

THE WORLD COMES HERE.

TMS 2025

154th Annual Meeting & Exhibition

March 23–27, 2025

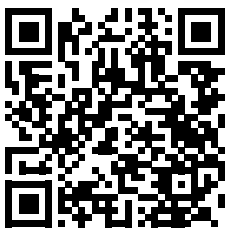
MGM Grand Las Vegas Hotel & Casino
Las Vegas, Nevada, USA

#TMSAnnualMeeting | www.tms.org/TMS2025



CONFERENCE GUIDE

General Meeting Information, Maps, Exhibit Directory, and Awards Program Inside



ACCESS COMPLETE PROGRAM DETAILS

Scan the QR code to download the **TMS2025 App** or the **Technical Program PDF**. (See page 6 for details.)

CONFERENCE GUIDE
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Kazuki Morita, Uday Pal, and Akbar Rhamdhani



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Visit the Springer Nature booth in the MGM Grand Las Vegas Hotel & Casino Foyer

WELCOME TO THE TMS 2025 ANNUAL MEETING & EXHIBITION!

Thank you for joining us in Las Vegas this week, and welcome to the meeting that brings the world's minerals, metals, and materials communities together. TMS is my home Society, and the TMS Annual Meeting & Exhibition is our community's primary gathering place. Here are my tips to help *you* feel more at home and engaged during this week's meeting:

USE PLANNING TOOLS

More than 4,600 abstracts are planned for presentation in this year's technical program, organized into a record 112 symposia. Use the **TMS2025 App** to locate sessions, speakers, and presentations of interest and to build your schedule for the week. Additional scheduling tools, including a PDF version of the technical program, are also available. (See page 6 for details.)

PRIORITIZE NETWORKING

Beyond technical programming, your registration includes informal networking events, like the Welcome Reception on Sunday evening. Add these events to your schedule and open up possibilities to meet potential mentors, future collaborators, or new friends. A full list of networking events can be found on page 24.

GET INVOLVED

Ensure your TMS community involvement extends beyond the annual meeting by attending a technical committee meeting. Check page 32 for the meeting schedule and choose a committee that aligns with your interests. If you're new to committee activities, join the **Like Peanut Butter and Jelly: TMS Mentoring and Committee Opportunities** session on Monday afternoon. This 90-minute interactive session allows you to meet and connect with volunteer leads from various committees.

ENJOY OUR ALL-IN-ONE LOCATION

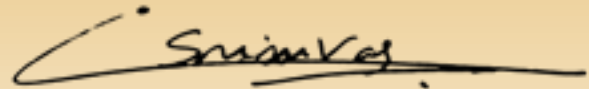
Take some time to familiarize yourself with the MGM Grand Conference Center (maps are found beginning on page 8) as this will be the sole location for programming and all-conference events for TMS2025. Note that a few of the events—like our exhibit hall and breakfast on Monday and Tuesday—are located in the Marquee Ballroom, which is across the courtyard from the session rooms and registration areas. Many lunch options are available on the premises so you will not have to leave the resort to find a mid-day meal. See page 16 for lunch options.

GATHER FOR ALL-CONFERENCE EVENTS

Join your fellow attendees at the **All-Conference Plenary Session** on Tuesday at noon to hear Emily Molstad, VALIS Insights, discuss critical minerals. Visit the **Exhibit Hall receptions** on Monday and Tuesday evenings to network with exhibitors and talk with poster presenters. Celebrate award recipients at the **2025 TMS-AIME Awards Ceremony** on Wednesday evening. These events let you come together with those outside your immediate technical interests and build bridges to those in related fields.

Whether you're new to the TMS Annual Meeting & Exhibition experience or a long-time attendee, I hope you find the presentations, events, and people that make TMS feel like home for you, too.

Enjoy your week at TMS2025!



Srini Chada, 2025 TMS President



TABLE OF CONTENTS

President's Welcome Message	1	Special Lectures	22
Meeting Policies	3	Networking Events	24
Professional Development Events	4	Student and Emerging Professional Events	24
TMS2025 App and Schedule Information	6	Calendar of Events	27
Maps	8	Technical Committee Meeting Schedule	32
TMS Board of Directors	12	Guide to TMS2025 Poster Session	34
Registration and Help Desks	14	Technical Program-at-a-Glance	35
Restaurants and Business Services	16	TMS-AIME Awards Ceremony Program	42
Proceedings Information	18	Exhibit Directory	51
All-Conference Plenary and Keynote Sessions	20	TMS2025 Sponsors	58
Featured Sessions	21		

CONNECT TO WI-FI AT TMS2025



To access Wi-Fi in the meeting rooms and public areas of the MGM Grand Conference Center, simply connect to the **MGMResorts Wi-Fi Network** and follow the prompts to connect. *No password is necessary.*

EMERGENCY PROCEDURES

If you experience a security or medical emergency, please:

Call MGM security at 1-702-891-3600 or ext. 53600 from a house phone.
The MGM security team can dispatch EMT and/or police officers as needed and quickly direct them to the location of the incident.

Should you require first aid onsite, please visit the **First Aid Office** in room **154**, on level one of the MGM Grand Conference Center. Our onsite First Aid Personnel can assist with everything from basic first aid needs to Intermediate Life Support care.

A listing of nearby hospitals, urgent care centers, and pharmacies is available through the TMS2025 App and the TMS2025 website.

TIME ZONE IN LAS VEGAS

Please note that all times listed in this guide refer to **Pacific Daylight Time (PDT)**.

MEETING BADGES

All attendees must wear registration badges at all times during the meeting to ensure admission to events included in the paid registration fee, such as technical sessions, exhibition, and receptions. "Exhibit Only" badges only provide admittance to the show floor for events in the exhibit hall. "Exhibit Only" attendees may not attend technical sessions.

GUEST SESSION AND FUNCTION ACCESS

Each full-conference attendee is permitted up to two guests for one session at which they are presenting. This does not include colleagues or exhibitors. This access is intended for family members who wish to listen to one talk presented by their relative. Please provide the names of the guests who will be attending your presentations when picking up your badge, so that your guests receive a ticket that allows them entry to your session. If your guest is under the age of 18, please refer to the TMS Policy on Minor Children at Events. Guests must follow all meeting policies, including the Meetings Code of Conduct.

MINOR CHILDREN AT EVENTS

In accordance with the TMS Policy on Minor Children at Events, no one under the age of 18 will be allowed on the exhibit floor, with the exception of Material Advantage or other university student registrants and nursing babies with their mothers.

REFUND POLICY

The deadline for all refunds was January 31, 2025. No refunds will be issued at the meeting. Fees and tickets are nonrefundable. TMS is not responsible for "no-show" presenters. Presenters are scheduled and advertised in good faith, based on the presenter's proposal to be included in the program.

RECORDING AND PHOTOGRAPHY POLICY



Any recording of session presentations, posters, and exhibitor booth displays and/or products (audio, video, still

photography, etc.) without express consent by TMS as well as the presenter or the exhibitor is strictly prohibited. This prohibition includes the taking photos of slides during presentations or demonstrations unless express consent is given by the presenter. Attendees violating this policy may be asked to leave the session, the conference, or the TMS membership. Outside of presentation and exhibitor settings, conference attendees may record or photograph other attendees provided that the individual(s) being recorded or photographed provide explicit permission to be recorded or photographed and the specific event venue is not otherwise specified as a recording-/photography-free zone.

THE RECORDING AND PHOTOGRAPHY OF EVENT PARTICIPANTS

By registering for this meeting, all attendees acknowledge that they may be photographed and/or recorded by TMS personnel while at events, and that those recordings/ images may be used for promotional purposes, in TMS publications and websites, and on social media sites. TMS reserves the right to all audio, video, and still photography reproductions of presentations at TMS-sponsored meetings. The attendees also acknowledge that they may be photographed and/or recorded by other attendees while at TMS events. While TMS encourages any attendee taking the photograph or recording to seek permission to take the photograph or make the recording, that courtesy may not always be extended. Attendees do not hold TMS responsible should they be recorded, photographed, or otherwise referenced in social media, publications, web sites, or other platforms based on their participation in a TMS event.

CELL PHONE USE



In consideration of attendees and presenters, TMS requests that you set cell phones and other devices on "silent" while in meeting rooms.

TMS DIVERSITY AND INCLUSION STATEMENT

The Minerals, Metals & Materials Society (TMS) is committed to advancing diversity in the minerals, metals, and materials professions, and to promoting an inclusive professional culture that welcomes and engages all who seek to contribute to the field. TMS recognizes that a diverse minerals, metals, and materials workforce is critical to ensuring that all viewpoints, perspectives, and talents are brought to bear in addressing complex science and engineering challenges. To build and nurture this diverse professional community, TMS welcomes and actively engages the participation of underrepresented groups in all of its initiatives and endeavors.

MEETINGS CODE OF CONDUCT

TMS is committed to providing a safe, inclusive, and welcoming environment for all attendees. For this reason, TMS does not tolerate harassment in any form and requires all participants to abide by TMS policies, including the Meetings Code of Conduct and Anti-Harassment Policy. For more information, or to report violations of these policies, go to www.tms.org/CodeofConductPolicies or see a TMS staff member.

AMERICANS WITH DISABILITIES ACT



TMS strongly supports the federal Americans with Disabilities Act (ADA) which prohibits discrimination against, and promotes public accessibility for, those with disabilities. In support of, and in compliance with, ADA we ask those requiring specific equipment or services to notify TMS staff at the TMS Member Welcome Center or the Registration desk.

ANTITRUST COMPLIANCE POLICY

TMS complies with the antitrust laws of the United States. Attendees are encouraged to consult with their own corporate counsel for further guidance in complying with U.S. and foreign antitrust laws and regulations.

HEALTH & SAFETY

TMS is committed to providing a safe and healthy environment for all event participants and staff. We continue to monitor health and safety issues such as COVID-19 and other communicable diseases and follow U.S. Centers for Disease Control and Prevention guidelines as they are released. The responsibility for a safe and healthy environment is shared by every participant, and all event participants are expected to comply with health and safety precautions implemented for the event as well as any restrictions or guidelines. By registering for and attending a TMS event, you acknowledge that attending an event involves some risk of exposure to COVID-19 or other communicable diseases, you voluntarily assume this risk, and you agree not to hold TMS liable for any illness that you may contract.

PROFESSIONAL DEVELOPMENT EVENTS

On Sunday, March 23, seven professional development courses and workshops will be held for TMS2025 attendees. Though there is no additional cost for attendees to participate in these workshops, pre-registration was required. If you were unable to register for a course because it was already full, you may go to the room listed below five minutes after the event is scheduled to begin. If empty seats are available after the course has begun, you are welcome to take a seat. We do ask, however, that you do not stand in the back of the room. Fire codes prevent us from exceeding the maximum capacity for each room, and you may be asked to leave if you are standing.



Visit www.tms.org/TMS2025/PD or scan this QR code for more details on each of the following courses.

Introduction to Carbon Capture in Primary Aluminum Smelting

Part 1: 9:00 a.m. to Noon; Part 2: 1:00 p.m. to 5:00 p.m. (Lunch is on your own) | Room 101

Cathode Lining for Aluminum Production

9:00 a.m. to 1:30 p.m. | Room 102

Standards in Additive Manufacturing

9:00 a.m. to 1:30 p.m. | Room 122

Grain Growth Modeling in the Fast Lane: Python, GPUs, and Machine Learning Approaches

1:00 p.m. to 5:30 p.m. | Room 123

Lead-Free Solders and Interconnect Workshop

1:00 p.m. to 5:30 p.m. | Room 103

Materials for a Global Hydrogen Economy

1:00 p.m. to 5:30 p.m. | Room 124

Metal Additive Manufacturing Processes Workshop

1:00 p.m. to 5:30 p.m. | Room 121



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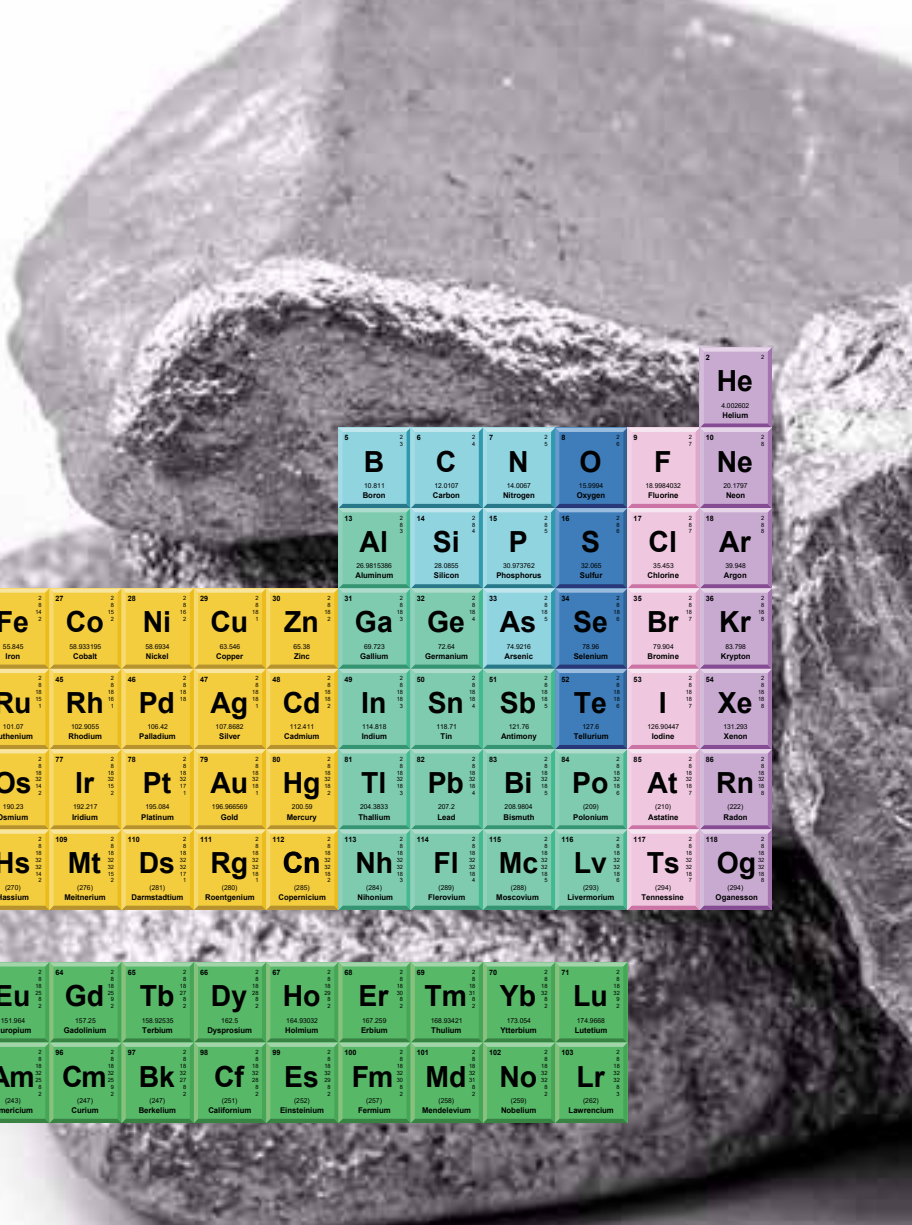


Photo: 99.999% Lutetium

1 H 1.00794 Hydrogen																	2 He 4.002602 Helium																												
3 Li 6.941 Lithium	4 Be 9.012182 Beryllium											5 B 10.811 Boron	6 C 12.0107 Carbon	7 N 14.0067 Nitrogen	8 O 15.9994 Oxygen	9 F 18.9984032 Fluorine	10 Ne 20.1797 Neon																												
11 Na 22.98976928 Sodium	12 Mg 24.305 Magnesium											13 Al 26.9815386 Aluminum	14 Si 28.0855 Silicon	15 P 30.973762 Phosphorus	16 S 32.065 Sulfur	17 Cl 35.453 Chlorine	18 Ar 39.948 Argon																												
19 K 39.0983 Potassium	20 Ca 40.078 Calcium	21 Sc 44.955912 Scandium	22 Ti 47.867 Titanium	23 V 50.9415 Vanadium	24 Cr 51.9961 Chromium	25 Mn 54.938045 Manganese	26 Fe 55.845 Iron	27 Co 58.933195 Cobalt	28 Ni 58.6934 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.64 Germanium	33 As 74.9216 Arsenic	34 Se 78.96 Selenium	35 Br 79.904 Bromine	36 Kr 83.798 Krypton																												
37 Rb 85.4678 Rubidium	38 Sr 87.62 Strontium	39 Y 88.90585 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.90638 Niobium	42 Mo 95.96 Molybdenum	43 Tc (98.9) Technetium	44 Ru 101.07 Ruthenium	45 Rh 102.9055 Rhodium	46 Pd 106.42 Palladium	47 Ag 107.8682 Silver	48 Cd 112.411 Cadmium	49 In 114.818 Indium	50 Sn 118.71 Tin	51 Sb 121.76 Antimony	52 Te 127.6 Tellurium	53 I 126.90447 Iodine	54 Xe 131.293 Xenon																												
55 Cs 132.9054 Cesium	56 Ba 137.327 Barium	57 La 138.90547 Lanthanum	72 Hf 178.48 Hafnium	73 Ta 180.9488 Tantalum	74 W 183.84 Tungsten	75 Re 186.207 Rhenium	76 Os 190.23 Osmium	77 Ir 192.217 Iridium	78 Pt 195.084 Platinum	79 Au 196.966569 Gold	80 Hg 200.59 Mercury	81 Tl 204.3833 Thallium	82 Pb 207.2 Lead	83 Bi 208.9804 Bismuth	84 Po (209) Polonium	85 At (210) Astatine	86 Rn (222) Radon																												
87 Fr (223) Francium	88 Ra (226) Radium	89 Ac (227) Actinium	104 Rf (261) Rutherfordium	105 Db (268) Dubnium	106 Sg (271) Seaborgium	107 Bh (272) Bohrium	108 Hs (270) Hassium	109 Mt (278) Meitnerium	110 Ds (281) Darmstadtium	111 Rg (280) Roentgenium	112 Cn (285) Copernicium	113 Nh (284) Nihonium	114 Fl (289) Flerovium	115 Mc (288) Moscovium	116 Lv (293) Livermorium	117 Ts (294) Tennessine	118 Og (294) Oganesson																												
<table border="1"> <tr> <td>58 Ce 140.116 Cerium</td> <td>59 Pr 140.90765 Praseodymium</td> <td>60 Nd 144.242 Neodymium</td> <td>61 Pm (145) Promethium</td> <td>62 Sm 150.36 Samarium</td> <td>63 Eu 151.964 Europium</td> <td>64 Gd 157.25 Gadolinium</td> <td>65 Tb 158.92535 Terbium</td> <td>66 Dy 162.5 Dysprosium</td> <td>67 Ho 164.93032 Holmium</td> <td>68 Er 167.259 Erbium</td> <td>69 Tm 168.93421 Thulium</td> <td>70 Yb 173.054 Ytterbium</td> <td>71 Lu 174.9668 Lutetium</td> </tr> <tr> <td>90 Th 232.03806 Thorium</td> <td>91 Pa 231.03688 Protactinium</td> <td>92 U 238.02891 Uranium</td> <td>93 Np (237) Neptunium</td> <td>94 Pu (244) Plutonium</td> <td>95 Am (243) Americium</td> <td>96 Cm (247) Curium</td> <td>97 Bk (247) Berkelium</td> <td>98 Cf (251) Californium</td> <td>99 Es (252) Einsteinium</td> <td>100 Fm (257) Fermium</td> <td>101 Md (258) Mendelevium</td> <td>102 No (259) Nobelium</td> <td>103 Lr (262) Lawrencium</td> </tr> </table>																		58 Ce 140.116 Cerium	59 Pr 140.90765 Praseodymium	60 Nd 144.242 Neodymium	61 Pm (145) Promethium	62 Sm 150.36 Samarium	63 Eu 151.964 Europium	64 Gd 157.25 Gadolinium	65 Tb 158.92535 Terbium	66 Dy 162.5 Dysprosium	67 Ho 164.93032 Holmium	68 Er 167.259 Erbium	69 Tm 168.93421 Thulium	70 Yb 173.054 Ytterbium	71 Lu 174.9668 Lutetium	90 Th 232.03806 Thorium	91 Pa 231.03688 Protactinium	92 U 238.02891 Uranium	93 Np (237) Neptunium	94 Pu (244) Plutonium	95 Am (243) Americium	96 Cm (247) Curium	97 Bk (247) Berkelium	98 Cf (251) Californium	99 Es (252) Einsteinium	100 Fm (257) Fermium	101 Md (258) Mendelevium	102 No (259) Nobelium	103 Lr (262) Lawrencium
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APP, SCHEDULE, AND PHOTOGRAPHY INFORMATION



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LOG IN TO THE TMS2025 APP

You can use the TMS2025 app to build a personalized schedule, view the most up-to-date technical program information, and more. An email containing links to your personalized app access was sent to the email address you used to register for TMS2025. The email was sent under the subject line: “Access the TMS2025 App” from noreply@rdmobile.com.

