

2016 MRS Fall Meeting features large variety of symposia and Public Outreach offerings

www.mrs.org/fall2016

Materials Research Society (MRS) 2016 Fall Meeting and Exhibit held in Boston from November 27 through December 2. The Meeting featured 54 symposia, 247 exhibitors, and several tutorials and professional development seminars. The Meeting Chairs, **Bernard Bewlay** (GE Global Research), **Silvija Gradečak** (Massachusetts Institute of Technology),



Gold Graduate Student Awards. Top row, left to right: Zakaria Al Balushi, The Pennsylvania State University; Hyeon-Ho Jeong, Max Planck Institute for Intelligent Systems; Albert Polman, MRS Awards Committee Chair, University of Amsterdam and FOM Institute AMOLF; Peijun Guo, Northwestern University; Hao Sun, Fudan University; Christopher Rodell, University of Pennsylvania. Bottom row, left to right: Jing Li, City University of Hong Kong; Nowick award winner Claire McLellan, University of California, Santa Barbara; Xue-Li Zheng, University of Toronto; Lin Ma, Cornell University; Kristi S. Anseth, MRS Immediate Past President, University of Colorado Boulder. Missing: Dane deQuilettes, University of Washington; Shilpa Raja, University of California, Berkeley.



Silver Graduate Student Awards. Top row, left to right: Osamudiamen Omoigiade, Imperial College London; Albert Polman, MRS Awards Committee Chair, University of Amsterdam and FOM Institute AMOLF; Yu Ding, The University of Texas at Austin; Apoorv Shanker, University of Michigan; Zeqing Shen, Rutgers, The State University of New Jersey; Jin Li, Texas A&M University; Li Na Quan, Ewha Womans University; Mervin Zhao, University of California, Berkeley; Mansa Rajagopalan, Arizona State University; Tianyu Liu, University of California, Santa Cruz; William Wong, The Australian National University; Guoqing Xin, Rensselaer Polytechnic Institute; Kristi S. Anseth, MRS Immediate Past President, University of Colorado Boulder. Bottom row, left to right: Joohoon Kang, Northwestern University; Muharrem Acerce, Rutgers University, The State University of New Jersey; Arun Kumar Mannodi Kanakkithodi, University of Connecticut; Joshua Taillon, University of Maryland; Yu-Chuan Lin, The Pennsylvania State University; Matin Amani, University of California, Berkeley. Missing: Wonho Lee, Korea Advanced Institute of Science and Technology; Kun Wang, University of Georgia.

Sarah Heilshorn (Stanford University), Ralph Splolenak (ETH Zürich), and T. Venky Venkatesan (National University of Singapore), compiled the symposia and organized them into nine topical areas: Broader Impact; Biomaterials and Soft Materials; Electrochemistry; Electronics, Magnetics, and Photonics; Energy and Sustainability; Mechanical Behavior and Failure Mechanisms of Materials; Nanomaterials; Processing and Manufacturing; and Theory, Characterization, and Modeling.

To complement these sessions, tutorials were offered in several technical areas, and poster sessions were held during the evenings. A separate symposium was held on engaged learning of materials science and engineering, which was complemented by tutorials and workshops focused on education, diversity, and the use of social media. An international exhibit showcased products and services of interest to the materials community. In addition, several special events highlighted science outreach.

iMatSci—Innovation in Materials Science—was a three-day event held during the Meeting that provided a platform for technology leaders at universities, research labs, and startup companies to demonstrate the practical applications of innovative, materials-based technologies. The program is designed to showcase technologies that have not yet been productized, but where there is a working prototype or evidence of a repeatable process. It featured a keynote address by Dan Button, AIRY:3D, who has raised more than USD\$100 million in financing for four materials science startups.

Symposium X—Frontiers of Materials Research featured lunchtime lectures aimed at a broad audience that provided attendees with an overview of leading-edge topics. Presenters included Alan Taub, University of Michigan,

"Challenges to Reduce Weight in Transportation Applications"; Steve Granick, IBS Center for Soft and Living Matter, and Ulsan National Institute of Science and Technology, "Active Matter-Surprises and Research Opportunities"; Bin Liu, National University of Singapore, "Aggregation-Induced Emission-Materials and Biomedical Applications"; and Nicola Spaldin, ETH Zürich, "Multiferroics—Past, Present, and Future."

The Career Fair included recruiters and onsite interviews, career development sessions, resume critiques, mock

interviews, and networking opportunities. Related workshops included *How to Qualify for a Green Card* and *Preparing for Your Next Job Interview.*







The MRS Government Affairs Committee held a focus group to solicit feedback on the current policy of the Society. There was also a Congressional

Science and Engineering Fellowship Program Information Session, Materials Voice, and government agency presentations that featured

2016 Materials Research Society Fall Meeting Symposium Support

ACS Energy Letters | ACS Publications

Advanced Structural and Chemical Imaging | SpringerMaterials

Applied Diamond

Applied Physics Reviews | AIP Publishing Arios I td.

