

DECEMBER 2023

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AFFILIATED WITH



Nicholas Lessnau
ASM Detroit Chapter
Chair, 2023-24

Chair's Note

Dearest ASM - Detroit Chapter Members,

I trust that everyone had a stellar Thanksgiving and I hope that work has slowed down a little bit for the holiday season.

I am hoping that everyone was able to attend our talk on November 13th with Dr. Julio Villafuerte. Thank you Dr. Villafuerte for taking the time to speak to our group and to Centerline for sponsoring the event. It is always great to stretch our legs into areas of materials beyond casting and forming. I am especially happy when we can look at the bigger picture and tie things like cold spray to the topics we already know much about. Sometimes we forget that when we

talk about a forging or casting in industry, that component is rarely working alone and needs some sort of coating system to perform it's intended function for the duration of its life.

Students, as you have heard me say before... We want to give you money. Applications for our 2024 student scholarships will be available January 2nd. Keep in mind that you have until January 29th to get those submitted. We are all looking forward to seeing a good turnout of applicants.

Well, we have some time before we will see each other again. I hope that everyone has a great holiday season and I will see you in February.

Judges Needed for Future City Competition ❄️

Join us as judges for the "Best Use of Materials" award at the Michigan Regional Future City Competition on **Tuesday, January 23, 2024**, at the Suburban Collection Showplace in Novi, MI. Middle school students are participating in the Future City Competition, working collaboratively to design a city of the future under the theme "electrify your future." The ASM Detroit Chapter plays a crucial role in judging, offering students a chance to envision a city in 2050 and address its challenges. Our team awards the "Best Use of Materials" to competing schools with an efficient eight-judge process, starting at 8 AM and concluding by 11:30 AM on the competition day. Complimentary breakfast and lunch are provided. Mark your calendar and consider volunteering as an ASM judge for this program. Express your interest by emailing Julie Nimer at asmdetroitchapter@gmail.com. Your involvement will contribute to the success of this exciting initiative.

Call for Judges at S&E Fair of Detroit

Witness the future Materials Scientists in action! We are seeking chapter members to judge the "Best Materials Project" at the 67th (2023-2024) **Science and Engineering Fair of Metro Detroit on Wednesday, March 20, 2024**, at Huntington Place (formerly Cobo Center). Our chapter sponsors the "Best Materials Project" award for both Junior (6th – 8th grade) and Senior (9th – 12th grade) categories each year. To select awardees, a team of chapter members will judge the projects, starting with an orientation at 8 AM and concluding by 11:30 AM. Enjoy a complimentary breakfast as a token of appreciation for your participation. Become an ASM judge for this program by emailing Julie Nimer at asmdetroitchapter@gmail.com. Your involvement is vital for the success of this event.

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ASM Detroit Chapter 2023-2024 Program

February 12, 2024 MEMBERSHIP NIGHT

PROF. ROBERT CRYDERMAN, FASM
"Steelmaking: Then and Now"
Location: The Tapestry, Southfield

March 11, 2024 WOODSIDE LECTURE

DR. KATHY HAYRYNEN, FASM
Location: Livonia Marriott

April 8, 2024 SPRING JOINT ASM/AFS MEETING

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May 6, 2024 NATIONAL OFFICERS NIGHT/ SUSTAINING MEMBERS NIGHT

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Three Scholarships Available to College and University Students in Materials

Our chapter is happy to announce that it will be offering three scholarships to students pursuing a degree in materials science and engineering.

The Marion Semchyshen and James A. Mansfield Scholarships will be given as in past years and we are also offering an additional scholarship this year named the Leo and Betty Blazok University Scholarship from a generous donation from the Leo and Betty Blazok Foundation.

The students will be selected for their high scholastic achievement and their activities in the field of materials science or metallurgy. The scholarships are for students that are sophomores, juniors, and first-year seniors.

Each scholarship consists of a \$1,500 cash award and certificate, and will be presented at an ASM-Detroit Chapter meeting in March or April.