SEARCHING WITHIN THE APP

Use the search function of the app located in the “Schedule” tab to find sessions and events. Results display at the session-level detail but will also show talks related to your search terms. To find a specific speaker and the presentations they are providing, use the search function in the “Speakers” tab. You can also use filters to narrow your results.

New for 2025: You can now see all related sessions, talks, and events by symposium through the “Symposium” tab. Session chairs are also now searchable and viewable through the “Speakers” tab.

RECEIVE APP NOTIFICATIONS

Enable notifications from the TMS2025 app to be alerted when key events are happening or important updates are announced.

ACCESS A WEB-BASED VERSION OF THE APP



Scan the QR code or visit <https://events.rdmobile.com/Events/Details/18330> to access a web-based version of the app’s tools.

TROUBLE LOGGING IN?

For assistance, see TMS staff at either the Programming & App Support Desk or the Member Welcome Center, both located in the foyer of the MGM Grand Conference Center, Level 1.

DOWNLOAD THE TECHNICAL PROGRAM

DOWNLOAD TECHNICAL PROGRAM PDF



Scan the QR code or visit www.tms.org/TMS2025/SchedulingTools to download a PDF of the complete Technical Program.

You can download a searchable PDF of the technical program from the TMS2025 website in either print-friendly or mobile-friendly format. For real-time programming updates, consult the app or view the online session sheets. All of these resources can be found at www.tms.org/TMS2025/SchedulingTools.

HOW TO RECEIVE UPDATES

Stay up-to-date on major schedule changes and key announcements at the TMS 2025 Annual Meeting & Exhibition by enabling notifications from the TMS2025 App and by reading *TMS2025 News*, which is delivered to your mailbox each morning before conference activities begin. This daily newsletter provides a listing of the upcoming day’s events, as well as photos and recaps from the previous day.

SOCIAL MEDIA AND PHOTOS

POST ON SOCIAL MEDIA

Use **#TMSAnnualMeeting** to post your own photos and updates for other TMS2025 attendees on social media.

CAPTURE YOUR TMS2025 MOMENTS

If you spot one of our TMS photographers feel free to ask them to take a photo. This is a perfect opportunity to capture the spirit of collaboration and networking that defines our membership.

FIND YOUR PHOTOS AND MORE ON TMS’S FLICKR

In the weeks following the conference, TMS will curate photographs captured by our photographers and post them to our official Flickr account at [@tmssociety](https://www.flickr.com/photos/tmssociety/).



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MGM GRAND PROPERTY MAP | MAPS AND FLOORPLANS

MEETING INFORMATION

AMENITIES

- Dog Relief Area 86
- Grand Pool Complex 68
- Grand Spa 63
- Grand Salon 65
- REVIV Med Spa 83
- Spa Fitness Center 66
- Wet Republic 61

NIGHTLIFE

- 32° 32
- BetMGM Sportsbook 6
- Centrifuge 11
- Hakkasan Nightclub 3
- Level Up 28
- Lobby Bar 33
- Loser's Bar 88
- Side Bar 16
- Whiskey Down 16

GAMING

- BetMGM Sportsbook 38
- High Limit Slots 6
- Poker Room 11

ENTERTAINMENT

- Brad Garrett's Comedy Club 82
- David Copperfield Theater Grand 15
- Garden Arena 57
- Jabbawockeez Theater 17
- KÀ Theatre 26
- Toppolf 85
- Zero Latency Virtual Reality 2
- Underground Theater 90

SHOPPING

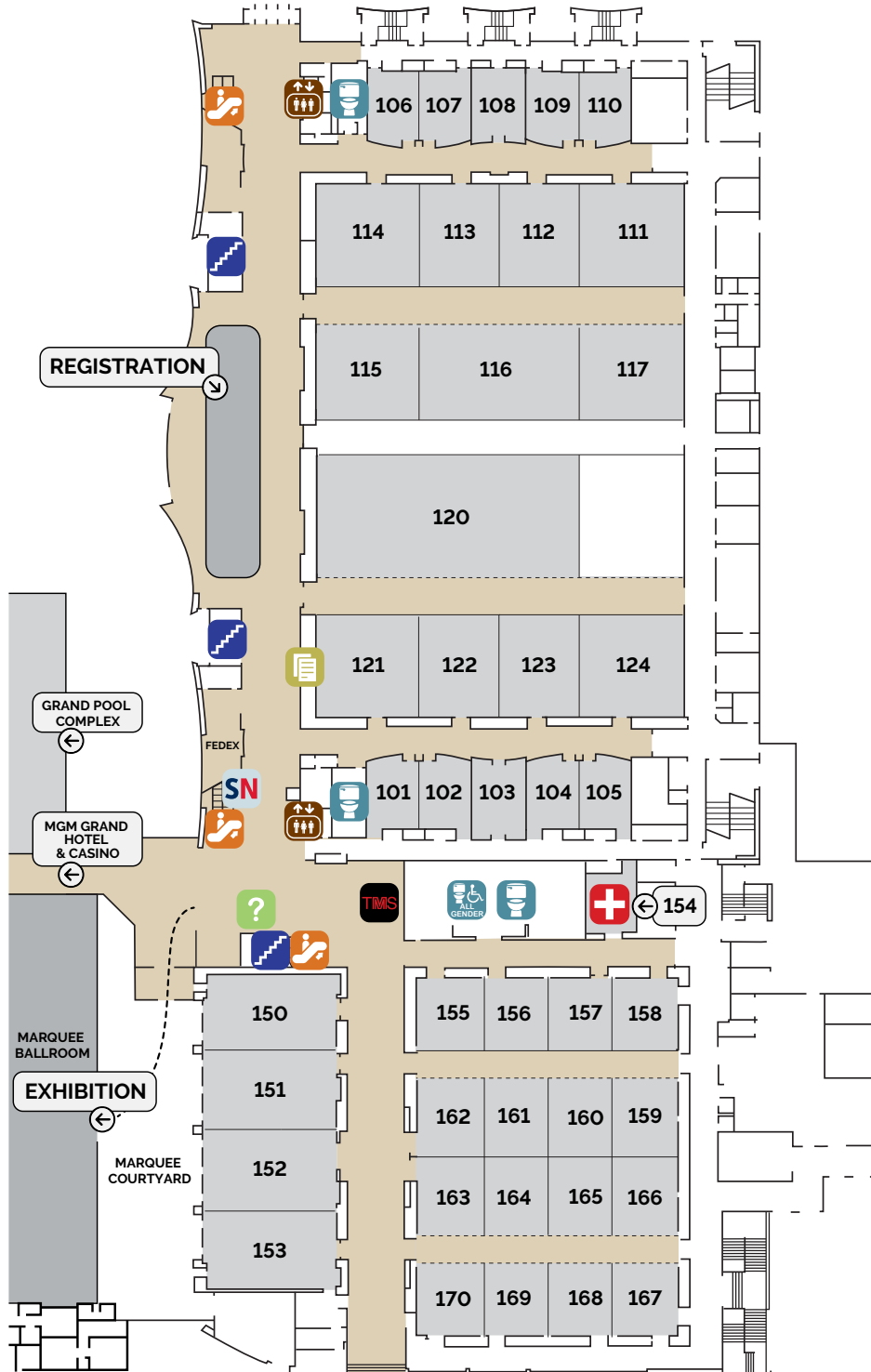
- Beauty Avenue 55
- Beauty Shop 51
- Casino Express 30
- Essentials 9
- Fantasy Land 92
- Grand & Co. 32
- Grand Express 53
- Hi Tech Room 8
- I Heart Socks 96
- KÀ Boutique 27
- Las Vegas Harley/Davidson 72
- Maceoo 87
- Magnet Max 93
- MGM Express 14
- MGM Market 29
- Nectar 52
- Pandora 50
- Paradiso 41
- Printeefly 95
- Quiksilver 58
- Rocks the Jewelers 35
- Spirits & Co. 74
- Splash Shop 69
- The Dean 37
- Welcome to Las Vegas 75
- Welcome to Las Vegas Kids 70

RESTAURANTS

- Avenue Cafe (Breakfast & Lunch) 19
- Blizz Frozen Yogurt 56
- Bonanno's Pizzeria 4/43
- Cabana Grill 67
- Crush 21
- Emeril's New Orleans Fish House 40
- Fat Tuesday's 76
- Grand Buffet 5
- Grand Wok 20
- Häagen-Dazs 44/77
- Hakkasan Restaurant 1
- International Smoke 54
- Joël Robuchon 25
- Johnny Rockets 45
- L'Atelier de Joël Robuchon 24
- Luchini Italian Restaurant 36
- Morimoto 34
- Nathan's Famous 46
- Nellie's Southern Kitchen 60
- New York Pretzel 78
- Original Chicken Tender 47
- Pan Asian 42
- Pieology 79
- Starbucks 31/48
- Subway 94
- Tacos & Ritas 49
- TAP Sports Bar 12
- Tom Colicchio's Craftsteak 39
- Wolfgang Puck Bar & Grill 22



CONFERENCE LEVEL 1



MAP KEY:



STAIRS



ESCALATOR



ELEVATOR



RESTROOM



ALL GENDER RESTROOM



MEMBER WELCOME CENTER



SPRINGER NATURE



PROGRAMMING SUPPORT DESK



FIRST AID



HOSPITALITY DESK

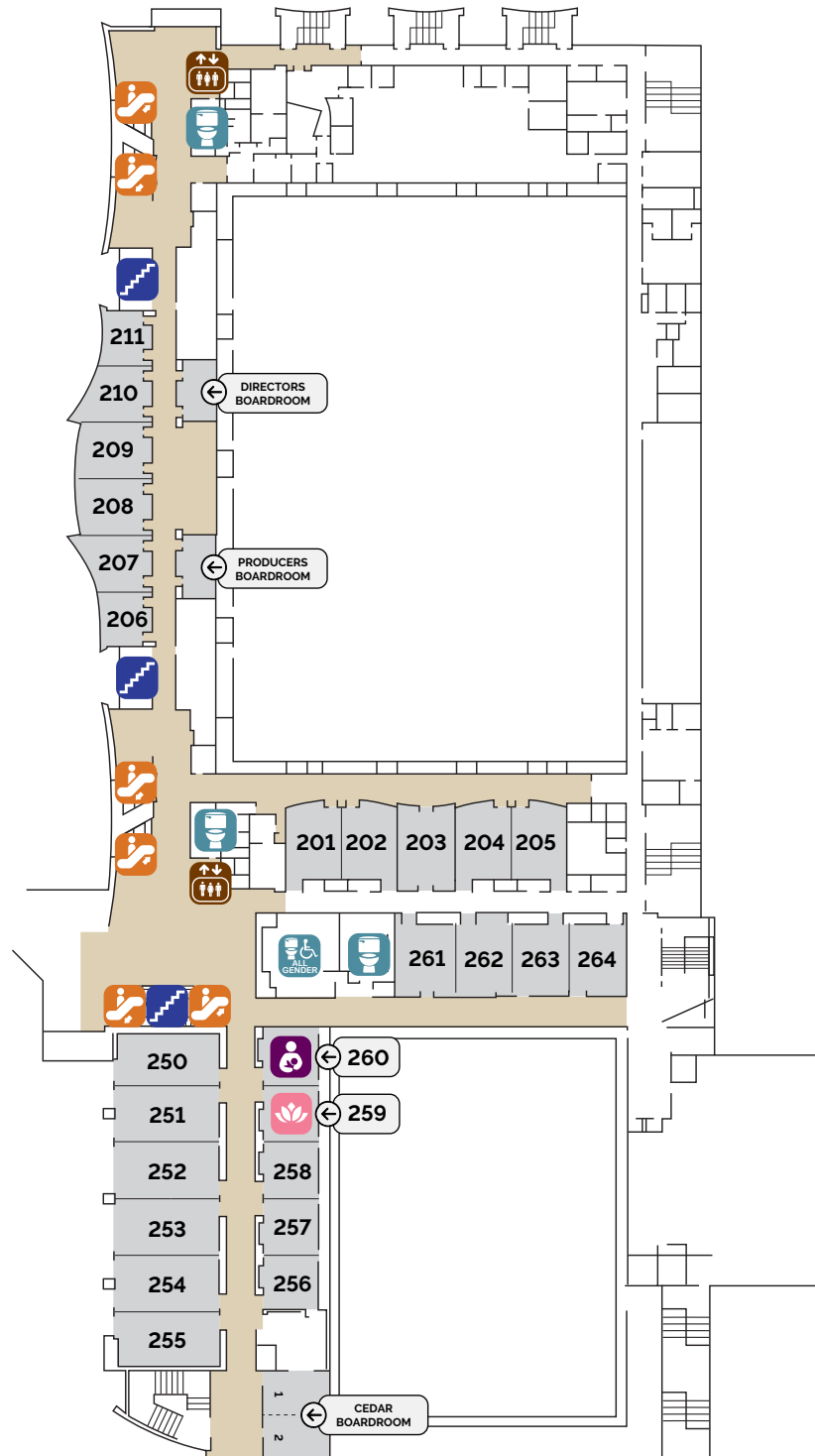


MOTHERS' ROOM



INTERFAITH PRAYER & MEDITATION ROOM

CONFERENCE LEVEL 2



MAP KEY:



STAIRS



ESCALATOR



ELEVATOR



RESTROOM



ALL GENDER RESTROOM



MEMBER WELCOME CENTER



SPRINGER NATURE



PROGRAMMING SUPPORT DESK



FIRST AID



HOSPITALITY DESK

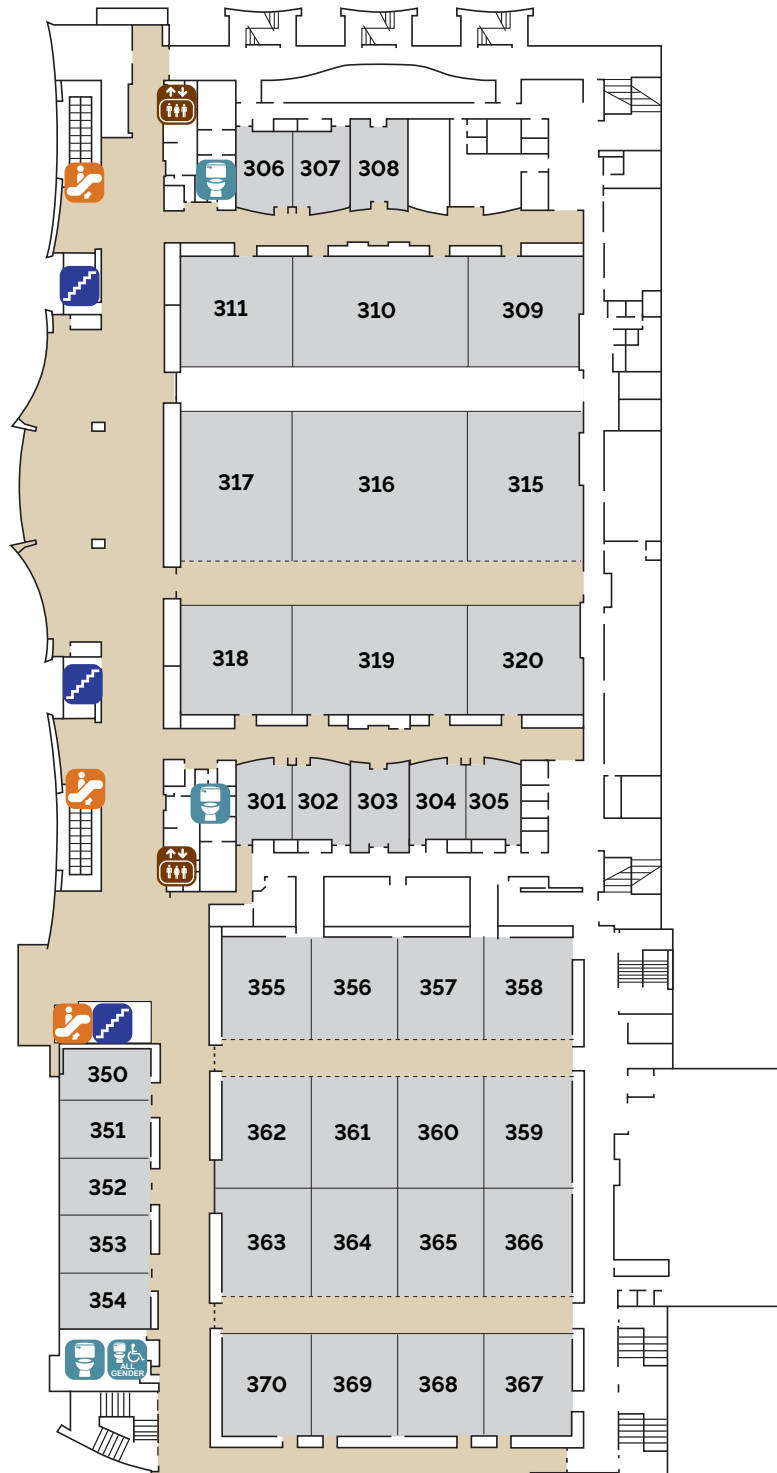


MOTHERS' ROOM



INTERFAITH PRAYER & MEDITATION ROOM

CONFERENCE LEVEL 3



MAP KEY:



STAIRS



ESCALATOR



ELEVATOR



RESTROOM



ALL GENDER RESTROOM



MEMBER WELCOME CENTER



SPRINGER NATURE



PROGRAMMING SUPPORT DESK



FIRST AID



HOSPITALITY DESK



MOTHERS' ROOM



INTERFAITH PRAYER & MEDITATION ROOM

MEET THE 2024–2025 TMS BOARD OF DIRECTORS

MEETING INFORMATION

OFFICERS



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Srin Chada
Manager PM&P, General Dynamics Mission Systems



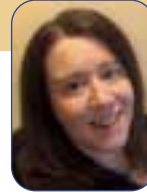
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Dan Miracle
Senior Scientist, Materials and Manufacturing Directorate, Air Force Research Laboratory



INCOMING 2025 VICE PRESIDENT
Viola L. Acoff
Dean of the School of Engineering, University of Mississippi



PAST PRESIDENT
Brad L. Boyce
Distinguished Member of the Technical Staff, Sandia National Laboratories



FINANCIAL PLANNING OFFICER
Alexis Lewis
Deputy Division Director, National Science Foundation



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President, Thermo-Calc Software Inc.



