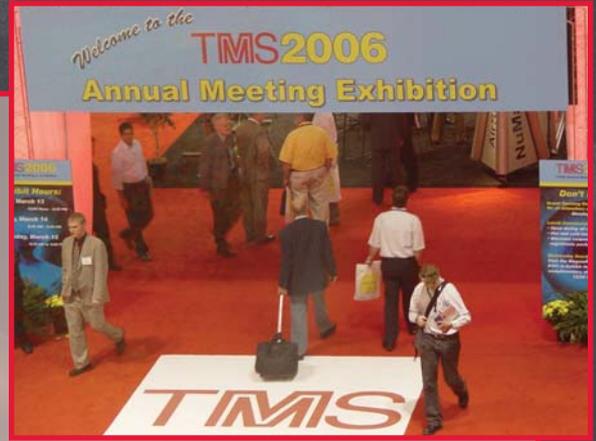


# TMS

The Minerals, Metals & Materials  
Society

# Annual Report 2006

Serving the Global Materials  
Community



# TMS

## About TMS

The Minerals, Metals & Materials Society (TMS) is the professional organization for those engaged in the science and engineering fields concerned with minerals, metals, and materials, worldwide.

The Society's work encompasses the entire range of materials science and engineering, from minerals processing and primary metals production to basic research and the advanced applications of materials.

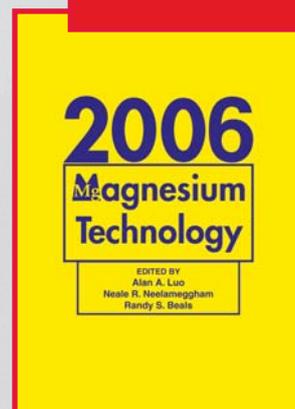
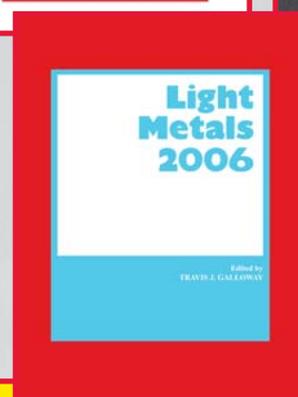
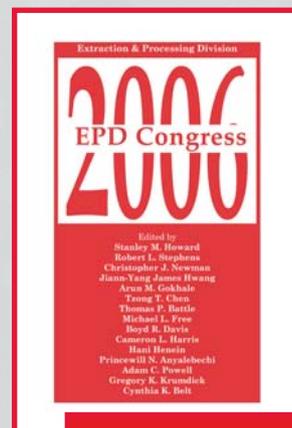
In order to facilitate global technical interchange and networking, TMS convenes annual conferences, publishes technical journals and conference proceedings, provides continuing education courses and webinars, and operates the TMS OnLine ([www.tms.org](http://www.tms.org)) and Materials Technology@TMS ([materialstechnology.org](http://materialstechnology.org)) web sites.

As a professional society, TMS is responsible for ratifying the program criteria by which metallurgical and materials science engineering programs across the United States are evaluated through the Accreditation Board for Engineering and Technology. TMS also administers the test employed by the National Council of Examiners for Engineering and Surveying to register professional metallurgical engineers in the United States.

TMS serves as a professional partner to its members worldwide by offering quality technical resources and education opportunities, recognizing professional excellence with honors and awards, and providing the tools needed to advance a career in materials science and engineering.

# TMS 2006

## 135th Annual Meeting & Exhibition



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Dear Fellow TMS Members,

We are pleased to provide you with the Annual Report for The Minerals, Metals & Materials Society for 2006. The year was one of progress and change, but most importantly was one of continued focus on our role of providing service to the global materials community. This took the form of knowledge dissemination through conferences, publications, and online services, service to both our professional and student members, and partnerships and collaborations with other societies and in emerging technical areas. We will continue to identify and implement new ways to serve you, our members, and the global materials community, informed and guided by the TMS Strategic Plan. Since the Strategic Plan is instrumental to our path ahead, we have presented a summary of key 2006 accomplishments using the framework of its four goals.

