

TMS

The Minerals, Metals & Materials Society

Annual Report 2008

**Serving the
Materials
Community
and Society**



TMS

Materials and Society

Serving the Materials Community

In a year marked by global economic turmoil, TMS found ways to provide new and relevant services in 2008, while improving those services members have come to expect. The images on this page illustrate some of the society's core activities, from publications to meetings to on-line resources.

Among the new services introduced in 2008 was the Job and Financial Security Center, which helps members to search for employment and access financial advice. In the past year, TMS also provided the following benefits to its members:

- Meetings and Networking Sites to connect members and share research
- Books, Journals, and Electronic Resources to stay up-to-date on materials news and developments
- Awards and Scholarships to recognize achievement and promise in materials scientists and engineers
- Outreach Initiatives to promote the profession to government and the public

Serving Society

In the past year, TMS emphasized the role that materials can play in providing solutions to global problems, such as reducing greenhouse gas emissions and developing alternative energy sources. Through programming at the TMS 2008 Annual Meeting, a new on-line community, and new technical committees, TMS highlighted these and other areas where materials can make a significant impact on society.

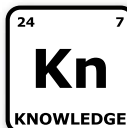
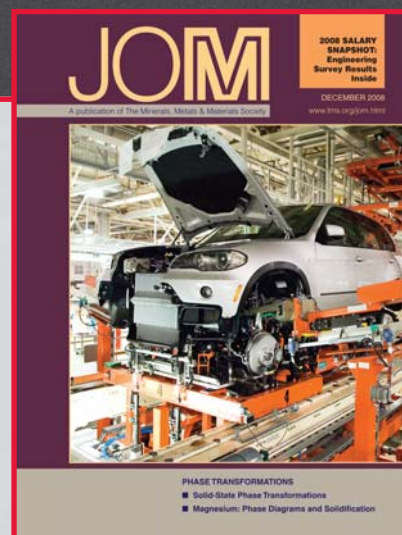
To ensure that this focus continues into the future, TMS established a committee devoted to Materials and Society. TMS is also taking steps to "green" its annual meetings and to be more environmentally responsible in its day-to-day operations.

2008 Annual Report

On the following pages, TMS lays out its five strategic goals for moving the society into the future and looks more specifically at projects currently underway to benefit its members and the materials community.

About TMS

The mission of TMS is to promote the global science and engineering professions concerned with minerals, metals, and materials. TMS is a professional, member-driven organization that operates in the five technical areas of electronic, magnetic & photonic materials; extraction & processing; light metals; materials processing & manufacturing; and structural materials.



**TMS KNOWLEDGE
RESOURCE CENTER**

TMS 2008 137th Annual Meeting & Exhibition



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Warrendale, PA 15086

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(in the U.S.)
or (724) 776-9000
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www.tms.org

Dear Fellow Members of the Materials Community:

On behalf of the TMS Board of Directors and all of our volunteer leaders and staff, we present the 2008 Annual Report of The Minerals, Metals & Materials Society (TMS). Our theme for the report, "Serving the Materials Community and Society," we think appropriately represents the responsibility of our Society not just to our members but also beyond our organizational borders. In this year we have made notable progress in establishing the strategic framework as well as initiating the implementation of initiatives to pursue these opportunities.

The materials community continues to broaden, beyond the discipline of materials science and engineering, to include an increasingly diverse group of professionals in other engineering and scientific fields. TMS continues to be an important constituent of the community, including areas where our responsibilities as a professional society place us in a leadership role. During 2008, we have continued to seek collaborations with other organizations on a global basis to serve the needs of our members and the materials community in the most effective way possible. We will continue to step up to lead as the community explores our collective future.

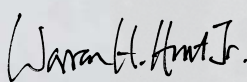
The Materials and Society theme, one which began as a fledgling idea in a Distinguished Lecture delivered in 2004, is now becoming established as a core activity of TMS. We are excited about the prospects of leveraging the core competencies of TMS and working with a wider range of global partners in this area in the coming years. We are hopeful of the impact that we might have, in collaboration with others, in addressing the burgeoning needs of society. We are confident that TMS has an important role to play.

