ADVANCE PROGRAM
REGISTER BEFORE SEPTEMBER 15, 2022 TO SAVE!

Technical Meeting and Exhibition

MS&T 22
MATERIALS SCIENCE & TECHNOLOGY

DAVID L. LAWRENCE CONVENTION CENTER | PITTSBURGH, PA, USA

OCTOBER 9–12, 2022

NEW IN 2022!
Co-locating with

WHERE MATERIALS INNOVATION HAPPENS

Featuring:

Co-Sponsor:
PLENARY SPEAKERS
Visit the MS&T Plenary Speakers web page to view the complete abstracts and bios.

ACerS EDWARD ORTON JR. MEMORIAL LECTURE

Sanjay Mathur
Director and Chair, Institute of Inorganic Chemistry, University of Cologne, Germany

AIST ADOLF MARTENS MEMORIAL STEEL LECTURE

Matthias Militzer
ArcelorMittal Dofasco Chair in Advanced Steel Processing, University of British Columbia

TMS DISTINGUISHED LECTURESHP IN MATERIALS AND SOCIETY

Iver E. Anderson
Senior Metallurgist, Division of Materials Sciences and Engineering, Ames Laboratory (USDOE) and Adjunct Professor, Materials Science and Engineering Department, Iowa State University
PROGRAM AT A GLANCE

Materials Science & Technology (MS&T) is where materials innovation happens! Each year, MS&T’s long-standing, recognized forum brings together scientists, engineers, students, suppliers, and business leaders to discuss current research and technical applications to shape the future of materials science and technology.

The event’s unmatched technical program fosters technical innovation at the intersection of materials science, engineering, and application—addressing structure, properties, processing, and performance across the materials community.

Join other materials science experts from three leading materials societies to discuss the latest advancements in your field. MS&T22 features the following events:

**ACerS 124TH ANNUAL MEETING**  
Advancing the industry with the latest research in ceramics and glass

**AIST STEEL PROPERTIES AND APPLICATIONS**  
Technical developments related to ferrous metallurgy and the steelmaking process

**TMS FALL MEETING**  
Exploring the intersections of development, synthesis, and application

COVID-19 STATEMENT

MS&T, The Advanced Materials Show USA, The Nanotechnology Show and the Partner Associations (ACerS, AIST, Event Partners and TMS), working in partnership with the MS&T22, The Advanced Materials Show USA and The Nanotechnology Show venues, are complying with guidance from the Centers for Disease Control and relevant state and local authorities in an effort to provide a safe and healthy environment for attendees during the ongoing COVID-19 pandemic. However, COVID-19 is an extremely contagious disease and it is not possible to eliminate the risk of spreading or contracting COVID-19.
LECTURES AND AWARDS

Visit the MS&T Special Lectures web page to see all lectures and awards, including dates and times.

MONDAY, OCT. 10 9–10 A.M.
ACerS/EPDC ARTHUR L. FRIEDBERG CERAMIC ENGINEERING TUTORIAL AND LECTURE
Lisa Klein, Rutgers University, USA

MONDAY, OCT. 10 2–4:40 P.M.
ACerS RICHARD M. FULRATH AWARD SESSION
Jacob Jones, North Carolina State University, USA
Tobias Schaedler, HRL Laboratories, LLC, USA
Takuya Hoshina, Tokyo Institute of Technology, Japan
Shoichiro Suzuki, Murata Manufacturing Co., Ltd., Japan
Masatake Takahashi, NEC Corporation, Japan

TUESDAY, OCT. 11 8–10:40 A.M.
ACerS ALFRED R. COOPER AWARD SESSION
2022 Cooper Distinguished Lecture
Liping Huang, Rensselaer Polytechnic Institute, USA
2022 Alfred R. Cooper Young Scholar Award Presentation
Winners will be announced after selection by the Cooper Award Committee

TUESDAY, OCT. 11 1–2 P.M.
ACerS FRONTIERS OF SCIENCE AND SOCIETY — RUSTUM ROY LECTURE
Yury Gogotsi, Drexel University, USA
NEW IN 2022!
Co-locating with

ADVANCE PROGRAM
REGISTER BEFORE SEPTEMBER 15, 2022 TO SAVE!

WHERE MATERIALS INNOVATION HAPPENS

MATSCITECH.ORG

LECTURES AND AWARDS (CONT.)

TUESDAY, OCT. 11 2–4:40 P.M.

