



MRSEC Directors' Meeting

“The Future of Electronics Beyond Moore’s Law”

NSF, Room 375

Friday, October 17, 2008

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MRSEC Program Directors



Materials Research Science and Engineering Centers

2008 MRSEC Competition

- 14 Awards - National investment in the areas of sustainable energy, bio- and soft-materials, polymers, nanoscience, next-generation electronics and photonics, and condensed matter physics.
 - Largest turnover in the history of the program.
 - 5 awards to institutions that have not had a MRSEC
 - 9 MRSECs successfully re-competed
 - 4 existing MRSECs being phased-out
- ~\$4.7M co-funding from MPS/OMA, EPSCoR, and EHR/DRL
- Additions to MRSEC base



Review Process and Reviewer Demographics

- **100 preproposals**
 - reviewed by 5 topical panels and *ad hoc* review as needed
 - 717 reviews by
 - 72 panelists (avg. 8.2 reviews each) and
 - 36 mail reviewers (avg. 3.5 reviews each)
- **35 full proposals**
 - 416 reviews by 199 *ad hoc* reviewers (avg. 2.1 reviews each)
- **18 invited for reverse site visits** – 4 panels

Phase	# Proposals	Total Reviewers	% Women	% URM	% Industry	% National Labs
Preproposal	100	108	20%	15%	18%	15%
Full Proposal	35	199	18%	7%	8%	12%
Reverse Site Visit	18	46	22%	15%	7%	11%