Reflected in this report you will see a society that is strong, financially and historically. You will see a society that has taken seriously its responsibility to advance the professional development of its members. You will see a society that is evolving to be as relevant to tomorrow's materials professionals as it has been to those of today and yesterday.

Underlying the strength of our society is the member, and TMS continues to be a member-run society. So in closing we encourage you to be a part of the TMS of the future. Volunteer your time, provide your opinion, and encourage your professional colleagues to be a part of the community that is TMS.

*B. Mishra*  
Brajendra Mishra, 2006 President

*Warren H. Hunt, Jr.*  
Warren H. Hunt, Jr., Executive Director

# A Message from TMS Leaders

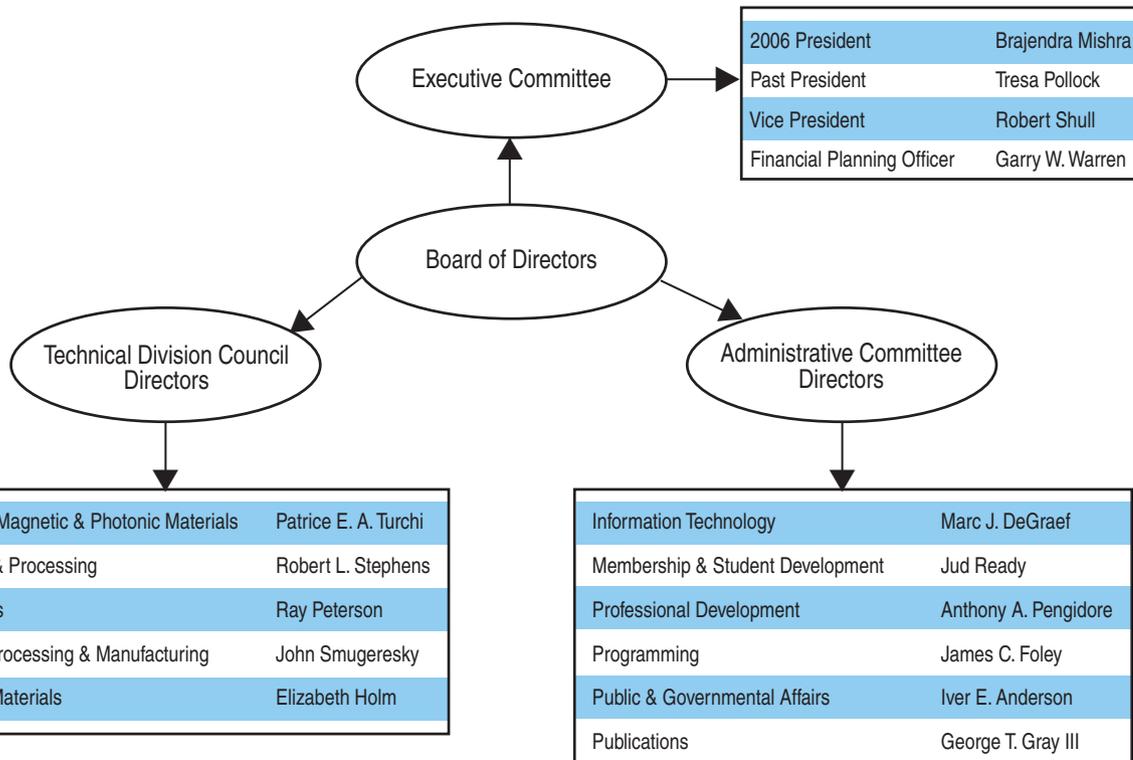


Brajendra Mishra, 2006 President



Warren H. Hunt, Jr., Executive Director

# 2006 TMS Leadership



## Strategic Goal 1: Broaden Engagement with the Global Community

*TMS is working to share information and knowledge with the global materials community through the development of electronic services, joint meetings and specialty conferences, increased international membership, and awareness of public and governmental issues.*



### **Materials Technology@TMS: Recreating the Annual Meeting Experience**

The TMS Annual Meeting provides a valuable venue for research exchange and networking. In 2006, TMS began work on the Materials Technology@TMS web site to recreate this experience for TMS members throughout the world, year-round. Each of the six initial technical communities within Materials Technology@TMS provides the opportunity for research and resource exchange, as well as technical discussion among colleagues.



