2]; S. Humphry-Baker[1]

1. Imperial College London, Materials, United Kingdom
2. H.C. Starck, Germany

1:50 PM

(ICACC-S13-052-2026) Toward zero-rupture TRISO fuel encapsulation in MgO via pressureless sintering

I. Kumar*[1]; A. Pophali[1]; T. J. Kim[1]; D. Sprouster[1]; L. Snead[1]; J. Trelewicz[1]

1. Stony Brook University, Material Science and Chemical Engineering, USA

2:10 PM

(ICACC-S13-053-2026) Low temperature sintering of WB composites for fusion

O. T. Oladosu*[1]; I. T. Elizarova[1]; E. Saiz[1]; L. Evitts[2]; J. Wade-Zhu[3]; D. Bowden[3]

1. Imperial College London, Materials, United Kingdom
2. Bangor University, United Kingdom
3. Culham Centre for Fusion Energy, United Kingdom

2:30 PM

(ICACC-S13-054-2026) Processing and properties of a high recycle content bentonite-graphite composite for nuclear waste repository application

A. Kolanti*[1]; K. Christian[1]; Y. Huang[2]; S. Fayfar[2]; C. Tan[3]; D. Sprouster[1]; L. Snead[1]

1. Stony Brook University, Materials Science, USA
2. Massachusetts Institute of Technology, Nuclear Reactor Laboratory, USA
3. Idaho National Laboratory, USA

2:50 PM

(ICACC-S13-055-2026) Evolution of amorphization and nanohardness in Si-RS-SiC under Fe ion irradiation

Y. Nishimura*[1]; Z. Yang[1]; C. Yang[1]; Z. Zhu[1]; B. Li[1]; H. Abe[1]

1. Tokyo Daigaku, School of Engineering, Japan

3:10 PM

Break

S13- Novel nuclear ceramics III

Room: Coquina F

Session Chair: Takaaki Koyanagi, Oak Ridge National Laboratory

3:30 PM

(ICACC-S13-056-2026) Oxidation resistance of LPS-SiC containing dual rare-earth additives

H. Sakai*[1]; T. Hinoki[1]

1. Kyoto University, Japan

3:50 PM

(ICACC-S13-057-2026) Polymeric Flocculants in Nuclear Sludge Treatment: Architecture and Performance *WITHDRAWN*

J. Ojur*[1]

1. Cranfield University, United Kingdom

S16 Geopolymers Inorganic Polymers and Sustainable Construction Materials

S16- Sustainable construction materials II

Room: Ballroom 5

Session Chair: Enrico Bernardo, University of Padova

1:30 PM

(ICACC-S16-015-2026) Alkali-activated aggregates as a sustainable solution within a circular economy (Invited)

V. Ducman[1]; A. Tesovnik*[1]; P. Perumal[2]

1. Slovenian National Building and Civil Engineering Institute, Slovenia
2. University of Oulu, Fibre and Particle Engineering Research Unit, Finland

2:00 PM

(ICACC-S16-016-2026) Sintered alkali-activated aggregates from co-combustion biomass ash

A. Tesovnik*[1]; V. Ducman[1]

1. Slovenian National Building and Civil Engineering Institute, Slovenia

2:20 PM

(ICACC-S16-017-2026) Geopolymer plates reinforced with Guadua bamboo fibers (Invited)

M. G. Sá Ribeiro*[1]; I. P. Miranda[2]; W. M. Kriven[3]; R. A. Sa Ribeiro[4]

1. National Institute for Amazonian Research (INPA), Green Building and Engineering Laboratory (LECVerde), Brazil
2. Instituto Nacional de Pesquisas da Amazonia, Brazil
3. University of Illinois at Urbana-Champaign, USA
4. INPA-National Institute for Amazonian Research, Green Building and Engineering Laboratory, Brazil

2:50 PM

Break

3:10 PM

(ICACC-S16-018-2026) Discovering Novel Geopolymer Nanocomposites: Synthesis and Mechanical Properties (Invited)

A. Akono*[1]

1. North Carolina State University, USA

S16- Synthesis, processing microstructure

Room: Ballroom 5

Session Chair: Hubert Rahier, Vrije Universiteit Brussel

3:40 PM

(ICACC-S16-019-2026) 3D-Printed macroporous geopolymers for sustainable environmental applications (Invited)

Y. Ettahiri*[1]; C. Pelegris[1]; R. Davidovits[1]; M. Guessasma[1]

1. Universite de Picardie Jules Verne IUT de l'Aisne, France

4:10 PM

(ICACC-S16-020-2026) Development of sustainable 3D printing geopolymers for acidic environments

