

SCIENCE COMMUNICATION AND MEDIA

I-MRSEC has a special focus on improving science communication among scientists at all levels and the use of media to promote STEM. Activities include the creation of a scripted web episode series aimed at engaging a middle and high school audience in MRSEC research, and science communication workshops.



RESEARCH EXPERIENCE FOR UNDERGRADUATES (REU) PROGRAM

I-MRSEC provides opportunities for undergraduates to gain research experience through an REU program each summer. Students take on challenging, interdisciplinary research projects for 10 weeks, which include training on advanced materials characterization tools and professional development programming.

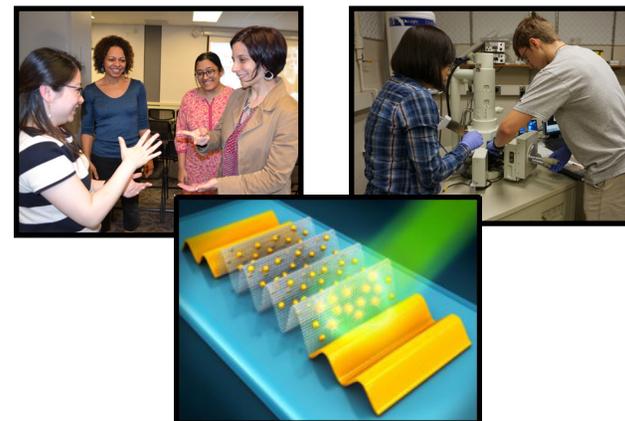
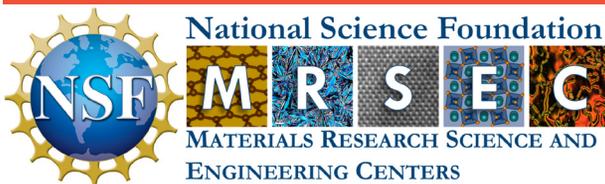


LEARN MORE

For more information about research, workshops, partnerships, and educational opportunities, please visit:

mrsec.illinois.edu

The I-MRSEC is supported by the National Science Foundation MRSEC program under NSF Award Number DMR-1720633.



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Materials
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ABOUT I-MRSEC

The I-MRSEC performs fundamental, innovative materials research that has applications to societal needs, and supports interdisciplinary education and training of students in materials design, understanding, and application.



“The Illinois MRSEC ties together diversity, collaboration, communication, and excellence to solve major open problems in materials research and education.”

-Nadya Mason,
professor of physics and
MRSEC Director

FACILITIES

The I-MRSEC is based in the University of Illinois Materials Research Lab, which offers an extensive array of shared facilities, including centers for microanalysis of materials, nanofabrication, and laser spectroscopy, facilitated by 20 staff members.



RESEARCH

I-MRSEC research is carried out primarily by two interdisciplinary research groups (IRGs), in addition to shorter-term seed projects.

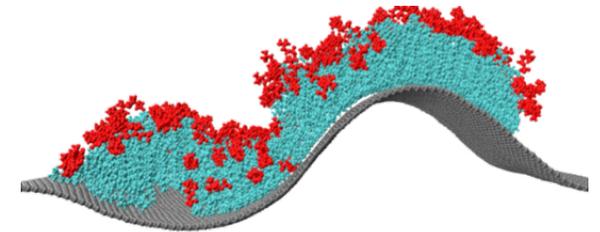
IRG 1: Metallic antiferromagnetic materials

This group focuses on ultra-fast charge, lattice, and magnetization dynamics of antiferromagnetic materials. It aims to revolutionize our ability to store and process information by overcoming the fundamental size and switching time limits of conventional memory storage.



IRG 2: Active interfaces between highly deformable nanomaterials

This group designs electronic materials that can withstand large deformations, such as bending and crumpling, and also be integrated into molecular assemblies. Results of this research enable applications such as wearable electronics and devices integrated with biological tissues.



EDUCATION AND OUTREACH

The research activities of the Center are tightly integrated with education, outreach, and collaborative activities. The Center sponsors professional development programming for students, internship opportunities, fosters interactions between academia, industry, and national labs; and works to increase the pipeline for the future scientific workforce.