### **International e-Membership**

In 2006, TMS began work on new levels of membership that would allow materials professionals in economically qualified countries access to select TMS electronic resources at a discounted rate. The International e-Member 1 level, introduced as a membership option for 2007, allows individuals in eligible countries access to electronic benefits, such as on-line page-turning *JOM* and access to one Materials Technology@TMS technical community.



### **International Meeting Collaborations**

Through partnerships forged with materials societies in India, China, Korea, Japan, Australia, and Europe, TMS will offer its members more varied options for meeting locations and will enhance already strong international programming at TMS meetings. Plans were made in 2006 to develop programming with international partners at TMS Annual Meetings, to develop joint programming at meetings like Euromat 2007, and to hold specialty conferences in locations such as South Korea and Mexico.

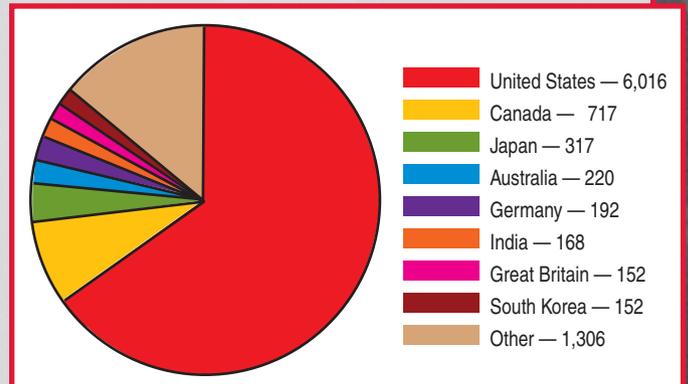
### **Growing Participation in MS&T '06**

The Materials Science & Technology (MS&T) conference series, founded by TMS and the former Iron & Steel Society (now the Association for Iron & Steel Technology) in 2003, continued to grow in 2005 with the addition of ASM International and further expanded when the American Ceramic Society rolled its annual meeting into MS&T '06. Approximately 3,300 people attended MS&T '06.

## MS&T'06<sup>®</sup>

### **TMS Members: Where They Live**

This graph shows a breakdown of TMS membership by geographic location.





**Growth at the TMS 2006 Annual Meeting**

With more than 1,800 technical presentations and 54 symposia, the technical program at the TMS 2006 Annual Meeting was one of the largest in the society's recent history. For the first time, every full-conference registrant received one of three proceedings collections on CD-ROM as part of the registration fee, placing more proceedings into the hands of more attendees in a convenient format.

**TMS Introduces the Webinar**

TMS expanded its technical programming to a wider audience with the launch of the TMS webinar series, which allowed materials professionals throughout the world to experience live presentations and pose questions to presenters in real time without leaving their homes. In 2006, participants in 75 locations joined in four webinars.

**Page-Turning JOM**

A dynamic, interactive version of the society's monthly membership journal, *JOM*, debuted on the TMS web site in 2006. The on-line, page-turning version of *JOM* recreates the physical experience of reading the journal by presenting the magazine in its entirety and allowing readers to flip through the pages, but the electronic version has the added benefit of links to websites and animations. Access to page-turning *JOM* is a benefit of TMS membership.

