The MRS Awards

Endowment Fund

In order to secure the future of an awards program of high caliber, and thereby maintain this valuable extra dimension of enrichment for the professional, educational, and general communities, the Materials Research Society requires a substantial Endowment Fund. The Society is deeply grateful to those individuals, and corporate and foundation donors who have already contributed to this Fund. In order to approach self-sufficiency, however, further donations are needed. MRS earnestly solicits consideration of this need by corporations, foundations, and individuals who share our vision of this program as an investment in the future.

For further information about the Awards Endowment Fund, please contact:
Materials Research Society Awards Program
awardsprogram@mrs.org
The MRS

Awards Program

The MRS Awards Program strives to acknowledge outstanding contributors to the progress of materials research, and to recognize their exciting and profound accomplishments. We seek to honor those whose work has already had a major impact in the field, those who have defined the frontiers of the field, those who are outstanding exponents of their science, and those young researchers whose work already leads to great expectations for future leadership. Not only do we honor the award recipients, we also believe that by highlighting these leaders in our field and their creative work, we will enrich the awareness of the progress and diversity of materials research, both within the materials community and in the wider community at large.

Nomination information, as well as, guidelines for proposing the creation of a new MRS award can be found by visiting mrs.org/awards

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MRS Fellow

Honoring outstanding members whose sustained and distinguished contributions to the advancement of materials research are internationally recognized. MRS Fellow is a lifetime honor. The honor is highly selective, with no more than 0.2% of the membership being honored each year.

The vitality, diversity, and opportunity of materials research are all epitomized in this group of Fellows, whose remarkable accomplishments are highlighted by their brief citations. We are confident that the examples of excellence, enterprise and dedication, displayed by this steadily growing community of MRS Fellows will serve to encourage and inspire all materials researchers, at all levels, and will also support and enhance the prestige and recognition of materials research in serving the broader community of the world.

mrs.org/fellows

Nomination Deadline August 1, 2020

2019 Recipients

Michael Chabinyc
University of California, Santa Barbara
For contributions to the fundamental science of the structure and electronic properties of organic semiconductors and the translation of these relationships to functional devices.

Peter F. Green
National Renewable Energy Laboratory
For research leading to the understanding of the influence of polymer dynamics and confinement on thin-film structures and their corresponding properties, and for outstanding leadership in the materials science community.

Sheng Dai
Oak Ridge National Laboratory and The University of Tennessee, Knoxville
For significant and sustained contributions in pioneering and developing novel synthetic methods for functional carbon materials for energy applications.

Yue Kuo
Texas A&M University
For exceptional contributions to thin-film materials and fabrication processes for microelectronics as well as leadership in the materials science community.

Jesús A. del Alamo
Massachusetts Institute of Technology
For extraordinary contributions to the physics, design, process technology and reliability of III–V compound semiconductor transistors, and for his sustained commitment to knowledge dissemination among students and researchers.

Javier Llorca
IMDEA Materials Institute and Universidad Politécnica de Madrid
For contributions to the development and industrial implementation of multiscale modeling strategies in structural materials, and for his leadership as Founder and Director of the IMDEA Materials Institute.

Mary E. Galvin
University of Notre Dame
For foundational research that clarifies the role of molecular architecture on the properties and performance of electroactive polymeric materials, and for her exceptional service to the materials science community.

Steven G. Louie
University of California, Berkeley
For seminal contributions to materials theory as well as to the discovery and understanding of fundamental phenomena in solids and nanostructures.
Sudipta Seal  
University of Central Florida  
For outstanding research on and the application and commercialization of multifunctional nanostructured defect-engineered oxides, as well as advancing graduate and undergraduate education in materials engineering and nanotechnology.

Matthias Wuttig  
RWTH Aachen University  
For path-breaking contributions to the advancement of phase-change materials, including unraveling their unique bonding mechanism, unconventional transport properties and unusual kinetics.

Miguel José Yacaman  
The University of Texas at San Antonio  
For pioneering contributions to materials research in the fields of nanotechnology, catalysis, electron microscopy and physics of materials, and for his leadership in engaging the scientific community.

Xiao Cheng Zeng  
University of Nebraska–Lincoln  
For groundbreaking work on low-dimensional ice and clathrate gas hydrates, structures of ligand-covered gold clusters, catalysis with surface-supported gold and metal clusters and computational design of low-dimensional materials.

Yuntian Zhu  
North Carolina State University  
For seminal work on the fundamental physics, processing and properties of heterostructured and nanostructured materials.

Ji-Cheng (JC) Zhao  
The Ohio State University  
For pioneering research on high-throughput measurement in the field of structural materials through the invention and application of the diffusion-multiple approach and co-invention of ultrafast laser materials–property microscopy tools.

Yimei Zhu  
Brookhaven National Laboratory  
For distinguished contributions to the field of materials characterization by developing electron microscopy instrumentation and techniques to understand atomic, electronic and spin structures and the physical behavior of functional materials.

Susmita Bose  
Washington State University  
For outstanding research on and the application and commercialization of multifunctional nanostructured defect-engineered oxides, as well as advancing graduate and undergraduate education in materials engineering and nanotechnology.

Paul Braun  
University of Illinois at Urbana-Champaign  
For pioneering nanoscience advances, testing the ultimate limits of miniaturization of functional materials, developing ultrahigh resolution microscopes that simultaneously measure structure, spectra and function, and adding chemical dimensions to nanolithography.

Jürgen Eckert  
Montanuniversität Leoben  
For innovative research on multifunctional ceramic nanocomposites, superconductors, solid oxide fuel cells and in situ TEM, and for inspired materials science education and leadership.

Sossina M. Haile  
Northwestern University  
For pioneering research on high-throughput measurement in the field of structural materials through the invention and application of the diffusion-multiple approach and co-invention of ultrafast laser materials–property microscopy tools.

Ali Khademhosseini  
University of California, Los Angeles  
For groundbreaking work on low-dimensional ice and clathrate gas hydrates, structures of ligand-covered gold clusters, catalysis with surface-supported gold and metal clusters and computational design of low-dimensional materials.

Martin Kuball  
University of Bristol  
For seminal work on the fundamental physics, processing and properties of heterostructured and nanostructured materials.

Michael McGehee  
Stanford University  
For pioneering research on high-throughput measurement in the field of structural materials through the invention and application of the diffusion-multiple approach and co-invention of ultrafast laser materials–property microscopy tools.

Bethanie Stadler  
University of Minnesotae  
For outstanding research on and the application and commercialization of multifunctional nanostructured defect-engineered oxides, as well as advancing graduate and undergraduate education in materials engineering and nanotechnology.
The Von Hippel Award recognizes those qualities most prized by materials scientists and engineers—brilliance and originality of intellect—combined with vision that transcends the boundaries of conventional scientific disciplines. The award bears the name of its inaugural recipient, whose interdisciplinary and pioneering research typified the spirit of the award. Nominations of candidates from all areas of materials research are encouraged.

Recipients

Arthur von Hippel 1976
Massachusetts Institute of Technology
In whose honor the premier award of the Materials Research Society is named, a pioneer in the study of dielectrics, semi-conductors, ferromagnetics, and ferroelectrics. He was an early advocate of the interdisciplinary approach to materials research, and his example substantially furthered the science of materials.

William O. Baker 1978
Bell Laboratories
Led research into solid state materials and macromolecules, dielectric properties and dynamic mechanical properties of crystals and glasses, information processing technology, and plastics, fibers, and natural and synthetic rubbers. He nurtured and oversaw the development of one of the world’s preeminent laboratories.

David Turnbull 1979
Harvard University
Has distinguished himself in many areas of materials research, including kinetics to crystal nucleation and growth, diffusion in metals, and glass formation.

