

## Green Leads Executive Committee in 2001



Martin L. Green



Alex King



Chuang Chuang Tsai



Merrilea J. Mayo



Harry A. Atwater



Paul S. Peercy



Caroline A. Ross

**Martin L. Green** (Agere Systems, Inc.) automatically assumes the presidency of the Materials Research Society for 2001, after serving as Vice President (President-Elect) in 2000. He succeeds **Harry A. Atwater** from the California Institute of Technology, who now serves MRS as Immediate Past President.

**Alex King** (Purdue University) has been elected Vice President (President-Elect). **Chuang Chuang Tsai** (Applied Komatsu Technology) continues serving her term as Secretary, and **Merrilea J. Mayo** (The Pennsylvania State University) has been re-elected as Treasurer. The Council has elected **Paul S. Peercy** (University of Wisconsin—Madison) and **Caroline A. Ross** (Massachusetts Institute of Technology) as two Councillors to serve one-year terms on the Executive Committee.

The newly elected MRS Councillors are **Eduard Arzt**, Max Planck Institute, **Peter F. Green**, University of Texas—Austin; **Linda L. Horton**, Oak Ridge National Laboratory; **Howard E. Katz**, Lucent Technologies; **Paul S. Peercy**; and **Julia R. Weertman**, Northwestern University. They will serve three-year terms beginning January 1, 2001, and join the following current members of Council: **Orlando Auciello**, Argonne National Laboratory; **John W. Cahn**, National Institute of Standards and Technology; **Anthony K. Cheetham**, University of California—Santa Barbara; **David J. Eaglesham**, Agere Systems, Inc.; **A. Lindsay Greer**, Cambridge University; **Anne M. Mayes**, Massachusetts Institute of Technology; **Stephen J. Pennycook**, Oak Ridge

National Laboratory; **Caroline A. Ross**; **Rudolf M. Tromp**, IBM T.J. Watson Research Center; and **R. Stanley Williams**, Hewlett-Packard Laboratories.

### **Martin L. Green** *President*

Martin L. Green is a member of Technical Staff in the Silicon Electronics Research Laboratory at Agere Systems, Inc., Murray Hill, NJ (formerly of Bell Laboratories/Lucent Technologies). For the past five years he has focused his research on the growth and characterization of ultrathin dielectric films for silicon microelectronics applications. His other research interests have included rapid thermal processing, chemical vapor deposition, semiconductor heterostructures, martensitic phase transformations, plasticity of ordered alloys and ionic crystals, magnetic materials, and powder metallurgy.

After receiving his BS (1970) and MS (1972) degrees in metallurgy from the Polytechnic Institute of Brooklyn, Green received his PhD degree (1978) in materials science from the Massachusetts Institute of Technology. He is author or co-author of over 100 refereed papers and has edited several books. He also holds 12 patents.

During his involvement with MRS since 1976, Green has co-organized four symposia; served as a Meeting Chair for the 1993 Spring Meeting; chaired the *MRS Bulletin* Book Review Board; and served as councillor (1995–1998), during which time he nurtured the concept of MRS Workshops, four of which have already been organized. As Vice-President/President-Elect in 2000, he automatically assumes the position of President.

### **Alex King** *Vice President* *(President-Elect)*

Alex King is professor and head of the School of Materials Engineering at Purdue University. He was previously a professor in the Department of Materials Science and Engineering at the State University of New York at Stony Brook where he had also served as vice provost for graduate studies. His research program focuses on interfacial structure and behavior, with extended interests in other areas including thin films, semiconductors, polymers, and materials processing. King received his BMet degree from the University of Sheffield and his doctoral degree, in 1979, from Oxford University. Following a brief

period as a research fellow at Oxford, King joined the Massachusetts Institute of Technology as a postdoctoral associate. He joined the SUNY faculty in 1981.

At MRS, King has served on the Program Committee and its Meetings Quality Subcommittee. He was a symposium organizer at the MRS 1993 Fall Meeting and co-chair of the MRS 1997 Spring Meeting where he implemented the Meeting Chairs' Poster Prize. He served on the MRS Council from 1998 to 2000, including two consecutive tenures as Council liaison to the Executive Committee. He currently contributes articles for the Postterminaries department in *MRS Bulletin*.

### **Chuang Chuang Tsai**

#### *Secretary*

Chuang Chuang Tsai is Senior Vice President of Quanta Display Inc. in Taiwan. Prior to joining Quanta, she was Senior Director of Strategic Marketing and Technology at AKT, an Applied Materials company, and, before that, a technical program manager at dpiX, a spin-off from Xerox Palo Alto Research Center, developing flat-panel display and medical-imaging technology. From 1978 to 1996, she worked at Xerox Palo Alto Research Center. Her research interests include materials, process, and devices of amorphous, microcrystalline, and polycrystalline silicon; plasma-enhanced chemical vapor deposition; laser crystallization; hydrogen effect on film growth and defect passivation; thin-film transistors and diodes; metal/silicon interfaces; and optical recording. Her current focus is on active-matrix liquid-crystal display technology.