**Partnerships for Member Resources**

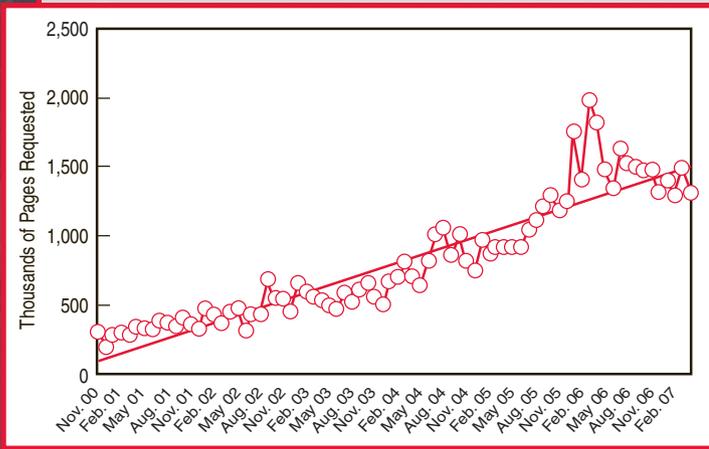
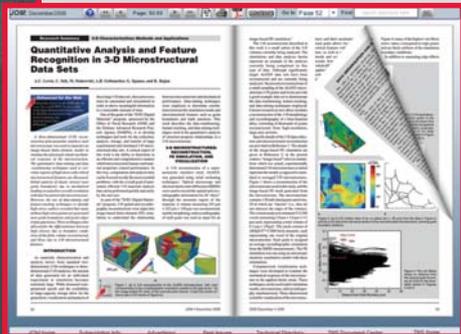
To meet member requests for more technical resources at no additional cost, TMS formed partnerships with the Knovel reference library and science publisher Springer. Through the TMS e-Library, powered by Knovel, TMS members can access 37 engineering reference books. Through Springer, TMS members can access TMS journals, receive discounts on Springer publications, and, in some cases, access additional materials journals from Springer.

**A Growing On-Line Presence**

Traffic on the TMS web site has increased since the year 2000, as seen in the graph. Of the estimated 100 million web domains in the world, the TMS website has an average ranking of approximately 65,000, according to Alexa, which tracks and ranks web traffic, placing it in the top 0.0007% of all web sites.

**Strategic Goal 2:  
Extend TMS Core Competencies**

*TMS is building on its existing strengths in technical programming, publications, information technology, and professional development by presenting traditional resources in new formats, expanding on-line resources for members, and developing strategic alliances with other organizations.*



## Strategic Goal 3: Enhance Services to TMS Members

*TMS aims to enhance its services by focusing on the variety of member needs within the society, developing products and services that address the needs of members from industry, academia, and government, as well as student members.*

### Meeting Member Needs in All Sectors

Over the past several years, TMS has assembled committees of academic and industrial members to learn how to better serve these audiences. Out of the committees came such initiatives as Materials Technology@TMS and the Early Career Faculty Fellow Award. Plans are now underway to assemble a committee of members working in government, so that TMS can continue to serve its members by listening to their needs.



### Early Career Faculty Fellow Award

TMS approved the development of an Early Career Faculty Fellow Award that would provide travel and technical programming experience to early career professionals working as assistant professors in a materials field. In 2006, TMS selected the first award recipient, Ryan K. Roeder of the University of Notre Dame. Roeder accepted his award at the TMS 2007 Annual Meeting in Orlando, Florida.



### International Scholar Program

Also in the interest of its young professional members, TMS established the International Scholar program in partnership with the Japan Institute of Metals (JIM). Through the program, two young professional members traveled to Japan to attend and present papers at the JIM 2006 Spring Annual Meeting. In return, TMS hosted a young professional from JIM at its 2007 Annual Meeting.



### Student Poster Contest

At the TMS 2006 Annual Meeting, TMS expanded its traditional student poster contest, which offered a single prize, to a competition worth more than \$7,000. In total, nine graduate and undergraduate students received \$500 prizes from the five TMS technical divisions. In addition, one best in show award (\$2,500) and two student ambassador awards (which included trips to the Junior Euromat 2006 conference in Switzerland) were given.