W. Conyers Herring 1980
Stanford University
Demonstrated that whiskers of high crystalline perfection would exhibit extraordinary mechanical properties. He is also held in esteem for his theoretical contributions to the understanding of surfaces and surface tension.

James W. Mayer 1981
Cornell University
Carried out research on implantation that identified the damage and the epitaxial regrowth phenomena crucial to the semiconductor industry, and pioneered the use of ion beam techniques for materials analysis.

Clarence M. Zener 1982
Carnegie Mellon University
Performed the definitive work on internal friction in solids. His influence is most visibly expressed in the line of research that resulted in the invention of the Zener diode and laid the foundation for the development of semi-conductors.

Sir Peter B. Hirsch 1983
University of Oxford
Is universally known for his research with the electron microscope into imperfection in the crystalline structure of materials and the relationship between structural defects and mechanical properties.

Walter L. Brown 1984
AT&T Bell Laboratories
Pioneered studies on semiconductor surface states, semiconductor radiation detectors, and the application of particle/solid interactions to the study of materials.

John W. Cahn 1985
National Bureau of Standards
Is today’s foremost scientist in the thermodynamics of phase equilibria. He has made major contributions in solidification, crystal growth, glass formation, and the thermodynamics of surfaces and interfaces.

Minko Balkanski 1986
Université Pierre et Marie Curie
Has made major contributions to the understanding of semiconductors and other materials, particularly through his development and use of optical spectroscopies which led to an understanding of elementary excitations and band structures in these materials.

Nomination Deadline  April 1, 2020
Sir Charles Frank 1987 University of Bristol
Has had wide-ranging impact on modern materials science through seminal contributions in areas of inorganic crystals, metals, polymers, and liquid crystals. His outstanding research in crystallography, chemistry, physics, and materials science exemplifies the interdisciplinary approach.

Jacques Friedel 1988 Université de Paris-Sud
Has made pioneering contributions within the domain of condensed matter sciences which have profoundly influenced, theoretically and experimentally, advances ranging from the quantum theory of solids, materials science and metallurgy to chemistry. He is noted for major contributions to the understanding of dislocations and strength of materials, electron theory of metals, and the properties of alloys.

John B. Goodenough 1989 The University of Texas, Austin
Has made distinguished contributions to the science and solid state chemistry. He is noted for his imaginative experiments on the role of defects that have led to new insights into the importance of length-scale in materials and oxide dielectrics, conductors, and oxide dielectrics, conductors, and superconductors.

Alfred Y. Cho 1990 AT&T Bell Laboratories
Pioneered the development of molecular beam epitaxy (MBE) and its application to new devices based on quantum wells and artificially structured materials.

Gabor A. Somorjai 1991 University of California, Berkeley
Has made extraordinary multidisciplinary contributions to the atomic-level understanding of materials surfaces and surface processes with technological importance in heterogeneous catalysis, corrosion, and tribology. Somorjai's ideas and his vision for the future as well as his promotion of the field and of his colleagues' work have had a major impact in stimulating support and raising the visibility of surface science when the field was young.

Larry L. Hench 1992 Imperial College of Science, Technology and Medicine
For pioneering accomplishments in the field of glass and ceramics including the demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field, demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field, demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field of glass and ceramics including the demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field, demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field of glass and ceramics including the demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field, demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field of glass and ceramics including the demonstration of the first bioactive glass called Bioglass® and subsequent expansion of the field.

William W. Mullins 1993 The Rockefeller University
Has played a seminal role in establishing the modern fields of solid-state physics and materials science through his many basic books and research papers, and for his leadership as a teacher and administrator in encouraging the growth of these disciplines.

Howard K. Birnbaum 1994 Stanford University
For seminal contributions to our understanding of intrinsic point defects, hydrogen in metals, and grain boundary segregation, especially as these effects relate to mechanical properties; for the innovative use of a wide range of novel experimental tools; and for stimulating, directing, and influencing interdisciplinary research throughout the materials community.

Larry L. Hench 1995 Carnegie Mellon University
Has made profound contributions to the understanding of grain boundary motion, morphological stability, the structure of surfaces and interfaces, and flow and diffusion as stochastic phenomena.

Simon C. Moss 1996 University of Cambridge
Converted crystal dislocations from a hand waving hypothesis to a rigorous discipline, transformed the understanding of brittle fracture, made varied and crucial advances in the theory of radiation damage, and transformed the teaching of materials science throughout the academic world through his pioneering textbooks.

Michael F. Ashby 1997 University of Cambridge
Has made seminal contributions to subjects as diverse as dispersion hardening, grain boundary sliding, creep, fracture, sintering, cellular materials, ice mechanics, and wear.

Frederick Seitz 1998 The Rockefeller University
Has made original contributions on the defect physics of quasicrystals and high-temperature superconductors.

Sir Alan H. Cottrell 1999 University of Massachusetts, Amherst
In recognition of his seminal work in the development of rheoptical techniques for polymer characterization and property assessment, his profound contributions leading to a fundamental understanding of how polymeric materials respond to deformation in the melt and solid states, and his pioneering role in the development of undergraduate education in polymer materials.

Larry L. Hench 2000 Stanford University
For bringing fundamental concepts of organic chemistry and biology into materials science and engineering, through his pioneering research on surface modification, self-assembly and soft lithography.

John B. Goodenough 2001 University of Houston
For consistently timely and essential contributions to identifying and understanding the atomic-level structure of almost every new type of materials discovered in the last thirty years.

Alfred Y. Cho 2002 University of Illinois
For seminal contributions to our understanding of intrinsic point defects, hydrogen in metals, and grain boundary segregation, especially as these effects relate to mechanical properties; for the innovative use of a wide range of novel experimental tools; and for stimulating, directing, and influencing interdisciplinary research throughout the materials community.

George M. Whitesides 2003 Northwestern University
For her life-long exceptional contributions to understanding the basic deformation processes and failure mechanisms in a wide class of materials, from nanocrystalline metals to high-temperature structural alloys, and for her inspiring role as an educator in materials science.

Herbert Gleiter 2004 Stanford University
For his imaginative experiments on the role of defects that have led to new insights into the importance of length-scale in materials and have resulted in many new applications.

Larry L. Hench 2005 Massachusetts Institute of Technology
For pioneering accomplishments in the science and application of biomaterials in drug delivery and tissue engineering, particularly in inventing the use of materials for protein and DNA delivery, and for his achievements in interdisciplinary research which have generated new medical products, created new fields of biomaterials science, and inspired research programs throughout the world.

Robert S. Langere 2006 Forschungszentrum Jülich GmbH
For sustained contributions to the development and use of electron microscopy, and for major discoveries in the defect physics of quasicrystals and high-temperature superconductors.

William Nix 2007 Stanford University
For his original contributions on the deformation and failure of materials, particularly in the areas of thin films, small volumes, and high-temperature alloys; for pioneering mechanical test methods; and for educating and mentoring future generations of materials scientists.

Julia R. Weertman 2008 Northwestern University
For her life-long exceptional contributions to understanding the basic deformation processes and failure mechanisms in a wide class of materials, from nanocrystalline metals to high-temperature structural alloys, and for her inspiring role as an educator in materials science.

Alfred Y. Cho 2009 Northwestern University
For consistently discovering and applying new scientific principles, and for advancing materials science across a spectrum from self-assembly to crystal growth, encompassing organic electronic, photonic, and photovoltaic materials, and oxide dielectrics, conductors, and superconductors.
L. Eric Cross 2010
The Pennsylvania State University
For his imposing leadership in the science and applications of ferroelectric materials.