Tsai received her PhD degree from the University of Chicago in 1978. She was a recipient of the Xerox Corporate Research Group (CRG) Excellence in Science and Technology Award in 1989 and 1993. She is co-holder of U.S. patents, a co-author of over 100 scientific papers, and co-editor of six symposium proceedings on the topics of microcrystalline and nanocrystalline semiconductors, and integrated-circuit and solid-state technology.

Tsai is serving her second term as MRS Secretary. She has co-organized three MRS symposia, and has served on the Meetings Quality Subcommittee, the Program Development Subcommittee, the Program Committee, and the editorial board of *MRS Bulletin*. She co-chaired the 1996 MRS Spring Meeting.

### **Merrilea J. Mayo**

#### *Treasurer*

Merrilea J. Mayo is an associate professor of materials science and engineering at The Pennsylvania State University. Her

research interests are in the areas of processing and properties of nanocrystalline ceramics and in superplasticity. She received her PhD degree in materials science and engineering from Stanford University in 1988.

Mayo has received a Fellowship from the Japan Society for the Promotion of Science (1993) and from the Exxon Foundation (1982–1984), as well as an NSF Presidential Young Investigator Award (1991–1996). She has served on the National Research Council's (NRC's) Advisory Panel on the National Institute of Standards and Technology (NIST) and on the NRC's Advisory Committee on Army After Next (AAN) Logistics. She has over 50 authored and co-authored publications.

Within MRS, Mayo has served on the External Affairs and Public Affairs Committees since 1994 and has previously served on the Graduate Student Award Subcommittee, Program Planning Committee, Long-Range Planning Committee; on Council; and as chair and symposium organizer. She was part of the MRS Headquarters Building Task Force and is involved in developing MRS's materials-related interactive displays known as Materials MicroWorld, supported by a grant from the National Science Foundation. She was selected as the Materials Research Society/Optical Society of America Congressional Science and Engineering Fellow (1998–1999) and served her fellowship working on research and development issues in the office of Senator Joseph Lieberman (D-Conn.). Mayo is currently on temporary leave from Penn State, developing a coalition organization to elevate funding for research and development in the mathematics, physical sciences, and engineering. This is her second term as Treasurer.

### **Harry A. Atwater**

#### *Immediate Past President*

Harry A. Atwater is a professor of applied physics and materials science at the California Institute of Technology. He focuses his research on the synthesis and characterization of new thin-film electronic and photonic materials, and the development of new analytic and processing methods for electronic materials. He has active interests in semiconductor nanocrystalline materials and devices, photovoltaics and optoelectronics.

Prior to joining Caltech as assistant professor in 1988, Atwater received a PhD degree in electrical engineering from the Massachusetts Institute of Technology in 1987. He was an IBM Postdoctoral Fellow in applied physics at Harvard University (1987–1988), and he received an NSF

Presidential Young Investigator Award in 1989.

For 15 years, Atwater has been an active contributor to Spring and Fall MRS Meetings. He co-organized four MRS technical symposia, co-chaired the 1997 MRS Fall Meeting, and has served as chair of the MRS Graduate Student Awards Subcommittee and as MRS Councillor and Vice President/President-Elect, before serving as President in 2000. He is the first MRS Graduate Student Award recipient (1985) to later serve as MRS President.

### **Paul S. Peercy**

#### *Councillor*

Paul S. Peercy is Dean of the College of Engineering and Professor of Materials Science and Engineering at the University of Wisconsin—Madison. From 1995 to 1999 he was president of SEMI/SEMATECH, and before that he served as director of Microelectronics and Photonics at Sandia National Laboratories. He received his PhD degree from the University of Wisconsin—Madison. His research spanned several areas of solid state and materials physics and engineering. He is the author or co-author of over 180 papers and holds two patents.

Peercy served MRS in several capacities: chair of the Program Committee, chair of the Washington Materials Forum, symposium organizer, meeting chair, Vice President, Councillor, and he is a recipient of the MRS Woody Award for service to the Society.

### **Caroline A. Ross**

#### *Councillor*

Caroline A. Ross is an associate professor of materials science and engineering at the Massachusetts Institute of Technology. Her research is directed toward the magnetic properties of thin films and small magnetic structures, particularly for data storage applications such as patterned media and MRAMs. Ross received her PhD degree in 1988 from Cambridge University, worked as a postdoc at Harvard University, then spent six years as an engineer at Komag Inc. in San Jose.