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The Elizabeth and Richard Henes Center for Quantum Phenomena, Michigan Technological University

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UniEnergy Technologies, LLC.

University of Massachusetts Amherst, Center for Hierarchical Manufacturing

Wuxi MNT Micro and Nanotech Co., Ltd.

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information on funding opportunities for materials research, congressional fellowships, and overviews of materials research topics of current interest to various agencies.

The Public Outreach Center offered exciting hands-on activities, demonstrations, and information areas and seminars to engage future materials scientists and engineers. New to the 2016 Fall Meeting was Speed Coaching with the National Science Foundation Division of Materials Research, and a Focus

on Sustainability—Incorporating Sustainability Principles into Your Research Seminar, which taught attendees how to incorporate sustainability principles in a more comprehensive way while considering real-world applications.

The Public Outreach Committee and MRS Foundation provided various workshops and seminars to engage the membership and encourage involvement in professional development outreach activities. There was an ABET Information and Evaluator Retraining Session, student-organized events, a Women in Materials Science & Engineering Breakfast, and seminars on public speaking and communications, Essentials of Getting Your Work Published, and a professional development workshop.

These presentations and more from the 2016 MRS Fall Meeting are available through the MRS OnDemand® video capture as well as news coverage of the Meeting in *Meeting Scene®* and on MRS TV. Further information can be accessed at www.mrs.org/fall2016.

MRS invites nominations for the Von Hippel Award, Turnbull Lectureship, MRS Medal, Materials Theory Award, and Kavli Early Career Lectureship

The Materials Research Society (MRS) is seeking nominations for the Von Hippel Award, the David Turnbull Lectureship, the MRS Medal, and the Materials Theory Award. These awards will be presented at the 2017 MRS Fall Meeting, November 26–December 1, in Boston.

The MRS Awards Program recognizes outstanding contributors to the progress of materials research and to recognize their exciting and profound accomplishments. Nomination forms and details about eligibility and nomination criteria are available from the MRS website at www.mrs.org/awards.

Von Hippel Award acknowledges outstanding interdisciplinary work in materials research

The Von Hippel Award, first presented to Arthur R. von Hippel, whose interdisciplinary and pioneering research typified the spirit of the award, is the Society's highest honor. The recipient is recognized for brilliance and originality of intellect, combined with vision that transcends the boundaries of conventional scientific disciplines. The award includes a \$10,000 cash prize, honorary membership in MRS, and a unique trophy—a mounted ruby laser crystal, symbolizing the many faceted nature of materials research.

David Turnbull Lectureship honors career of an outstanding researcher and communicator

The David Turnbull Lectureship recognizes the career of a scientist who has made outstanding contributions to understanding materials phenomena and properties through research, writing, and lecturing, as exemplified by the life work of David Turnbull. While honoring the accomplishments of the recipient, the David Turnbull Lectureship is intended to support and enrich the materials research community. The recipient will give a technical lecture of broad appeal at a designated session of the 2017 MRS Fall Meeting. The Turnbull Lecturer will receive a \$5,000 honorarium and a citation plaque.

MRS Medal recognizes recent discovery or advancement in materials science

The MRS Medal recognizes an exceptional achievement by an individual in materials research. The Medal is awarded for a specific outstanding recent discovery (approximately in the last 10 years) or advancement that is expected to have a major impact on the progress of any materials-related field. The award consists of a \$5,000 cash prize, an engraved and mounted medal, and a citation certificate.

Materials Theory Award honors advances made in materials structure and behavior

The Materials Theory Award recognizes exceptional advances made by materials theory to the fundamental understanding of the structure and behavior of materials. This award is intended to honor both those who have pioneered the development of a new theoretical approach and those who have used existing approaches to provide significant new insight into materials behavior. The annual award consists of a \$5,000 cash prize, a presentation trophy, and a certificate. MRS acknowledges the generosity of Toh-Ming Lu and Gwo-Ching Wang in endowing this award.

The Kavli Foundation Early Career Lectureship in Materials Science recognizes significant contributions

The Kavli Foundation Early Career Lectureship in Materials Science is an honor that recognizes significant novel contributions to materials science by a researcher in the early stages of his/her career. The award includes a \$1,000 honorarium and a two-night hotel stay to attend the Meeting to present a talk.

The deadline to nominate a candidate for an MRS Award is April 1, 2017.