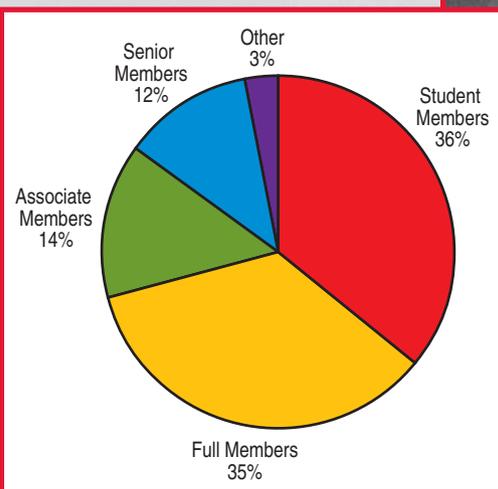


### Women's Networking Event Launched

To better serve its female members, often underrepresented in the science and technology fields, TMS established a new series of networking events at the TMS 2006 Annual Meeting: the Women in Science breakfast. Betty Shanahan, executive director of the Society of Women Engineers, delivered a presentation at the breakfast to approximately 90 attendees.

### A Look at TMS Members

As of December 31, TMS had a total of 10,807 members. The graph to the right provides a snapshot of TMS membership at that time.





**Emerging Technologies at TMS 2006**

At the TMS 2006 Annual Meeting, Emerging Materials was one of the three technical tracks in which programming was presented. This track included symposia on biological materials science, bulk metallic glasses, nanomaterials, ultrafine grained materials, sensors, space reactor fuels, energy conversion, lead-free solders, and materials in clean power systems.



**Commercialization of NanoMaterials**

Making the transfer from the laboratory to the marketplace is critical to the success of any new technology. In September, TMS organized Commercialization of NanoMaterials 2006, a conference where attendees from industry, small business, academia, and government could discuss needs and opportunities for nanomaterials solutions. TMS also plans to participate in Commercialization of NanoMaterials 2007 in November.



**Integrated Computational Materials Engineering**

In 2006, TMS responded to increasing member interest in the new interdisciplinary technology area of Integrated Computational Materials Engineering (ICME) by forming a technical coordination group. In addition, a suite of papers on the topic was published in the November issue of JOM, and programming plans were proposed for the TMS 2007 Annual Meeting. Ultimately, these plans resulted in a one-day symposium, a workshop, and a town-hall meeting that invited ideas and input for the National Materials Advisory Board's Committee on ICME.

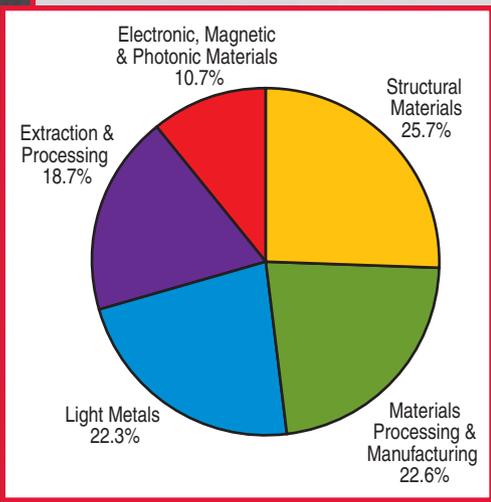


**On-Line Forums for Emerging Technologies**

Recognizing the importance of resource exchange and discussion to the development of any emerging technology area, TMS chose to devote half of the technical communities at its new Materials Technology@TMS web site to emerging and hot-topic technology areas. Lead-free solders, a hot topic area as manufacturers seek to meet lead-free guidelines; materials for nuclear power, an area that is gaining interest as a clean energy alternative; and the new field of ICME all have forums for news, discussion, and resource sharing.

**TMS Members: Technical Interests**

TMS members work in a variety of technical areas, both traditional and emerging. TMS broadly categorizes all of these areas into five technical divisions. The pie chart shows a breakdown of the technical areas for TMS members who have chosen a division affiliation.



