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TMS eNEWS

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THE MATERIALS SCIENCE AND ENGINEERING PROFESSIONAL'S E-NEWSLETTER

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What Issue Could Inspire You to Write to Washington?

The committee will be chaired by the incoming Information Technology and Publications Coordinating directors. Former members of the Information Technology and Publications Coordinating committees are encouraged to consider participating in the new committee, which will hold its first formal meeting at the TMS 2011 Annual Meeting and Exhibition in San Diego, California.

To volunteer, contact [Jim Robinson](#), deputy executive director of TMS.

**MORE
INFO**

[TMS Committee Home Pages](#)
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FROM OUR SPONSOR: Fray International Symposium to Be Held in 2011

**NEWS
ITEM**

Meeting Will Be Held November 27–December 1 in Cancun, Mexico



This major symposium will honor the distinguished work and lifetime achievements of Prof. Derek Fray, well-known for his impact in the materials extraction and processing world. The scope of this symposium will be based on the principles, technologies, and industrial practices in materials extraction and processing, with special emphasis on the globally sought clean environment of the 21st century. It will include, but it is not limited to, non-ferrous metal extraction, processing and sulfide smelting (including light metals, PMG and ferro alloys); iron and steel

production; mineral processing; chemical and metallurgical process reactors; refractory materials; recycling, waste treatment, soil remediation and biotechnologies; chemistry of power and energy generation; composite, hybrid, polymeric, ceramic materials and nanomaterials; value addition and advanced materials; legal and management, and environmental related issues.

The symposium incorporates three international symposia:

- Sustainable Non-Ferrous Smelting in 21st Century
- Advanced Sustainable Iron and Steel Making
- Molten Salts and Ionic Liquids 2011

It will also include 15 short courses. It is sponsored by a record number of more than 205 organizations worldwide and well known companies such as Umicore and Berzelius. The abstract deadline for the Fray International Symposium is November 15. For more information, visit the conference website at <http://www.flogen.com/FraySymposium>.

**MORE
INFO**

[Fray International Symposium](#)

TMS Announces Second Annual TMS, MSE & Me Video Contest

NEWS

ABOUT e-NEWS

TMS e-News is a monthly e-mailed newsletter that provides information on [The Minerals, Metals & Materials Society's](#) membership, meetings, publications, and other activities of interest. For more information contact:

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OPEN ACCESS ARTICLES

The following articles from TMS journals and web sites are available to all readers at no charge. This month's featured articles are:

Published in JOM: [The Thermodynamic Modeling of Precious-Metal-Modified Nickel Based Superalloys](#) by F. Zhang, J. Zhu, W. Cao, C. Zhang, and Y.A. Chang. Thermodynamic modeling of precious-metal-modified Ni-based superalloys (PMMS) was performed in this study using the CALPHAD approach. With this electromigration

current flow, the diffusing species enhances growth of the intermediate phase, while current flow in the opposite direction slows growth. The morphological stability of the interfaces between the intermediate phase and the terminal phases depends on the current direction, the relative conductivities of the phases, and the thickness of the intermediate phase. [\[READ\]](#)

Published in Journal of Electronic Materials: [Formation and Growth of Intermetallic Compound Cu₆Sn₅ at Early Stages in Lead-Free Soldering](#) by M.S. Park and R. Arroyave. In this work, the early stages of the formation and growth of the intermetallic compound Cu₆Sn₅ during soldering reactions between a Cu substrate and liquid Sn are examined through phase-field simulations. The simulations are compared with previous works and are shown to have good (qualitative) agreement with recent detailed studies on the early stages of the interaction between Cu and liquid Sn. [\[READ\]](#)

MEETINGS CALENDAR

Upcoming meetings and conferences from the TMS [Global Meetings Calendar](#):

[Australian Mining Congress 2010](#)
Sydney, Australia
September 6-7, 2010

[XXV International Mineral Processing Congress \(IPMC 2010\)](#)
Brisbane, Australia
September 6-10, 2010

[TMS Industrial Aluminum](#)