MS&T22 PLENARY SESSION

ACerS Edward Orton, Jr. Memorial Lecture
Sanjay Mathur, Director and Chair, Institute of Inorganic Chemistry, University of Cologne, Germany
Topic to be announced

AIST Adolf Martens Memorial Steel Lecture
Matthias Militzer, ArcelorMittal Dofasco Chair in Advanced Steel Processing, University of British Columbia
Microstructure Engineering of High-Performance Steels

TMS Distinguished Lectureship in Materials and Society
Iver E. Anderson, Senior Metallurgist, Division of Materials Sciences and Engineering, Ames Laboratory (USDOE) and Adjunct Professor, Materials Science and Engineering Department, Iowa State University
Materials Research on Clean Energy: For the Sake of Our Grandchildren

WEDNESDAY, OCT. 12 1–2 P.M.

ACerS BASIC SCIENCE DIVISION ROBERT B. SOSMAN LECTURE
William Fahrenholtz, Missouri University of Science & Technology, USA
Ultra-High Temperature Ceramic Research at Missouri S&T
TECHNICAL PROGRAM

Visit the MS&T Technical Program web page to view the complete technical program and topics.

- 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
SPECIAL EVENTS
Visit the MS&T22 website to view more details on workshops and social and networking events.

SUNDAY, OCT. 9 1–5:30 P.M.
**TMS ADDITIVE MANUFACTURING MATERIALS AND PROCESSES WORKSHOP**

SUNDAY, OCT. 9 6–9 P.M.
**LIFT & THERMO-CALC ‘ICME FOR CERAMICS’ KICK-OFF EVENT AT MS&T22**

SUNDAY, OCT. 9 5–6 P.M.
**MS&T WOMEN IN MATERIALS SCIENCE RECEPTION**

MONDAY, OCT. 10 1–2 P.M.
**ACerS 124TH ANNUAL MEMBERSHIP MEETING**

MONDAY, OCT. 10 4–5 P.M.
**IMPROVE YOUR NETWORKING SKILLS EVENT BY TMS**

MONDAY, OCT. 10 6–8 P.M.
**WELCOME AND GENERAL POSTER RECEPTION HOSTED BY THE MS&T PARTNERS**

MONDAY, OCT. 10 6–8 P.M.
**AIST STEEL TO STUDENTS RECRUITING RECEPTION**

MONDAY, OCT. 10 7:30–10 P.M.
**ACerS ANNUAL HONOR AND AWARDS BANQUET**

MONDAY OCT. 10 – WEDNESDAY, OCT. 12
**VARIOUS HOURS**

MONDAY, OCT. 10 7:30–10 P.M.
**ACerS BASIC SCIENCE DIVISION CERAMOGRAPHIC EXHIBIT & COMPETITION**

TUESDAY, OCT. 11 NOON–2 P.M.
**TMS EMERGING PROFESSIONALS TUTORIAL LUNCHEON & LECTURE**
STUDENT ACTIVITIES

Visit the MS&T Student Activities web page to see complete descriptions of all student events, including details for applying for Material Advantage chapter grants and individual travel grants.

- UNDERGRADUATE STUDENT POSTER CONTEST
- GRADUATE STUDENT POSTER CONTEST
- UNDERGRADUATE STUDENT SPEAKING CONTEST
- STUDENT NETWORKING MIXER
- ACerS STUDENT TOUR
- CERAMIC MUG DROP CONTEST
- CERAMIC DISC GOLF CONTEST
- PROFESSIONAL HEADSHOT PHOTOS
- STUDENT AWARDS CEREMONY
- AIST STUDENT PLANT TOUR
- AIST STEEL TO STUDENTS RECRUITING RECEPTION
- STUDENT SOCIAL MEDIA CONTEST
HOTELS

Hotel Reservation Deadline: **September 15, 2022**

For best availability and immediate confirmation, make your reservations online at matscitech.org/mst22.

**OMNI WILLIAM PENN** (ACerS Headquarters) $229.00 + tax

**WESTIN CONVENTION CENTER** (AIST & TMS Headquarters) $235.00 + tax

**DRURY PLAZA HOTEL PITTSBURGH DOWNTOWN** $189.00 + tax

Rates listed above are for single or double occupancy.

**Ways to Book Hotel Reservations**

**Online:** [https://book.passkey.com/go/MST2022](https://book.passkey.com/go/MST2022) for new reservation OR to modify or cancel an existing hotel reservation.