Ross has co-organized two MRS symposia and co-chaired the 1998 MRS Spring Meeting. She served on MRS Council since 1999. MRS

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## MRS Bulletin Volume Organizers Guide Technical Theme Topics for 2001



Clyde Briant



Kozo Ishizaki



Alfons van Blaaderen

The *MRS Bulletin* Volume Organizers for 2001 are Clyde Briant (Brown University), Kozo Ishizaki (Nagaoka University of Technology), and Alfons van Blaaderen (FOM Institute/Utrecht University). For a list of topics and guest editors for 2001, access the *MRS Bulletin* web site at [www.mrs.org/](http://www.mrs.org/).

**Clyde Briant** is the Otis E. Randall University Professor in the Division of Engineering at Brown University. He received his Doctor of Engineering Science degree from Columbia University in 1974 and was a postdoctoral researcher at the University of Pennsylvania from 1974 to 1976. From 1976 to 1994 he was a staff metallurgist at the General Electric Company Research and Development Center in Schenectady, New York. He was elected a Coolidge Fellow of the General Electric Company and in 1987–1988 he was an Overseas Fellow at Churchill College, University of Cambridge. He joined Brown in 1994.

Briant currently serves as director of the NSF-sponsored Materials Research Science and Engineering Center. His main research interests are in the area of physical metallurgy with special emphasis in the areas of corrosion, grain boundaries, and deformation of materials with complex microstructures. He served as a Meeting Chair for the 1998 MRS Fall Meeting. Along with serving as a volume organizer for *MRS Bulletin*, Briant co-

authored an article for Links of Science & Technology in the August 1995 issue of *MRS Bulletin*.

**Kozo Ishizaki** is a professor in the Department of Materials Science and Engineering at the Nagaoka University of Technology. His areas of research include lattice dynamics, cryogenic physics, high-pressure physics, thermodynamics of solids and phase transformation, processing of engineering ceramics, and sintering of advanced ceramics. He received his PhD degree in engineering materials in 1974 from the University of Maryland.

Ishizaki has served as an editor and a board member for various journals and organizations, including the *Journal of Porous Materials*, the *Bulletin of the Ceramic Society of Japan*, the *Korean Journal of Ceramics*, *Advances in Technology of Materials and Materials Processing Journal (ATM)*, *Materials Engineering*, and the *Journal of the Australasian Ceramic Society*, and the Iron and Steel Institute of Japan, the Ceramics Society of Japan, and MRS-Japan. He has received numerous honors, including the CERSJ Awards for Academic Achievements in Ceramic Science and Technology from the Japan Ceramic Society in 1997. During his tenure at the Universidad Simón Bolívar in Caracas, Venezuela (1976–1985), Ishizaki developed the Failure Analysis Unit for Industrial Consultation, the Center of Electron Microscopes, and the Mechanical Testing

and Metallographic Laboratory.

**Alfons van Blaaderen** is a professor in the Department of Condensed Matter, which is part of the Debye Institute at Utrecht University and a scientific project leader at the FOM-Institute for Atomic and Molecular Physics (AMOLF) in Amsterdam. His research interests focus on the development and use of colloidal model systems in both fundamental (e.g., crystallization melting and glass transition) and applied studies (e.g., electro-rheological fluids and photonic crystals). Van Blaaderen obtained his PhD degree in physical chemistry in 1992 at Utrecht University. Also in 1992 he was awarded the DSM price for Chemistry and Technology. In 1992 and 1993 he was a post-doctorate at Utrecht University while studying physics there. Subsequently, he worked for almost two years as a post-doctorate at what was then AT&T Bell Laboratories (Murray Hill, New Jersey) and became part of Lucent Technologies. Before his appointment in the physics department as full professor in 1999, van Blaaderen worked in the chemistry department of Utrecht University as manager of a colloid synthesis facility and as an associate professor.

Along with serving MRS as a volume organizer for *MRS Bulletin*, he co-authored an article in the October 1998 issue of *MRS Bulletin* on the topic of direct self-assembly of colloidal materials. [MRS](http://www.mrs.org/)

### MRS BULLETIN UPCOMING THEMES

#### FEBRUARY 2001

Single articles/Technical features

#### MARCH 2001

**Theme topic:** Computational Materials Science and Multiscale Modeling of Materials

**Guest Editors:** Tomas Diaz de la Rubia and Vasily V. Bulatov (Lawrence Livermore National Laboratory)

#### APRIL 2001

**Theme topic:** Microelectromechanical Systems (MEMS) Technologies and Applications

**Guest Editors:** David J. Bishop (Lucent Technologies, Bell Labs), Arthur H. Heuer (Case Western Reserve University), and David Williams (Sandia National Laboratories)

#### MAY 2001

**Theme:** Hybrid Organic-Inorganic Materials  
**Guest Editor:** Doug Loy (Sandia National Laboratories)

#### JUNE 2001

**Theme:** High Thermal Conductivity Materials  
**Guest Editors:** Koji Watari (National Industrial Research Institute of Nagoya) and S.L. Shinde (IBM)