



# MS&T22 WELCOMES NEW EXHIBITS AND PROGRAMMING

Kelly Zappas

## KEY MS&T22 DATES

September 15, 2022: Advance Registration Deadline

September 15, 2022: Housing Deadline

October 9–12, 2022: Meeting Dates

Bringing together the resources and members of complementary materials science and engineering groups has long been a defining feature of the Materials Science & Technology (MS&T) conference series. In 2022, MS&T builds on that tradition by welcoming new partners who will bring fresh exhibits, symposia, and audiences to the event.

As in previous years, MS&T22 will bring together three leading materials societies—TMS, the American Ceramic Society (ACerS), and the Association for Iron & Steel Technology (AIST). To supplement this long-standing partnership, MS&T will welcome Event Partners to expand the exhibition and the Society for Biomaterials to offer additional programming.



Technical Meeting and Exhibition

# MS&T22

MATERIALS SCIENCE & TECHNOLOGY



## MS&T22 WELCOMES NEW PARTNERS

Event Partners, a U.K.-based commercial exhibition firm, will bring **The Advanced Materials Show USA** and **The Nanotechnology Show** to MS&T22. The Advanced Materials Show USA was previously held as a standalone event, while The Nanotechnology Show will debut at MS&T22. The two events will join with the existing MS&T22 Exhibition to offer MS&T attendees access to an enhanced exhibit experience.



On the programming side, the **Society For Biomaterials** has joined MS&T22 as a co-sponsor and will be holding three new symposia: Biological Response to Materials and Material's Response to Biological Environments; Biomaterial Applications; and Biomaterial Applications in Today's Industry: Development, Translation & Commercialization.

The Society For Biomaterials is a multidisciplinary society of academic, healthcare, governmental, and business professionals dedicated to promoting advancements in all aspects of biomaterial science, education, and professional standards to enhance human health and quality of life.



"Adding two new events to the MS&T22 Exhibition will bring new companies to our MS&T attendees, while also introducing new exhibitors to the value of the MS&T technical program," said James J. Robinson, TMS executive director. "From a programming standpoint, the addition of the Society for Biomaterials will bring fresh ideas that work well with our traditional technical programming. I think our MS&T attendees will benefit from the broader perspectives these new partners bring to the event."

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—James J. Robinson, TMS Executive Director

## TECHNICAL PROGRAM HIGHLIGHTS



Ellen Cerreta (right), 2021 TMS President, introduced Tresa Pollock (left), TMS 2021 Institute of Metals/Robert Franklin Mehl Awardee, as she delivered the TMS presentation in the MS&T21 plenary session.

The MS&T22 technical program is made up of more than 80 symposia in 15 technical tracks. Programming is developed by all three sponsoring societies and coordinated by the MS&T22 Program Coordinating Committee. **John Carpenter**, Los Alamos National Laboratory, and **Eric Lass**, University of Tennessee, Knoxville, are the TMS representatives to the 2022 Program Coordinating Committee.

**The TMS Fall Meeting explores the intersections of development, synthesis, and application and features a collection of symposia in interest areas that are related to TMS and its members.**

For 2022, symposia are planned in the following topic tracks:

- Additive Manufacturing
- Artificial Intelligence
- Biomaterials
- Ceramic and Glass Materials
- Education
- Fundamentals and Characterization
- Iron and Steel (Ferrous Alloys)
- Lightweight Alloys
- Materials-Environment Interactions
- Modeling
- Nanomaterials
- Nuclear Energy
- Processing and Manufacturing
- Sustainability, Energy, and the Environment
- Special Topics

For a look at the specific symposia organized and sponsored by TMS technical committees, visit the TMS Fall Meeting page on the MS&T22 website at [www.matscitech.org/MST22](http://www.matscitech.org/MST22). The TMS Fall Meeting explores the intersections of development, synthesis, and application and features a collection of symposia in interest areas that are related to TMS and its members.



## ANDERSON TO DELIVER TMS PLENARY



Iver Anderson

**Iver Anderson**, a senior metallurgist at Iowa State University and Ames Laboratory, is the 2022 recipient of the TMS/ASM Joint Distinguished Lectureship in Materials and Society Award. As a part of this award, Anderson will present his lecture, **"Materials Research on Clean Energy: For the Sake of Our Grandchildren,"** at the MS&T22 All-Conference Plenary session on Tuesday, October 11.

"We professionals in the materials science and engineering community must make our best efforts to work on important greenhouse gas

emission challenges to make the economic leap to green technologies more pragmatic and palatable," reads Anderson's abstract for the talk.

To attack and, hopefully, to reverse greenhouse gas (GHG) growth, Anderson says, the critical but formidable goal of net-zero GHG emissions by 2050 must be reached—a goal that will require major efforts from across our society and a leap of faith by the world's economies.

"From the latest report by the Intergovernmental Panel on Climate Change (IPCC), it is becoming increasingly apparent that we must do this for the health and well-being of our own children and grandchildren, if we want to help them avoid predictable climate disasters," writes Anderson.

The talk will look at market opportunities that can arrive with clean energy transitions and key materials technology barriers that must be overcome.

