

Wisconsin MRSEC Resources for Students and Postdocs



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Resources for Collaborative Research

- Our primary mission is tackle grand challenges in materials science through multidisciplinary, collaborative research
- Most of our resources are dedicated to this mission:
 - Research staff (you!)
 - Shared campus facilities and other instrumentation
 - Access to national and international user facilities, collaborators, training, and other resources
- If there is something you need to pursue your research, please ask your PI and me. Resources are available!



Research Promotion

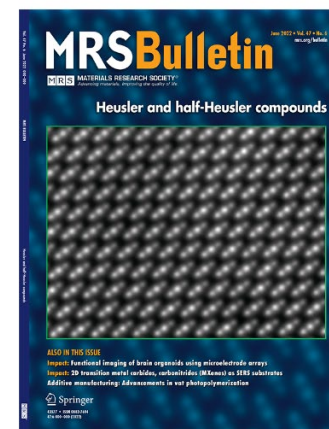
- MRSEC will promote your career by promoting your research
- Types of content
 - short summaries
 - press releases
 - NSF highlights
 - Videos, code, other formats?
- Distribution channels:
 - MRSEC website & social media
 - AMIC & MRSEC newsletters
 - CoE, L&S, University websites and press release channels
 - NSF website, press release, and social media
- Not just for papers in Nature or Science.
- Talk to your PI, then contact Kerri and me to get started.



The screenshot shows the MRSEC website header with the NSF logo and navigation tabs. The main content area features a news article titled "Highly Oriented Glassy Thin Films of Organic Semiconductors" dated May 16, 2023. The article text discusses the structural properties of glasses and the work of researchers in the Wisconsin MRSEC. To the right of the text is a figure showing a 3D model of molecules and a corresponding experimental map of molecular orientation. Below the article, the author(s) are listed as Paul Voyles, Mark Ediger, and Lian Yu, and a link to the full article is provided.

Wisconsin MRSEC Investigator, Jason Kawasaki, Helps Shape Journal Issue Dedicated to Heusler Compounds

Posted on December 8, 2022



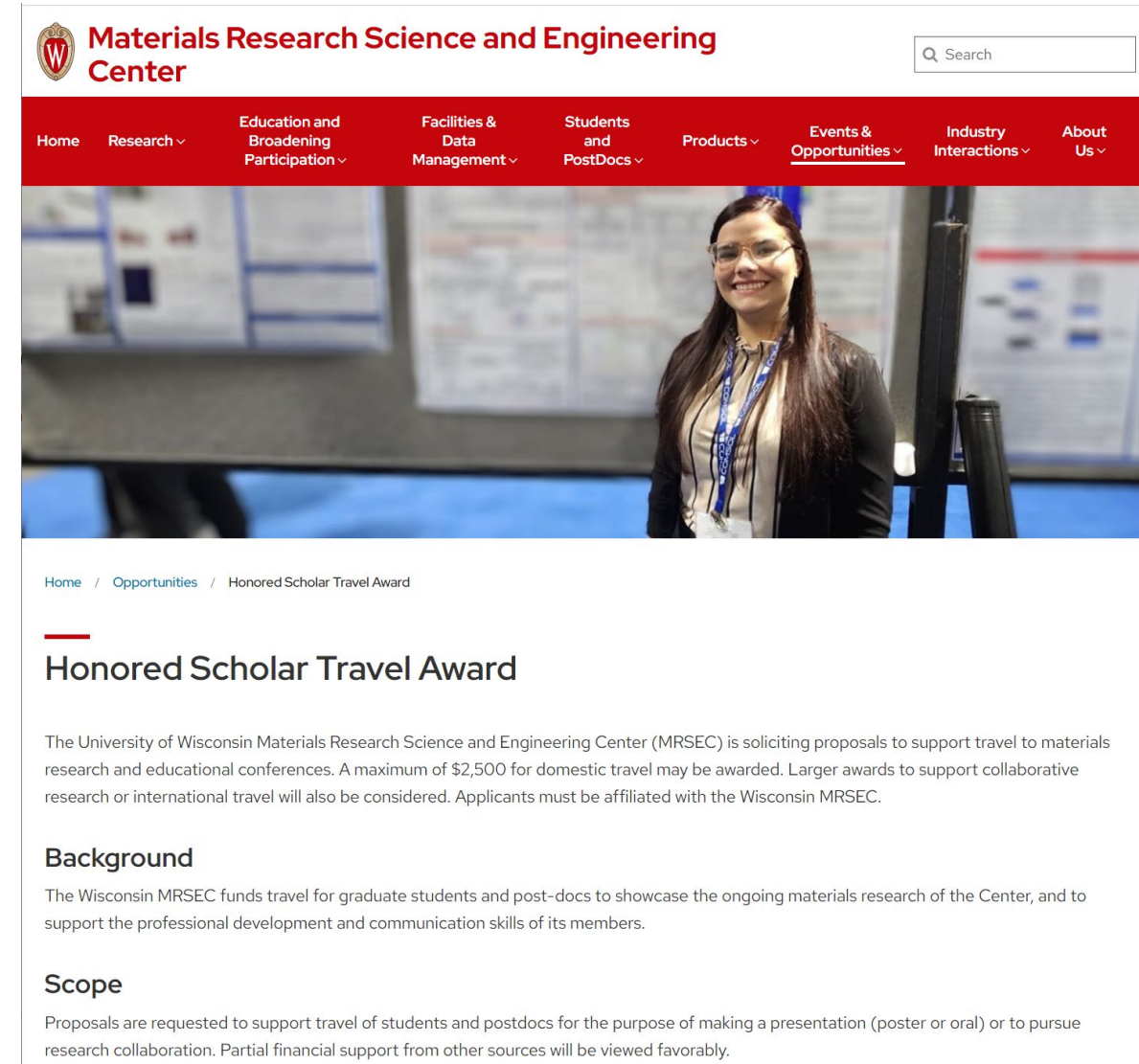
Jason Kawasaki, an investigator with the Wisconsin Materials Research Science and Engineering Center (MRSEC) at the University of Wisconsin–Madison brought his passion for Heusler compounds to his appointment as guest editor of the [June 2022 Issue of the MRS Bulletin](#).