Let us close by recognizing all of the efforts of the TMS family in making this year one to remember. The Board of Directors and volunteer leaders been effective and engaged, members have been supportive, and the TMS staff committed to providing excellent support. We thank you all, and join you in looking forward to our 138th year . . . in service to the materials community and society.

Sincerely,



Diran Apelian, 2008 President



Warren H. Hunt, Jr., Executive Director

A Message from TMS Leaders



Diran Apelian,
2008
President



Warren H.
Hunt, Jr.,
Executive
Director

2008 TMS Board of Directors

Executive Committee

Diran Apelian, 2008 President
Robert D. Shull, Past President
Ray D. Peterson, Vice President
Garry W. Warren, Financial Planning Officer

Technical Division Council Directors

Zi-Kui Liu, Electronic, Magnetic & Photonic Materials
Thomas P. Battle, Extraction & Processing
Wolfgang A. Schneider, Light Metals
Joy Forsmark, Materials Processing & Manufacturing
Eric M. Taleff, Structural Materials

Administrative Committee Directors

Nikhilesh Chawla, Information Technology
Jud Ready, Membership & Student Development
David Alan Shifler, Professional Development
James C. Foley, Programming
Kevin J. Hemker, Public & Governmental Affairs
Elizabeth A. Holm, Publications

2008 TMS Leadership

Strategic Goal 1:

Broaden Engagement with the Global Materials 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.

TMS Expands On-Line Resources and Discussion Forums

In 2008, TMS broadened the reach of its on-line Materials Technology@TMS communities (*material-technology.tms.org*) to include more technical fields, making it a useful resource for those working in all areas of materials science and engineering. The new site has four focus areas: Emerging Materials Technologies, Established Materials Technologies, Materials Education, and Materials and Society. The site is now open to TMS members and non-members alike to provide the greatest benefit to all users.



Materials Societies Choose Congressional Fellow

In 2008, TMS, the Materials Research Society, and the American Ceramic Society awarded the first Materials Societies Congressional Fellowship to polymer scientist Ticora V. Jones. This new award, administered through the American Association for the Advancement of Science, provides materials professionals with an opportunity to spend a year in Washington, D.C., working with Congressional staffers on developing science and engineering legislation.



TMS 2008 Features Collaboration with Global Partners

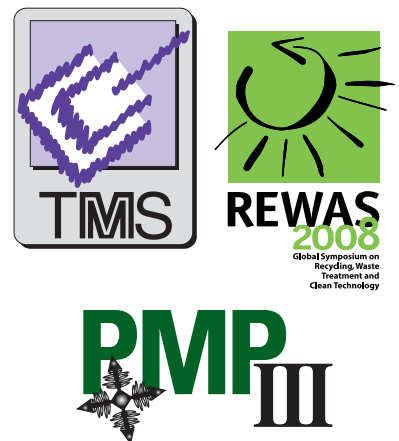
Programming at the TMS 2008 Annual Meeting included collaboration with several international partners. The International Organization of Materials, Metals, and Minerals Societies (IOMMMS) Global Materials Forum: Creating the Future MS&E Professionals included contributions from the Indian Institute of Metals (IIM), the Chinese Society for Metals (CSM), the Japan Institute of Metals, the Korean Institute of Metals and Materials, and the Association for Iron and Steel Technology. TMS also collaborated with IIM and CSM on a Materials for Infrastructure session at the meeting.



TMS Organizes International Events

In addition to collaborating with international partners, TMS planned three events at international venues:

- The Industrial Aluminum Electrolysis 2008 short course was held in the United Arab Emirates in October.
- REWAS, the 2008 Global Symposium on Recycling, Waste Treatment, and Clean Technology, was held in Cancun, Mexico, by TMS and its partners in October.
- PMP-III, the third international conference on Processing Materials for Properties, was scheduled for December in Bangkok, Thailand, but has been postponed until 2009.





New Web Sites for TMS and 2009 Annual Meeting

TMS's home page (www.tms.org), the on-line face of the society, received a makeover in 2008, making this long-time resource an even more useful tool for members. The easier-to-navigate site provides visitors with regular updates on member benefits and society events. Recently, the home page of the TMS 2009 Annual Meeting (www.tms.org/annualmeeting.html) was also

updated to provide attendees with more resources to plan for the 2009 conference as well as regular updates on meeting-related news.