Incoming
Carelyn Campbell
Leader, Thermodynamics and Kinetics Group, National Institute of Standards and Technology



STRUCTURAL MATERIALS DIVISION DIRECTOR/CHAIR
Outgoing
Suveen Mathaudhu
Professor, Colorado School of Mines

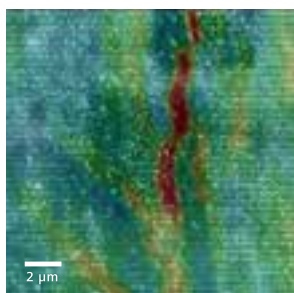


Incoming
Clarissa Yablinsky
Scientist and Team Leader, Dynamic and Mechanical Testing Team, Los Alamos National Laboratory

Linking materials performance to microstructure



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Seeing beyond

REGISTRATION AND HELP DESKS

REGISTRATION DESK

The Registration Desk is located in the MGM Grand Conference Center foyer on level one and will be open Sunday through Thursday. See the Calendar of Events or the TMS2025 app for operating hours.

REGISTRATION BADGES AND TICKETS

The TMS2025 name badge you received at registration must be worn for admission to technical sessions, the exhibition hall, social functions, and other events. Your full-meeting registration badge provides you access to:

- Sunday Night Welcome Reception
- Sunday Professional Development Events (pre-registration required)
- Breakfast on Monday and Tuesday Morning
- More than 100 symposia in 10 technical tracks
- Featured keynote and plenary presentations, honorary symposia, special award lectures, and poster sessions
- A three-day pass to the TMS2025 Exhibit Hall
- Exhibit Hall Opening Reception and Poster Session I
- Exhibit Hall Happy Hour and Poster Session II
- 2025 TMS-AIME Awards Ceremony
- Electronic access to proceedings from select symposia, as well as the general meetings proceedings volume

Tickets for events are attached to your name badge.

Attached to your name badge, you will find tickets for the events and receptions listed above. Any additional luncheon or social function tickets that you purchased in advance will also be attached to your badge.

BADGE AND TICKET REPLACEMENT

Please keep your badge and tickets with you at all times during the meeting. If you misplace your badge and tickets, replacements can be printed at the TMS2025 registration desks for a fee of \$25.

HELP DESKS

For additional assistance during TMS2025, visit the following information booths, located in the MGM Grand Conference Center foyer on level one. See the Calendar of Events or the TMS2025 app for operating hours.

TMS MEMBER WELCOME CENTER

Visit the TMS Member Welcome Center to learn more about your TMS membership or your Material Advantage student membership or to ask general questions about TMS2025. Not a member? If you registered for TMS2025 at the non-member registration rate, 2025 TMS membership is included with your registration. Find out how you can use your new membership by visiting staff at the booth.

PROGRAMMING AND APP SUPPORT DESK

Speakers, organizers, and session chairs can find answers to their questions about technical programming, and all attendees can get help downloading and using the TMS2025 App at the Programming and App Support Desk.

TMS HOSPITALITY DESK

The TMS Hospitality Desk can help with general event and venue questions, non-emergency first aid needs, lost and found, and other miscellaneous needs.

SPECIAL ACCOMMODATIONS



INTERFAITH PRAYER & MEDITATION ROOM

Room 259

This room will provide a quiet space for any attendee who needs time for prayer and reflection during the week. This interfaith room was created with our members who are observing Ramadan in mind but is open to any attendee who needs a quiet place.



NURSING MOTHER'S ROOM

Room 260

This private room is available exclusively to nursing mothers. Please visit the TMS Hospitality Desk to request a key.

HOW WILL YOU USE YOUR NEW TMS MEMBERSHIP?

Are you new to TMS? If you registered for TMS2025 at the nonmember professional rate, you'll receive TMS membership for the remainder of 2025.

VISIT THE TMS MEMBER WELCOME CENTER TO ASK ABOUT YOUR MEMBER BENEFITS!

Here are a few ways you can use your membership in the coming year:



Read Journals & Search Online Libraries



Access Discounts on Conferences & Courses



Apply for Awards & Professional Development Programs



Join a Technical Committee & Volunteer



START EXPLORING YOUR BENEFITS

Log in to members.tms.org to start exploring your benefits today!

TMS
The Minerals, Metals & Materials Society

Don't know how to log in? Visit the TMS Member Welcome Center in the first floor lobby of the conference center to find answers to all your membership questions.

RESTAURANTS AND BUSINESS SERVICES

TMS2025 ONSITE LUNCH OUTLETS



You don't have to leave the MGM Grand property to find both sit-down and fast casual options for lunch. Scan the QR code to view the most up-to-date hours or to place a mobile online order for pick-up service. You can also access the

information through the Dining Tab at mgmgrand.com or through the TMS2025 App.

FAST-CASUAL OPTIONS

Pieology - Italian Cuisine

Design your own artisan pizza with your choice of fresh dough, sauces, cheeses and toppings
MGM Grand, The Underground (pathway to ride share pickup)

Blizz Frozen Yogurt & Desserts - American Cuisine
Offers a wide selection of frozen yogurt creations and other delights like smoothies and crepes
MGM Grand, The District

Starbucks - Coffee House
Offers handcrafted beverages, premium teas, and treats
MGM Grand, lobby level casino area

Grand Wok Noodle Bar - Pan-Asian Cuisine
Features traditional Asian cuisine from wok-tossed noodles and black pepper beef to fresh seafood, tofu, and pot stickers
MGM Grand, lobby level, across from the high limit slots

FAST-FOOD OPTIONS

The MGM Food Court, located in The District, offers the following fast-food options:

- Pan Asian Express
- Bonanno's New York Pizzeria
- Haagen Dazs Ice Cream
- Nathan's Famous Hot Dogs
- Taco's N Ritas
- Johnny Rockets (Open 24 hours)
- Original Chicken Tender

In-room dining is also available for MGM guests. Please order through the in-room dining QR code found in your guest room or the MGM website.

FULL-SERVICE OPTIONS

Nellie's Southern Kitchen - American Cuisine
Enjoy Nellie's signature dishes including warm biscuits, Chicken & Dumplings, Hawg Hill Smoked Pulled Pork Sandwich, Chicken and Gravy, Southern Meat Loaf, and Chicken and Waffles with cinnamon-honey butter.
MGM Grand, Lobby Level, The District

Wolfgang Puck Bar & Grill - American Cuisine
Puck's Bar & Grill serves up his signature comfort food favorites like wood-fired pizzas, choice cuts from the grill, and a small bites menu.
MGM Grand, Lobby Level, across from KA Theater

TAP Sports Bar - American Cuisine
Genuine sports bar with dozens of TVs and sports memorabilia, serving a variety of sharable appetizers, burgers, salads, and more.
MGM Grand, Lobby Level, across from Grand Buffet

MGM Grand Buffet - American Cuisine
The MGM Grand Buffet's enormous array of cuisine is sure to grant your culinary wishes. There is a per person cost for this unlimited buffet-style restaurant.
MGM Grand, Lobby Level, past the Jabbawoockeez Store on the right

Netflix Bites - American Cuisine
Menu inspired by some of your favorite Netflix shows including Stranger Things, Bridgerton, and Squid Games!
MGM Grand, Lobby Level, next to CRUSH American Grill

BUSINESS SERVICES

For your convenience, there is a FedEx Business Center located in the MGM hotel lobby and the MGM Conference Center. Both locations can assist with your printing, shipping, and receiving needs.

FEDEX BUSINESS CENTER MGM CONVENTION CENTER HOURS:

Monday through Friday: 8:00 a.m. to 6:00 p.m.
Saturday and Sunday: 8:00 a.m. to 4:00 p.m.

FEDEX BUSINESS CENTER MGM HOTEL LOBBY HOURS:

Monday through Friday: 9:00 a.m. to 6:00 p.m.
Saturday and Sunday: 10:00 a.m. to 4:00 p.m.

GLENCORE TECHNOLOGY

Join Glencore Technology's ISACYCLE™ and ISASMELT™ Lunch and Learn workshops at TMS 2025



Scan to register

Glencore Technology is the name behind recognised industry leading technologies such as IsaMill™, Jameson Cell, IsaKidd™, and more.



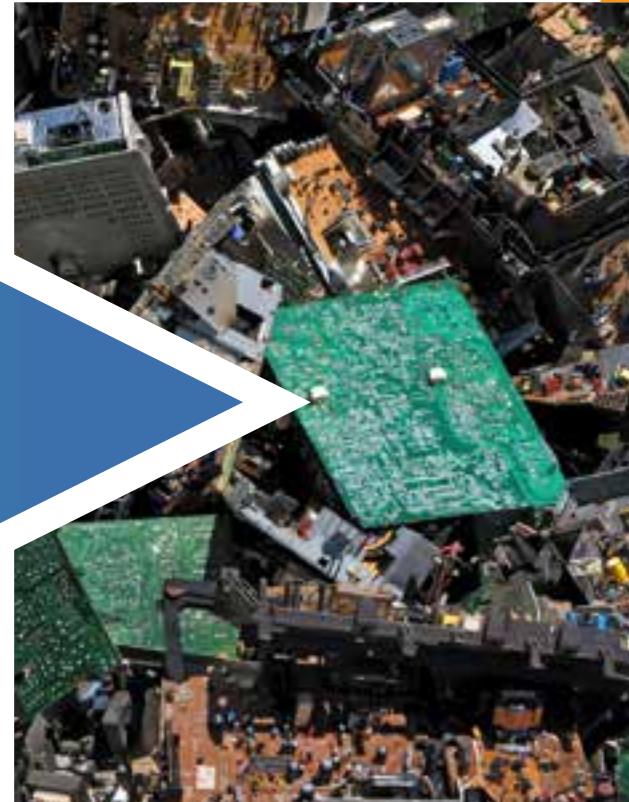
ISACYCLE™ and OxiLeach™ technology for the recovery of critical metals from e-scrap and secondary copper

Monday 24 March | 12:15-13:30

MGM Grand Las Vegas Hotel & Casino

What you'll learn:

- How ISACYCLE™ and OxiLeach™ can be applied in E-Scrap and Secondary Copper
- Combining these technologies for increased efficiency and lower CapEx
- The potential for localized, small-scale processing of E-Scrap and Secondary Copper through simplified flowsheets



Flowsheet design considerations for smelters containing ISASMELT™ technology

Wednesday 26 March | 12:15-13:30

MGM Grand Las Vegas Hotel & Casino

What you'll learn:

- Case Study: ISASMELT™ flowsheets for primary copper smelters
- Considerations for overall smelter flowsheet design (including CAPEX, OPEX, emissions, and metal recovery)
- How to select the most suitable smelting flowsheet

PROCEEDINGS INFORMATION

FREE PROCEEDINGS ACCESS



TMS2025 attendees in most registration classes receive free online access to the complete collection of proceedings publications. For access, scan the QR code or visit www.tms.org/TMS2025Proceedings. Enter your TMS2025 Registration Confirmation Number (usually formatted as 25-xxxx including the hyphen) and the full name you entered when registering for the conference.

Please note that complimentary proceedings content must be downloaded by April 30, 2025, at which time standard pricing will take effect.

INDIVIDUAL VOLUMES FOR PURCHASE

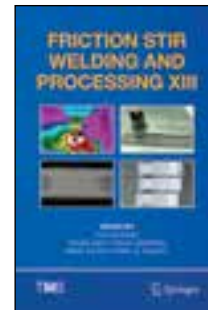
TMS members receive a 40% discount off hard copies of the TMS2025 proceedings volumes presented on this page. These books will be available for purchase at the Springer Nature Publications booth, located in the MGM Convention Center Lobby on the first level. Visit the online TMS Bookstore at www.tms.org/Bookstore to search the complete inventory of available TMS publications, including past proceedings volumes.



TMS2025 PROCEEDINGS VOLUMES

The following volumes will be included in the online proceedings access for most registrants, and hard copies will be available for purchase:

- *Advances in Ceramic Materials and Processing*
- *Advances in Sustainable Composites: Eco-friendly Solutions and Applications*
- *Characterization of Minerals, Metals, and Materials 2025: In-Situ Characterization Techniques*
- *Energy Technology 2025: Carbon Dioxide Management and Other Technologies*
- *Friction Stir Welding and Processing XIII*
- *Light Metals 2025*
- *Magnesium Technology 2025*
- *Materials Processing Fundamentals: Thermodynamics and Rate Phenomena*
- *Natural Fibers and Biocomposites: A Sustainable Solution*
- *Rare Metal Technology 2025*
- *REWAS 2025: Circular Economy for the Energy Transition*
- *TMS 2025 154th Annual Meeting & Exhibition Supplemental Proceedings*



TMS2025 SUPPLIER TECHNOLOGY FORUM PRESENTATIONS

TMS2025 attendees will also have access to presentations delivered at the TMS2025 Supplier Technology Forum sessions as part of their proceedings access. These slideshow presentations will be available as PDFs and can be accessed by logging in to the www.tms.org/TMS2025Proceedings website using the login instructions above.

DISCOVER THE TMS SERIES AT TMS2025



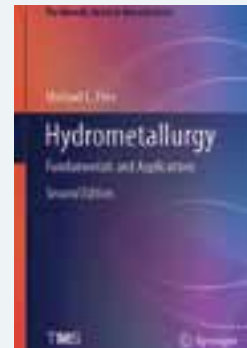
Recycling Technologies for Secondary Zn-Pb Resources

Muammer Kaya
978-3-031-14684-8



Thermodynamic Measurement Techniques

Mohammad Shamsuddin
978-3-031-47117-9



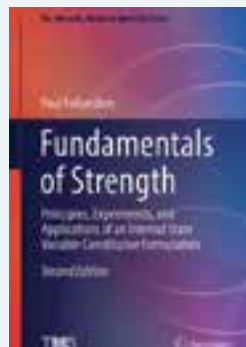
Hydrometallurgy

Michael L. Free
978-3-030-88086-6



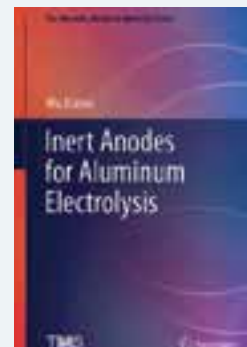
Metallurgy in Space

Hans Jorg Fecht
978-3-030-89783-3



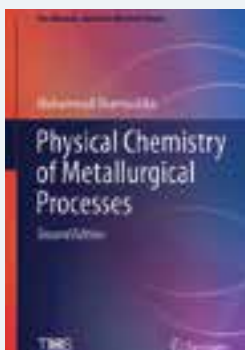
Fundamentals of Strength

Paul Follansbee
978-3-031-04555-4



Inert Anodes for Aluminum Electrolysis

Wu Xianxi
978-3-030-28912-6



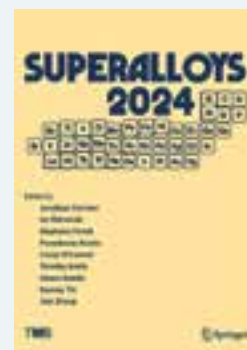
Physical Chemistry of Metallurgical Processes

Mohammad Shamsuddin
978-3-030-58068-1



Ultrafine-Grained Materials

Ruslan Z. Valiev
978-3-031-31728-6



Superalloys 2024 Proceedings of the 15th International Symposium on Superalloys

Jonathan Cormier, et al
978-3-031-63936-4

ALL-CONFERENCE PLENARY AND KEYNOTE SESSIONS



“FROM FINITE TO INFINITE: CLOSING THE LOOP ON CRITICAL MINERALS”

FEATURED SPEAKER
Emily Molstad
CEO and
Co-Founder
VALIS Insights

Date: Tuesday, March 25
Time: Noon to 1:00 p.m.
Location: Room 120

ABOUT THE PRESENTER

Driven by her passion for sustainability and love of material science, Emily Molstad quickly found her home within the metal recycling industry. Molstad built the foundation of her technical expertise during her graduate studies at WPI's Center for Resource Recovery and Recycling (CR3) and through extensive interviews with industry stakeholders. This deep dive into the industry exposed the power of data to enhance recycling operations. Molstad, along with her co-founder, went on to found VALIS, a software startup dedicated to delivering the solutions needed to optimize the recycling process and create a circular economy. The VALIS team is committed to bringing Industry 4.0 capabilities that increase the profitability of metal recyclers and maximize the recovery of material from the past to meet the demands of the future. Molstad centers on leading with compassion and enjoys creating a supportive, collaborative environment that drives success for VALIS teammates, customers, and partners.

ABOUT THE PRESENTATION

As global demand for raw materials rises and finite resources are depleted, the need to design products and systems that prioritize resource efficiency, reusability, and recovery is more pressing than ever. Advancements in Industry 4.0, material design, and lifecycle modeling help to ensure effective recovery at end of life. Education from kindergarten to college is essential for engraining sustainable practices in future generations. Policy has the power to create incentives that drive systemic changes that minimize environmental impact. Together, technology, education, and policy transform today's challenges into tomorrow's breakthroughs, promoting circular practices that benefit both industry and society for all generations.

ADDITIONAL KEYNOTE SESSIONS AT TMS2025



Scan the QR code for details on featured speakers at the following keynote sessions or visit the Featured Sessions section at www.tms.org/TMS2025.

Additive Manufacturing Keynote Session

Monday, March 24 | 2:00 p.m. to 5:30 p.m. | Room 120

Light Metals Keynote Session

Growing Pains: Advancing Aluminum Recycling, Decarbonization, and Circular Innovations

Event Sponsored by Springer Nature

Monday, March 24 | 8:30 a.m. to 11:30 a.m. | Room 120

Magnesium Technology 2025 Keynotes

Monday, March 24, through Wednesday, March 26
(See times on the TMS2025 website or app) | Room 115

Acta Materialia Symposium

Tuesday, March 25 | 2:30 p.m. to 4:30 p.m. | Room 170

Nix Award and Lecture Symposium VI

Recent Developments in Investigating the Flow Mechanisms of Crystalline Solids

Wednesday, March 26 | 8:30 a.m. to Noon | Room 170

CO-LOCATED MEETINGS



Fifth Summit on Diversity in the Minerals, Metals, and Materials Professions (DMMMS)



REWAS 2025: Circular Economy for the Energy Transition



5th Bauxite Residue Valorization and Best Practices Conference

A Decade of Creating Inclusion and Belonging for Diversity in the Minerals, Metals, and Materials Professions

KEYNOTE SPEAKER:

Frank Dobbin, Harvard University: "Which Faculty Diversity Programs Work? Evidence from 600 Colleges and Universities"

Tuesday, March 25 | 2:50 p.m.
Room 150

No photos permitted at this event.

KEYNOTE SPEAKERS:

Gisele Azimi, University of Toronto: "Recycling of Lithium-Ion Batteries Cathode Material Using Supercritical Fluid Extraction"

Monday, March 24 | 8:35 a.m.
Room 117

Owais Ahmed Waseem, Aurubis Richmond: "Advancing Circular Economy: Copper Recovery from E-Waste at Aurubis' New US Facility"

Monday, March 24 | 2:05 p.m.
Room 117

THREE SESSIONS ARE PLANNED:

- Technologies for Valorization as Binder, Cement and Geopolymers
- Valorization from Policy, Zero-Emission and Systemic Perspectives
- Recovery of Steel, Titania and Rare Earths

Tuesday, March 25, and Wednesday, March 26
Room 111

HONORARY SYMPOSIA

A Career in Powder Processing and Additive Manufacturing: An MPMD Symposium Honoring David Bourell

Tuesday, March 25 | 8:00 a.m. to 5:30 p.m. | Room 309

Atomistic Simulations Linked to Experiments to Understand Mechanical Behavior: An MPMD Symposium in Honor of Professor Diana Farkas

Monday, March 24, through Thursday, March 27
Room 370

Innovative Hydrometallurgical Technologies for Environmentally Benign Processing and Remediation: An EPD Symposium Honoring Fiona Doyle

Monday, March 24 | 8:30 a.m. to 5:00 p.m. | Room 101

Microstructural Evolution and Material Properties due to Manufacturing Processes: A Symposium in Honor of Anthony Rollett

Tuesday, March 25, and Wednesday, March 26
Room 303

Recent Advances in Titanium Science and Technology: An MPMD/SMD Symposium Honoring Professor Dipankar Banerjee

Wednesday, March 26, and Thursday, March 27
Room 107

Thermodynamics and Phase Diagrams Applied to Materials Design and Processing: An FMD/SMD Symposium Honoring Rainer Schmid-Fetzer

Monday, March 24, and Tuesday, March 25
Room 350

SPECIAL LECTURES



Visit www.tms.org/TMS2025/SpecialLectures or scan this QR code to learn more about these luncheon and award lectures.