Y. Ettahiri*[1]; C. Pelegris[1]; R. Davidovits[1]; M. Guessasma[1]

1. Universite de Picardie Jules Verne IUT de l'Aisne, France

4:30 PM

(ICACC-S16-021-2026) Extended Si:Al:Na:Ca ratio effects on the composition–properties–performance relationships of alkali-activated materials and geopolymers in adsorption (Invited)

M. Hossain*[1]; T. Luukkonen[1]; J. Vepsäläinen[2]

1. Oulun Yliopisto Teknillinen Tiedekunta, Fibre and Particle Engineering Research Unit, Finland
2. Ita-Suomen yliopisto, School of Pharmacy, Finland

5:00 PM

(ICACC-S16-022-2026) Acidification of low-grade phosphate rock by bioleaching with Acidithiobacillus thiooxidans and its mineralogical effects

S. M. Restrepo Arcila*[1]; H. A. Colorado L.[2]; M. Márquez[1]

1. Universidad Nacional de Colombia, Materials and nanotecnology, Colombia
2. Universidad de Antioquia, Colombia

5:20 PM

(ICACC-S16-023-2026) Thermal curing kinetics of preceramic polymers from time-resolved infrared spectroscopy

P. Polisetty*[1]; G. Pugsley[1]; A. Braum[1]; A. Caron[1]; D. Hallinan[1]

1. Florida State University, USA

Friday, January 30, 2026

FS6 Innovative material processing for diverse resource circulation loops

FS 6- Innovative material processing for diverse resource circulation loops III

Room: Ballroom 3

Session Chairs: Thandazile Moyo-Mahlangu, The Pennsylvania State University; Alberto Mannu

8:30 AM

(ICACC-FS6-009-2026) Circular economy: A guiding light in sustainability-informed materials selection, discovery, design and development (Invited)

K. Ma*[2]; J. M. Schoenung[1]

1. Texas A&M University System, USA
2. Texas A&M University, Materials Science and Engineering, USA

9:00 AM

(ICACC-FS6-010-2026) Sustainable porous materials from weak alkali activation of waste glass

E. Bernardo*[1]; F. Carollo[1]; F. Lanero[1]; P. Sgarbossa[1]

1. Universita degli Studi di Padova Dipartimento di Ingegneria Industriale, Italy

9:20 AM

(ICACC-FS6-011-2026) Utilization of CaO in the synthesis of CaFe-based layered double hydroxides for arsenic immobilization

Y. O. Zubair*[1]; S. Fuchida[2]; K. Oyama[3]; C. Tokoro[4]

1. Waseda University, Sustainable Energy & Environmental Society Open Innovation Research Organization, Japan
2. Tokyo University of Marine Science and Technology, Marine Resources and Energy, Japan
3. Faculty of Engineering, Kyushu University, Japan
4. Faculty of Science and Engineering, Waseda University, Japan

S4 Advanced Materials for Thermoelectric and Thermionic Energy Conversion

S4- Theories and machine learning

Room: Ballroom 1 -2

Session Chair: Woochul Kim, Yonsei University

9:00 AM

(ICACC-S4-014-2026) Multiscale modeling and prediction of transport properties and efficiency in polycrystalline thermoelectrics (Invited)

S. Nakhmanson*[1]

1. University of Connecticut, Materials Science and Engineering, USA

9:30 AM

(ICACC-S4-015-2026) Machine learning for the discovery and optimization of thermoelectric materials (Invited)

H. Kleinke*[1]

1. University of Waterloo, Chemistry, Canada

10:00 AM

Break

10:20 AM

(ICACC-S4-016-2026) Discovery of stable, low-work function materials with graph neural networks and foundational interatomic potentials

P. Schindler*[1]

1. Northeastern University, Mechanical and Industrial Engineering, USA

10:40 AM

(ICACC-S4-017-2026) Predicting the lattice thermal conductivity of 2D materials via machine learning approaches *WITHDRAWN*

Y. Zhao*[1]; Z. Yang[3]; C. Zhang[2]; S. Shin[1]; L. Shen[1]

1. National University of Singapore, Department of Mechanical Engineering, Singapore
2. National University of Singapore, Physics, Singapore
3. Jinan University, Department of Electronic Engineering, China

S10 Integrated computational -Experimental modeling ad design of ceramics and composites

S10- Integrated computational-experimental modeling and design of ceramics and composites

Room: Ballroom 4

Session Chair: Mikio Sakai, Tokyo Daigaku

8:30 AM

(ICACC-S10-024-2026) Numerical-analytical models in penetration problems: Retrospective and prospective view

E. Kartuzov*[1]; V. Kartuzov[1]

1. Institut problem materialoznavstva imeni I M Francevica Nacional'noi akademii nauk Ukraini, Computer Simulation, Ukraine

8:50 AM

(ICACC-S10-025-2026) Effects of water on the tribochemical reactions of ZnDTP additives; Neural network molecular dynamics simulation analysis