TMS Captures Annual Meeting Presentations as Webcasts

Each year, TMS publishes proceedings of papers presented at its Annual Meeting. In 2008, TMS took this idea one step further by recording webcasts of selected presentations. Some of these webcasts, which allow viewers to watch the slide show presentation while listening to a speaker's talk, were made available free of charge to all TMS members or all members of the materials community through grants from partners; others could be purchased by all web users.

TMS Updates Bylaws and Governance Policies

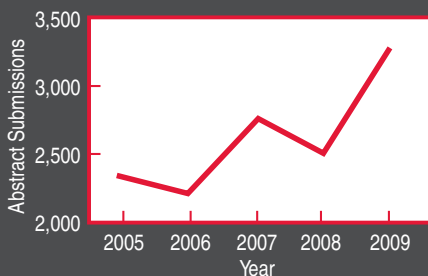
In a more behind-the-scenes activity, TMS took great strides this year to strengthen the core of the society by revising both its bylaws and the policies and procedures that govern its activities. The new bylaws and policies now better conform to best practices of governance. TMS members ratified the society's new bylaws in November.

DISCUSSIONS@TMS

TMS Expands Communication with Members

2008 TMS President Diran Apelian opened new lines of communication with TMS members through a new feature on the TMS web site: the President's Blog and Discussion Zone, one of many new discussion areas that TMS has opened to encourage dialogue with members. Other sections in the Discussions@TMS forum (discussions.tms.org) allow professionals to exchange technical information and JOM readers to weigh in on current issues.

Abstract Submission Growth: TMS Annual Meetings



In 2008, materials scientists and engineers from throughout the world submitted a record 3,283 abstracts to be presented at the TMS 2009 Annual Meeting in February. This chart shows the growth leading up to this record-breaking meeting over the past five years and shows that the TMS Annual Meeting, the society's largest event of the year, is still going strong.

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.

TMS Helps Members through Tough Economic Times

At the end of the year, TMS introduced the new Job and Financial Security Center, an on-line resource where TMS members can search for jobs and obtain expert advice. Available through the TMS Members-Only web site (members.tms.org), the resource center is broken down into two sections: Employment Search and Security and Financial Security. Taken together, these resources can help make members more employable and offer them long- and short-term financial advice.



Emerging Leaders Alliance Grooms Materials Professionals

To help develop the leadership and communication skills in future science and engineering leaders, TMS partnered with professional societies in a variety of engineering disciplines to create the Emerging Leaders Alliance. This program launched a web site (www.emergingleadersalliance.org) providing resources for young leaders and held its first seminar for early career professionals in conjunction with the Materials Science & Technology 2008 conference.

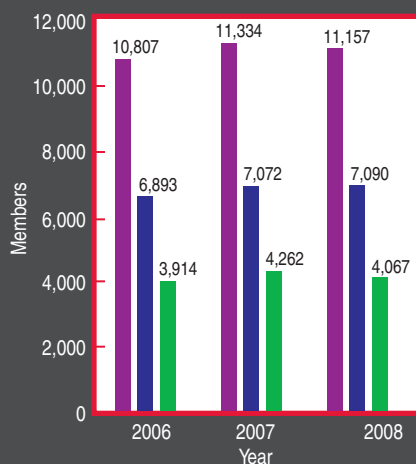


TMS Adds Archival and Archived Journals to Member Benefits

In 2008, TMS announced the addition of four new journals to its suite of on-line member benefits. Members received access to the archives of *AIME Transactions*, the long-running journal of the American Institute of Mining, Metallurgy, and Petroleum, which provides a historical look at the development of the materials field and profession. Then, TMS announced the decision to make its three frequently cited archival journals, *Journal of Electronic Materials* and *Metallurgical and Materials Transactions A* and *B* available in electronic format to all TMS members beginning in 2009.



TMS Membership Trends, 2006-2008



Despite a difficult economic year, TMS membership numbers remained strong in 2008. While overall membership showed a slight decline, it remained well above 2006 levels, with professional membership actually increasing for the year. Student membership is shared by TMS and several other materials societies.