A. Paul Alivisatos 2011
Lawrence Berkeley National Laboratory
For the development of the fundamental scientific basis for growing and utilizing defect-free colloidal semiconductor nanoparticles, providing the basis for biological imaging, solid state lighting, and the capture and conversion of solar energy to electricity.

Stuart S.P. Parkin 2012
IBM Almaden Research Center
For pioneering contributions to the science and technology of spintronic materials, particularly in establishing the fundamental foundations of spin-engineered magnetic heterostructures and demonstrating artificial atomically layered magnetic multilayers for applications in field sensing, magnetic memory and data storage devices.

Mildred S. Dresselhaus 2013
Massachusetts Institute of Technology
For her pioneering contributions to the fundamental science of carbon-based and other low electron density materials, her leadership in energy and science policy, and her exemplary mentoring of young scientists.

Marvin L. Cohen 2014
University of California, Berkeley
For explaining and predicting properties of materials and for successfully predicting new materials using microscopic quantum theory.

Sir Richard H. Friend 2015
University of Cambridge
For pioneering research on highly original materials phenomena and device concepts, enabled by polymeric semiconducting materials, and imprinting an indelible influence on contemporary materials science and the new field of plastic electronics.

Charles M. Lieber 2016
Harvard University
For pioneering contributions to nanoscience, defining the foundations of rational synthesis of nanoscale wires, characterization of their fundamental physical properties, and the development of applications of these materials in chemistry, biology and medicine.

C.N.R. Rao 2017
Jawaharlal Nehru Centre for Advanced Scientific Research
For his immense interdisciplinary contributions to the development of novel functional materials, including magnetic and electronic properties of transition metal oxides, nanomaterials such as fullerenes, graphene and 2-D inorganic solids, superconductivity and colossal magnetoresistance in rare-earth cuprates and manganates.

Hideo Hosono 2018
Tokyo Institute of Technology
For the discovery of high Tc iron-based superconductors, creation of transparent oxide semiconductors and inorganic electrides.

Jerry Tersoff 2019
IBM T.J. Watson Research Center
For advancing the understanding of low-dimensional and nanoscale electronic materials, surfaces and interfaces, through elegant theoretical models that highlight the essential physics controlling growth, structure and electronic properties.
The David Turnbull Lectureship is awarded to recognize the career contribution of a scientist to fundamental understanding of the science of materials through experimental and/or theoretical research. In the spirit of the life work of David Turnbull, writing and lecturing also can be factors in the selection process.

Recipients

Thomas R. Anthony 1992
General Electric Company
For outstanding contributions to the understanding of diffusion, thermomigration, and the synthesis of diamond.

Morris Cohen 1993
Massachusetts Institute of Technology
For his contributions to the development of physical metalurgy, especially in the mechanism and kinetics of martensitic transformation, and for his leadership in establishing the broader discipline of materials science and engineering.

Arthur S. Nowick 1994
Columbia University
For his pioneering work in anelastic and dielectric behavior, in fast ion conductors, and in amorphous alloys, and for his excellence in teaching and writing.

Didier R. de Fontaine 1995
University of California, Berkeley
In recognition of fundamental contributions and insights in the fields of order/disorder phenomena in materials and computational techniques for phase diagrams.

Robert E. Newnham 1996
Pennsylvania State University
For pioneering the field of ceramic composites for electronic and optical applications, and in recognition of a distinguished career of guiding students, lecturing, and writing.

Merton C. Flemings 1997
Massachusetts Institute of Technology
For contributing to the foundations and technology of solidification processing and for educating a generation of materials engineers.

H. Eugene Stanley 1998
Boston University
For his insights into the statistical aspects of materials phenomena including phase transitions, pattern formation, and disordered, granular, and soft materials, and for his outstanding lecturing and writing on these topics.

Joseph E. Greene 1999
University of Illinois
For contributions to the use of non-thermal methods in the growth of thin films and the engineering of their phase, composition, and microstructure; and for excellence in teaching and writing.

Anthony G. Evans 2000
Princeton University
For outstanding contributions and leadership in bringing fundamental insights in mechanical behavior to materials engineering through research, teaching, mentoring, writing, and lecturing.

James R. Chelikowsky 2001
University of Minnesota
For his contributions to the fundamental understanding of electronic, optical, mechanical, surface and interface properties of bulk and nanostructured semiconductors, ceramics, and metals through ab initio calculations; and for excellence in teaching, lecturing, and writing.

Robert W. Cahn 2002
University of Cambridge
For service to the materials science community through writing, editing, mentoring, and fostering of international understanding, as well as for outstanding contributions to the development of physical metallurgy through research on recovery and recrystallization, rapid solidification, and intermetallic compounds.
Ellen D. Williams 2003
University of Maryland
For groundbreaking research on the atomic-scale science of surfaces and for leadership, writing, teaching, and outreach that conveys her deep understanding of and enthusiasm for materials research.

Frank S. Bates 2004
University of Minnesota
For pioneering contributions to the fundamental understanding of structure and properties of complex polymeric materials, particularly block copolymers and polymeric vesicles, coupled with outstanding lecturing, writing, teaching, and educational leadership.

Eugene E. Haller 2005
University of California, Berkeley
For pioneering achievements and leadership in establishing the field of isotopically engineered semiconductors, for outstanding contributions to materials growth, doping and diffusion, and for excellence in lecturing, writing, and fostering international collaborations.

Austen Angell 2006
Arizona State University
For pioneering contributions to the fundamental understanding of the formation, dynamics, and properties of glasses, and particularly his development of fragility as an essential tool for characterizing glass forming materials, coupled with a comprehensive understanding of the field effectively communicated through lectures and publications.

Ramamoorthy Ramesh 2007
University of California, Berkeley
For his pioneering contributions to the materials science of complex oxide heterostructures and nanostructures, including multiferroics, ferroelectrics, and magnetoresistive oxides; and for his enthusiasm and leadership in conveying the excitement of this field to a broad audience.

David N. Seidman 2008
Northwestern University
For research that has made major contributions to our understanding of point defects and the role they play in radiation damage, and phase transformations; unique studies of interfacial segregation; and especially for the development and fruitful use of atom-probe spectrometry; for numerous seminal publications, and excellence in education/training students and colleagues in the laboratory, classroom and conferences.

Edward J. Kramer 2009
University of California, Santa Barbara
For outstanding contributions in bringing insights and understanding to flux pinning in superconductors and to the fundamentals of fracture, diffusions, interface phenomena in complex polymeric materials through research, teaching, mentoring, writing, and lecturing.

David D. Awschalom 2010
University of California, Santa Barbara
For pioneering achievements and leadership in establishing the field of semiconductor spintronics, including fundamental discoveries of spin transport and coherence in the solid state, developing new experimental techniques and materials engineering for spin-based quantum information science, and for excellence in communication through lecturing and writing.

Phaedon Avouris 2011
IBM T. J. Watson Research Center
For his development of nanoscience and nanotechnology through research, publications, lecturing and mentoring: in particular, for his work on carbon nanotubes, graphene and semiconductor surfaces, imaging and measuring their electronic structure and properties; modifying them chemically and physically using scanning probe techniques; and incorporating them into advanced electronic and photonic devices.

Robert Sinclair 2012
Stanford University
For his original contributions to the understanding of atomic arrangements in solids and their relationship to diverse materials phenomena including martensitic transformations, dislocation interactions with interfaces, phase equilibria in complex thin-film systems, and nanoscale interactions in soft matter, for seminal contributions to in situ and high-resolution transmission electron microscopy, development of their combined use, and for passionate and dedicated teaching, advising, and academic leadership.