If you know of a college or a university student in materials science or metallurgy, please let them know of this opportunity. The scholarship applications will be mailed to university advisors and posted on the ASM-Detroit website **by January 2, 2024**. In order to be considered, the applicants need to complete the form and return it to the ASM Detroit Chapter before midnight on Sunday, January 29, 2024.

Please take a moment and think of that outstanding co-op or student intern you know; send them an email and encourage them to apply!

ASM Detroit Chapter Awards Four Teacher Scholars for Promoting Materials In The Classroom

As part of its Student Outreach Program, the ASM Detroit Chapter has created the Teacher Scholar Program to assist Materials Camp alumni in demonstrating Materials Science to their students. The Scholar Award consists of a \$250 grant to the teacher to be used for the purchase of equipment and supplies needed to perform materials-related experiments. The ASM-Detroit Chapter is proud to announce our ninth class of Teacher Scholars; they are:

- Claudia Brown (Winton Woods HS, Cincinnati, OH) – **Kathy Hayrynen Scholar**
- Karla Hammond (Pennfield HS, Battle Creek, MI) – **Peggy Jones Scholar**
- Steve Evans (Eastside Junior - Senior HS, Buttler IN) – **Blazok Foundation Scholar**
- Jaime Fugate (University Liggett School, Gross Pointe Woods, MI) – **Detroit Chapter Scholar**

Their intended uses of the grants include the purchase of digital microscopes, small kilns, small 3D printers as well as material supplies for performing introductory material science experiments in the classroom.

The Chapter is also proud to name two of the Grants for **Dr. Kathy Hayrynen** and **Dr. Peg Jones**. Both ladies have greatly contributed to the formation, organization, and operation of the Year 1 and Year 2 Materials Camps for Teachers in Ann Arbor for many years. In recognition of their extra effort and time given, the named Grants are presented to the two teachers that are most determined to aid their students. In addition, the Chapter is proud to name a grant after the **Blazok family**, who generously made a significant donation to the chapter so that the educational outreach activities can continue forward for many years to come.

The ASM Detroit Chapter is proud of its Teacher Scholars and of our chapter members, who contribute to make such grants possible.

I am very honored to be named a 2023 ASM Detroit Chapter Teacher Scholar. I truly enjoyed and was very thankful for the ASM Camp experience at University of Michigan this Summer, and from that experience, plan on purchasing 7 propane self-lighting torch kits, along with a Flinn Hands-On Chemical Element Set with the scholarship money. I know exactly the lesson plans from Camp that I plan on using with this equipment with my students as soon as the materials arrive! Having a "hands-on" approach and laboratory activities from ASM promotes STEM education in my classroom: especially this year, after ASM Camp, my students can see how Chemistry classes help prepare them to become electricians, plumbers, material specialists, as well as medical professionals who see the "big picture." Once again, thank you, we appreciate it, and I am very grateful for your support with the scholarship, and at ASM Camp! – Karla Hammond



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7:30a to 1p

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Questions on the event should be directed to
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Danny Schaeffler, Ph.D. Engineering Quality Solutions

Specifying Body Panel Surface Texture for Paint Appearance
Donald K. Cohen, Ph.D., Michigan Metrology, LLC

*The Effect that Trim Edge Quality has on the Feasibility
of "Stretch-Flanging" Gen3 AHHS*
Vince Millioto, Martinrea International US Inc.

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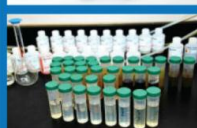
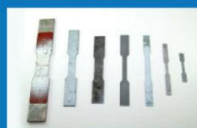
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Why Join ASM?

Yi Liu, Ph.D., Metallic Materials Technical Specialist, General Motors LLC

When I presented my research work at MS&T many years ago, I automatically obtained a one-year membership with ASM International. Today, I have been an ASM member more than 15 years, even though I have changed employers a couple of times and switched my career from academia to industry. Along with my career, I enjoy being part of the ASM community, and this year I received the 15-year membership award from the Detroit Chapter. It is a milestone for me indeed, and I really appreciated it, even though I did not expect such a recognition.


