

# MRS Activities Supporting MS&E

UMC Meeting

November 30, 2009



**MATERIALS RESEARCH SOCIETY**

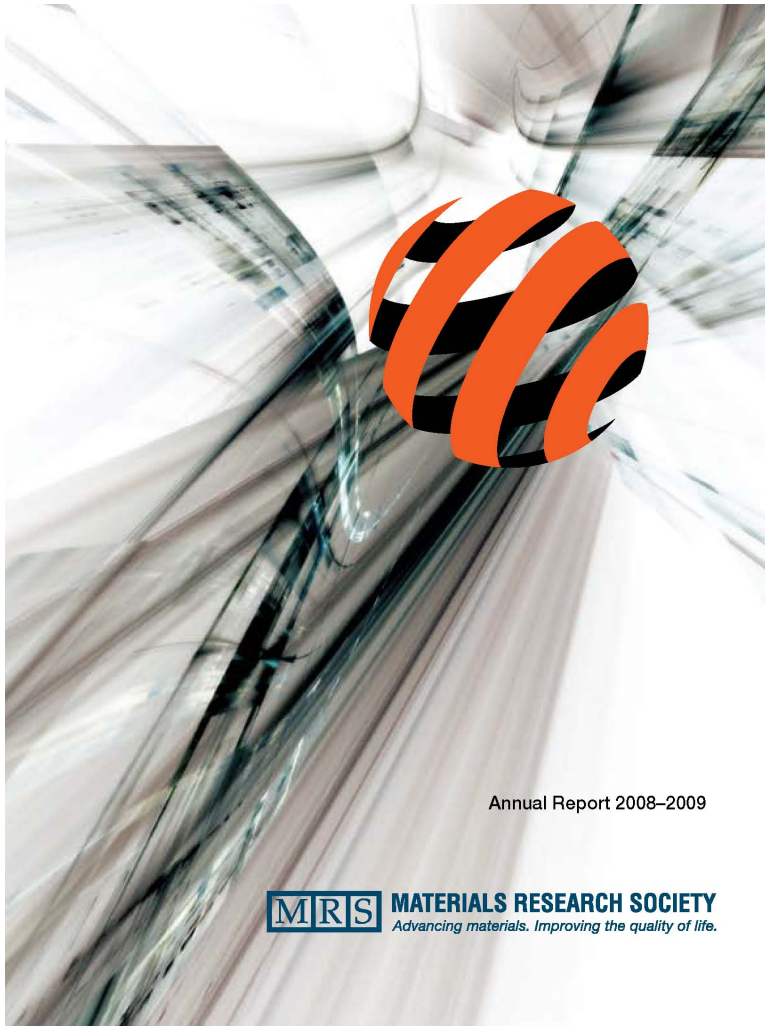
*Advancing materials. Improving the quality of life.*



# Outline

- MRS Today
- Overview of MRS Activities Supporting MS&E
  - Supporting Education and Curricula
  - Supporting the Field
- Future Directions
  - Collaborative efforts

# MRS Today



2009 was another good year for MRS

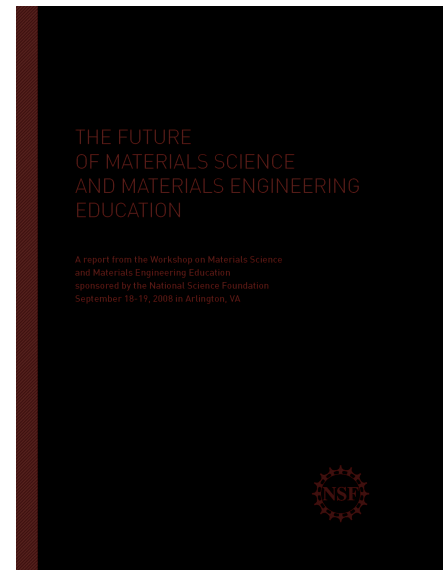
- Spring and Fall Meeting Growth
- JMR Growth
- Launch of NOVA production
- “Next level” Advocacy Efforts
- Innovation in Materials Characterization Award
- MRS Diversity Statement
- International Collaborations