Robert O. Ritchie 2013
University of California, Berkeley
For pioneering contributions to, and teaching us all how to think about, the mechanistic role of microstructure in governing fatigue and fracture in a variety of materials systems, and communicating his scientific insights to the world audience through eloquent lectures and seminal publications.

Rodney S. Ruoff 2014
Ulsan National Institute of Science and Technology
For pioneering discoveries related to carbon materials and their innovative preparation, characterization, and mechanics.

Jacob Klein 2015
Weizmann Institute of Science
For discoveries which transformed our understanding of soft matter and interfaces, through sustained research, inspirational lecturing and academic leadership.

James De Yoreo 2016
Pacific Northwest National Laboratory
For discoveries that have shaped our understanding of crystallization science.
MRS Medal

The MRS Medal recognizes an exceptional achievement in materials research in the past ten years. A Medal will be awarded for a major advance, or cluster of closely related advances, in any materials-related field of research. The impact of this research on the progress of the relevant materials field will be a primary consideration in making the award.

MRS acknowledges the generosity of Professors Gwo-Ching Wang and Toh-Ming Lu for endowing this award.

Recipients

Arthur J. Freeman 1990
Northwestern University
In recognition of his pioneering achievements in the field of monolayer and low dimensional magnetism.

Duward F. Shriver 1990
Northwestern University
In recognition of his seminal work in the synthesis, characterization, understanding and application of polymer based solid electrolyte materials.

Bernard S. Meyerson 1991
IBM T.J. Watson Research Center
In recognition of his dynamic research leading to the fabrication of high speed heterojunction bipolar transistors.

Shigeyuki Somiya 1991
Nishi Tokyo University
In recognition of his innovation and energy in pioneering the field of hydro-thermal synthesis of ceramic materials.

L. Eric Cross 1992
Pennsylvania State University
In recognition of his leadership and vision in the atomic scale engineering of relaxor ferroelectric materials as the prototype of self-assembling nano-composites.

Stephen J. Pennycook 1992
Oak Ridge National Laboratory
For the development and application of incoherent (Z contrast) imaging in the scanning transmission electron microscope for direct determination of the atomic scale structure and chemistry of materials and interfaces.

Donald R. Huffman 1993
University of Arizona

Wolfgang Krätschmer 1993
Max-Planck Institute for Kernphysik
For the discovery of a method to produce macroscopic quantities of fullerenes, and for elucidating their properties.

Max G. Lagally 1994
University of Wisconsin, Madison
For innovative development of STM as a quantitative probe of the microscopic mechanisms of crystal growth and ordering at surfaces.

Kenneth S. Suslick 1994
University of Illinois, Urbana-Champaign
For incisive studies of chemical effects of ultrasound and the use of sonochemistry in synthesis of unusual inorganic materials.

Federico Capasso 1995
AT&T Bell Laboratories
For seminal contributions to compositionally graded materials, using bandgap engineering, and their innovative applications in electronics and optoelectronics.

Rudolf M. Tromp 1995
IBM T.J. Watson Research Center
For pioneering experiments on the role of atomic structure, surface stress, and surfactants in heteroepitaxial growth.

Jerry D. Tersoff 1996
IBM T.J. Watson Research Center
For seminal contributions to the theory of strain relaxation in thin films.

MRS.org/medal

Nomination Deadline April 1, 2020
Shuji Nakamura 1997
Nichia Chemical Industries Ltd.
For the development of lattice-mismatched GaN-based heteroepitaxy and its application to the creation of blue and green light-emitting diodes and short wavelength laser diodes.

William L. Johnson 1998
California Institute of Technology
For the development and fundamental understanding of bulk metallic glass forming alloys.

M. George Craford 1999
HeWlett Packard
For pioneering contributions and leadership in the development of visible-spectrum light-emitting diode materials and devices.

Stephen Forrest 1999
Princeton University
For pioneering contributions to the growth and optoelectronic applications of organic semiconductor thin films.

Dieter M. Gruen 2000
Argonne National Laboratory
For the low-pressure synthesis of nano-crystalline diamond films from fullerene precursors.

Samuel I. Stupp 2000
Northwestern University
For seminal contributions to the development of supramolecular materials that exhibit unique properties resulting from their hierarchical organization in the condensed state.

Norman C. Bartlett 2001
Sandia National Laboratories
For contributions to the statistical mechanics of materials surfaces.

Mathew Mate 2001
IBM Almaden Research Center
For pioneering studies of friction at the atomic and molecular level.

Uzi Landman 2002
Georgia Institute of Technology
For molecular dynamics simulations elucidating the microscopic behavior of solid and liquid interfacial junctions and atomicistic processes of tribology.

Charles M. Lieber 2002
Harvard University
For controlled synthesis of nanowire and nanotube materials.

C. Jeffrey Brinker 2003
Sandia National Laboratories
For his pioneering application of principles of sol-gel chemistry to the self-assembly of functional nanoscale materials.

Ivan K. Schuller 2003
University of California, San Diego
For his innovative studies of exchange bias in magnetic heterostructures and nanomaterials.

Jacob N. Israelachvili 2004
University of California, Santa Barbara
For his work on adhesion and friction, which has revolutionized the understanding of molecular mechanisms responsible for these technologically vital phenomena.

Toh-Ming Lu 2004
Rensselaer Polytechnic Institute and
Sunil K. Sinha 2004
University of California, San Diego/Los Alamos National Laboratory
For seminal contributions to understanding mechanisms of thin-film surface and interface morphology evolution and establishing the foundations of diffraction and scattering methods for its quantitative analysis.

Reshef Tenne 2005
Weizmann Institute
For realizing that nanoclusters of layered compound materials (e.g., MoS2 WS2) can be made to fold into hollow cage structures, analogous to graphitic carbon. These structures, known as ‘Inorganic Fullerenes,’ constitute a materials class with exciting new properties.

Pulickel Ajayan 2006
Rensselaer Polytechnic Institute and
Won Bong Choi 2006
Florida International University
For important developments in the material science and applications of carbon nanotubes.

Mark Thompson 2006
University of Southern California
For development of highly efficient heavy metal phosphor complexes.

Omar M. Yaghi 2007
University of California-Los Angeles
For his pioneering work on the synthesis, structure, and theory of metal organic frameworks.

Toh-Ming Lu 2008
Rensselaer Polytechnic Institute and
James F. Scott 2008
Cornell University
For fundamental contributions to the materials science of oxides underlying current and future electronic devices.

Gerbrand Ceder 2009
Massachusetts Institute of Technology
For pioneering the high-impact field of first-principles thermodynamics of batteries materials and for the development of high power density Li battery compounds.

Walter A. de Heer 2010
Georgia Institute of Technology
For his pioneering contributions to the science and technology of epitaxial graphene.

Peidong Yang 2011
University of California, Berkeley
For outstanding contributions in the creative synthesis and assembly of semiconductor nanowires and their heterostructures, and innovations in nanowire-based photonics, thermoelectrics, solar energy conversion and nanofluidic applications.

Georgia Institute of Technology
For seminal contributions in the discovery, controlled synthesis, and fundamental understanding of ZnO nanowires and nanobelts, and the design and fabrication of novel, nanowire-based nanosensors, piezotronic devices, and nanogenerators.

Miquel Salmeron 2012
Lawrence Berkeley National Laboratory
For his contribution to the molecular level understanding of material surfaces under ambient conditions of gas pressure and temperature made possible by the development and application of Ambient Pressure Photo-Electron Spectroscopy (APPES), which revealed the chemical structure of liquids, catalysts surfaces and nanoparticles during environmental reaction conditions.