ASM International, which was first called the American Society for Steel Treating (ASST) in 1920 and changed its name to the American Society for Metals (ASM) in 1933, is known internationally for its depth and breadth in materials information. It not only provides the latest advanced research publications on materials, but also collects and publishes reliable material data in the form of handbooks, alloy digest, and journals and this has been very important in my career.

For example, high impact journals such as Metallurgical and Materials Transactions (MetTrans A, MetTrans B), provide peer reviewed research articles relevant to my areas of interest and provide respected journals for me to publish my work. In addition, as an ASM member I can access about 30 different journals related to materials. And during my career, not all my job locations

provided direct access to these journals and thus my ASM membership gave me access to these valuable resources. In addition to ASM publications, the materials science field is increasingly transitioning from physical testing to virtual testing/modeling since "virtual engineering" speeds up the design and development process, and thereby stimulates more innovation. However, valid material data is required for this transition and ASM's Alloy Digest and Handbooks provide verified data with detailed conditions of test conditions and summaries of the data by experts in the field. Stated differently, ASM's Alloy Digest and Handbooks are highly reliable engineering resources. They are also very useful resources in assisting with virtual engineering design from coupon samples to system levels and assist me in my work and help reduce costs for my employer.

In addition, ASM International brings expert resources, e.g., professors, scientists, engineers working in local universities and industries, to local areas. For example, the ASM International Detroit Chapter (Detroit Chapter), the largest ASM International Chapter in the world, has monthly meetings with that provide opportunities to interact with local and international experts that give presentations on the latest topics of interest in materials science. The monthly presentations provided by invited speakers greatly benefit my work as well. The Detroit Chapter also hosts events such as University Student Night, ASM mini-camps, ASM sponsored fellowships, ASM sponsored student scholarships, etc. These events and sponsorships convey


Continued on page 8.

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2023-2024 ASM Detroit Chapter STEM Outreach Sponsor!



Thanks to Fluxtrol's generous donation we are able to offset the dinner cost at our monthly chapter dinner meetings for our STEM Outreach attendees. These attendees include: Teacher Scholarship Winners, University Scholarship Winners, Community College Scholarship Winners, Metro Detroit Science Fair Winners, and ESD Future City Winners.

College and university students can also attend our ASM Detroit Chapter dinner meetings for just \$5 thanks to this generous donation!

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November 13th Dinner Photos



It was so nice to see some of our esteemed ASM Fellows at the November 13th dinner meeting, L to R: Dr. Ron Radzilowski, Dr. David Sponseller, Dr. Bob McCune, Dr. Julio Villafuerte, Dr. Ray Decker, Dr. Steve Lebeau, Mr. Tom Prucha, Prof. Bob Cryderman, and Dr. Susan Hartfield-Wünsch.



One of our four 2023 Teacher Scholars was able to attend the November 13th dinner meeting to receive her award. Standing with Nikki Tiernan (23-24 YM/SA Co-Chair) is Jaime Fugate from University Liggett School in Grosse Pointe Woods.



It was nice to see 10 of our wonderful students attend the November 13th meeting. Thanks again to Fluxtrol for sponsoring the students for the 23-24 Chapter season!



From L to R: Jonathan Goettsch (23-24 DWAFS Chair), Dr. Bob McCune (November 13th Technical Chair), Dr. Julio Villafuerte (November 13th Speaker) and Mark Harper (23-24) ASM Detroit Chapter Vice Chair

Why Join ASM? *continued from page 6*

the importance of materials to college and high school students. And ASM International promotes professional awards such as the Young Emerging Professionals Award that seeks to assist young professionals in their development mentorship from ASM fellows and senior professionals.

I maintain memberships in ASM International, the Society of Automotive Engineers (SAE), The Minerals, metals & Materials Society (TMS) and the Materials Research Society (MRS), but in my experience, ASM International is the only professional society that enables interaction with local experts and industries, recognizes members for continued membership/participation, and directly assist me with work. And while I feel fortunate to be a member of ASM International, I also appreciate my interactions with ASM fellows, and senior and young professionals. In summary, I shout out to young materials science professionals to join ASM International and the Detroit Chapter without hesitation.



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