15,800 Members

- Predominantly Physicists, Chemists and Engineers
- 40% International
- 27% Students

# Materials Education: MRS Bulletin

- MRS Bulletin will publish a summary article on The Future of Materials Science and Materials Engineering Education



- Article on student projects in Africa

# Materials Education

- 2009 MRS Fall Meeting
  - Symposium PP: Materials Education
    - Memorial to Dr. Marni Goldman
      - 11 Sessions, including:
        - » Integrating Research into Education
        - » Curriculum Development
        - » Accreditation Panel
        - » K-12 STEM Outreach
        - » Partnerships
- 2010 MRS Spring Meeting
  - MRS/MatDL Workshop on Virtual Laboratories

# ABET Accreditation

- MRS is an Associate Member of ABET
- MRS works collaboratively with TMS and ACerS/NICE
  - Training sessions at MRS Meetings
  - Recruiting evaluators
  - Coordinated “voice” at ABET Council Meetings

# UG Education Coordinating Committee

- ACerS, AIST, ASM International, MRS, TMS and UMC
- Initial discussions held in 2009
- Potential future actions include
  - Focus on industrial input
  - Coordination and dissemination of Best Practices

# Supporting the MS&E Field

- Meetings
- Communications
- Outreach
- Advocacy
- Diversity and Gender Equity
- International Programs



# Meetings

- Meetings
  - 2009 Fall Meeting: > 5,700 attendees
  - 2009 Spring Meeting: 4,100 attendees
  - 2009 Cancun Meeting: 1,200 attendees
  - New topical workshops and meetings in 2010

# Communications

- MRS Bulletin
- Journal of Materials Research
- Proceedings
- Website and electronic newsletters
- Ion Beam Handbook (published in 2009)
- Energy Handbook (to be published in 2010)

# Outreach

NOVA

DISCOVERIES+  
BREAKTHROUGHS  
INSIDE  
SCIENCE

strange  
MATTER

Drôle  
de  
MATIÈRE

NISE network  
NANOSCALE  
INFORMAL  
SCIENCE  
EDUCATION

Materials  
Camp®-  
MS&T'09

# Advocacy

- Authored first-ever chapter on Materials Research in AAAS Annual Report
- Congressional Visit Days
- Collaborative efforts with APS, ACS, OSA, TMS, ASM International, AIST, SPE
- Member of the Task Force for American Competitiveness
- Expanding International Advocacy Collaborations
  - Second Materials World Summit in China
  - Collaborations with European, China and Mexico

# Diversity and Gender Equity

- MRS Diversity Statement
  - MRS Diversity Task Group
- MRS Women in MS&E Committee
  - Workshops
  - Electronic Newsletter
  - Benchmarking
- NSF requested MRS to conduct an annual gender equity survey

# International Programs

- MRS, European MRS and MRS Africa
  - Efforts to support the materials community in Africa
- MRS Materials Education and Research for Emerging Regions Task Force
- Collaborations with MRS-Mexico
  - Annual meeting in Cancun, Mexico
  - Advocacy and Education in Mexico and Latin America
- Energy Forum and International Materials Education Symposium at the 2009 MRS Brazil Meeting
- PacRim and India collaborations developing

# Future Programs

- Potential Collaborations with UMC
  - Annual Gender Equity Survey printed in the MRS Bulletin
  - MRS would like to create recruiting resources and a resource repository, which could benefit from UMC input
  - MRS has initiated an increased dialogue on materials education “housed” in chemistry, physics, MS&E and other engineering departments
  - Logistical support

# Logistical Support

- MRS views UMC as an important part of the materials community
- But unlike other professions, UMC does not have a home society to assist with logistics
- MRS would like to offer logistical support for
  - Annual UMC meetings
  - Website



# Logistical Support

- MRS would provide support up to \$10,000 per year in logistical support (staff, meeting facility, website)
- UMC would retain its autonomy

# Potential Synergy

- It is hoped that synergy would arise with MRS programs and those of our interdisciplinary partners
  - Advocacy
  - Outreach
  - Translating Research to Education
  - UG Recruiting
- BUT UMC would be able to coordinate and participate in programs with other societies