LUNCHEON LECTURES

Structural Materials Division (SMD)/Functional Materials Division (FMD) Luncheon*

Anne Campbell, Oak Ridge National Laboratory; **Changhong Cao**, McGill University; **Grace Gu**, University of California Berkeley; **Ling Li**, University of Pennsylvania; **Steven Naleway**, University of Utah; **Zachary Sims**, Small Business Consulting Corporation
Monday, March 24 | Noon to 2:00 p.m. | Room 151

Extraction & Processing Division (EPD)/Materials Processing & Manufacturing Division (MPMD) Luncheon*

Event sponsored by Glencore Technology
Zhigang Zak Fang, University of Utah
Tuesday, March 25 | 1:00 p.m. to 3:00 p.m. | Room 151

Emerging Professionals Tutorial Lecture & Luncheon*

Marie Charpagne, University of Illinois; **Aeriel Murphy-Leonard**, The Ohio State University; and **Diletta Giuntini**, Eindhoven University of Technology
Tuesday, March 25 | 1:15 p.m. | Room 253-254

Light Metals Division Luncheon*

Catrina Rorke, Climate Leadership Council and Center for Climate and Trade
Wednesday, March 26 | Noon to 2:00 p.m. | Room 151

Journal of Sustainable Metallurgy Luncheon and Lecture: Celebrating a Decade of Advances in Sustainable Metallurgy*

Event sponsored by Rio Tinto
Claire Davis, University of Warwick, and **David Dreisinger**, University of British Columbia
Wednesday, March 26 | Noon to 2:00 p.m.
Room 253-254

* Tickets required to receive a lunch at this event. (You are welcome to attend the lecture for free.) Tickets had to be purchased prior to the start of TMS2025. Any tickets you purchased will be attached to your name badge.

AWARD LECTURES

Extraction & Processing Division Distinguished Lecturer

Adam Powell, Worcester Polytechnic Institute
Monday, March 24 | 8:40 a.m. | Room 364

William Hume-Rothery Award

Long Qing Chen, The Pennsylvania State University
Monday, March 24 | 8:40 a.m. | Room 357

Young Innovator in the Materials Science of Additive Manufacturing Award Lecture

Atieh Moridi, Cornell University
Monday, March 24 | 4:45 p.m. | Room 120

Institute of Metals/Robert Franklin Mehl Award

Gary Was, University of Michigan
Monday, March 24 | 8:35 a.m. | Room 162

William D. Nix Award Lecturer

Terence Langdon, University of Southampton
Wednesday, March 26 | 8:30 AM | Room 170

Frontiers of Materials Award

Ling Li, University of Pennsylvania
Wednesday, March 26 | 8:30 a.m. | Room 116

NOMINATE NEXT YEAR'S AWARD LECTURERS

TMS awards move the field forward by offering valuable professional recognition and creating a platform to inspire others. To view a list of available awards and learn how to apply or nominate a colleague, visit:

www.tms.org/awards



RioTinto

Innovate today for a better future

We're finding better ways to provide
the materials the world needs



www.riotinto.com/en/operations/canada/saguenay

NETWORKING EVENTS



Visit www.tms.org/TMS2025/Networking or scan this QR code for more details on each of these networking events.

Welcome Reception

Sponsored by Springer Nature

Sunday, March 23 | 7:00 p.m. to 8:00 p.m.
Room 111-114

LGBTQ+ and Allies Networking Mixer

Sponsored by Elsevier

Photos not permitted at this event

Sunday, March 23 | 8:00 p.m. to 10:00 p.m. | Room 150

Monday Breakfast

Monday, March 24 | 7:00 a.m. to 8:30 a.m.
Marquee Ballroom

Like Peanut Butter and Jelly: TMS Mentoring and Committee Opportunities

Monday, March 24 | 3:00 p.m. to 4:30 p.m. | Room 152

Exhibit Opening Reception and Poster Session I

Monday, March 24 | 5:30 p.m. to 6:30 p.m.
Marquee Ballroom

Tuesday Breakfast

Tuesday, March 25 | 7:00 a.m. to 8:00 a.m.
Marquee Ballroom

Exhibit Hall Happy Hour and Poster Session II

Tuesday, March 25 | 5:30 p.m. to 6:30 p.m.
Marquee Ballroom

Fresh Coffee, Fresh Ideas: Diversity, Equity, and Inclusion Breakfast*

Sponsored by Elsevier

Photos not permitted at this event

Wednesday, March 26 | 7:00 a.m. to 9:00 a.m.
Room 151

2025 TMS-AIME Awards Ceremony & Reception

Wednesday, March 26

Reception*: 5:30 p.m. to 6:30 p.m. | Room 121-122

Awards Ceremony: 6:40 p.m. to 8:30 p.m. | Room 120

** Tickets are required to attend this event. If you purchased a ticket in advance, you will find it attached to your name badge. (Tickets are not required to attend the TMS-AIME Awards Ceremony; tickets are only required for the reception.)*

STUDENT AND EMERGING PROFESSIONAL EVENTS



Visit www.tms.org/TMS2025/StudentEvents or scan this QR code for more details on each of the following activities.

STUDENT EVENTS

TMS Materials Bowl

Sunday, March 23 | 4:30 p.m. to 6:00 p.m. | Room 120

Student Networking Reception

Sunday, March 23 | 6:00 p.m. to 7:00 p.m. | Room 150

Technical Divisions Student Poster Showing and Judging

Monday, March 24 | 5:00 p.m. to 6:30 p.m.
Marquee Ballroom

Like Peanut Butter and Jelly: TMS Mentoring and Committee Opportunities

Monday, March 24 | 3:00 p.m. to 4:30 p.m. | Room 152

2025 TMS Bladesmithing Symposium

Tuesday, March 25 | 8:00 a.m. to 11:30 a.m. | Room 164

Charting Bold Futures: A Panel Discussion About Careers in the Materials Science Industry

Tuesday, March 25 | 4:00 p.m. to 5:00 p.m. | Room 151

EMERGING PROFESSIONALS EVENTS

TMS Emerging Professionals Committee Meeting

Tuesday, March 25 | 5:30 p.m. to 6:30 p.m.
Room 253-254

Emerging Professionals Tutorial Lecture & Luncheon*

Tuesday, March 25 | 1:15 p.m. to 2:45 p.m.
Room 253-254

** Tickets are required to receive lunch at this event. If you purchased a ticket in advance, you will find it attached to your name badge. (Please note that tickets are not required to listen to the lecture.)*

YOU'RE INVITED

to the Acta Materialia Medalist Symposium & Acta Student Awards Presentation

DATE: Tuesday, March 25th at 2:30PM • LOCATION: MGM Grand, Room 170

Hear from the 2024 medalists about their award-winning research



Session Chair

Carolyn Hansson
UNIVERSITY OF WATERLOO



Gold Medal

Marc Meyers
UNIVERSITY OF CALIFORNIA, SAN DIEGO

*"Journey to the Center of the Earth:
Using High Power Lasers to Explore
Extreme Regimes"*



Silver Medal

Corinne Packard
COLORADO SCHOOL OF MINES

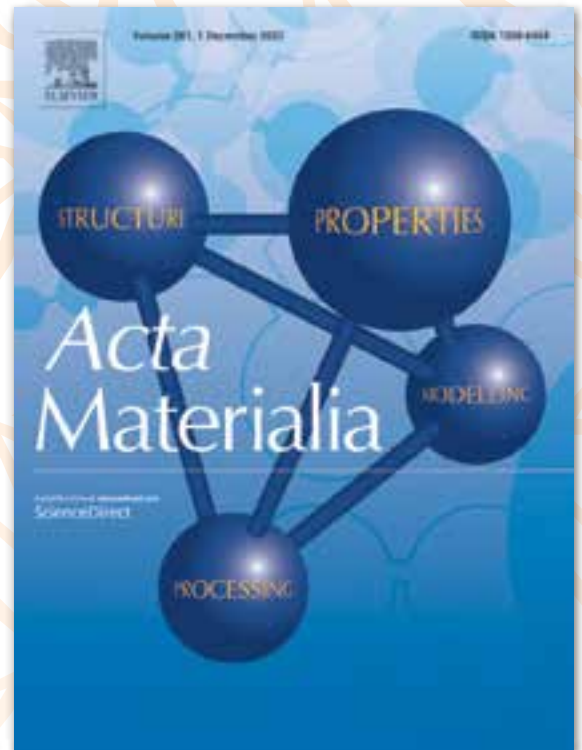
*"Stress State's Controlling Role in
Deformation and Transformation of
Rare-Earth Orthophosphate Ceramics"*



Hollomon Award for Materials and Society

Richard Spontak
NORTH CAROLINA STATE UNIVERSITY

*"Water-Activated Polymers to Mitigate
Growing Global Challenges"*



VIEW
PROGRAM



TMS

GRADUATE STUDENT PROGRAM

Supporting graduate students, as they transition from undergraduates to full-fledged professionals.

As a graduate student member, you can:

Expand Your Network:

Connect with industry professionals, national lab scientists, post docs, and fellow graduate students from around the world.

Build Your Resume:

Participate actively in TMS, connect with leaders in your technology area, and take on volunteer roles through TMS technical committee membership.

Contribute Your Ideas:

Sit on the Graduate Student Advisory Council and share your insights with TMS leadership.



“TMS has significantly benefited my work and professional development during my attendance at the TMS 2023 Annual Meeting & Exhibition, where I was able to present my research and connect with other researchers working in similar areas.”

—Cynthia Rodenkirchen,
*2024 International Symposium on
Superalloys Graduate Scholarship Recipient*



Learn more and apply for membership at
www.tms.org/GradStudents

Please note that all times listed refer to Pacific Daylight Time (PDT).

CALENDAR OF EVENTS

Function	Start Time	End Time	Room	Access
Saturday, March 22, 2025				
First-Aid Room	8:00 a.m.	5:00 p.m.	154	Open to All
Sunday, March 23, 2025				
First-Aid Room	7:00 a.m.	10:00 p.m.	154	Open to All
Registration and Badge Pick-Up	7:30 a.m.	7:30 p.m.	Grand Ballroom Prefunction	Open to All
TMS Member Welcome Center	7:30 a.m.	7:30 p.m.	1st Floor Lobby	Open to All
TMS Hospitality Desk	7:30 a.m.	7:30 p.m.	1st Floor Lobby	Open to All
Interfaith Prayer & Meditation Room	7:30 a.m.	7:30 p.m.	259	Open to All
Mothers' Room	7:30 a.m.	7:30 p.m.	260	Restricted
Board of Directors Meeting	8:00 a.m.	1:00 p.m.	250-251	Restricted
Springer Nature Publications Booth	8:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Exhibitor Move-In	8:00 a.m.	5:00 p.m.	Marquee Ballroom	Restricted
Standards in Additive Manufacturing Course	9:00 a.m.	1:30 p.m.	122	Ticketed
Cathode Lining for Aluminum Production Course	9:00 a.m.	1:30 p.m.	102	Ticketed
Introduction to Carbon Capture in Primary Aluminum Smelting Course	9:00 a.m.	5:00 p.m.	101	Ticketed
Grain Growth Modeling in the Fast Lane: Python, GPUs, and Machine Learning Approaches	1:00 p.m.	5:30 p.m.	123	Ticketed
Lead-Free Solders and Interconnect Workshop	1:00 p.m.	5:30 p.m.	103	Ticketed
Metal Additive Manufacturing Processes Workshop	1:00 p.m.	5:30 p.m.	121	Ticketed
Materials for a Global Hydrogen Economy Course	1:00 p.m.	5:30 p.m.	124	Ticketed
TMS Nominating Committee	1:30 p.m.	3:30 p.m.	261	Restricted
Magnesium Committee Meeting	1:30 p.m.	3:00 p.m.	115	Open to All
Recycling & Environmental Technologies Committee Meeting	1:30 p.m.	3:00 p.m.	117	Open to All
Technical Division Council (TDC) Meeting	1:30 p.m.	3:00 p.m.	262	Invitation Only
Programming & App Support Desk	2:00 p.m.	6:00 p.m.	Grand Ballroom Prefunction	Open to All
Aluminum Committee Meeting	2:00 p.m.	4:00 p.m.	109	Open to All
Materials Characterization Committee Meeting	2:30 p.m.	4:00 p.m.	157	Open to All
Pyrometallurgy Committee Meeting	3:00 p.m.	4:30 p.m.	105	Open to All
Materials Innovation Committee (MIC) Meeting	3:00 p.m.	4:30 p.m.	252	Invitation Only
Light Elements Technology Committee Meeting	3:30 p.m.	4:30 p.m.	106	Open to All
TMS Diversity Committee Meeting	4:00 p.m.	5:30 p.m.	115	Open to All
TMS Program Committee Meeting	4:00 p.m.	6:00 p.m.	250-251	Invitation Only
Hydrometallurgy & Electrometallurgy Committee Meeting	4:00 p.m.	5:00 p.m.	104	Open to All
Ceramic Materials Committee Meeting	4:15 p.m.	5:15 p.m.	107	Open to All
TMS Fellows and Invited Guests Reception	4:30 p.m.	6:30 p.m.	209	Invitation Only
TMS Materials Bowl	4:30 p.m.	6:00 p.m.	120	Open to All
Process Technology & Modeling Committee Meeting	5:00 p.m.	6:00 p.m.	108	Open to All
Thin Films & Interfaces Committee Meeting	5:00 p.m.	6:00 p.m.	155	Open to All
Additive Manufacturing Bridge Committee Meeting	5:30 p.m.	7:00 p.m.	163	Open to All
Nanomechanical Materials Behavior Committee Meeting	6:00 p.m.	7:30 p.m.	165	Open to All

CALENDAR OF EVENTS

Please note that all times listed refer to Pacific Daylight Time (PDT).

Function	Start Time	End Time	Room	Access
Student Networking Reception	6:00 p.m.	7:00 p.m.	150	Open to All
TMS Welcome & Division Networking Reception	7:00 p.m.	8:00 p.m.	111-114	Open to All
Alloy Phases Committee Meeting	7:30 p.m.	9:00 p.m.	157	Open to All
Mechanical Behavior of Materials Committee Meeting	7:30 p.m.	9:00 p.m.	165	Open to All
Phase Transformations Committee Meeting	7:30 p.m.	9:00 p.m.	156	Open to All
LGBTQ+ and Allies Reception	8:00 p.m.	10:00 p.m.	150	Open to All

Monday, March 24, 2025

Registration and Badge Pick-Up	7:00 a.m.	6:00 p.m.	Grand Ballroom Prefunction	Open to All
Programming & App Support Desk	7:00 a.m.	6:00 p.m.	Grand Ballroom Prefunction	Open to All
TMS Member Welcome Center	7:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
TMS Hospitality Desk	7:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Interfaith Prayer & Meditation Room	7:00 a.m.	6:00 p.m.	259	Open to All
Mothers' Room	7:00 a.m.	6:00 p.m.	260	Restricted
Exhibitor Lounge	7:00 a.m.	6:00 p.m.	Marquee Ballroom	Restricted
First-Aid Room	7:00 a.m.	8:00 p.m.	154	Open to All
Monday Breakfast	7:00 a.m.	8:30 a.m.	Marquee Ballroom	Open to All
TMS President Breakfast with Young Leaders Professional Development Award Recipients	7:30 a.m.	8:30 a.m.	262	Invitation Only
TMS Membership Diversity & Development Committee Meeting	7:30 a.m.	9:00 a.m.	255	Invitation Only
Springer Nature Publications Booth	8:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Exhibitor Move-In	8:00 a.m.	9:30 a.m.	Marquee Ballroom	Restricted
Magnesium Technology Awards Presentation	8:30 a.m.	8:45 a.m.	115	Open to All
Technical Programming Sessions	8:30 a.m.	12:00 p.m.	Various	Open to All
Light Metals Subject Awards Presentation	8:35 a.m.	8:45 a.m.	120	Open to All
Executive Committee Meeting	9:00 a.m.	11:30 a.m.	Cedar Boardroom 1	Restricted
Morning Break	9:50 a.m.	10:30 a.m.	Various	Open to All
TMS2025 Exhibition	11:00 a.m.	6:30 p.m.	Marquee Ballroom	Open to All
TMS Past Presidents Luncheon and Meeting	12:00 p.m.	1:30 p.m.	263-264	Restricted
Structural Materials Division/Functional Materials Division (SMD/FMD) Luncheon	12:00 p.m.	2:00 p.m.	151	Ticketed
Technical Divisions Student Posters Installation	12:00 p.m.	2:00 p.m.	Marquee Ballroom	Open to All
Poster Session I Installation	12:00 p.m.	2:00 p.m.	Marquee Ballroom	Open to All
Extraction & Processing Division (EPD) Council Meeting	12:00 p.m.	1:30 p.m.	250-251	Invitation Only
Workshop Sponsored by Glencore Technology: ISACYCLE™ and OxiLeach™ Technology for the Recovery of Critical Metals from E-Scrap and Secondary Copper	12:15 p.m.	1:20 p.m.	257-258	Pre-register
Integrated Computational Materials Engineering Committee Meeting	12:15 p.m.	1:45 p.m.	317	Open to All
Powder Materials Committee Meeting	1:15 p.m.	2:30 p.m.	105	Open to All
TMS Foundation Board of Trustees Meeting	2:00 p.m.	4:00 p.m.	262	Restricted
Technical Programming Sessions	2:00 p.m.	5:30 p.m.	Various	Open to All
Poster Session I Gallery Viewing	2:00 p.m.	5:30 p.m.	Marquee Ballroom	Open to All

Please note that all times listed refer to Pacific Daylight Time (PDT).