Alexander A. Balandin 2013
University of California, Riverside
For discovery of the extraordinary high intrinsic thermal conductivity of graphene, development of an original opothermal measurement technique for investigation of thermal properties of graphene, and theoretical explanation of the unique features of the phonon transport in graphene.

Mercouri G. Kanatzidis 2014
Northwestern University and Argonne National Laboratory
For the discovery and development of nanostructured thermoelectric materials.
Sharon C. Glotzer 2014
University of Michigan
and
Nicholas A. Kotov 2014
University of Michigan
For foundational work elucidating processes of nanoparticle self-assembly.

Richard B. Kaner 2015
University of California, Los Angeles
For the discovery of efficient methods to synthesize water dispersible conducting polymer nanofibers and their applications in sensors, actuators, molecular memory devices, catalysis, and the novel process of flash welding.

Robert J. Cava 2016
Princeton University
For pioneering contributions in the discovery of new classes of 3D Topological Insulators.

Joanna Aizenberg 2017
Harvard University
For developing new synthesis routes inspired by biological principles for the fabrication of advanced complex multifunctional materials and devices.

Younan Xia 2017
Georgia Institute of Technology
For seminal contributions to shape-controlled synthesis of metal nanocrystals with major impact on catalysis, plasmonics and biomedicine.

John Rogers 2018
Northwestern University
For pioneering contributions to materials for diverse classes of bio-integrated electronic systems.

Catherine J. Murphy 2019
University of Illinois at Urbana-Champaign
and
Haimei Zheng 2019
Lawrence Berkeley National Laboratory
For outstanding contributions on the study of anisotropic nanoscale materials, transformation and application.

Richard B. Kaner 2015
University of California, Los Angeles
For the discovery of efficient methods to synthesize water dispersible conducting polymer nanofibers and their applications in sensors, actuators, molecular memory devices, catalysis, and the novel process of flash welding.

Robert J. Cava 2016
Princeton University
For pioneering contributions in the discovery of new classes of 3D Topological Insulators.

Joanna Aizenberg 2017
Harvard University
For developing new synthesis routes inspired by biological principles for the fabrication of advanced complex multifunctional materials and devices.

Younan Xia 2017
Georgia Institute of Technology
For seminal contributions to shape-controlled synthesis of metal nanocrystals with major impact on catalysis, plasmonics and biomedicine.

John Rogers 2018
Northwestern University
For pioneering contributions to materials for diverse classes of bio-integrated electronic systems.

Catherine J. Murphy 2019
University of Illinois at Urbana-Champaign
and
Haimei Zheng 2019
Lawrence Berkeley National Laboratory
For outstanding contributions on the study of anisotropic nanoscale materials, transformation and application.

Sharon C. Glotzer 2014
University of Michigan
and
Nicholas A. Kotov 2014
University of Michigan
For foundational work elucidating processes of nanoparticle self-assembly.

Richard B. Kaner 2015
University of California, Los Angeles
For the discovery of efficient methods to synthesize water dispersible conducting polymer nanofibers and their applications in sensors, actuators, molecular memory devices, catalysis, and the novel process of flash welding.

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Catherine J. Murphy 2019
University of Illinois at Urbana-Champaign
and
Haimei Zheng 2019
Lawrence Berkeley National Laboratory
For outstanding contributions on the study of anisotropic nanoscale materials, transformation and application.
Innovation in Materials Characterization Award

To honor an outstanding advance in materials characterization that notably increases the knowledge of the structure, composition, \textit{in situ} behavior under outside stimulus, electronic, mechanical, or chemical behavior, or other characterization feature, of materials. It is not limited to the method of characterization or the class of material observed. Impact of the advance on materials research will be the primary consideration in making the award. Nominations for this award may be made for scientists and engineers in all areas of materials research.

MRS acknowledges the generosity of Professors Gwo-Ching Wang and Toh-Ming Lu for endowing this award.

mrs.org/imca

Nomination Deadline August 1, 2020

Recipients

Warren C. Oliver 2010
Nanomechanics, Inc.
and
George M. Pharr 2010
Oak Ridge National Laboratory
For seminal contributions to the development of the instrumentation and analysis methods of nanoindentation for characterizing the mechanical properties of materials at the micro- and nanometer-length scales. Their work on nanoindentation has profoundly impacted all fields of materials research where mechanical behavior is important.

Tye T. Gribb 2011
DTE Research & Design LLC
and
Thomas F. Kelly 2011
Cameca Instruments, Inc.
and
David J. Larson 2011
Cameca Instruments, Inc.
For the highly successful conception, design, fabrication, and commercialization of an ergonomic three-dimensional local-electrode atom probe (LEAP) tomograph that enables the determination of the local composition information, on an atom-by-atom basis, of metallic, semiconducting, ceramic and organic materials, on a subnanometer scale, in direct space, with high mass resolving power and signal-to-noise ratio, permitting the determination of small concentrations of all elements.

Stephen J. Pennycook 2012
Oak Ridge National Laboratory
For his pioneering use of aberration-corrected Z-contrast scanning transmission electron microscopy in the characterization of materials at the atomic scale.

D. Bruce Chase 2013
University of Delaware
and
John F. Rabolt 2013
University of Delaware
For the development of Fourier Transform Raman Spectroscopy and the demonstration of its utility for examining the chemical structure and properties of organic molecules and polymers in solids, thin films and solutions.

Albert Polman 2014
University of Amsterdam, FOM Institute AMOLF, The Netherlands
For the development, application and commercialization of Angle-Resolved Cathodoluminescence Imaging Spectroscopy (ARCIS) as a new tool for optical imaging at the nanoscale, with applications in nanophotonics and materials science in general.
John M. Carpenter 2015
Argonne National Laboratory
For innovations in neutron sources that have fundamentally changed their performance and enabled opportunities for further advancement of materials that improve the quality of life.

Niels de Jonge 2016
INM–Leibniz Institute for New Materials
For seminal contributions to the imaging of specimens in liquids using transmission electron microscopy, revolutionizing the direct observation of materials processes, batteries during operation and biological structures.

Joost W.M. Frenken 2017
Advanced Research Center for Nanolithography (ARCNL)
For the development, application and commercialization of high-speed, temperature-controlled, in situ scanning probe microscopy, leading to key insights in the structure, dynamics and chemistry of surfaces and interfaces.

David G. Cahill 2018
University of Illinois at Urbana-Champaign
For developing transformative methods for characterizing the thermal transport properties of materials and their interfaces using time-domain thermoreflectance (TDTR) and related approaches.

Stig Helveg 2019
Haldor Topsoe
For pioneering atomic-scale transmission electron microscopy under reactive gas environments, leading to groundbreaking insights in catalysis, crystal growth and corrosion.
Materials Theory Award

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.

MRS acknowledges the generosity of Professors Gwo-Ching Wang and Toh-Ming Lu for endowing this award.

Nomination Deadline April 1, 2020

Recipients

Alex Zunger 2011
University of Colorado, Boulder
For his development of the inverse band structure approach to materials by design and the foundational developments of methods of first-principles theory of solids, leading to innovative and transformative studies of renewable-energy materials and nanostructures.

John Perdew 2012
Tulane University
For his pioneering contributions to the fundamental development and nonempirical approximations in density functional theory.

David J. Srolovitz 2013
University of Pennsylvania
For decisive and highly influential contributions to the theory and simulation of microstructure, morphological evolution, mechanical behavior, and the structure and dynamics of interfaces.

Long-Qing Chen 2014
The Pennsylvania State University
For his pioneering work in the development of the phase-field method and its applications in the computational modeling of mesoscale structures and their dynamics in inhomogeneous materials.