**Strategic Goal 4: Capture Emerging Technologies**

*TMS seeks to foster the growth of new technologies by creating opportunities for knowledge and information dissemination in emerging technical areas. TMS plans to identify and analyze emerging technology areas and to develop ways in which the society can serve these new, fast-growing areas.*

## Financials

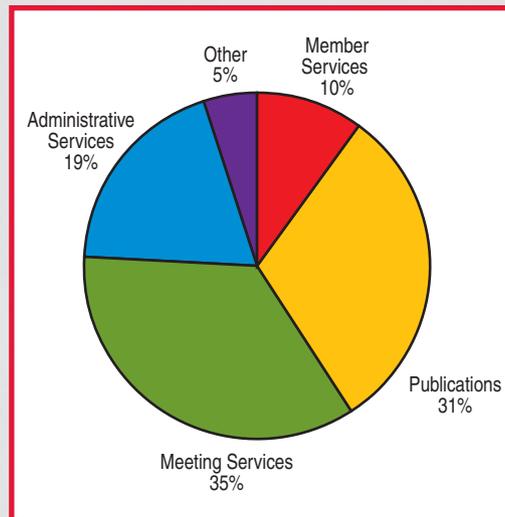
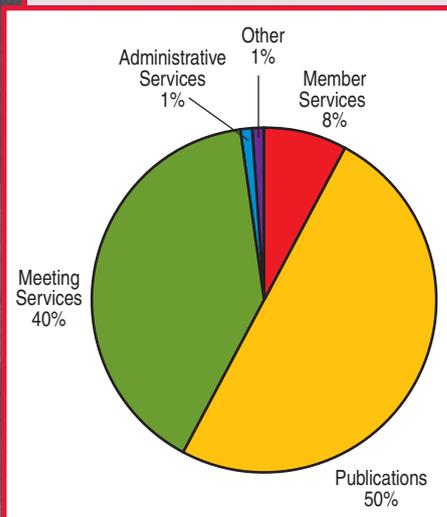
### Summary of Operating Revenue and Expenses

#### Revenues

Member Services	\$519,049
Publications	\$3,342,396
Meeting Services	\$2,632,144
Administrative Services	\$81,955
Other	\$46,035
<b>Total</b>	<b>\$6,621,579</b>

#### Expenses

Member Services	\$623,798
Publications	\$1,935,220
Meeting Services	\$2,261,278
Administrative Services	\$1,199,908
Other	\$291,309
<b>Total</b>	<b>\$6,311,513</b>



## 2006 Meetings & Publications

### Meeting Attendance

In 2006, TMS held five conferences, including its annual meetings and specialty conferences:

- TMS 2006 Annual Meeting & Exhibition: 3,446 attendees
- Materials Science & Technology 2006 (MS&T '06): 3,288 attendees
- 48th Annual Electronic Materials Conference: 490 attendees
- Sohn International Symposium on Advanced Processing of Metals and Materials: Principles, Technologies, and Industrial Practice: 399 attendees
- Commercialization of NanoMaterials 2006: 199 attendees

### Publications

In 2006, TMS published three collected proceedings volumes and seven stand-alone books from the TMS 2006 Annual Meeting, a nine-volume proceedings set from the Sohn International Symposium, and a collection of papers from the Modeling of Casting, Welding, and Advanced Solidification XI conference. In addition, TMS participated in the publication of the MS&T conference proceedings, which were available to meeting attendees on a CD-ROM, as well as in a six-volume set.

In 2006, TMS also published 12 issues of its member journal, *JOM*; 13 issues of *Metallurgical and Materials Transactions A* and six issues of *Metallurgical and Materials Transactions B*, archival journals published with ASM International; and 12 issues of the *Journal of Electronic Materials*, published with the Institute of Electrical and Electronics Engineers.

**About the Photos:**  
The photos and images used throughout this report were taken from other TMS publications.