H. Numata*[1]; S. Sekita[1]; C. Suzuki[1]; S. Fukushima[1]; Y. Ootani[1]; N. Ozawa[2]; M. Kubo[1]

1. Institute for Materials Research, Tohoku University, Japan
2. Tohoku University, New Industry Creation Hatchery Center, Japan

9:10 AM

(ICACC-S10-026-2026) Influence of coexisting molecules on tribochemical reactions of MoDTC: Neural network molecular dynamics simulation analysis

S. Sekita*[1]; H. Numata[1]; C. Suzuki[1]; S. Fukushima[1]; Y. Ootani[1]; N. Ozawa[2]; M. Kubo[1]

1. Institute for Materials Research, Tohoku University, Japan
2. Tohoku University, New Industry Creation Hatchery Center, Japan

9:30 AM

(ICACC-S10-027-2026) Fiber orientation analysis of direct-ink write ceramic matrix composites using machine learning

T. A. Craigs*[1]; A. Mannodi-Kanakkithodi[1]; R. Trice[1]

1. Purdue University, School of Materials Engineering, USA

S12 Atomically Layered Carbides, Nitrides, Borides, and Related Materials- From Bulk to Low Dimensional Derivates

S12-Atomically Layered Carbides, Nitrides, Borides, and Related Materials: From Bulk to Low Dimensional Derivates III

Room: Flagler C

Session Chairs: Antoine Guitton, Université de Lorraine – CNRS – Arts et Métiers Institute of Technology – LEM3; Martin Magnuson, Linkoping University

8:30 AM

(ICACC-S12-015-2026) Fermi surface topology and anisotropic band structure of oxygen-terminated $Ti_3C_2T_x$ MXene (Invited)

M. Magnuson*[1]

1. Linköping University, Department of Physics, Chemistry and Biology (IFM), Sweden

9:00 AM

(ICACC-S12-016-2026) Defects as drivers in MAX phases: Micro/nanostructure-property relationships (Invited)

A. Guitton*[1]; A. Heinzelmeier[1]; T. Weidner[2]; C. Couchet[3]; M. Josse[1]; L. Capolungo[4]; L. Dezerald[3]; J. Guénolé[1]; T. Grosdidier[1]; A. Mussi[2]; V. Taupin[1]

1. Université de Lorraine – CNRS – Arts et Métiers Institute of Technology – LEM3, France
2. Univ. Lille, CNRS, INRAE, Centrale Lille, UMR 8207 – UMET – Unité Matériaux et Transformations, France
3. Department of Materials Science and Engineering, Institut Jean Lamour, Universite de Lorraine, France
4. Los Alamos National Laboratory, Material Science and Technology Division, USA

9:30 AM

(ICACC-S12-017-2026) Radiation response of chemically complex MAX phases in the (Zr,Ti,Hf,Nb,V/Ta)-(Al,Sn)-C system (Invited)

K. Lambrinou*[1]; I. Ehikhioya[1]; J. A. Hinks[1]; N. Goossens[2]; S. Huang[3]; J. Vleugels[3]

1. University of Huddersfield, School of Computing and Engineering, United Kingdom
2. Empa, High Performance Ceramics, Switzerland
3. KU Leuven, Materials engineering, Belgium

10:00 AM

(ICACC-S12-018-2026) Advances in hybrid Ti_3SiC_2 carbon fibres (MAXCarbon) for aerospace, energy and hydrogen technologies

F. Jung*[1]; L. R. Aretz[2]; T. Tonnesen[2]; T. Gries[1]

1. RWTH Aachen University, Institut für Textiltechnik, Germany
2. Rheinisch-Westfalische Technische Hochschule Aachen, Chair of Ceramic, Germany

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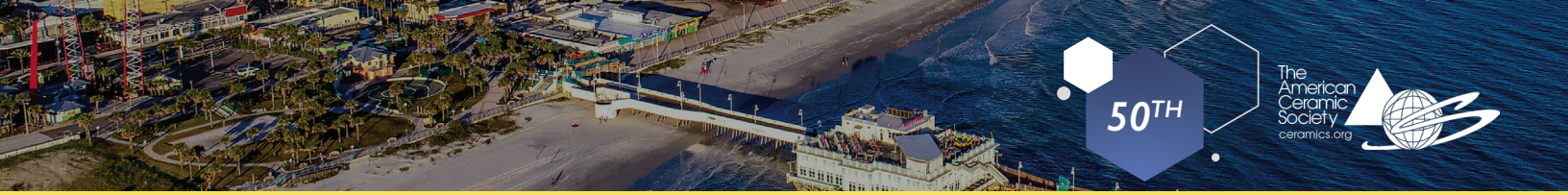

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