CALENDAR OF EVENTS

Function	Start Time	End Time	Room	Access
Additive Manufacturing Keynote Session	2:00 p.m.	5:30 p.m.	120	Open to All
Like Peanut Butter and Jelly: TMS Mentoring and Committee Opportunities	3:00 p.m.	4:30 p.m.	152	Open to All
Afternoon Break	3:20 p.m.	4:00 p.m.	Various	Open to All
PRICM 12 Organizing Committee	5:00 p.m.	6:30 p.m.	252	Invitation Only
TMS Education Committee Meeting	5:00 p.m.	6:00 p.m.	261	Invitation Only
TMS Professional Development Committee	5:00 p.m.	6:00 p.m.	255	Invitation Only
Technical Divisions Student Poster Showing and Judging	5:00 p.m.	6:30 p.m.	Marquee Ballroom	Open to All
Exhibit Opening Reception & Poster Session I	5:30 p.m.	6:30 p.m.	Marquee Ballroom	Open to All
Poster Session I Presentations	5:30 p.m.	6:30 p.m.	Marquee Ballroom	Open to All
Solidification Committee Meeting	5:45 p.m.	6:45 p.m.	317	Open to All
Nanomaterials Committee Meeting	6:00 p.m.	7:00 p.m.	166	Open to All
Refractory Metals & Materials Committee Meeting	6:00 p.m.	7:00 p.m.	168	Open to All
Shaping & Forming Committee Meeting	6:00 p.m.	7:30 p.m.	124	Open to All
Steels Committee Meeting	6:00 p.m.	7:00 p.m.	302	Open to All
Light Metals Division (LMD) Council Meeting	6:00 p.m.	7:30 p.m.	250-251	Invitation Only
Computational Materials Science & Engineering Committee Meeting	6:15 p.m.	7:45 p.m.	320	Open to All
Poster Session I Dismantle	6:30 p.m.	7:00 p.m.	Marquee Ballroom	Open to All
Chemistry & Physics of Materials Committee Meeting	6:30 p.m.	7:30 p.m.	304	Open to All
Composite Materials Committee Meeting	6:30 p.m.	7:30 p.m.	110	Open to All
Advanced Characterization, Testing & Simulation Committee Meeting	7:00 p.m.	8:00 p.m.	157	Open to All

Tuesday, March 25, 2025

Registration and Badge Pick-Up	7:00 a.m.	6:00 p.m.	Grand Ballroom Prefunction	Open to All
Programming & App Support Desk	7:00 a.m.	6:00 p.m.	Grand Ballroom Prefunction	Open to All
TMS Member Welcome Center	7:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
TMS Hospitality Desk	7:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Interfaith Prayer & Meditation Room	7:00 a.m.	6:00 p.m.	259	Open to All
Mothers' Room	7:00 a.m.	6:00 p.m.	260	Restricted
Exhibitor Lounge	7:00 a.m.	6:00 p.m.	Marquee Ballroom	Restricted
First-Aid Room	7:00 a.m.	8:00 p.m.	154	Open to All
Tuesday Breakfast	7:00 a.m.	8:00 a.m.	Marquee Ballroom	Open to All
Energy Conversion & Storage Committee Meeting	7:00 a.m.	8:00 a.m.	110	Open to All
Fellow Award Subcommittee Meeting	7:30 a.m.	8:30 a.m.	261	Restricted
Springer Nature Publications Booth	8:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Technical Programming Sessions	8:00 a.m.	11:30 a.m.	Various	Open to All
Honors & Professional Recognition Committee Meeting	8:30 a.m.	9:30 a.m.	261	Restricted
Morning Break	9:20 a.m.	10:00 a.m.	Various	Open to All
TMS PRIDE Meeting	10:00 a.m.	11:00 a.m.	252	Open to All
Technical Divisions Student Poster Viewing	11:00 a.m.	6:30 p.m.	Marquee Ballroom	Open to All
TMS2025 Exhibition	11:00 a.m.	6:30 p.m.	Marquee Ballroom	Open to All

CALENDAR OF EVENTS

Please note that all times listed refer to Pacific Daylight Time (PDT).

Function	Start Time	End Time	Room	Access
TMS 2025 All-Conference Plenary	12:00 p.m.	1:00 p.m.	120	Open to All
Poster Session II Installation	12:00 p.m.	2:00 p.m.	Marquee Ballroom	Open to All
Electronic Packaging & Interconnection Materials Committee Meeting	12:00 p.m.	1:00 p.m.	360	Open to All
Public & Governmental Affairs Committee Meeting	1:00 p.m.	3:00 p.m.	262	Invitation Only
Extraction & Processing Division/Materials Processing & Manufacturing Division (EPD/MPMD) Luncheon	1:00 p.m.	3:00 p.m.	151	Ticketed
Emerging Professionals Tutorial Lecture & Luncheon (Ticket required)	1:15 p.m.	2:45 p.m.	253-254	Ticketed
Emerging Professionals Tutorial Lecture Only (Free and Open to All)	1:15 p.m.	2:45 p.m.	253-254	Open to All
Structural Materials Division (SMD) Council Meeting	1:15 p.m.	2:45 p.m.	250-251	Invitation Only
Poster Session II Gallery Viewing	2:00 p.m.	5:30 p.m.	Marquee Ballroom	Open to All
Technical Programming Sessions	2:30 p.m.	6:00 p.m.	Various	Open to All
Industrial Advisory Committee Meeting	3:00 p.m.	4:30 p.m.	252	Open to All
Afternoon Break	3:50 p.m.	4:30 p.m.	Various	Open to All
Charting Bold Futures: A Panel Discussion About Careers in the Materials Science Industry Sponsored by the Emerging Professionals Committee	4:00 p.m.	5:00 p.m.	151	Open to All
Asian Pacific Islander Working Group Meeting and Open Mixer	5:00 p.m.	6:00 p.m.	261	Open to All
Surface Engineering Committee Meeting	5:00 p.m.	6:00 p.m.	107	Open to All
Titanium Committee Meeting	5:00 p.m.	6:00 p.m.	112	Open to All
TMS Emerging Professionals Committee Meeting	5:30 p.m.	6:30 p.m.	253-254	Open to All
Exhibit Happy Hour & Poster Session II	5:30 p.m.	6:30 p.m.	Marquee Ballroom	Open to All
Poster Session II Presentations	5:30 p.m.	6:30 p.m.	Marquee Ballroom	Open to All
High Temperature Alloys Committee Meeting	5:45 p.m.	6:45 p.m.	104	Open to All
Biomaterials Committee Meeting	6:00 p.m.	7:30 p.m.	307	Open to All
Energy Committee Meeting	6:00 p.m.	7:00 p.m.	364	Open to All
Nuclear Materials Committee Meeting	6:00 p.m.	7:30 p.m.	159	Open to All
Materials Processing & Manufacturing Division (MPMD) Council Meeting	6:00 p.m.	7:30 p.m.	250-251	Invitation Only
Technical Divisions Student Poster Dismantle	6:30 p.m.	7:00 p.m.	Marquee Ballroom	Open to All
Poster Session II Dismantle	6:30 p.m.	7:00 p.m.	Marquee Ballroom	Open to All
Corrosion & Environmental Effects Committee Meeting	6:45 p.m.	7:45 p.m.	104	Open to All
Magnetic Materials Committee Meeting	7:00 p.m.	8:00 p.m.	363	Open to All

Wednesday, March 26, 2025

Registration and Badge Pick-Up	7:00 a.m.	5:00 p.m.	Grand Ballroom Prefunction	Open to All
Programming & App Support Desk	7:00 a.m.	5:30 p.m.	Grand Ballroom Prefunction	Open to All
TMS Member Welcome Center	7:00 a.m.	5:30 p.m.	1st Floor Lobby	Open to All
TMS Hospitality Desk	7:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Interfaith Prayer & Meditation Room	7:00 a.m.	6:00 p.m.	259	Open to All
Mothers' Room	7:00 a.m.	6:00 p.m.	260	Restricted
Exhibitor Lounge	7:00 a.m.	6:00 p.m.	Marquee Ballroom	Restricted

Please note that all times listed refer to Pacific Daylight Time (PDT).

CALENDAR OF EVENTS

MEETING INFORMATION

Function	Start Time	End Time	Room	Access
First-Aid Room	7:00 a.m.	8:30 p.m.	154	Open to All
Fresh Coffee Fresh Ideas Diversity Breakfast	7:00 a.m.	9:00 a.m.	151	Ticketed
Future of Extraction Meeting Discussion	7:30 a.m.	11:00 a.m.	255	Invitation Only
Springer Nature Publications Booth	8:00 a.m.	6:00 p.m.	1st Floor Lobby	Open to All
Technical Programming Sessions	8:30 a.m.	12:00 p.m.	Various	Open to All
Morning Break	9:50 a.m.	10:30 a.m.	Various	Open to All
TMS2025 Exhibition	10:00 a.m.	2:00 p.m.	Marquee Ballroom	Open to All
International Affairs Committee Meeting	12:00 p.m.	2:00 p.m.	262	Restricted
Light Metals Division (LMD) Luncheon	12:00 p.m.	2:00 p.m.	151	Ticketed
<i>Journal of Sustainable Metallurgy</i> Luncheon and Lecture: Celebrating a Decade of Advances in Sustainable Metallurgy	12:00 p.m.	2:00 p.m.	253-254	Ticketed
Functional Materials Division (FMD) Council Meeting	12:00 p.m.	1:30 p.m.	250-251	Invitation Only
Workshop Sponsored by Glencore Technology: Flowsheet Design Considerations for Smelters Containing ISASMELT™ Technology	12:15 p.m.	1:20 p.m.	257-258	Pre-register
Exhibitor Move-Out	2:00 p.m.	7:00 p.m.	Marquee Ballroom	Restricted
Technical Programming Sessions	2:00 p.m.	5:30 p.m.	Various	Open to All
TMS Board of Directors Meeting - Closed Session	3:00 p.m.	5:00 p.m.	255	Restricted
Afternoon Break	3:20 p.m.	4:00 p.m.	Various	Open to All
TMS-AIME Awards Celebration Reception	5:30 p.m.	6:30 p.m.	121-122	Ticketed
TMS-AIME Awards Ceremony	6:40 p.m.	8:30 p.m.	120	Open to All

Thursday, March 27, 2025

Registration and Badge Pick-Up	7:00 a.m.	3:00 p.m.	Grand Ballroom Prefunction	Open to All
Programming & App Support Desk	7:00 a.m.	4:30 p.m.	Grand Ballroom Prefunction	Open to All
TMS Member Welcome Center	7:00 a.m.	4:30 p.m.	1st Floor Lobby	Open to All
TMS Hospitality Desk	7:00 a.m.	4:30 p.m.	1st Floor Lobby	Open to All
Interfaith Prayer & Meditation Room	7:00 a.m.	4:30 p.m.	259	Open to All
Mothers' Room	7:00 a.m.	4:30 p.m.	260	Restricted
First-Aid Room	7:00 a.m.	5:30 p.m.	154	Open to All
Annual Meeting of the Membership and Open Board of Directors Meeting	8:00 a.m.	8:30 a.m.	261	Open to All
Springer Nature Publications Booth	8:00 a.m.	2:00 p.m.	1st Floor Lobby	Open to All
Technical Programming Sessions	8:30 a.m.	12:00 p.m.	Various	Open to All
Morning Break	9:50 a.m.	10:30 a.m.	Various	Open to All
Technical Programming Sessions	1:00 p.m.	4:30 p.m.	Various	Open to All
Afternoon Break	2:20 p.m.	3:00 p.m.	Various	Open to All

MEETING OF THE MEMBERSHIP ANNOUNCEMENT

The Minerals, Metals & Materials Society, Inc. (TMS), in accordance with its bylaws (Article II, Section 2.6, and Article III, Section 3.7) will hold its 2025 Annual Meeting of the Membership with Open Board of Directors Meeting, on Thursday, March 27, 2025, at 8:00 a.m. at the MGM Grand, during the TMS 2025 Annual Meeting & Exhibition in Las Vegas, Nevada.

TECHNICAL COMMITTEE MEETING SCHEDULE Please note that all times listed refer to Pacific Daylight Time (PDT).

The following technical committee meetings are open to all professional TMS members and TMS Graduate Student Program members. Select the meeting that best matches your interests from the schedule below and plan to attend.

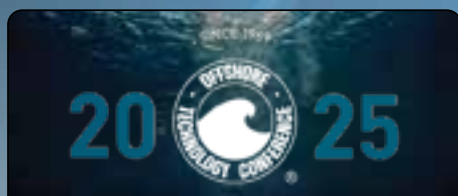
Committee	Time	Location	
Sunday, March 23	Magnesium Committee	1:30 p.m. to 3:00 p.m.	Room 115
	Recycling & Environmental Technologies Committee	1:30 p.m. to 3:00 p.m.	Room 117
	Aluminum Committee	2:00 p.m. to 4:00 p.m.	Room 109
	Materials Characterization Committee	2:30 p.m. to 4:00 p.m.	Room 157
	Pyrometallurgy Committee	3:00 p.m. to 4:30 p.m.	Room 105
	Light Elements Technology Committee	3:30 p.m. to 4:30 p.m.	Room 106
	Hydrometallurgy & Electrometallurgy Committee	4:00 p.m. to 5:00 p.m.	Room 104
	Ceramic Materials Committee	4:15 p.m. to 5:15 p.m.	Room 107
	Process Technology & Modeling Committee	5:00 p.m. to 6:00 p.m.	Room 108
	Thin Films & Interfaces Committee	5:00 p.m. to 6:00 p.m.	Room 155
	Additive Manufacturing Committee	5:30 p.m. to 7:00 p.m.	Room 163
	Nanomechanical Materials Behavior Committee	6:00 p.m. to 7:30 p.m.	Room 165
	Alloy Phases Committee	7:30 p.m. to 9:00 p.m.	Room 157
	Mechanical Behavior of Materials Committee	7:30 p.m. to 9:00 p.m.	Room 165
Phase Transformations Committee	7:30 p.m. to 9:00 p.m.	Room 156	
Monday, March 24	Integrated Computational Materials Engineering Committee	12:15 p.m. to 1:45 p.m.	Room 317
	Powder Materials Committee	1:15 p.m. to 2:30 p.m.	Room 105
	Solidification Committee	5:45 p.m. to 6:45 p.m.	Room 317
	Nanomaterials Committee	6:00 p.m. to 7:00 p.m.	Room 166
	Refractory Metals & Materials Committee	6:00 p.m. to 7:00 p.m.	Room 168
	Steels Committee	6:00 p.m. to 7:00 p.m.	Room 302
	Shaping & Forming Committee	6:00 p.m. to 7:30 p.m.	Room 124
	Computational Materials Science & Engineering Committee	6:15 p.m. to 7:45 p.m.	Room 320
	Chemistry & Physics of Materials Committee	6:30 p.m. to 7:30 p.m.	Room 304
Composite Materials Committee	6:30 p.m. to 7:30 p.m.	Room 110	
Advanced Characterization, Testing & Simulation Committee	7:00 p.m. to 8:00 p.m.	Room 157	
Tuesday, March 25	Energy Conversion & Storage Committee	7:00 a.m. to 8:00 a.m.	Room 110
	Electronic Packaging & Interconnection Materials Committee	Noon to 1:00 p.m.	Room 360
	Surface Engineering Committee	5:00 p.m. to 6:00 p.m.	Room 107
	Titanium Committee	5:00 p.m. to 6:00 p.m.	Room 112
	High Temperature Alloys Committee	5:45 p.m. to 6:45 p.m.	Room 104
	Energy Committee	6:00 p.m. to 7:00 p.m.	Room 364
	Biomaterials Committee	6:00 p.m. to 7:30 p.m.	Room 307
	Nuclear Materials Committee	6:00 p.m. to 7:30 p.m.	Room 159
	Corrosion & Environmental Effects Committee	6:45 p.m. to 7:45 p.m.	Room 104
Magnetic Materials Committee	7:00 p.m. to 8:00 p.m.	Room 363	

AM I ELIGIBLE FOR COMMITTEE MEMBERSHIP?

Technical committee membership is open to all professional TMS members and TMS Graduate Student Program members. If you registered for TMS2025 at the nonmember professional rate, your registration includes TMS professional membership for 2025. If you registered for the conference at the nonmember graduate student rate, your registration includes graduate student membership for the duration of your studies.

MARK YOUR CALENDAR FOR **TMS MEETINGS**

CONNECT WITH THE GLOBAL MINERALS,
METALS, AND MATERIALS COMMUNITY



2025

May 5–8, 2025
Houston, Texas, USA
2025.otcnet.org



TMS SPECIALTY CONGRESS 2025

June 15–19, 2025
Anaheim, California, USA
www.tms.org/SpecialtyCongress2025



TMS FALL 2025
@ MS&T
MATERIALS SCIENCE & TECHNOLOGY

September 28–October 1, 2025
Columbus, Ohio, USA
www.tms.org/TMSFall2025



COPPER 2025

Ni-Co 2025

November 16–22, 2025
Phoenix, Arizona, USA
www.extractionmeeting.org/2025



MiNES 2025
MATERIALS IN NUCLEAR ENERGY SYSTEMS

December 7–11, 2025
Cleveland, Ohio, USA
www.tms.org/MiNES2025



THE WORLD COMES HERE
TMS 2026
155th Annual Meeting & Exhibition

March 15–19, 2026
San Diego, California, USA
www.tms.org/TMS2026



TMS SPECIALTY CONGRESS 2026

June 21–25, 2026
Anaheim, California, USA
www.tms.org/SpecialtyCongress2026



TMS FALL 2026
@ MS&T
MATERIALS SCIENCE & TECHNOLOGY

October 4–7, 2026
Pittsburgh, Pennsylvania, USA
www.tms.org/TMSFall2026



www.tms.org/UpcomingMeetings

GUIDE TO THE TMS2025 POSTER SESSION

View a changing display of posters in the Marquee Ballroom. Please join us for two separate poster presentation sessions, grouped by topic areas, on Monday and Tuesday evening. Presenters will be on hand during these sessions to discuss their work.

POSTER SESSION SCHEDULE (for Poster Presenters)

The poster sessions, which are coupled with networking activities in the exhibit hall, are typically well-attended events. Poster presenters are encouraged to take advantage of this opportunity to discuss their work one-on-one with fellow attendees.

If you are presenting a poster, please note the following information for your assigned poster session.

Schedule for Poster Session I: Monday, March 24

Held in conjunction with the Exhibit Opening Reception

- **Noon to 2:00 p.m.** Poster Installation
- **2:00 p.m. to 5:30 p.m.** Gallery Viewing (Posters will be on display for visitors to browse; presenters do *not* need to be present.)
- **5:30 p.m. to 6:30 p.m.** Poster Presentations (Please stand by your poster at this time to discuss your research with attendees)
- **6:30 p.m.** Poster Removal (Presenters should remove posters immediately following the conclusion of the poster session. TMS Student Poster Contest entries, however, should remain up until Tuesday evening.)

Schedule for Poster Session II: Tuesday, March 25

Held in conjunction with the Exhibit Hall Happy Hour

- **Noon to 2:00 p.m.** Poster Installation
- **2:00 p.m. to 5:30 p.m.** Gallery Viewing (Posters will be on display for visitors to browse; presenters do *not* need to be present.)
- **5:30 p.m. to 6:30 p.m.** Poster Presentations (Please stand by your poster at this time to discuss your research with attendees)
- **6:30 p.m.** Poster Removal (All posters should be removed following the conclusion of this poster session.)

NAVIGATING THE POSTER SESSIONS (for Attendees)

Two poster sessions will be held in the TMS2025 Exhibit Hall:

- **Poster Session I** (held in conjunction with the Exhibit Opening Reception)
Monday, March 24 | 5:30 p.m. to 6:30 p.m.
- **Poster Session II** (held in conjunction with the Exhibit Hall Happy Hour)
Tuesday, March 25 | 5:30 p.m. to 6:30 p.m.

Confirmed posters are grouped by topic according to the listing on this page.

- Each topic area is assigned a letter code
- Each poster within that topic is assigned a number
- You can search in the mobile app and mobile-friendly PDF for specific posters and poster numbers.
- Posters that were not confirmed will be in the Open Poster Area and are not numbered.

Poster Session I

Monday, March 24 | 5:30 p.m. to 6:30 p.m.

Featuring Posters on:

Biomaterials (A)
Electronic, Magnetic, and Energy Materials (B)
Materials Degradation and Degradation by Design (C)
Materials Synthesis and Processing (D)
Mechanics of Materials (E)
Nuclear Materials (F)

Poster Session II

Tuesday, March 25 | 5:30 p.m. to 6:30 p.m.