**Telephone:** Agents available 9:00 a.m. to 4:00 p.m. Mountain Time, Monday through Friday

- Toll-free (US): 800-219-6547
- International: +1 385-766-1657

**U.S. Government Rate**

Rooms are extremely limited; proof of federal government employment must be shown at check-in or higher rate will be charged. U.S. Government rate is the prevailing government rate.

**Credit Card Deposit:** All reservation requests must be accompanied by a credit card guarantee for a deposit of one night’s room and tax for each room reserved. Your credit card WILL NOT BE CHARGED during this initial stage and will be held as a GUARANTEE only.

**Acknowledgments:** Orchid Events will send reservation acknowledgements within 24 hours via email if booked online or by telephone. If you do not receive your acknowledgement in this time frame, contact Orchid Events. You will not receive a written confirmation from the hotel.

**Cancellations & Changes:** Any reservation cancelled within 72 hours of arrival date will be charged one night’s room and tax. Please refer to your reservation acknowledgement for your individual hotel cancellation policy.

Through September 29, 2022, changes and cancellations can be made online or by contacting Orchid Events via e-mail at help@orchid.events. After September 29, 2022, contact your hotel to make changes and/or cancellations.

**Questions or Special Requests?** For questions or special requests, please contact Orchid Events at 800-219-6547 or e-mail to help@orchid.events. Special requests are not guaranteed. Hotels will assign specific room types upon check-in, based on availability.

**Hotel Suites** If you are interested in booking a hotel suite, please email help@orchid.events. There is a limited number available at a discounted rate for MS&T attendees.
EXHIBITION

This year MS&T is co-locating with the world-class, free-to-attend exhibitions: The Advanced Materials Show and The Nanotechnology Show. Showcasing companies at the forefront of the advanced materials and nanotechnology industry and featuring exhibitors who are established end users, global manufacturers, and pioneering innovators. Alongside the prestigious MS&T conference, the exhibition hall will feature a free 2-track conference where renowned industry leaders will discuss ideas and insights on the latest commercial and technology developments in the advanced material and nanotechnology sectors.

Other attractions include mug drop competitions, a ceramics disc golf competition and an exhibitor networking reception.

EXHIBIT SHOW HOURS

TUESDAY, OCTOBER 11, 2022

Show Hours 9 a.m.–6 p.m.
Exhibitor Networking Reception 4 p.m.–6 p.m.

WEDNESDAY, OCTOBER 12, 2022

Show Hours 9 a.m.–5 p.m.
Exhibitor Move-Out 5:30 p.m.–10 p.m.

*Times are tentative and subject to change

For additional information about exhibiting, sponsoring or advertising at MS&T, The Advanced Materials Show and The Nanotechnology Show, visit the Exhibits web page www.matscitech.org/MST22 or contact:

Zak Towner, The Advanced Materials Show, Event Sales Director
+44 (0) 1273 286398
mailto: zak.towner@event-partners.org

RESERVE YOUR BOOTH TODAY!

Spaces are filling up fast!
REGISTRATION
Visit the Registration page to see what your registration includes.

<table>
<thead>
<tr>
<th>Rates</th>
<th>On or before Sept. 15, 2022</th>
<th>After Sept. 15, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>$660</td>
<td>$810</td>
</tr>
<tr>
<td>Nonmember</td>
<td>$810</td>
<td>$960</td>
</tr>
<tr>
<td>Undergraduate Student Member</td>
<td>$25</td>
<td>$75</td>
</tr>
<tr>
<td>Undergraduate Student Nonmember</td>
<td>$25</td>
<td>$75</td>
</tr>
<tr>
<td>Graduate Student Member</td>
<td>$135</td>
<td>$185</td>
</tr>
<tr>
<td>Graduate Student Nonmember</td>
<td>$165</td>
<td>$215</td>
</tr>
<tr>
<td>One-Day</td>
<td>$685</td>
<td>$835</td>
</tr>
<tr>
<td>Expo Visitor</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

MS&T conference registration includes access to the MS&T Technical Meeting & MS&T Exhibit Featuring The Advanced Materials Show USA and The Nanotechnology Show.

Expo Visitor registration includes access to the MS&T Exhibit Featuring The Advanced Materials Show USA and The Nanotechnology Show. For more information visit their websites: nanotechnologyshow.com and advancedmaterialsshowusa.com