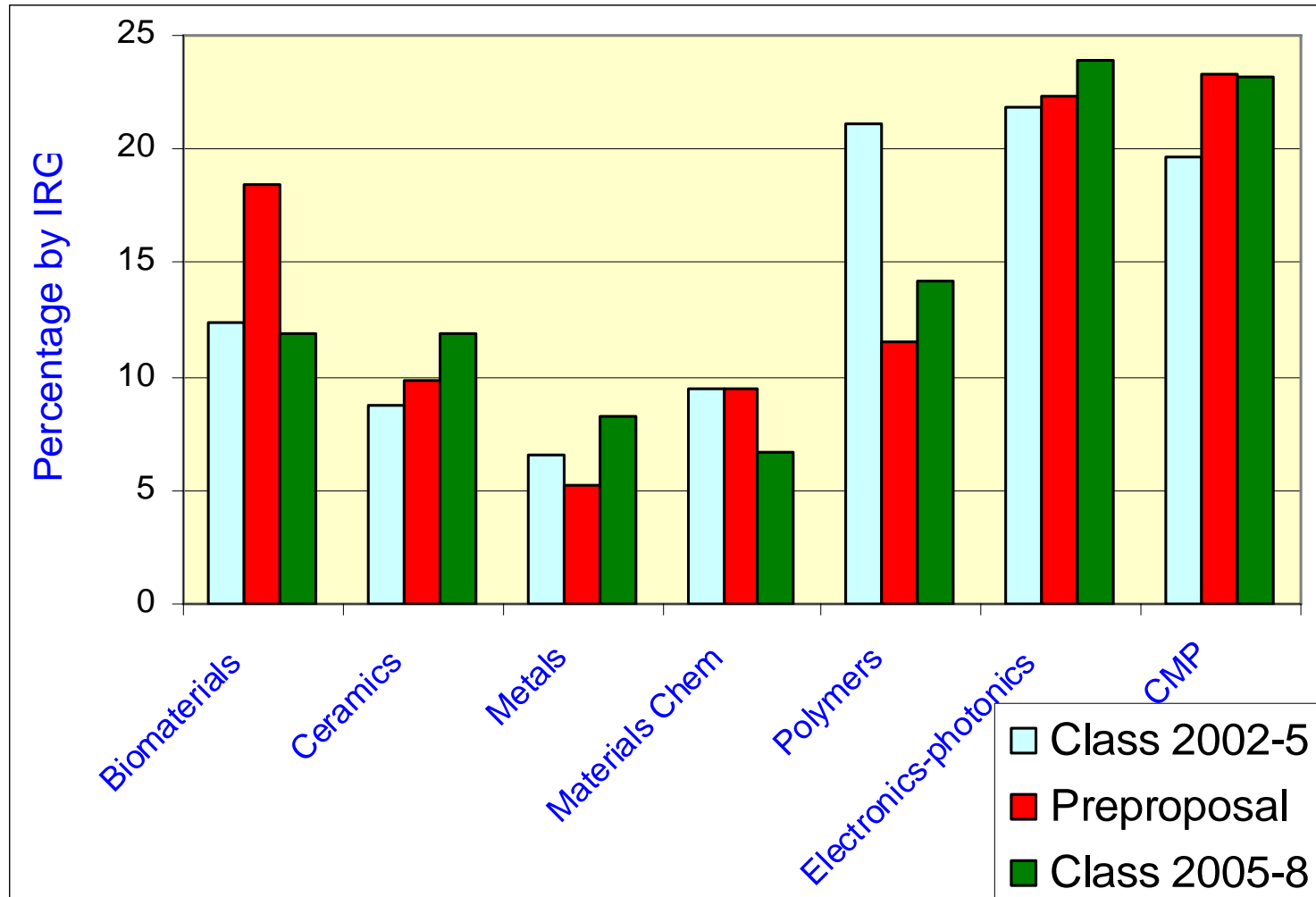
Class of 2008 MRSECs

<u>Institution</u>	<u>PI</u>	<u>Topics</u>
Brandeis University	Meyer	Physics and Chemistry of Biomaterials in Confined Geometries
U Chicago	Nagel	Soft and hard condensed matter physics
Colorado School of Mines	Taylor	Renewable energy: photovoltaics and full cell membrane
U Colorado Boulder	Clark	Soft materials: liquid crystals
Georgia Tech	Hess	Graphene - new electronic materials
Harvard University	Weitz	Biomaterials; soft materials; microfluidics
U Minnesota - Twin Cities	Lodge	Polymers; electronic and magnetic materials; nanoparticles
MIT	Rubner	Polymers; battery materials; optical fiber materials
U Nebraska - Lincoln	Tsymbal	Quantum and spin phenomena in nanomagnetic structures
New York University	Ward	Colloidal assemblies – geometry and chemistry
Ohio State Univ	Padture	Spintronic and multiferroic materials
Penn State University	Mallouk	Nanomotors; multiferroics; condensed matter physics; photonics
Princeton University	Register	Polymers; electronics and photonics; condensed matter physics
U Mass - Amherst	Russell	Polymers; nanomaterials

New MRSECs in red



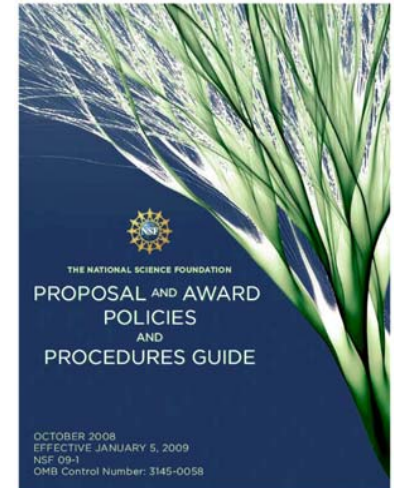
MRSEC Program Balance by DMR Programs





Other MRSEC Business

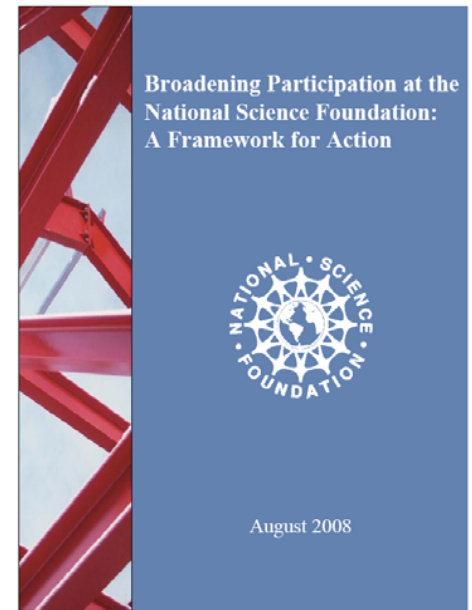
- 2009 Budget
 - Continuing Resolution until March 6, 2009
 - **Be conservative in your spending**
- Class of 2005 **Site Visits** with panels of experts
- 2009 Annual Report Guidelines
 - Center-wide **Post-doc Mentoring**
 - America Competes Act
 - New PROPOSAL AWARD POLICIES AND PROCEDURES GUIDE
 - Report **'Actuals'** in closing year budget
 - OIG Research Centers Audit
 - Breakout budgets now in one **Excel worksheet**
- Thank you for your input in updating MRSEC documents
- Reminder to update your own website





Other Business

- **Broadening Participation** at the National Science Foundation: A Framework for Action
 - www.nsf.gov, search 'framework'
- Program Director opportunities in DMR
 - Seeking dedicated mid-career people
 - Metals, CMP, **MRSEC**, IMR
- Cyber-enabled Discovery and Innovation (**CDI**)
 - Fundamental science, not infrastructure
 - NSF 08-604, preproposals due:
 - Dec. 8, 2008 for Type I
 - Dec. 9, 2008 for Type II



PREM Update

- Workshop held at NSF Sep. 26, 2008
60 participants-
Workshop Report and Presentations will be available by
December on PREM website <http://mrsec.org/prem>
- PREM Class of 2004
 - Reverse Site Visit at NSF Nov. 12-14
- PREM Class of 2006
 - Site Visits Nov. 2008-March 2009

PREM Competition

Anticipated FY 09

- Expect solicitation to come out this fall.
- Eligible Institutions
 - Minority Serving Institutions
 - Women's Colleges
 - Institutions dedicated to educating majority persons with disabilitiesSee "A Framework for Action"
- Eligible Partners www.nsf.gov/materials
 - DMR Supported Centers (MRSEC, NSEC, STC)
 - DMR Supported Facilities

- ❖ Irina Zaks remains as the webmaster. E-mail her at irina.zaks@stanford.edu or webmaster@mrsec.org
- ❖ Use mrsec.org for highlights, news, events, jobs, as well as resources for education, facilities, & industrial outreach
- ❖ Five new centers added to the network
- ❖ Continue to develop the education, facilities, & industrial outreach sections – **need input from the MRSEC directors and 4 working groups, as well as education coordinators**
- ❖ Irina is evaluating Drupal Content Management System as a more powerful and integrated platform for next step of mrsec.org



Questions?