Featuring Posters on:

Additive Manufacturing (G)
Advanced Characterization Methods (H)
Data-Driven and Computational Materials Design (J)
Light Metals (K)

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
Additive Manufacturing											
A Career in Powder Processing and Additive Manufacturing: A MPMD Symposium Honoring David Bourell	309				X	X	X				
Additive Manufacturing and Alloy Design: Bridging Fundamental Physical Metallurgy, Advanced Characterization Techniques, and Integrated Computational Materials Engineering for Advanced Materials	311				X	X	X				
Additive Manufacturing and Innovative Powder/Wire Processing of Multifunctional Materials	315	X			X	X	X	X			
Additive Manufacturing and Innovative Powder/Wire Processing of Multifunctional Materials	350									X	
Additive Manufacturing Fatigue and Fracture: Towards Accurate Prediction	317	X			X	X	X				
Additive Manufacturing Keynote Session	120		X								
Additive Manufacturing Materials in Energy Environments II	109	X									
Additive Manufacturing Materials in Energy Environments II	301				X	X	X				
Additive Manufacturing Modeling, Simulation and Machine Learning	311						X	X	X	X	X
Additive Manufacturing of Refractory Metallic Materials	316	X			X	X	X	X			
Additive Manufacturing: Incorporating Breakthrough Functionalities for Building Large Scale Components	301							X	X	X	X
Additive Manufacturing: Length-Scale Phenomena in Mechanical Response	310	X			X	X	X	X	X		
Additive Manufacturing: Marine Materials and Structures	315						X		X	X	
Additive Manufacturing: Microstructural and Mechanical Long-term Stability of AM Materials	302						X		X	X	X
Designing Complex Microstructures through Additive Manufacturing	317						X		X	X	X
Nano and Micro Additive Manufacturing	310							X			
Nano and Micro Additive Manufacturing	316						X		X	X	X
Advanced Characterization Methods											
Advanced Characterization Techniques for Quantifying and Modeling Deformation	122	X	X		X	X	X	X			
Advanced Characterization Techniques for Quantifying and Modeling Deformation	170								X	X	
Advanced Real Time Imaging	156	X	X		X		X				
Characterization of Materials through High Resolution Coherent Imaging	157	X	X		X						
Characterization of Minerals, Metals and Materials 2025: In-Situ Characterization Techniques	109								X	X	
Characterization of Minerals, Metals and Materials 2025: In-Situ Characterization Techniques	121	X	X		X	X	X	X			
Heterostructured and Gradient Materials (HGM VI): Principle, Processing and Properties	155	X	X		X	X	X	X	X		

TECHNICAL PROGRAM

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
		Neutron and X-ray Scattering in Materials Science and Engineering	156						×	×	×
Novel Strategies for Rapid Acquisition and Processing of Large Datasets from Advanced Characterization Techniques	157						×	×	×	×	×
Biomaterials											
Advanced Biomaterials for Biomedical Implants	308			×				×	×	×	
Advances in Biomaterials for Bioink Formulation and 3D Printing of Scaffolds	307			×							
Bio-Nano Interfaces and Engineering Applications	307			×				×	×	×	×
Biological Materials Science	306	×	×	×	×	×		×	×		
Mechanics and Physiological Adaptation of Hard and Soft Biomaterials and Biological Tissues	308	×	×		×						
Natural Fibers and Biocomposites: A Sustainable Solution	307		×	×	×						
Porous Materials for Biomedical Applications	306									×	×
Data-Driven and Computational Material Design											
AI/Data Informatics: Computational Model Development, Verification, Validation, and Uncertainty Quantification	320	×	×		×	×	×	×	×	×	×
Algorithm Development in Materials Science and Engineering	319	×	×		×	×	×	×	×	×	
Artificial Intelligence Applications in Integrated Computational Materials Engineering	351						×	×	×	×	×
Bridging Scale Gaps in Multiscale Materials Modeling in the Age of Artificial Intelligence	353	×	×		×	×	×	×	×		
Chemistry and Physics of Interfaces	304	×	×		×	×	×	×	×		
Computational Thermodynamics and Kinetics	305	×	×		×	×	×	×	×	×	×
Dilute Alloying and Impurity Effects on Phase Transformations	310		×								
High Performance Steels	302	×	×		×	×	×	×			
Local Chemical Ordering and Its Impact on Mechanical Behaviors, Radiation Damage, and Corrosion	316		×								
Local Chemical Ordering and Its Impact on Mechanical Behaviors, Radiation Damage, and Corrosion	352					×	×	×	×	×	×
Materials Aging and Compatibility: Experimental and Computational Approaches to Enable Lifetime Predictions	308					×	×				
Materials Aging and Compatibility: Experimental and Computational Approaches to Enable Lifetime Predictions	309	×	×								
Microstructural Evolution and Material Properties Due to Manufacturing Processes: A Symposium in Honor of Anthony Rollett	303				×	×	×	×	×		
Thermodynamics and Kinetics of Alloys III	352	×	×		×		×				
Thermodynamics and Phase Diagrams Applied to Materials Design and Processing: An FMD/SMD Symposium Honoring Rainer Schmid-Fetzer	350	×	×		×	×					
Validation of Computational Tools - Industrial Perspectives	311	×	×								

TECHNICAL PROGRAM

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
		Verification, Calibration, and Validation Approaches in Modeling the Mechanical Performance of Metallic Materials	354	X	X		X	X	X		
Electronic, Magnetic, and Energy Materials											
2D Materials – Preparation, Properties, Modeling & Applications	362	X	X	X	X	X		X	X		
Advanced Materials for Energy Conversion and Storage 2025	356	X	X	X	X	X		X	X		
Advances and Discoveries in Non-equilibrium Driven Nanomaterials and Thin Films	354			X				X	X	X	X
Advances in Magnetism and Magnetic Materials	363	X	X	X	X	X		X	X		
Alloys and Compounds for Thermoelectric and Solar Cell Applications XIII	355	X	X	X	X	X		X	X		
Electronic Packaging and Interconnection Materials II	360	X	X	X	X	X		X	X		
Energy Technologies and CO2 Management	364	X	X	X	X	X					
Functional Nanomaterials	365			X		X		X	X	X	X
Hume-Rothery Symposium on Thermodynamics of Microstructure Stability and Evolution	357	X	X		X	X		X			
Innovations in Energy Materials: Unveiling Future Possibilities of Computational Modelling and Atomically Controlled Experiments	358	X	X	X	X	X					
Materials for Sustainable Hydrogen Energy	169					X					
Materials for Sustainable Hydrogen Energy	359							X	X	X	X
Phase Stability, Phase Transformations, and Reactive Phase Formation in Electronic Materials XXIV	359	X	X	X	X	X					
Printed Electronics and Additive Manufacturing: Advanced Functional Materials, Processing Concepts, and Emerging Applications	361	X	X		X	X		X			
Revitalization of Materials through Upcycling: The 2025 Student-Led Symposium	315		X								
Light Metals											
2025 Light Metals Keynote Session	120	X									
Advances in Titanium Technology	108	X	X		X	X	X	X	X		
Alumina & Bauxite	111		X		X		X				
Aluminum Alloys: Development and Manufacturing	114		X			X	X	X	X	X	X
Aluminum Alloys: Development and Manufacturing Supplier Forum	114				X						
Aluminum Cast Shop Supplier Forum	109				X						
Aluminum Primary Processing - Decarbonization and Sustainability in Aluminum Primary Processing: Joint Session of Aluminum Reduction, Electrode Technology, and REWAS 2025	112								X		
Aluminum Reduction Technology	113		X		X	X		X	X	X	X
Bauxite Residue Valorization and Best Practices	111					X		X	X		
Electrode Technology for Aluminum Production	112		X					X		X	

TECHNICAL PROGRAM

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
Electrode Technology for Aluminum Production Supplier Forum	112				×						
Light Elements Technology	110					×					
Magnesium Technology 2024	115	×	×		×	×	×	×	×	×	
Melt Processing, Casting and Recycling	109		×		×	×	×				
Recycling and Sustainability in Cast Shop Technology: Joint Session with REWAS 2025	116									×	×
Scandium Extraction and Use in Aluminum Alloys	110							×	×		
Materials Degradation and Degradation by Design											
Environmental Degradation of Additively Manufactured Materials	169	×	×	×	×						
Environmental Degradation of Multiple Principal Component Materials	169			×				×	×	×	
Environmentally Assisted Cracking: Theory and Practice	167	×	×		×	×		×			
Materials and Chemistry for Molten Salt Systems	165	×	×	×	×	×		×	×	×	×
Nanostructured Materials in Extreme Environments II	166	×	×		×	×		×	×		
Refractory Metals 2024	168			×				×	×	×	×
Steels in Extreme Environments	168	×	×	×	×	×					
Materials Synthesis and Processing											
Advanced Laser Manufacturing of High-Performance Materials	105	×		×							
Advances in Bcc-Superalloys	102	×	×	×	×	×					
Advances in Ceramic Materials and Processing	106	×	×	×	×	×		×			
Advances in Materials Deposition by Cold Spray and Related Technologies	103	×	×		×	×					
Advances in Surface Engineering VII	107	×	×	×	×						
Composite Materials: Sustainable and Eco-Friendly Material Development and Applications	116	×	×	×	×	×					
Drying, Roasting, Calcining and Agglomeration of Feedstocks	104		×		×						
Electrical Steels	104	×		×							
Friction Stir Welding and Processing XIII	123			×					×	×	×
Friction Stir Welding and Processing XIII	124					×		×	×	×	×
Innovative Hydrometallurgical Technologies for Environmentally Benign Processing and Remediation: An EPD Symposium Honoring Fiona Doyle	101	×	×								
Materials Processing Fundamentals: Thermodynamics and Rate Phenomena	103			×				×	×	×	
Phase Transformations and Microstructural Evolution	123	×	×	×	×	×		×			
Phase Transformations and Microstructural Evolution	167								×	×	×
Powder Materials Processing and Fundamental Understanding	105			×	×	×		×	×	×	×

TECHNICAL PROGRAM

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
		Rare Metal Extraction & Processing	104							X	X
Recent Advances in Titanium Science and Technology: MPMD/SMD Symposium Honoring Professor Dipankar Banerjee	107							X	X	X	X
REWAS 2025: Automation and Digitalization in Recycling Processes	117								X		
REWAS 2025: Sustainable End-of-Life Management and Recycling Solutions for Batteries, Wind Turbines, and Photovoltaics	117	X	X	X	X						
REWAS 2025: Sustainable Practices in Strategic and Critical Raw Materials: Exploring Supply Chain Resilience and Recycling Innovations	117					X		X			
Sustainability of High Temperature Alloys	102			X				X	X	X	
Thin Films and Coatings: Properties, Processing and Applications	101			X		X		X	X	X	X
Mechanics of Materials											
Accelerated Discovery and Insertion of Next Generation Structural Materials	364								X	X	X
Advances in Multi-Principal Element Alloys IV: Mechanical Behavior	368	X	X	X	X	X		X	X	X	X
Atomistic Simulations Linked to Experiments to Understand Mechanical Behavior: A MPMD Symposium in Honor of Professor Diana Farkas	370	X	X		X	X		X	X	X	
Fatigue in Materials: Fundamentals, Multiscale Characterizations and Computational Modeling	318	X	X	X	X			X	X	X	
Fatigue in Materials: Fundamentals, Multiscale Characterizations and Computational Modeling	317					X					
Mechanical Behavior Related to Interface Physics IV	369	X	X	X	X	X		X	X	X	X
Mechanical Response of Materials Investigated through Novel In-situ Experiments and Modeling	366	X	X	X	X	X		X	X	X	
Solid-State Diffusion Bonding of Metals and Alloys	301	X	X	X							
Spatially Tailored Materials: Processing-Structure-Properties	351	X	X	X	X	X					
Structure-Property Relationships in Molecular Crystal Deformation	365	X	X		X						
Structure and Dynamics of Metallic Glasses	367	X	X	X	X	X		X	X	X	X
Nuclear Materials											
Composite Materials for Nuclear Applications III	164							X	X	X	X
Elucidating Microstructural Evolution Under Extreme Environments	162	X	X	X	X	X		X	X	X	
Materials Corrosion Behavior in Advanced Nuclear Reactor Environments II	164	X	X								
Mechanical Behavior of Nuclear Reactor Materials and Components IV	160	X	X	X	X	X		X	X	X	X
Meeting Materials Challenges for the Future of Fusion Energy	158	X	X	X	X	X		X	X	X	X

TECHNICAL PROGRAM

PROGRAM AT-A-GLANCE

Symposium Name	ROOM	MON AM	MON PM	MON POSTER	TUE AM	TUE PM	TUE POSTER	WED AM	WED PM	THU AM	THU PM
		Microstructural, Mechanical, and Chemical Behavior of Solid Nuclear Fuel and Fuel-Cladding Interface II	159	X	X	X	X	X		X	X
Seaborg Institutes: Emerging Topics in Actinide Sciences	163	X	X		X	X		X	X		
Solid-state Processing and Manufacturing for Extreme Environment Applications: Integrating Insights and Innovations	161	X	X	X							
Special Topics in Nuclear Materials: Lessons Learned; Non-Energy Systems; and Coupled Extremes	161							X	X	X	
Spectroscopic Methods and Analysis for Nuclear Energy Related Materials	161			X	X	X					
Spectroscopic Methods and Analysis for Nuclear Energy Related Materials	163									X	
Special Topics											
TMS2025 All-Conference Plenary	120					X					
2025 Technical Division Student Poster Contest	Marquee Ballroom			X			X				
Acta Materialia Symposium	170					X					
Bladesmithing 2025	164				X						
DMMM5: A Decade of Creating Inclusion and Belonging for Diversity in the Minerals, Metals, and Materials Professions	150					X		X	X	X	
Frontiers of Materials Award Symposium: Manufacturing Structural and Functional Materials with Complexity: Lessons from Nature	116							X			
Looking Outside Materials Science: Lessons Learned for and from Materials Discovery - A Student-Led Symposium	170				X						
Nix Award and Lecture Symposium VI: Recent Developments in Investigating the Flow Mechanisms of Crystalline Solids	170							X			
Preparing Undergraduate and Graduate Students - And the Faculty Who Prepare Them - For Materials Careers (A Symposium Held in the Memory and Honor of Elizabeth Judson)	170	X	X								



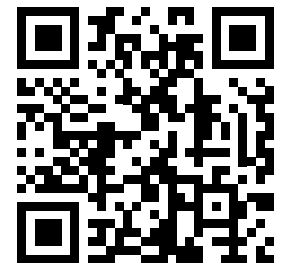
The TMS Foundation is the proud sponsor of many of the awards and programs being highlighted at TMS2025.

The TMS Foundation supports the minerals, metals, and materials scientists and engineers who are changing the world through advances in technology.

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Thank you for your generous support.

www.TMSFoundation.org



TMS 2025 TMS-AIME AWARDS CEREMONY

Wednesday, March 26
6:40 p.m. | Room 120



CEREMONY HOSTS

Srinivas Chada,

General Dynamics Missions Systems
2024 TMS President

Daniel Miracle,

Air Force Research Laboratory
2025 TMS President

J. Steven Gardner,

Tetra Tech
AIME President

Elizabeth Holm,

University of Michigan
AIME Past President

Carolyn Hansson,

University of Waterloo
Acta Materialia Executive Secretary

George "Rusty" Gray III,

Los Alamos National Laboratory
Acta Materialia Chair & Treasurer

Brian G. Thomas,

Colorado School of Mines
Brimacombe Prize Committee

Allison Beese,

Pennsylvania State University
2024 Brimacombe Medalist

David Bahr,

Purdue University
2024 Alexander Scott Distinguished Service Award

Dipankar Banerjee,

Indian Institute of Science
2021 TMS Fellow

AIME HENRY DEWITT SMITH SCHOLARSHIP

Funded by AIME (American Institute of Mining, Metallurgical, and Petroleum Engineers), two \$2,000 scholarships are available to graduate students majoring in the field of minerals, metals, and/or materials engineering. Issued under the TMS Foundation.



Hang Yuan
Northeastern University



Karthikeyan Hariharan
The Ohio State University

AIME ROBERT LANSING HARDY AWARD

This award recognizes a young person in the broad fields of metallurgy and materials science for exceptional promise of a successful career. Issued under the TMS Foundation.



Alexandra Anderson
RHI Magnesita

AIME CHAMPION H. MATHEWSON AWARD

This award began in 1934 and recognizes a paper, or series of closely related papers with at least one common author, which represents the most notable contribution to metallurgical science in the award period.

"Deformation-Induced Planar Defects in Immm Ni₂(Cr, Mo, W) Strengthened HAYNES_244_ Superalloy," *Metallurgical and Materials Transactions A*, May 2023.



Michael Fahrman
Haynes International Inc.



Michael S. Titus
Purdue University



Thomas Mann
Haynes International Inc.

"Strengthening Effects at Dissimilar Metal Interfaces Created by Ultrasonic Additive Manufacturing," *Metallurgical and Materials Transactions A*, October 2022.



Michael Pagan
University of Georgia



Steve Zinkle
University of Tennessee



Takahito Ohmura
National Institute for Materials Science



Sudarsanam S. Babu
University of Maryland



Ling Wang
Covalent Metrology

TMS/SME/AIME JAMES DOUGLAS GOLD MEDAL

Established in 1922, this award recognizes distinguished achievement in nonferrous metallurgy, including both the beneficiation of ores and the alloying and utilization of nonferrous metals. James Douglas, founder of Phelps Dodge Corporation and twice President of AIME, was an industrialist, a mining engineer, a metallurgical engineer, and a noted inventor of metallurgical equipment.



Kathleen Altman
AKA Pros, Inc.

AIME HONORARY MEMBERSHIP AWARD

AIME Honorary Membership is one of the highest honors that the Institute can bestow on an individual. This award, established in 1872, recognizes outstanding service or distinguished scientific or engineering achievement in the fields embracing the activities of AIME and its Member Societies.



Surya Kalidindi
Georgia Institute of Technology



Pradeep Rohatgi
University of Wisconsin-Milwaukee

ACTA MATERIALIA UNDERGRADUATE SCHOLARSHIP

Two \$5,000 scholarships are available to undergraduate students majoring in metallurgical engineering, materials science and engineering, or to undergraduate students with a significant interest in the materials area. This scholarship is supported by the generosity of Acta Materialia, Inc. and issued under the TMS Foundation.



Sarah Cole
Boise State University



Austin Davis
Arizona State University

ACTA MATERIALIA HOLLOWAY MATERIALS & SOCIETY AWARD

This is an international award presented by Acta Materialia, Inc. in memory of J. Herbert Hollomon, principal instigator of the journal *Acta Metallurgica*. This award recognizes an outstanding contributor to the interactions between materials technology and societal concerns.



Richard Spontak
North Carolina State University

ACTA MATERIALIA SILVER MEDAL AWARD

This award honors and recognizes scientific contributions and leadership from academic, industry, and public sector leaders in the midst of their careers. The Silver Medal is established to recognize significant research contributions that are recent and timely.



Corinne Packard
Colorado School of Mines

ACTA MATERIALIA GOLD MEDAL AWARD

This award was established by Acta Materialia, Inc. in 1973 as an international award to recognize leadership in materials research.



Marc A. Meyers
University of California, San Diego

THE BRIMACOMBE PRIZE

This prize recognizes outstanding achievements in materials process engineering and is presented in memory of J. Keith Brimacombe, an innovative giant in the field of materials process engineering during the later quarter of the 20th century. The Brimacombe Prize was designed to do more than merely honor; it is intended that this award speak symbolically of the achievements of its recipients while perpetuating the attributes that Brimacombe set as standards for his own character and career.



Barry Welch
University of Auckland and Welbank Consulting Ltd.

TMS BEST STUDENT PAPER

Student members of Material Advantage are encouraged to submit essays on global or national issues, as well as technical research papers, relating to any field of metallurgy or materials science. This award is funded through the TMS Foundation.