Steven G. Louie 2015
University of California, Berkeley
For his seminal contributions to the development of ab initio methods for and the elucidation of many-electron effects in electronic excitations and optical properties of solids and nanostructures.

Gerbrand Ceder 2016
University of California, Berkeley, and Lawrence Berkeley National Laboratory
For seminal contributions to the emerging field of computationally guided materials exploiting high-throughput computation and promoting the development of open databases to enable widespread use.

Glenn H. Fredrickson 2017
University of California, Santa Barbara
For pioneering the development of field-theoretic computer simulation methods and their application to investigate and design self-assembling polymers and soft materials.

Giulia Galli 2018
University of Chicago
For the development of advanced first-principles simulation methods and their application to the understanding, prediction and design of complex nanostructured materials.

Lu Sham 2019
University of California, San Diego
For pioneering contributions to the quantum theory of molecules and solids, especially the Kohn–Sham formulation of density functional theory.
Mid-Career Researcher Award

The Mid-Career Researcher Award recognizes exceptional achievements in materials research made by mid-career professionals. It is intended to honor an individual who is between the ages of 40 and 52 at the time of nomination. Exceptions may be made for an interruption in career progression due to family or military service. The award recipient must also demonstrate notable leadership in the materials area.

The Mid-Career Researcher Award is made possible through an endowment established by Millipore Sigma.

mrs.org/mra

Nomination Deadline  August 1, 2020

Recipients

Kristi S. Anseth  2012  
University of Colorado, Boulder
Exceptional achievement at the interface of materials and biology enabling new, functional biomaterials that answer fundamental questions in biology and yield advances in regenerative medicine, stem-cell differentiation, and cancer treatment.

John A. Rogers  2013  
University of Illinois at Urbana-Champaign
For fundamental and applied contributions to materials, mechanics designs, and assembly techniques for stretchable/flexible electronic systems.

Lei Jiang  2014  
Chinese Academy of Sciences, China
For establishing fundamental understanding of the interfacial properties of biological systems and transforming that insight into commercialized bioinspired materials with properties better than those of natural systems.

Seth R. Marder  2015  
Georgia Institute of Technology
For establishing fundamental relationships between the chemical structure of organic molecules and their optical and electronic properties, thereby profoundly impacting how the scientific community designs optimized molecular structures for use in nonlinear optical applications.

Hongjie Dai  2016  
Stanford University
For seminal contributions to carbon-based nanoscience and applications in nanoelectronics, renewable energy, and biological systems.

Nicola Spaldin  2017  
ETH Zürich
For creating a new theoretical framework describing multiferroics and for service to the materials community.

David Mooney  2018  
Harvard University
For pioneering contributions to the field of biomaterials, especially in the incorporation of biological design principles into materials and the use of biomaterials in mechanobiology, tissue engineering and therapeutics.

Hongyou Fan  2019  
Sandia National Laboratories and The University of New Mexico
For outstanding contributions in nanoparticle self-assembly of functional nanomaterials and for leadership within the materials community.
MRS Impact Award

The MRS Impact Award honors outstanding individuals who have displayed excellence in areas of science communication, education, advancing diversity, mentoring, or community engagement, which reflect the Society’s pursuit to advance materials science and technology to improve the quality of life.

mrs.org/mrs-impact-award

Nomination Deadline  August 1, 2020

Recipient

Lynnette D. Madsen  2017
National Science Foundation
In recognition of her effectiveness in exemplifying technical leadership, advancing diversity, fostering mentoring and communicating persuasively to influence both large and small institutions.

Michael Falk  2018
Johns Hopkins University
For broadened participation in STEM education in Baltimore elementary schools; for bringing attention to professional and educational climate issues faced by LGBTQ students and researchers; and for pioneered research-based methodologies for integrating computation into the Materials Science and Engineering curriculum.

Meyya Meyyappan  2019
NASA Ames Research Center
For his lifelong dedication toward creating significant and outstanding impact to understanding nanotechnology through global outreach initiatives and for unwavering mentorship.
The Kavli Foundation Early Career Lectureship in Materials Science

The Kavli Foundation is dedicated to advancing science for the benefit of humanity, promoting public understanding of scientific research and supporting scientists and their work.

mrs.org/kavli-early-career

Nomination Deadline  April 1, 2020

Recipients

Jennifer A. Dionne  2013
Stanford University

Julia R. Greer  2014
California Institute of Technology

Ali Khademhosseini  2015
Harvard-MIT Division of Health Sciences and Technology

Andrea Alù  2016
The University of Texas at Austin

Xiaobo Yin  2017
University of Colorado Boulder

Laura Na Liu  2018
University of Heidelberg

Silvia Vignolini  2019
University of Cambridge

Silvia Vignolini  2019 The Kavli Foundation Early Career Lectureship in Materials Science Recipient
Outstanding Young Investigator

The MRS Outstanding Young Investigator Award is intended to recognize outstanding, interdisciplinary scientific work in materials research by a young scientist or engineer. The award recipient must also show exceptional promise as a developing leader in the materials area.

mrs.org/oyi

Nomination Deadline  August 1, 2020

Recipients

Stuart S. P. Parkin  1991
IBM Almadin Research Center
Recognizing enterprise in new materials, high Tc superconductors, and magnetic multilayers displaying oscillatory exchange coupling.

David D. Awschalom  1992
University of California, Santa Barbara
Recognizing enterprise in the field of nanoscale materials.

Charles M. Lieber  1993
Harvard University
Pioneering contributions to the understanding of novel materials through synthesis and elegant determination of complex local structure and electronic properties.

David J. Eaglesham  1994
AT&T Bell Laboratories
Creativity, leadership and experimental ingenuity in discovering an understanding of fundamental interface, surface and defect phenomena in semiconductor crystal growth.

A. Paul Alivisatos  1995
University of California, Berkeley
Leadership in materials research, notably in the field of nanocrystals.

Antonios G. Mikos  1996
Rice University
For the synthesis and processing of new biomaterials for tissue engineering, supports for cells, tissue-growth conduits, targeted cell-adhesion substrates, and cellular-response stimulants.

Christopher N. Bowman  1997
University of Colorado
For seminal contributions to the field of highly crosslinked polymers, information storage materials and computational methods in polymerization engineering.

Anne M. Mayes  1998
Massachusetts Institute of Technology
For incisive theoretical and experimental investigations of macromolecules at and near surfaces and interfaces leading to tailorable surface properties, especially novel biocompatible substrates.

Chad A. Mirkin  1999
Northwestern University
Pioneering and leadership role in developing a new interdisciplinary field in which complex biological macromolecules are used to assemble inorganic nanoparticle building blocks into functional meso- and macroscopic structures.

Frances M. Ross  2000
IBM T.J. Watson Research Center
For innovative and powerful experimental studies, based upon development of novel in situ electron microscopy techniques, that have provided fundamental new understanding of nucleation, growth, oxidation and etching processes in a wide range of materials systems.

Kristi S. Anseth  2001
University of Colorado
For innovative work in polymeric biomaterials for drug delivery, bone and cartilage repair, and tissue engineering, and for outstanding leadership potential in this interdisciplinary field of materials research.
For his discovery of synthetic methods to produce polypeptide homopolymers and block copolymers with exquisite control of block length, sequence and secondary structure and the interdisciplinary exploitation of these materials to yield unique hydrogels and inorganic materials.

For innovative synthesis of a broad range of nanowire and nanowire heterostructure materials, and the discovery of optically-induced lasing in individual nanowire devices.

For innovative work on the materials physics of transition metal oxides and the atomicscale synthesis of complex oxide heterostructures.

For innovation and development of solid state dye sensitized solar cells and for his groundbreaking work in perovskite hybrid solar cells.