"With solutions to these critical materials problems resulting from research that is supported by enlightened governments and industry leaders, a new global energy economy can emerge quite naturally," writes Anderson. "This new sustainable economy has the potential to create millions of excellent jobs across a host of new supply chains, along with many more generations of smiling grandchildren!"

A TMS member since 1982 and a 2015 TMS Fellow, Anderson is an active TMS volunteer, having served on a variety of technical and functional committees and the TMS Board of Directors. He is being honored for providing a broad range of leadership in mentoring and outreach spanning academia, transferring fundamental knowledge to applications, and encouraging engagement in public policy.

## HANSSON HONORED AT MS&T SYMPOSIUM

The TMS Corrosion and Environmental Effects Committee and TMS Steels Committee are planning a special symposium in honor of **Carolyn M. Hansson**, University of Waterloo, at MS&T22. The symposium, **Resisting Degradation from the Environment**, will honor Hansson's research and pioneering experiences as a woman in science, technology, engineering, and math (STEM).

Hansson is a professor at the University of Waterloo in the Department of Mechanical and Mechatronics Engineering and cross-appointed to the Department of Civil and Environmental Engineering. She was the first female student to attend the Royal School of Mines at Imperial College, London, and the first woman to graduate with a Ph.D. in metallurgy from that institution. She has been a member of TMS for more than 50 years, was elected a TMS Fellow in 1997, and, in 2021, she celebrated her 80th birthday.

A key feature of this symposium will be a 45-minute "fireside chat" with Hansson and two interviewers that will allow Hansson to tell her story in a way that encourages a deeper level of interaction and networking than a typical symposium. She'll discuss her career path, advice for young people in moving forward in a research and academic career, and future research paths in her field that excite her. The technical scope of this symposium are topics that intersect with one or more of her areas of expertise.



Carolyn M. Hansson



Attendees enjoy a bite to eat while they mingle at the Welcome Reception, hosted by the MS&T Partners, at MS&T21.

## NEW FOR 2022: IMPROVE YOUR NETWORKING SKILLS EVENT



Attendees at MS&T21 enjoy a chance to network during a break from the technical programming.

TMS will introduce a new professional development event—open to all MS&T22 attendees—at this year's meeting. The **Improve Your Networking Skills Workshop by TMS** will teach participants practical approaches to networking in this session on Monday, October 10, from 4:00 p.m. to 5:00 p.m.

First, **Emily Kinser** of 3M and vice chair of the TMS Professional Development Committee will offer tips on identifying personal networking goals, learning how to lower barriers to personal networking, and developing a personal "elevator speech." This will be followed by a hands-on networking activity to practice new skills.

There is no fee to attend the event, but participants are asked to fill out a simple registration form through the MS&T22 website to provide organizers with an accurate headcount.

## EMERGING PROFESSIONALS EVENT PLANNED



Joy Gockel

On Tuesday, October 11, TMS will host an event for early-career professionals from noon to 2:00 p.m. The **TMS Emerging Professionals Tutorial Luncheon and Lecture** will feature an invited presentation from **Joy Gockel**, associate professor at the Colorado School of Mines.

All MS&T22 registrants are welcome to attend the lecture, but to receive lunch, participants must purchase a ticket through the MS&T22 registration form.

## ADDITIVE MANUFACTURING MATERIALS AND PROCESSES WORKSHOP PLANNED

To complement the extensive additive manufacturing programming planned for MS&T, TMS will offer a workshop on Sunday afternoon, October 9, from 1:00 p.m. to 5:30 p.m., prior to the start of technical programming on Monday morning.

The **Additive Manufacturing Materials and Processes Workshop** will familiarize participants with current additive manufacturing (AM) processes; current AM practice for metals, polymers, and ceramics; modeling of AM processes, microstructural evolution, and service properties; and current challenges and research opportunities. This workshop is designed for people in the materials community already familiar with AM processes who want to learn more. Academics and researchers will also benefit from discussions about current challenges to the full adoption of AM.

The workshop will be led by four expert instructors: **Sneha Narra**, Carnegie Mellon University; **Joy Gockel**, Colorado School of Mines; **Scott Thompson**, Kansas State University; and **Kirk Rogers**, The Barnes Global Advisors.

Participants can register for the course through the MS&T22 registration form.

## A FULLER IN-PERSON EXPERIENCE

Due to the COVID-19 pandemic, MS&T20 was held as a fully virtual event, and, as meetings gradually began opening up again, MS&T21 was held as a hybrid meeting, with both in-person and on-demand elements. For 2022, MS&T returns to a fully in-person event, so that attendees can participate in live discussions with presenters, visit the enhanced exhibit hall, and connect face-to-face with other attendees.

Registration for MS&T22 is now open. You can register for the discounted early registration rate by September 15 at [www.matscitech.org/MST22](http://www.matscitech.org/MST22).

## LOOKING AHEAD TO MS&T23



Plans are also now underway for MS&T23, which will be held October 1–5, 2023, in Columbus, Ohio. Symposium proposals have been collected and programming plans are being developed. Visit [www.matscitech.org](http://www.matscitech.org) in October to view programming plans and submit your abstract.