Travel Scholarships

- Primary source of support for:
 - conference travel
 - specialized training
 - summer schools
 - extended visits to collaborators
 - *Etc.*
- Awards made only to MRSEC members in good standing:
 - participate in outreach events
 - come to MRSEC meetings
 - participate in MRSEC professional development opportunities

<https://mrsec.wisc.edu>



Materials Research Science and Engineering Center

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Home / Opportunities / Honored Scholar Travel Award

Honored Scholar Travel Award

The University of Wisconsin Materials Research Science and Engineering Center (MRSEC) is soliciting proposals to support travel to materials research and educational conferences. A maximum of \$2,500 for domestic travel may be awarded. Larger awards to support collaborative research or international travel will also be considered. Applicants must be affiliated with the Wisconsin MRSEC.

Background

The Wisconsin MRSEC funds travel for graduate students and post-docs to showcase the ongoing materials research of the Center, and to support the professional development and communication skills of its members.

Scope

Proposals are requested to support travel of students and postdocs for the purpose of making a presentation (poster or oral) or to pursue research collaboration. Partial financial support from other sources will be viewed favorably.



Professional Development

- Industry engagement
- Communication skills
- Mentor training
- Cultural competency
- Career planning



Advanced Materials Industrial Consortium

- Connects MRSEC members and their research to industry
- Technical / networking events:
 - General meeting in the spring
 - Lunch seminars during semester
 - Meet potential future employers or research funders
 - Learn about industry needs to inform research
- Newsletter to AMIC members:
 - 1-2 paragraph non-specialist summaries of recent published research

AMIC General Meeting



seminar by Maggie Snyder, NorthStar Medical Radioisotopes



AMIC Student Seed Grants

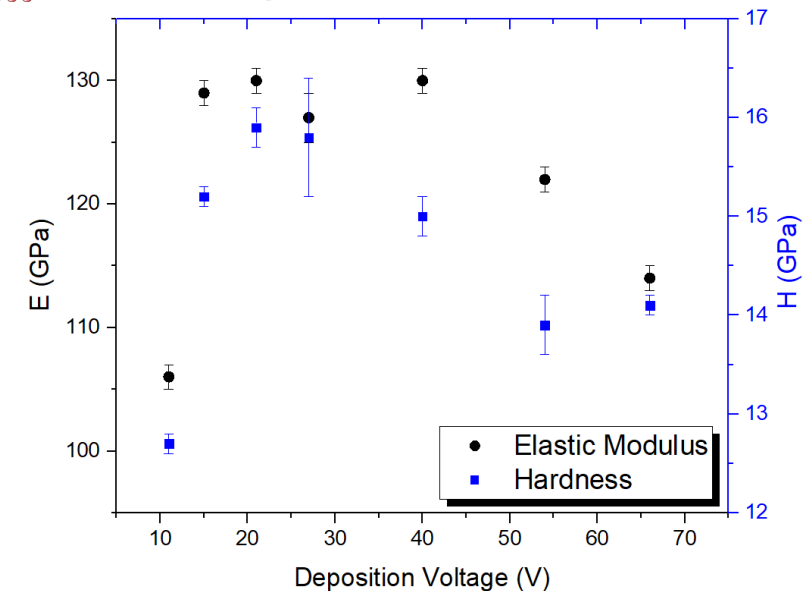
- Led by students or postdocs from proposal through execution to final reporting
- Mentored by AMIC industry engineers
- Experience with the project lifecycle and industrial R&D
- Connection to a MRSEC student interested in industry builds connections
- AMIC companies benefit from pre-competitive research
- Modest budget (ex. supplies, instrument time)