For pioneering research on the physics, chemistry, and engineering of nanoelectronic materials and devices, including solution-phase techniques for sorting carbon nanotubes and graphene, and for organic functionalization and nanopatterning of semiconductor surfaces.

For methodological developments of synthesis and self-assembly of inorganic nanocrystals and for fundamental studies transforming colloidal nanostructures into electronic and optoelectronic materials.

For highly innovative and creative work in computational modeling of biological, bio-inspired, and synthetic materials, revealing how weakness is turned into strength through hierarchical material design.

For pioneering research to develop novel materials for advanced plasmonic, metamaterial and transformation optics devices with potential applications in future nanoscale photonic technologies.

For innovative work on single walled carbon nanotube chemical modifications, both fundamental and applied, and for pioneering a new class of near infrared sensor architectures based upon chemically induced optical modulation of carbon nanotubes.

For pioneering work on the atomistic and quantummechanical studies of nanoparticle aggregation and its role in the genesis of superlattice geometries.

For the development and characterization of nanoparticles and nanostructured arrays designed to filter and propagate plasmonic excitations with unprecedented control and sensitivity.

For contributions to understanding the coupled structure and reactivity of energy-relevant systems and for developing the incisive experimental and analytical tools needed to interrogate these complex materials systems.

For methodological developments of synthesis and self-assembly of inorganic nanocrystals and for fundamental studies transforming colloidal nanostructures into electronic and optoelectronic materials.

For innovative contributions in integrating nanomaterials into device applications.

For innovations in the preparation and processing of nanoparticles and nanostructured materials and applying these innovations to biomedical problems.

For his discovery of synthetic methods to produce polypeptide homopolymers and block copolymers with exquisite control of block length, sequence and secondary structure and the interdisciplinary exploitation of these materials to yield unique hydrogels and inorganic materials.

For innovative work on the materials physics of transition metal oxides and the atomicscale synthesis of complex oxide heterostructures.

For innovative work on single walled carbon nanotube chemical modifications, both fundamental and applied, and for pioneering a new class of near infrared sensor architectures based upon chemically induced optical modulation of carbon nanotubes.

For innovative work on the atomistic and quantummechanical studies of nanoparticle aggregation and its role in the genesis of superlattice geometries.

For the development and characterization of nanoparticles and nanostructured arrays designed to filter and propagate plasmonic excitations with unprecedented control and sensitivity.

For contributions to understanding the coupled structure and reactivity of energy-relevant systems and for developing the incisive experimental and analytical tools needed to interrogate these complex materials systems.

For methodological developments of synthesis and self-assembly of inorganic nanocrystals and for fundamental studies transforming colloidal nanostructures into electronic and optoelectronic materials.

For innovative contributions in integrating nanomaterials into device applications.

For innovations in the preparation and processing of nanoparticles and nanostructured materials and applying these innovations to biomedical problems.
The newest MRS award, the MRS Nelson “Buck” Robinson Science and Technology Award for Renewable Energy, recognizes an individual for the development of novel sustainable solutions for the realization of renewable sources of energy.

*MRS acknowledges the generosity of Sophie Robinson for endowing this award in memory of her father, Nelson “Buck” Robinson.*

[.mrs.org/nelson-buck-robinson-science-and-technology-award](http://mrs.org/nelson-buck-robinson-science-and-technology-award)

**Nomination Deadline**  April 1, 2020

**Recipients**

**Aaswath Raman**  2018  
*University of California, Los Angeles*

**Kelsey Hatzell**  2019  
*Vanderbilt University*
The MRS Postdoctoral Awards recognize postdoctoral scholars who are showing exceptional promise that may include, for example, excellence in scientific research, leadership, advocacy, outreach, or teaching, during their postdoc assignment.

MRS acknowledges the Jiang Family Foundation and MTI Corporation for their generous contribution to support this award.

mrs.org/postdoctoral

Fall Nomination Deadline  April 1, 2020
Spring Nomination Deadline  August 1, 2020

Recipients

Jonathan Rivnay  Fall 2014
École Nationale Supérieure des Mines de Saint-Étienne
For the development of state-of-the-art organic electronic devices for interfacing with biology, through the elucidation of structure versus electrical properties relationships.

Chao Wang  Fall 2014
Stanford University
For innovative research developing self-healing electronic materials and utilizing the self-healing concept to achieve high-performance, long lifetime electronic and energy storage devices.

Dustin W. Janes  Spring 2015
The University of Texas at Austin
For outstanding theoretical and experimental contributions to understanding transport in polymer films and membranes and novel nano- and micro-patterning methodologies, and his dedicated mentorship of graduate and undergraduate student researchers.

Yuan Yang  Spring 2015
Massachusetts Institute of Technology
For innovative research on electrochemical materials and systems to convert low-grade waste heat into electricity and exploration of new applications of batteries.

Jiamian Hu  Fall 2015
The Pennsylvania State University
For pioneering contributions to the theoretical understanding of strain-mediated electric-field-induced magnetization switching in magnetoelectric nanostructures and for designing prototypes of magnetoelectric devices.

Beata Layla Mehdi  Fall 2015
Pacific Northwest National Laboratory
For advances in in situ transmission electron microscopy instrumentation for electrochemical studies and quantitative understanding of nanoscale processes taking place in energy storage systems.

Babak Anasori  Spring 2016
Drexel University
For innovative research on 2D materials, creative and artistic ways of presenting science, dedication to and love of teaching, and student mentoring.

Shinbuhm Lee  Spring 2016
Oak Ridge National Laboratory
For the innovative development of multifunctional ionic devices via vertically aligned heterostructures, and outstanding contributions for theoretical and experimental understanding of them.
Qi Li Fall 2016
The Pennsylvania State University
For advancing the field of polymer nanocomposites for electrical energy storage and conversion.

Yongming Sun Fall 2016
Stanford University
For advancing the development of high-capacity battery materials.

Bert Conings Spring 2017
Hasselt University
For innovation in hybrid perovskite photovoltaics, addressing fabrication, lifetime, and toxicity issues.

Yunlong Zi Spring 2017
Georgia Institute of Technology
For pioneering research to improve the efficiency and wider applicability of mechanical energy harvesting systems.

Michael Saliba Fall 2017
École Polytechnique Fédérale de Lausanne (EPFL)
For developing a family of stable, reproducible and highly efficient multi-cation perovskites for optoelectronics.

Jieun Yang Fall 2017
Rutgers, The State University of New Jersey
For creative research in chemically exfoliated 2D materials and tireless dedication to mentoring women in science and engineering.

Arnab Banerjee Spring 2018
Oak Ridge National Laboratory
For groundbreaking experiments providing evidence of topological excitations in a two-dimensional magnet, moving toward lossless qubits in quantum computing.

Jie Xu Spring 2018
Stanford University
For applying polymer physics concepts to realize integrated, intrinsically stretchable transistors for skin electronics.

James Bullock Fall 2018
University California, Berkeley
For the development of dopant-free, selective contacts for high-efficiency Si photovoltaics.

Minah Lee Fall 2018
Stanford University
For the development of sustainable organic materials to achieve high-performance energy storage devices and understanding their redox mechanisms.

Kaifu Bian Spring 2019
Sandia National Laboratories
For advancing the understanding of nanoparticle assemblies under stress.

Nicholas Jackson Spring 2019
Argonne National Laboratory
For foundational theoretical and computational contributions to the study of structure and transport in charged polymers and organic semiconductors.

Rachel E. Carter Fall 2019
U.S. Naval Research Laboratory
For contributions to the design of safe battery materials and systems, leadership of students and advocacy for women scientists and engineers.