- Total TMS Membership
- Professional Members
- Student Members



TMS Links Materials and Society

To help members see how their work—and their participation in TMS—could make a difference in the world, TMS spotlighted the interaction between materials technologies and societal needs in 2008. Materials and Society issues were a key programming focus at the TMS 2008 Annual Meeting, held in New Orleans, Louisiana, in March. Symposia explored the role of materials in infrastructure, ways that metals industries can decrease their environmental impact, and the use of materials in alternative energy technologies. In conjunction with the conference, TMS organized a service project, where 55 meeting attendees went out into the local New Orleans community and made a direct impact by brightening up the grounds of a school damaged by Hurricane Katrina. TMS solidified its Materials and Society focus for future years by creating an on-line community for discussion and resource sharing (materialstechnology.tms.org) and establishing a Materials and Society administrative committee to direct future efforts.



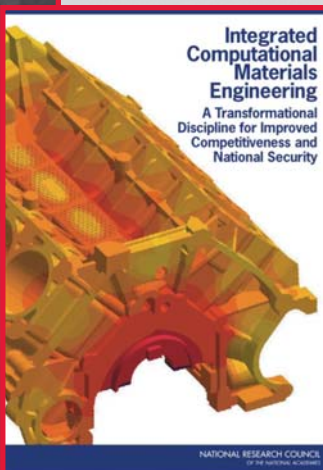
TMS Introduces Energy Committee

Sustainable production and efficient manufacturing processes are the focus of a new Energy Committee established at the TMS 2008 Annual Meeting. The Energy Committee joined TMS's slate of more than 30 technical committees, which provide technical programming for meetings and guide publication content for the entire organization. The new committee, which is jointly sponsored by the society's Light Metals and Extraction & Processing divisions, will explore ways to reduce energy consumption and environmental impact related to the production of minerals, metals, and materials.



Electronic Materials Conference Turns 50

Capturing emerging materials technologies has always been a goal of TMS; that's why the society began holding the annual Electronic Materials Conference 50 years ago. For the conference's 50th anniversary in 2008, TMS held a special plenary session that reviewed past developments in the field and looked forward to the future. The 2008 Electronic Materials Conference was held June 25-27 in Santa Barbara, California.



TMS Continues Commitment to ICME

Integrated Computational Materials Engineering (ICME) continued to be an area of emphasis for the society. TMS collaborated with the American Physical Society on five ICME sessions, which were available to attendees of the TMS 2008 Annual Meeting. Then, at the Materials Science & Technology 2008 (MS&T '08) conference in October, TMS hosted a special session to review the National Materials Advisory Board report, *Integrated Computational Materials Engineering: A Transformational Discipline for Improved Competitiveness and National Security*. In response to the report, TMS established an ad hoc committee to help the society put some of the report's recommendations into practice.

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.

Strategic Goal 5: Ensure Financial Resources to Achieve Strategic Goals

TMS plans to achieve its strategic goals and to assure the operation of the TMS Foundation through accepted business principles, investments, external funding, and fiscally responsible operations.

Prudent Management for Challenging Times

In spite of a global recession, TMS had a successful year financially as noted in the tables and charts below. While revenues fell short of plan, effective cost management, along with a focus on delivering high value products and services, enabled a positive result.

Meeting services, publications, member services, and professional development continue to form the core of TMS and remain the key areas of emphasis in the uncertain future of the coming year.

Grant Helps TMS Continue to Expand Services to Members

In 2008, the U.S. National Science Foundation approved the second half of its two-year, \$60,000 grant for the Education community of Materials Technology@TMS. The Education community provides a place for university professors, part-time educators, and outreach volunteers to share notes on what works and what doesn't in teaching materials science and engineering. The grant money was used to further enhance the existing site for the benefit of the academic community and for the purpose of advancing materials science and engineering education.



Summary of Operating Revenue and Expenses

Year Ended 31 December 2008

Revenues		Expenses	
Member Services	\$487,750	Member Services	\$336,709
Knowledge Products	\$1,704,722	Knowledge Products	\$1,054,708
Meeting Services	\$2,428,657	Meeting Services	\$1,989,107
Professional Development	\$273,998	Professional Development	\$243,827
Business Development & Operations	\$202,808	Business Development & Operations	\$1,296,476
Total	\$5,097,935	Total	\$4,920,827