Graduate First Place:



"Low-Cycle-Fatigue Study of a Strong and Ductile Medium Entropy Alloy,"

Hugh Shortt
University of Tennessee Knoxville

Graduate Second Place:



"Studying the Local Deformation Behavior of Tantalum using High throughput Spherical Nanoindentation,"

Olajesu Olanrewaju
Iowa State University

Undergraduate First Place:



"Establishing a Domestic HALEU Supply Chain: A Policy Analysis on the Nuclear Fuel Cycle,"

Sarah Cole
Boise State University

Undergraduate Second Place:



"Recovery of Antimony from Refinery Slag of Unified Mining Company,"

Christian Álvaro Mendoza Ramos
Universidad Mayor de San Andres

KAUFMAN CALPHAD SCHOLARSHIP

This scholarship recognizes the memory of Dr. Larry Kaufman for his contributions to computational thermodynamics and its applications. It is supported by CALPHAD Inc. and the TMS Foundation.



Megan Nash
Clemson University

YOUNG LEADERS INTERNATIONAL SCHOLAR AWARD

The Japan Institute of Metals and Materials (JIMM) established a joint Young Leaders International Scholar Program with TMS to promote young member activities and strengthen the collaborations between the two international societies. These collaborations have resulted in an exchange program, which offers select young members the opportunity to present papers at international sessions. This award is funded through the TMS Foundation.

TMS/JIMM Young Leaders International Scholar



Yue Fan
University of Michigan

JIMM Young Leaders International Scholar



Shutaro Karube
Kyoto University

The Korean Institute of Metals and Materials (KIM) and TMS established a joint Young Leader International Scholar Program for the promotion of young member activities in, as well as the strengthening of, the international mutual collaboration between TMS and KIM. This award is funded through the TMS Foundation.

TMS/KIM Young Leaders International Scholar



Yang Yang
Pennsylvania State University

KIM Young Leaders International Scholar



Gi-Dong Sim
Korea Advanced Institute of Science and Technology

The Federation of European Materials Societies (FEMS) and TMS established a joint Young Leader International Scholar Program for the promotion of young member activities in, as well as the strengthening of, the international mutual collaboration between TMS and FEMS. This award is funded through the TMS Foundation.

TMS/FEMS Young Leaders International Scholar



Eva Zarkadoula
Oak Ridge National Laboratory

FRONTIERS OF MATERIALS AWARD

This award is given competitively to a top-performing early career professional capable of organizing a Frontiers of Materials Event comprising a hot or emergent technical topic. The recipient will organize an event in the form of a full symposium or single-session symposium.



Ling Li
University of Pennsylvania



Yu Zou
University of Toronto

EARLY CAREER FACULTY FELLOW AWARD

This award recognizes an assistant professor for his or her accomplishments that have advanced the academic institution where employed, and for abilities to broaden the technological profile of TMS. This award is funded through the TMS Foundation.



Marie Charpagne
University of Illinois



Aerielle Murphy-Leonard
The Ohio State University

ELLEN SWALLOW RICHARDS DIVERSITY AWARD

This award recognizes an individual, who in the remarkable pioneering spirit of Ellen Swallow Richards, has helped or inspired others to overcome personal, professional, educational, cultural, or institutional adversity to pursue a career in minerals, metals, and/or materials. Recipients are awarded through the TMS Foundation.



Matthew Korey
Oak Ridge National Laboratory

FRANK CROSSLEY DIVERSITY AWARD

The award recognizes an individual who has personally overcome personal, professional, educational, cultural, or institutional adversity to pursue a career in minerals, metals, and/or materials. Recipients are awarded through the TMS Foundation.



Aerielle Murphy-Leonard
The Ohio State University

BRIMACOMBE MEDALIST – CLASS OF 2025

This mid-career award recognizes members with sustained excellence and achievement in business, technology, education, public policy, or science related to materials science and engineering, and a record of continuing service to the profession. The intent is to recognize professionals in the middle portion of their career.



Kester Clarke
Los Alamos National Laboratory



Michael Sangid
Purdue University



Remi Dingreville
Sandia National Laboratory



Kiran Solanki
Arizona State University



Jaafar El-Awady
Johns Hopkins University



Douglas Spearot
University of Florida



Robert Maass
Federal Institute of Materials Research and Testing



Janelle Wharry
University of Illinois



Tim Rupert
Johns Hopkins University

AWARDS PROGRAM

WILLIAM HUME-ROTHERY AWARD

This award recognizes a scientific leader for exceptional scholarly contributions to the science of alloys by inviting him/her to be an honored presenter at the William Hume-Rothery Memorial Symposium. The awardee participates with the Alloy Phases Committee in organizing this symposium held in conjunction with the TMS Annual Meeting.



Long-Qing Chen
Pennsylvania State University

INSTITUTE OF METALS & ROBERT FRANKLIN MEHL AWARD

This award recognizes an outstanding scientific leader by inviting him/her to present a lecture at the Society's annual meeting on a technical subject of particular interest to members in the materials science and application of metals program areas.



Gary Was
University of Michigan

BRUCE CHALMERS AWARD

This award recognizes an individual who has made outstanding contributions to the science and/or technology of materials processing.



Charles-Andres Gandin
Centre National de la Recherche Scientifique

MORRIS COHEN AWARD

This award recognizes an individual who has made outstanding contributions to the science and/or technology of materials properties.



Sergei Shipilov
First-M Consulting Ltd.

OLEG D. SHERBY AWARD

This award recognizes an individual, or small group of collaborators, who has made significant contributions to the understanding of the behavior of materials at high temperatures.



Kevin Hemker
Johns Hopkins University

CYRIL STANLEY SMITH AWARD

This award recognizes an individual who has made outstanding contributions to the science and/or technology of materials structure.



Gregory Rohrer
Carnegie Mellon University

ALEXANDER SCOTT DISTINGUISHED SERVICE AWARD

This award recognizes a member's outstanding contributions to TMS. This award is typically presented for 10 or more years of TMS service in one or more of the following areas: membership development, student chapters, education and professional affairs, or other society-level activities.



John Smugeresky
Retired, Sandia National Laboratory

RESEARCH TO INDUSTRIAL PRACTICE AWARD

This award recognizes an individual who has demonstrated outstanding achievement in transferring research results or findings in some aspect of the fields of metallurgy and materials into commercial production and practical use as a representative of an industrial, academic, governmental, or technical organization.



Hani Henein
University of Alberta

LEADERSHIP AWARD

This award recognizes exceptional leadership in the fields of metallurgy and materials as a representative of an industrial, academic, governmental, or technical organization.



Toru H. Okabe
University of Tokyo

JULIA & JOHANNES WEERTMAN EDUCATOR AWARD

This award recognizes an individual who has made outstanding contributions to education in metallurgical engineering and/or materials science and engineering. The Weertmans rose to prominence in materials science and engineering through their pioneering research accomplishments which have profound effects on technology. This award is funded through the TMS Foundation.



Gerald Frankel
The Ohio State University

SADOWAY MATERIALS INNOVATION AND ADVOCACY AWARD

This award recognizes a mid-career individual with impactful and broad materials science and engineering achievements and a unique ability at championing of their work and the materials science and engineering field through education, public advocacy, or entrepreneurship, particularly in areas related to sustainability. This award is funded through the TMS Foundation.



In-Ho Jung
Seoul National University

WILLIAM D. NIX AWARD

This award is established to honor William D. Nix and the tremendous legacy that he has developed and shared with the minerals, metals, and materials community, and to highlight and promote continued progress and innovation relevant to research into the underlying mechanisms and mechanical behavior of macro-, micro-, and nanoscale materials. The award is funded through the TMS Foundation.



Terence G. Langdon
University of Southampton

TMS FELLOW – CLASS OF 2025

This award recognizes members of TMS who are qualified for elevation to the Class of Fellow by reason of outstanding contributions to the practice of metallurgy, materials science, and technology. To be inducted, the TMS member must have a good personal reputation and distinction as an eminent authority in some aspects of the practice of metallurgy, materials science, and technology.



Nikhilesh Chawla
Purdue University



Jian-Feng Nie
Monash University



Tadashi Furuhashi
Tohoku University



Judy Schneider
University of Alabama



Robert Hyers
Worcester Polytechnic Institute



Kenneth Vecchio
University of California



Ursula Kattner
National Institute of Standards & Technology

ADDITIONAL 2025 AWARD RECIPIENTS

EXTRACTION & PROCESSING DIVISION (EPD)

EPD DISTINGUISHED LECTURER AWARD

Adam C. Powell IV
Worcester Polytechnic Institute

EPD DISTINGUISHED SERVICE AWARD

Dean Gregurek
RHI Magnesita

EPD PYROMETALLURGY BEST PAPER AWARD

"Thermodynamics of Palladium Dissolution Behavior in FeO-SiO₂-CaO-Al₂O₃-MgO Slag at 1873 K," *Metallurgical and Materials Transactions B*, August 2024.

Ryoung Rae Kim, Hyun Ju Kim, and Joo Hyun Park
Hanyang University

Hyun Sik Park
Korea Institute of Geoscience and Mineral Resources

EPD/LMD JOURNAL OF SUSTAINABLE METALLURGY BEST PAPER AWARD

"Microscopic Analysis of Magnetite Dissolution into Cu₂S-FeS Matte with Gas Generation Using In Situ Observation," *Journal of Sustainable Metallurgy*, May 2023.

Seung-Hwan Shin
Tohoku University and Hyundai Steel Co., Ltd.

Sakiko Kawanishi
Kyoto University

Sohei Sukenaga and Hiroyuki Shibata
Tohoku University

Junichi Takahashi
Sumitomo Metal Mining Co., Ltd.

EPD MATERIALS CHARACTERIZATION BEST PAPER AWARD

FIRST PLACE
"New Method for the Production of Medium-Mn Steel with Micro-segregation Bands Induced by Sub-rapid Solidification," *Characterization of Minerals, Metals, and Materials 2024: Process-Structure-Property Relations and New Technologies*, February 2024.

Peisheng Lyu, Lankun Wang, Wanlin Wang, and Hui Xu
Central South University

SECOND PLACE

"Numerical Multi-field Coupling Simulation of Multiple Slab Stacks Heated by Natural Gas Combustion in Trolley Furnace," *Characterization of Minerals, Metals, and Materials 2024: Process-Structure-Property Relations and New Technologies*, February 2024.

Bo Liu, Lian-ying Wen, and Dong Yue
Chongqing University

Jiulin Tang
Dongfang Boiler Co. Ltd.

THIRD PLACE

"Separation of Iron and Phosphorous from High-Phosphorous Oolitic Hematite Using Direct Reduction and Magnetic Separation," *Characterization of Minerals, Metals, and Materials 2024: Process-Structure-Property Relations and New Technologies*, February 2024.

Xu Gao, Guancheng Ji, and Wanlin Wang
Central South University

EPD MATERIALS CHARACTERIZATION BEST POSTER AWARD

FIRST PLACE
"Mapping Mechanical Properties to Composition for TiAlNb and TiNiNb Alloys"

Colton Basar, Shuhan Zhang, Salena Huang, Jan Schroers, Udo Schwarz, and Amit Datye
Yale University

FUNCTIONAL MATERIALS DIVISION (FMD)

FMD DISTINGUISHED SERVICE AWARD

Albert Wu
National Central University, Taiwan

FMD JOHN BARDEEN AWARD

Elias Towe
Carnegie Mellon University

FMD JOURNAL OF ELECTRONIC MATERIALS BEST PAPER AWARD

"Study on Phase Electromigration and Segregation Behavior of Cu-Cored Sn-58Bi Solder Interconnects under Electric Current Stressing," *Journal of Electronic Materials*, March 2024.

Shuibao Liang
Hefei University of Technology

Han Jiang
Anhui University

Jiaqiang Huang
Guilin University of Electronic Technology

LIGHT METALS DIVISION (LMD)

LMD JOM BEST PAPER AWARD

"Sodium Removal from Aluminum Electrolysis Spent Anodes (Butts) Through Aluminum Sulfate Hydrothermal Acid Leaching," *JOM*, March 2024.

Jinghao Lan, Qiang Liu, Zhanwei Liu, Hengwei Yan, and Chengcheng Xia
Kunming University of Science and Technology

Mengnan Li
Kunming University of Science and Technology/Oak Ridge National Laboratory

LMD MAGNESIUM TECHNOLOGY BEST PAPER AWARD - APPLICATION

"Assessment of Magnesium Wire Coatings for Absorbable Medical Devices," *Magnesium Technology 2024*.

Cody David, Adam Griebel, and Jeremy Schaffer
Fort Wayne Metals Research Products Corp

Weilue He
Michigan Technological University

Roger Guillory II
Medical College of Wisconsin

**LMD MAGNESIUM TECHNOLOGY
BEST PAPER AWARD -
FUNDAMENTAL RESEARCH**

"Research Towards Sintering Improvement During Press and Sinter Processing of Mg and Mg Alloy Powders," *Magnesium Technology 2024*.

Steven C. Johnson
Central Connecticut State University

William Caron
Lockheed Martin

**LMD MAGNESIUM TECHNOLOGY
AWARD – STUDENT PAPER**

"Bioabsorbable Magnesium Composite Sheared at High Temperatures for Use in Bone Implants," *Magnesium Technology 2024*.

Pedram Sotoudeh Bagha, Andres Larraza, and Mehdi Razavi
University of Central Florida

**LMD MAGNESIUM TECHNOLOGY
AWARD – BEST POSTER**

"A Reduced Order Model of Magnesium Distillation"

Artem Lurkovskiy, Adam C. Powell, and Daniel McArthur Sehar
Worcester Polytechnic University

Amy Telgerafchi
NextEra Energy Resources

LIGHT METALS AWARD

"Novel Developments for Inert Anodes and Wettable Cathodes in Aluminum Electrolysis," *Light Metals 2024*.

Alf Bjorseth, David Jarvis, Rosie Mellor, and Rosanna van den Blik-Jarvis
Vacasa Inc.

Gerard C.J. Otter, Ludger van der Laan, and Floris van Kempen
The Netherlands Organization for Applied Scientific Research

**LIGHT METALS SUBJECT AWARD -
ALUMINA/BAUXITE**

"Chemical Thermodynamics and Reaction Kinetics of Bayer Process Desilication," *Light Metals 2024*.

Hong Peng and James Vaughan
The University of Queensland

Dilini Seneviratne
Melbourne Water

John Vogrin
Zeotech Limited

Sicheng Wang
China Agricultural University

**LIGHT METALS SUBJECT AWARD –
ALUMINUM ALLOYS**

"Meshfree Process Modeling and Experimental Validation of Friction Riveting of Aluminum 5052 to Aluminum 6061," *Light Metals 2024*.

Hrshikesh Das, Lei Li, Sridhar Niverty, Mayur Pole, Md Reza-E-Rabby, and Ayoub Soulami
Pacific Northwest National Laboratory

Jorge Fernandez Dos Santos
Stirtec

**LIGHT METALS SUBJECT AWARD
– ELECTRODE TECHNOLOGY FOR
ALUMINUM PRODUCTION**

"Estimation of the Coke Calcination Yield by Granulometry Analysis," *Light Metals 2024*.

Andre Bouchard, Luc Cote, Hans Darmstadt, and Marie-Josée Dion
Rio Tinto

**LIGHT METALS SUBJECT AWARD
- WARREN PETERSON CAST SHOP
FOR ALUMINUM PRODUCTION**

"Influence of Water Vapor on the Oxidation Behavior of Molten Aluminum Magnesium Alloys," *Light Metals 2024*.

Helmut Antrekowitsch, Stefan Tichy, and Stefan Wibner
University of Leoben

Bernd Prillhofer and Philip Pucher
AMAG Casting GmbH

Simon Dopperman
Austrian Institute of Technology

**LIGHT METALS SUBJECT AWARD –
RECYCLING**

"LAREX-Tupy Process: Recycling of Li-ion Batteries from Electronic Vehicles by Hydrometallurgical Route Towards Circular Economy," *TMS2024 153rd Annual Meeting & Exhibition Supplemental Proceedings*.

Amilton Barbosa Botelho Junior
Massachusetts Institute of Technology

Andres Ferrarese, Luciana Assis Gobo, Rafel de Oliveira, Anastassia Maria Nunes de Oliverira Lima, and David Vasconcelos de Silva
Tupy Tech

Elias Kumoto
MWM Motores e Geradores

Denise Croce Romano Espinosa and Jorge Tenorio
University of Sao Paulo

"Technoeconomic Analysis of Supercritical Fluid Extraction for Recycling Rare Earth Elements from Neodymium Iron Boron Magnet," *Energy Technology 2024*.

Gisele Azimi
University of Toronto

Maziar Sauber
CanmetMINING

**LMD/EPD ENERGY BEST PAPER
AWARD – PROFESSIONAL**

"High-Selective Lithium Extraction from Spent LiFePO₄ by Battery Roasting-Water Leaching Method," *JOM*, September 2023.

Qingsheng Liu and Qiqi Weng
Jiangxi University of Science and Technology

**LMD/EPD ENERGY BEST PAPER
AWARD – STUDENT**

"Thermodynamic Modeling of Elemental Distributions of Trace Elements in Non-ferrous Iron Residue Hydrogen Reduction," *JOM*, September 2023.

Daniel Lindbert, Iida Pankka, and Pekka Taskinen
Aalto University

Justin Salminen
Boliden Kokkola

**MATERIALS PROCESSING &
MANUFACTURING DIVISION
(MPMD)**

**MPMD DISTINGUISHED
SCIENTIST/ENGINEER AWARD**

Hyoung Seop Kim
Pohang University of Science and Technology

**MPMD DISTINGUISHED SERVICE
AWARD**

Paul Prichard
Oak Ridge National Laboratory

**MPMD ICME IMPLEMENTATION
AWARD**

Randy Beals
Magna International, c/o

**STRUCTURAL MATERIALS
DIVISION (SMD)**

**SMD DISTINGUISHED SCIENTIST/
ENGINEER AWARD**

Xiaozhou Liao
The University of Sydney

SMD DISTINGUISHED SERVICE AWARD

Srivatsan Tirumalai
The University of Akron

SMD JOM BEST PAPER AWARD

"Phase Stability During High-Temperature Oxidation," *JOM*, November 2023.

Jeffrey R. Becker Jr., Xuanxin Hu, Longfei Liu, and John Perepezko
University of Wisconsin-Madison

Ranran Su
Shanghai Jiao Tong University

Hongliang Zhang
Rudan University

YOUNG LEADERS AWARDS

EPD YOUNG LEADERS PROFESSIONAL DEVELOPMENT

Gwendolyn Bracker
Worcester Polytechnic Institute

Amilton Barbosa Botelho Junior
Massachusetts Institute of Technology

FMD YOUNG LEADERS PROFESSIONAL DEVELOPMENT

Kenan Song
University of Georgia

Yu-chen Liu
National Cheung Kung

Yu-Tsun Shao
University of Southern California

LMD YOUNG LEADERS PROFESSIONAL DEVELOPMENT

Lu Jiang
Deakin University

Xiao Xiang (Shawn) Yu
Novelis Inc.