Yasutaka Nagaoka Fall 2019
Brown University
For contributions to the assembly of nanocrystal superstructures.
MRS Bulletin Postdoctoral Publication Prize

MRS is pleased to present the inaugural MRS Bulletin Postdoctoral Publication Prize!

The MRS Bulletin Postdoctoral Publication Prize recognizes postdoctoral researchers for their intellectual merit and the impact of their research and scholarship. Candidates should have an interest in scientific publications and/or science writing and communications, and show promise for future scientific contributions in the broad materials field.

MRS Bulletin acknowledges the Jiang Family Foundation and MTI Corporation for their generous contribution to support this award.

mrs.org/bulletin-prize

Nomination Deadline  July 31, 2020

Recipient

Andy Tay Kah Ping  2017
Stanford University
For his combination of outstanding academic credentials, scientific publications and science communication efforts.

Hortense Le Ferrand  2018
of Nanyang Technological University
For her excellent academic credentials, high-quality scientific publications, science writing and science communications efforts, and potential for future scientific leadership in the materials field.

Ognjen Ilic  2019
University of Minnesota
For his outstanding academic achievements, high quality of scientific publications, demonstrated passion for science communication, science outreach efforts to the general public, and clear potential to become a leader in the field of materials research.
MRS Woody White Service Award

MRS is pleased to present the inaugural Woody White Service Award!

The MRS Woody White Service Award honors outstanding individuals who have embodied the MRS Mission, Vision and Values for an egalitarian interdisciplinary community advancing materials science and technology to improve the quality of life. It may be given in recognition of long-term, impactful service to the Society, as well as for special projects/programs that significantly impacted the Society.

mrs.org/woody-white

Nomination Deadline August 1, 2020

Recipient

Monica Jung de Andrade 2017
The University of Texas at Dallas
For her eager willingness to assume multiple leadership roles, her work in engaging international students and postdocs, and her numerous activities with The University of Texas at Dallas University Chapter. These contributions have impacted and engaged multiple communities within the Society including students, international members, under-represented members, industrial members and the MRS Membership at large.

Ashley White 2018
Lawrence Berkeley National Laboratory
For her work in cultivating sustainable development as a core MRS activity embodied by the Focus on Sustainability Subcommittee, and tireless advocacy through the Government Affairs Committee and the MRS Congressional Fellowship. White has written numerous articles for MRS Bulletin and Meeting Scene, and she continues to promote MRS values, namely interdisciplinarity and quality of life, through her extensive community efforts.
MRS Communications Lecture

The 2019 MRS Communications Lecture recognizes excellence in the field of materials research through work published in MRS Communications. It is intended to honor the authors of an outstanding paper published in the journal during the award year.

Recipient

David C. Martin 2016
University of Delaware
“Molecular design, synthesis, and characterization of conjugated polymers for interfacing electronic biomedical devices with living tissue”
Published April 15, 2015
MRS Communications Volume 5, Issue 2

Sharon C. Glotzer 2017
University of Michigan
“Rational design of nanomaterials from assembly and reconfigurability of polymer-tethered nanoparticles” with Ryan L. Marson and Trung Dac Nguyen
Published July 23, 2015
MRS Communications Volume 5, Issue 3

Clara Santato 2018
Polytechnique Montréal
“Natural melanin pigments and their interfaces with metal ions and oxides: emerging concepts and technologies” with Eduardo Di Mauro, Ri Xu, and Guido Soliveri
Published May 11, 2017
MRS Communications Volume 7, Issue 2

Timothy J. Bunning 2019
Air Force Research Laboratory
“Dynamic Optical Properties of Gold Nanoparticles/Cholesteric Liquid-Crystal Arrays”
Published April 26, 2018
MRS Communications Volume 8, Issue 2

mrs.org/mrc-lecture

Nomination Deadline January 19, 2020
Graduate Student Awards

MRS Gold and Silver Awards are intended to honor and encourage graduate students whose academic achievements and current materials research display a high level of excellence and distinction. MRS seeks to recognize students of exceptional ability showing promise for significant future achievement in materials research.

Arthur Nowick Graduate Student Award
This award honors the late Dr. Arthur Nowick and his lifelong commitment to teaching and mentoring students in materials science. The award will be presented to a GSA finalist who shows particular promise as a future teacher and mentor at each Meeting.

MRS acknowledges the generous contribution for the Nowick Award to the MRS Foundation from Joan Nowick in memory of her husband Dr. Arthur Nowick.

mrs.org/gsa

Recipients

Gold Award Recipient

Fall 2019
- Ilaria Abdel Aziz
  Istituto Italiano di Tecnologia, Politecnico di Milano
- Matthias T. Agne
  Northwestern University
- Yoonho Kim
  Massachusetts Institute of Technology
- Juyoung Leem
  University of Illinois at Urbana-Champaign
- Yin Liu
  University of California, Berkeley
- David Mackanic
  Stanford University
- Lucie Ries
  Université de Montpellier
- Andrey Vyatskikh
  California Institute of Technology
- Yan Wang
  University of Cambridge
- Zhijie Zhu
  University of Minnesota Twin Cities
- Naija Al Hasan
  University of Maryland
- David Russell Barton
  Stanford University
- Chunhui Dai
  University of Minnesota Twin Cities
- Martin H. Dehn
  The University of British Columbia
- Chengcheng Fang
  University of California, San Diego
- William Fitzhugh
  Harvard University
- Tatsuya Higaki
  Carnegie Mellon University
- Megan O. Hill
  Northwestern University
- Jieun Kim
  Massachusetts Institute of Technology
- Arda Kezikian
  Harvard University
- Siddharth Krishnan
  University of Illinois at Urbana-Champaign
- Minliang Lai
  University of California, Berkeley
- Xiaotong Li
  Northwestern University
- Yongtao Li
  The University of Tennessee
- JunzheLou
  Stanford University
- Xuezeng Lu
  Northwestern University
- Peter Benjamin Meisenheimer
  University of Michigan
- Jaba Mitra
  University of Illinois at Urbana-Champaign
- Amirali Nojoomi
  The University of Texas at Arlington
- Nicholas Rolston
  Stanford University
- Yiren Zhong
  Yale University
- Hua Zhu
  Brown University
- Jia Zhuang
  University of California, San Diego

Silver Award Recipient

Fall 2019
- Zhaoqianqi Feng
  Brandeis University
- Aristide Gumyusenge
  Purdue University
- Joon Sang Kang
  University of California Los Angeles
- Lichen Liu
  Universitat Politècnica de València
- Hyunwoo Yuk
  Massachusetts Institute of Technology
- Peter Attia
  Stanford University
- Amitava Banerjee
  Uppsala University
- Jennifer Boothby
  The University of Texas at Dallas
- Wen-Hui Cheng
  California Institute of Technology
- Hyunjoong Chung
  University of Illinois at Urbana-Champaign
- Rohit John
  Nanyang Technological University
- Andrew Meng
  Stanford University
- Aashutosh Mistry
  Purdue University
- Rainie Nelson
  Iowa State University
- Subhajit Roychowdhury
  Jawaharlal Nehru Centre for Advanced Scientific Research
- Arashdeep Thind
  Washington University in St. Louis
- Yixiu Wang
  Purdue University
- Xiaoxing Xia
  California Institute of Technology

Nowick Award Recipient

Fall 2019
- Juyoung Leem
  University of Illinois at Urbana-Champaign

Spring 2019
- Naila Al Hasan
  University of Maryland
- Arashdeep Thind
  Washington University in St. Louis
- Yixiu Wang
  Purdue University
- Xiaoxing Xia
  California Institute of Technology

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