Sachin Muley



Patrick Heaney



Muley ... **Voyles**, Heaney, *Diam. Relat. Mater.* **123**, 108843 (2022)



Communication Skills



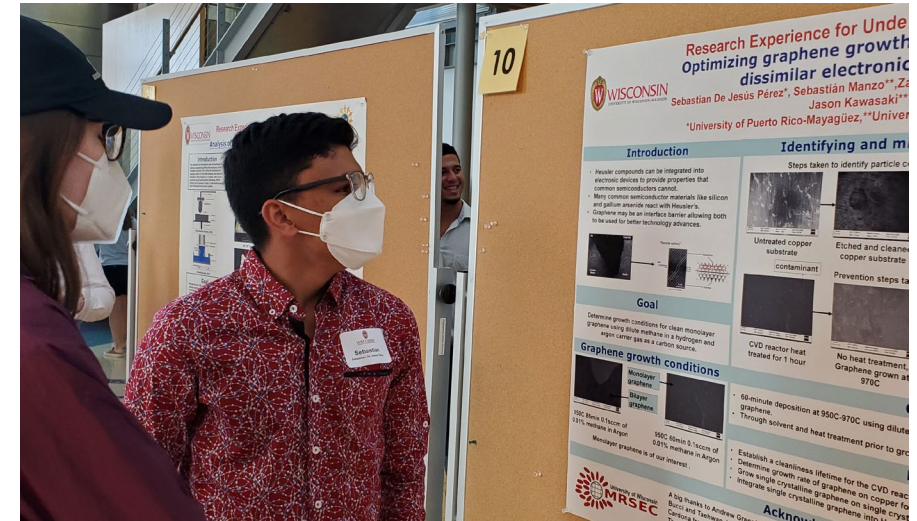
Outreach events:

- Fun and rewarding chance to share what gets you excited about science
- Practice communicating to non-scientists
- Workshops and classes to develop effective communication skills
- Present to EAB and NSF to practice high stakes, highly-polished technical presentations



Mentor Training

- Research mentor training:
 - Culturally-aware, sensitive, and effective mentoring practice
 - Learning community for discussing mentoring challenges
- Host a REU student
 - practical experience as a research mentor
 - help recruit future colleagues
- Invaluable for future faculty applications and interviews

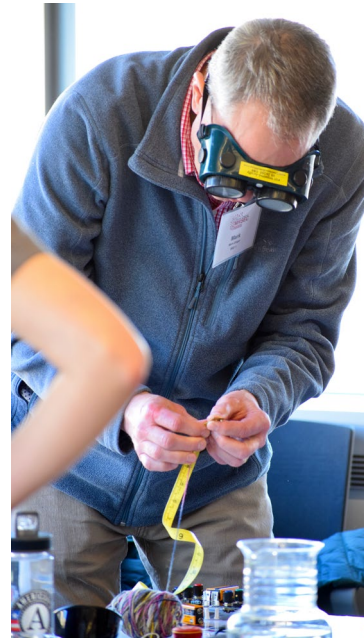


Sebastian De Jesus-Perez
University of Puerto Rico-Mayagüez

Cultural Competency

Important for faculty and industrial job searches

- Research mentor training
- Bias mitigation workshop
- Inclusive outreach training



Inclusive outreach



Bias mitigation

Career Planning

- Post-doc individual development plans:
<https://grad.wisc.edu/professional-development/individual-development-plan/>
- AMIC events to connect with industry.
- MRSEC-facilitated support from CoE offices for developing IP and launching companies.