MPMD YOUNG LEADERS PROFESSIONAL DEVELOPMENT

Lu Huang
General Motors

Nadia Kouraytem
Utah State University

Sneha Prabha Narra
Carnegie Mellon University

SMD YOUNG LEADERS PROFESSIONAL DEVELOPMENT

Ala Qattawi
University of Toledo

Trishelle Copeland-Johnson
Idaho National Laboratory

Wen Chen
University of Southern California

YOUNG INNOVATOR IN THE MATERIALS SCIENCE OF ADDITIVE MANUFACTURING AWARD

Atieh Moridi
Cornell University

STUDENT SCHOLARSHIPS

EPD SCHOLARSHIP

Paul Odewale
Federal University of Technology Akure

FMD GILBERT CHIN SCHOLARSHIP

Brooke Lastinger
University of Florida

LMD SCHOLARSHIP

Alya Zaleha Rasjid
Sultan Ageng Tirtayasa University

MPMD SCHOLARSHIP

Jocelyn Hess
University of Tennessee

SMD SCHOLARSHIP

Kavin Ram
University of California-Berkeley

TMS INTERNATIONAL SYMPOSIUM ON SUPERALLOYS SCHOLARSHIP

Rafael T. Rodrigues
University of Pittsburgh

ACTA MATERIALIA INC. STUDENT POSTER AWARDS

"Ab Initio Study of Local Lattice Distortions and the Structural Instabilities in bcc Nb-Ta-Ti-Hf High-Entropy Alloys," **Pedro Borges**

"A Tumor Microenvironment-Responsive Core-Shell Tecto Dendrimer Nanoplatfor for Magnetic Resonance Imaging-Guided and Cuproptosis-Promoted Chemo-Chemodynamic Therapy," **Ni Cheng**

"Temporal Sequence of Deformation Twinning in CoCrNi under Tribological Load," **Antje Dollmann**

"Interrelationship of Stress-induced Martensitic Transformation and Pitting Corrosion in Iron-Based Shape Memory Alloys," **Johanna-Maria Frenck**

"High-Throughput Machine Learning - Kinetic Monte Carlo Framework for Diffusion Studies in Equiatomic and Non-Equiatomic FeNiCrCoCu High-Entropy Alloys," **Wenjiang Huang**

"Superior Tensile Properties and Formability Synergy of High-entropy Alloys Through Inverse-Gradient Structures," **Rae Eon Kim**

"Columnar Grain Morphology and Mechanical Anisotropy of Face-Centered Cubic Metals and Alloys," **Janith Wann**

"Identifying the Effect of Coherent Precipitates on the Deformation Mechanisms by In situ Neutron Diffraction in an Extruded Magnesium Alloy Under Low-cycle Fatigue Conditions," **Di Xie**

"Functional Non-Uniformity of Periodontal Ligaments Tunes Mechanobiological Stimuli Across Soft- and Hard-Tissue Interfaces," **Jingxiao Zhong**

"High-Density Nanoprecipitates and Phase Reversion via Maraging Enable Ultrastrong yet Strain-Hardenable Medium-entropy Alloy," **Hyeonseok Kwon**

THE WORLD COMES HERE.

TMS 2025

154th Annual Meeting & Exhibition

March 23–27, 2025

MGM Grand Las Vegas Hotel & Casino
Las Vegas, Nevada, USA

#TMSAnnualMeeting | www.tms.org/TMS2025



39TH EXHIBITION

Located in the Marquee Ballroom, across the courtyard from TMS2025 session rooms and registration areas.

EXHIBIT HOURS AND EVENTS

Monday, March 24

Exhibit Hours: 11:00 a.m. to 6:30 p.m.

Exhibit Opening Reception & Poster Session I: 5:30 p.m. to 6:30 p.m.

Tuesday, March 25

Exhibit Hours: 11:00 a.m. to 6:30 p.m.

Exhibit Hall Happy Hour & Poster Session II: 5:30 p.m. to 6:30 p.m.

Wednesday, March 26

Exhibit Hours: 10:00 a.m. to 2:00 p.m.



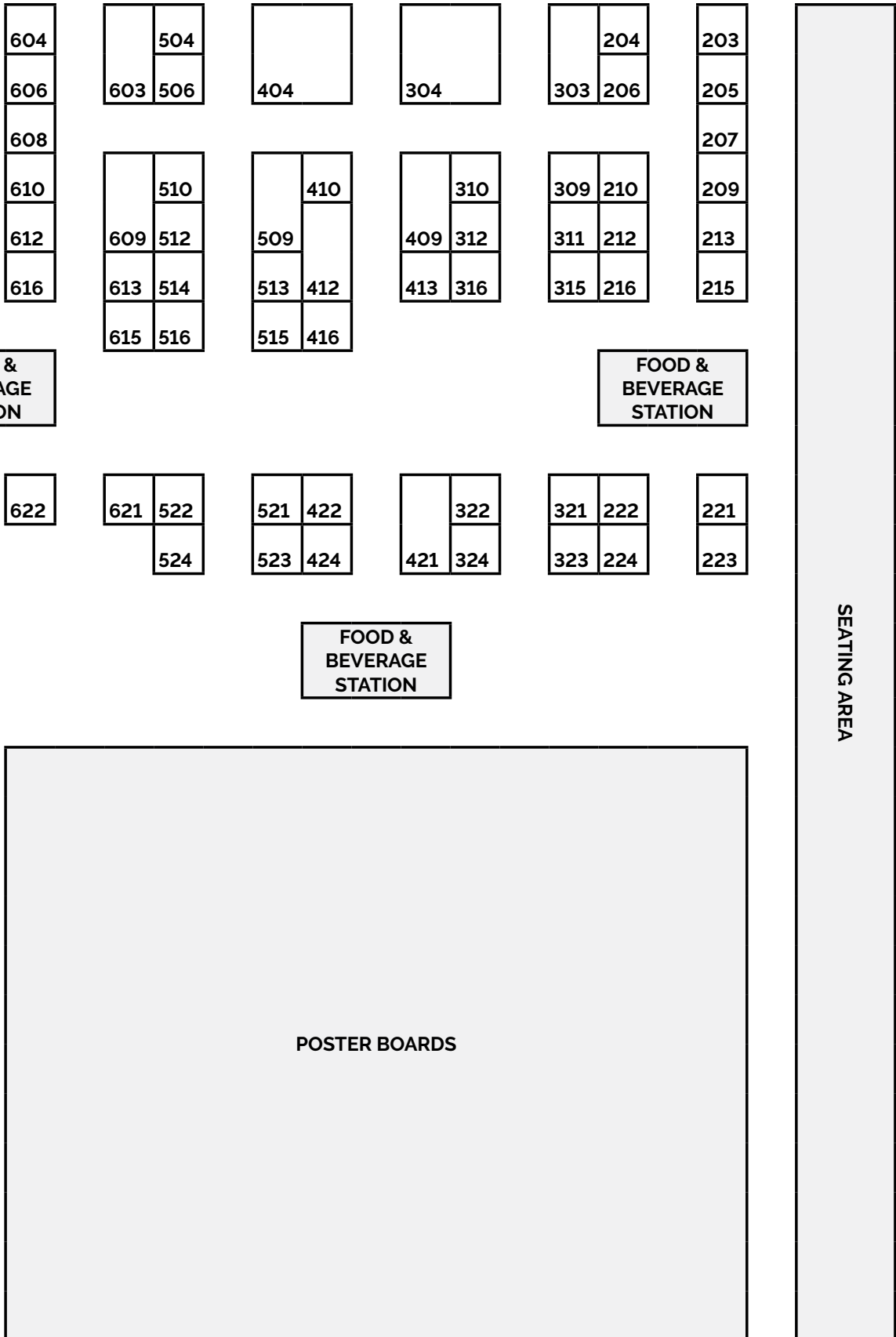
2025 EXHIBITING COMPANIES DIRECTORY

Listing current as of February 10. For the most up-to-date listing, check the TMS2025 App.

Company	Booth	Company	Booth
ABB, Inc.	410	MDPI	210
Across International LLC	215	Micro Materials Ltd	416
Allied High Tech Products	509	MTI Corporation	604
AMAZEMET Sp. z o. o.	521	Nanometronix LLC	224
Angstrom Scientific Inc./Alemnis AG	322	Netzsch Instruments N.A. LLC	606
BlueHalo	216	Oxford Instruments	404
BlueQuartz Software	223	PRCO AMERICA, INC.,	304
Bruker	303	Precimeter Inc.	615
California Nanotechnologies	621	Proto	309
Cameca	311	Protochips, Inc.	312
CompuTherm LLC	516	Psylotech Inc	207
Dr. Fritsch Sondermaschinen GmbH	616	Quantum Design, Inc	622
EBSD Analytical	209	Rtec Instruments	412
Exum Instruments	610	Seco/Warwick Corp	513
Fritsch Milling & Sizing, Inc.	522	SELEE	206
Gatan/EDAX	204	Sente Software Ltd.	413
Gleeble	321	Software for Chemistry & Materials	515
Haarslev Industries Press Technology GmbH + Co.Kg	310	Synton Mdp AG	221
innovatherm Prof. Dr. Leisenberg GmbH + Co. KG	422	TA Instruments	316
InssTek	222	Tenova Inc.	409
International Magnesium Association	506	TESCAN	421
KLA Corporation	603	Tethon 3D	203
Laser Thermal Analysis	512	Thermal Technology LLC	608
Linseis Inc	524	Thermo Calc Software Inc.	510
Los Alamos National Laboratory	514	Thermo Fisher Scientific	609
Materials and Chemistry Laboratory, Inc.	212	Zhengzhou Jingwei Technology Industry Co.,Ltd	315

FLOOR PLAN OF 2025 EXHIBITING COMPANIES

MARQUEE BALLROOM ENTRANCE



2025 EXHIBITING COMPANY DESCRIPTIONS

Exhibitor list current as of February 10.
See the TMS2025 App for exhibitors
added after February 10.

Company	Booth
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ABB, Inc.	410
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Our company offers a complete range of analytical solutions to the aluminum industry with AISCAN™ hydrogen analyzer, LiMCA inclusion analyzer, Prefil®-Footprinter melt cleanliness analyzer, PoDFA inclusion identification and quantification analysis. ABB also offers metallographic analysis services.

Across International LLC	215
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Allied High Tech Products	509
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For over 36 years, Allied High Tech Products has provided quality products for metallographic sample preparation and analysis. Allied manufactures state-of-the-art equipment including sectioning machines, mounting systems, grinders/polishers and a precision tabletop milling machine at its California headquarters.

AMAZEMET Sp. z o. o.	521
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Angstrom Scientific Inc./Alemnis AG	322
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Angstrom Scientific Inc. represents leading manufacturers supporting materials characterization. Specifically: Hitachi Tabletop SEMs, Imina Nano-probing systems, Point Electronics EBIC/EBAC, Leica Sample prep equipment, NenoVision and Alemnis In-Situ AFM, & Nano-Indenters, EMSIS TEM Cameras, Advent Diamond X-ray Beam Monitor, ConnectomX – Katana Microtome, and VacuumFab motion control.

BlueHalo	216
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BlueQuartz Software	223
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BlueQuartz Software specializes in microstructure-oriented computational services. Our tools are distributed via the DREAM.3D platform. DREAM.3D is built around SIMPL, a general spatiotemporal information management and analysis library. BlueQuartz employs software engineers and MSE experts. Let us be the software development team for your materials analysis needs.

Company	Booth
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Bruker	303
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Bruker's industry-leading technologies include Electron Micro SEM/TEM Analyzers, UMT mechanical testers and Hysitron nanomechanical test instruments. From investigating friction and wear to nanoscale materials characterization and elemental analysis, Bruker offers advanced solutions to help you appreciate and develop innovative materials at the macro- and nano-scale.

California Nanotechnologies	621
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California Nanotechnologies offers an array of facilities including advanced consolidation techniques (Spark Plasma Sintering), cryogenic milling, and machining tools. R&D and pilot-scale production services are performed by Cal Nano for both in-house programs and customer-funded projects. Programs range from Space, Aerospace, Nuclear, and Sports & Recreation industries.

Cameca	311
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CAMECA is a world leading supplier of microanalytical and metrology instrumentation for research and process control. Our instruments measure elemental and isotopic composition in materials down to atomic resolution and equip government and university labs as well as high-tech industrial companies around the world.

CompuTherm LLC	516
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CompuTherm LLC is one of the leading developers of software and databases for thermodynamic calculation and kinetic simulation using the CALPHAD method. Our products include Pandat software suite, thermodynamic databases, mobility databases, and thermo-physical property databases for numerous alloy systems, such as Al-, Co-, Fe-, Mg-, Ni-, Ti-, TiAl-based alloys, high entropy alloys, and refractory alloys. These simulation tools provide materials solutions on multi-component phase equilibria, diffusion, precipitation, grain growth, solidification, welding and more. We also provide consulting service and develop customized simulation tools as requested by customers.

2025 EXHIBITING COMPANY DESCRIPTIONS

Company	Booth
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Dr. Fritsch Sondermaschinen GmbH	616
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Founded in 1953, Dr. Fritsch is the world's first and largest manufacturer of FAST/SPS sinter presses, which are ranging from R&D devices for universities to large automated FAST/SPS sinter presses for industrial mass production. Furthermore, mixers, cold presses, granulation machines as well as metal and ceramic powders are part of Dr. Fritsch's product portfolio.

EBSA Analytical	209
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EBSA Analytical provides microstructural analysis services through EBSD and EDS coupled with the SEM. The owner, Ron Witt, has been involved with EBSD since 1996, having worked for both TSL and EDAX/Ametek before founding EBSA Analytical in 2003. With over 23 years experience, let us show you how materials characterization with EBSD can help improve your processes.

Exum Instruments	610
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Fritsch Milling & Sizing, Inc.	522
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FRITSCH is an internationally respected German manufacturer of commercial quality, professional application-oriented laboratory instruments & production equipment serving a range of industries—from agriculture to pharma to nano-technology.

Gatan/EDAX	204
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Gatan/EDAX is the global leader in Energy Dispersive Spectroscopy (EDS), Electron Backscatter Diffraction (EBSD), Wavelength Dispersive Spectrometry (WDS) and X-ray Fluorescence (XRF) systems. EDAX manufactures, markets, and services high-quality products and systems for leading companies in semiconductors, metals, and geological, biological, material and ceramics markets.

Gleeble	321
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Dynamic Systems Inc. (DSI) is a global leader in materials testing solutions, specializing in thermal-mechanical simulation and high-temperature materials research. Our flagship Gleeble® systems empower researchers in aerospace, automotive, energy, and advanced materials industries to develop and validate next-generation materials under real-world conditions. From general metallurgical testing to ultra-high-temperature ceramic and composite evaluation, DSI provides the tools and expertise to accelerate innovation.

Company	Booth
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Haarslev Industries Press Technology GmbH + Co.Kg	310
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The world leader for most efficient wear protection materials. We supply optimized wear and spare parts for Anode Paste mixers at economical prices with longer life times than any other supplier to this industry. Furthermore we provide services and process support for anode paste preparation. All of our parts for the Aluminium Industry are manufactured in Germany.

innovatherm Prof. Dr. Leisenberg GmbH + Co. KG	422
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Innovatherm is the world market leader in anode baking systems for the primary aluminum industry. Known as "ProBake", we supply complete firing systems consisting of burners, necessary safety technology as well as process control technology. At the TMS show we present first insights into our newly developed ProBake X control system for optimized anode baking process.

InssTek	222
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InssTek develops and manufactures metal 3D printers with InssTek's original DMT(Direct Metal Tooling) technology. InssTek also provides printing, remodeling, and repair services for 3D printing applications.

International Magnesium Association	506
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KLA Corporation	603
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We provide advanced process control solutions for manufacturing wafers and reticles, integrated circuits and packaging. In close collaboration with leading customers across the globe, our expert teams of physicists, engineers, data scientists and problem-solvers design solutions that move the world forward.

Laser Thermal Analysis	512
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Linseis Inc	524
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Los Alamos National Laboratory	514
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Materials and Chemistry Laboratory, Inc.	212
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MDPI	210
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2025 EXHIBITING COMPANY DESCRIPTIONS

Exhibitor list current as of February 10.
See the TMS2025 App for exhibitors added after February 10.

Company	Booth
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Micro Materials Ltd	416
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Micro Materials has pioneered many advances in nanomechanical test instrumentation, most recently testing to 1100 degrees C. Our platforms are capable of depth sensing indentation and tribological measurements that can be done over a wide load range. Tribological techniques include scratch and wear, high strain rate nano-impact, micro impact, & nano-fretting.

MTI Corporation	604
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MTI provides laboratory R&D equipment including alloy melting, casting, annealing, sectioning, polishing, mixing machines, high temperature muffle and tube furnaces, pressing machines, film coaters, high vacuum systems, high pressure furnaces, RTP furnaces, hydrogen furnaces, as well as compact XRD/XRF for Metallographic analysis and equipment for High Throughput.

Nanometronix LLC	224
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Netzsch Instruments N.A. LLC	606
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Oxford Instruments	404
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FemtoTools is a manufacturer of high-resolution nanoindenters for applications in metallurgy and thin films

PRCO AMERICA, INC.,	304
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Precimeter Inc.	615
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Molten Metal level control.

Proto	309
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Proto makes x-ray diffractometers for powder diffraction, single-crystal XRD, residual stress, and Laue orientation. We also offer x-ray systems with extremely bright MetaJet x-ray sources for high-end experimental x-ray techniques such as CT, phase-contrast imaging, and HEDM. Our experienced team can bring the power of a synchrotron into your home laboratory.

Protochips, Inc.	312
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Company	Booth
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Psylotech Inc	207
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For over 15 years, Psylotech has designed and built precision multi-scale micromechanical testing systems for the global stage. We provide the research community with tools to help better test new materials in static and fatigue that ultimately provide backbone for modeling data that supports product development. Psylotech is based in Evanston, Illinois, USA.

Quantum Design, Inc	622
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Rtec Instruments	412
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Rtec Instruments develops and manufactures advanced mechanical and optical surface characterization testing instruments. We supply high-precision, reliable, and innovative product lines to provide solutions for your research and quality control needs. We lead several new technological fronts such as space, EV, coatings, and sustainability drive. Product line includes solutions for Instrumented indentation, scratch testing, adhesion testing, optical characterization, film thickness measurement and tribometers.

Seco/Warwick Corp	513
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SECO/WARWICK is a leading supplier of aluminum processing and melting/holding/tilting furnace systems. With decades of experience and deep engineering experience, SECO/WARWICK can design, manufacture, install, and upgrade nearly any furnace systems associated with aluminum processing and melting including annealing, solution heat treating, homogenizing, and melt/reheat.

SELEE	206
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SELEE pioneered the use of ceramic foam technology in metal filtration 50 years ago.

Sente Software Ltd.	413
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Developers of JMatPro®, a powerful simulation software package for calculating a wide range of materials properties and behavior for multi-component alloys used in industrial practice. Data exports are available to casting, forming, forging and heat treatment packages. Sente Software has a proven track record for innovation and excellence with customers worldwide.

2025 EXHIBITING COMPANY DESCRIPTIONS

Company	Booth
Software for Chemistry & Materials	515

Whether you research batteries, organic electronics, photovoltaics, polymers, or other materials, we have the modeling tools to drive your R&D. The Amsterdam Modeling Suite offers atomistic modeling and fluid thermodynamics all with an integrated GUI within a simple single-file binary. Come and discuss your research questions with us!

Synton Mdp AG	221
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Synton-MDP is a manufacturer of diamond stylus for microtechnical instruments. Most of the tips are used in metrological equipment (surface finish, profile, form, nano-indentation, hardness, scratch and other characteristics). We specialise in small spherical tips, with a high level of dimensional accuracy in ultra-compact configurations, and points with razor sharp edges.

TA Instruments	316
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Visit TA Instruments for premier technology in thermal analysis and thermophysical testing. Innovative instrumentation for materials characterization of polymers, metals, ceramics, and more. Unmatched performance from our Discovery Series DSC, TGA, and SDT and industry leading instruments for Thermal Conductivity, Dilatometry, and Thermal Diffusivity by Flash up to 2800°C.

Tenova Inc.	409
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Tenova Inc., is a worldwide leader in the design and supply of loose carbonaceous material calciners based on rotary hearth technology. These furnaces are used for the processing of petroleum coke, coal, formed coke briquettes and various other carbon based products. We also provide aluminum processing furnaces for a variety of applications as well as technical services.

Company	Booth
TESCAN	421

Tethon 3D	203
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Thermal Technology LLC	608
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Thermo Calc Software Inc.	510
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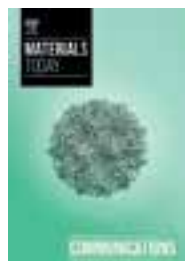
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