

**TMS 2017**  
146<sup>th</sup> Annual Meeting & Exhibition  
THE WORLD COMES HERE.

February 26 – March 2, 2017  
San Diego, California, USA

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**Special Networking Events**

Sign up for these separately on the meeting registration form.

**Please Note:** The minimum age limit for both events is 18.

**Congress Dinner Event**

*Casa Guadalajara*  
Monday, February 27, 2017  
6 p.m. to 9 p.m.

**Congress Tour**

Friday, March 3, 2017  
Gain first-hand insights into the connection between materials and nature. This full-day experience combines tours of the San Diego Zoo and Birch Aquarium with a visit to the laboratory of Marc Meyers, professor of Mechanical and Aerospace Engineering at the University of California, San Diego (UCSD) and lead organizer of the Pan American Materials Congress.

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**Welcome to the TMS 2017 146<sup>th</sup> Annual Meeting and Exhibition!**  
February 26 – March 2, 2017 • San Diego, California



**3<sup>rd</sup> Pan American Materials Congress**

*Co-located with the TMS 2017 Annual Meeting & Exhibition*

**Content and Collaborations across Continents**

Join other leading experts on the minerals, metals, and materials issues impacting the technological progress of the nations of the Americas. Hosted by TMS and made possible through the efforts of nine materials professional societies, the 3rd Pan American Materials Congress highlights the latest science and engineering developments affecting the region's key industries. Cross-cultural networking activities facilitate the development of new collaborations. A comprehensive technical program and world-class roster of plenary speakers give you access to ideas and information that can benefit your work long after the congress adjourns.

**Register Today**  
Register by January 20 for the best rate.

**Need a visa to travel to the meeting?** [Access information and tools](#) to assist with this process.

The official language of the 3rd Pan American Materials Congress is English.

**PLANNED SYMPOSIA**

**Advanced Biomaterials**

This topic area will highlight recent innovations and developments in the field of biomaterials, which is a critical component for the advancement of cutting edge medical therapies and treatments and necessary for continued advances in human health.

Organizers: [Carlos Nelson Elias](#), Brazil; [Wen Yang](#), USA/Switzerland

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**Advanced Manufacturing**

This symposium will highlight materials-related innovations in advanced manufacturing and their impact in materials research and engineering. Advanced manufacturing technologies and processes remain a vital component for the fabrication of materials for aerospace, automotive, aeronautics, and medical industries.

Organizers: [Sonia Brühl](#), Argentina; [Ricardo H.R. Castro](#), USA; [Dachamir Hotza](#), Brazil

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**Materials for Green Energy**

This symposium will focus on the creation, characterization, and uses of materials that aid in renewable energy storage, transmission, and generation, and more generally in environmentally friendly materials and processes.

Organizers: [Julie Schoenung](#), USA; [Roberto Arce](#), Argentina; [Hector Calderon Benavides](#), Mexico; [R.V. Mangalajaja](#), Chile

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**Materials for Infrastructure**

Maintaining infrastructure in metropolitan and urban areas remains a global challenge in the 21st century. This topic area will

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Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
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26	27	28	1	2	3	4
5	6	7	8	9	10	11

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examine the state-of-the-art and potential for future innovations in materials issues related to infrastructure.

Organizers: [Henry A. Colorado](#), Colombia; [Oliverio Rodriguez](#), Mexico

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#### **Materials for the Oil and Gas Industry**

This symposium will highlight materials-related innovations in processing for oil and gas extraction, production, refining and transportation. Particular emphasis will be given to the development of processing-microstructure-property relations on specific applications involving materials degradation, protective coatings, failure analysis, etc.

Organizers: [Lorenzo Martinez Gomez](#), Mexico; [Adriana da Cunha Rocha](#), Brazil

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#### **Materials for Transportation and Lightweighting**

This symposium focuses on materials for both transportation and lightweighting innovations, to include characterization, modeling, testing and engineering applications.

Organizers: [Mary Wells](#), Canada; [Rafael Colás](#), Mexico; [Fernand Marquis](#), USA; [R.V. Mangalaraja](#), Colombia; [Marta Lopez](#), Chile; [Elvi Dalgaard](#), Canada; [Patricia Zambrano](#), Mexico

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#### **Minerals Extraction and Processing**

Extraction of minerals and metals are a critical component of the supply chain for materials applications and advances around the world.

Organizers: [Mery Cecilia Gomez Marroquin](#), Peru; [Mark Schlesinger](#), USA; [Alejandro Lopez Valdivieso](#), Mexico; [Carlos Hoffman Sampaio](#), Brazil

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#### **Nanocrystalline and Ultra-fine Grain Materials and Bulk Metallic Glasses**

Organizers: [Terence G. Lanqdon](#), USA; [Megumi Kawasaki](#), S. Korea/USA; [Roberto Figueiredo](#), Brazil; [Jose Maria Cabrera](#), Mexico/Spain

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#### **Steels**

Presentations in this symposium will focus on recent innovations and potential future materials breakthroughs in advanced steels.

Organizers: [Omar Garcia-Rincon](#), Mexico; [Andre Costa e Silva](#), Brazil

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#### **PLENARY SPEAKERS**

- **Diran Apelian**, Alcoa-Howmet Professor of Mechanical Engineering, Worcester Polytechnic Institute, USA  
*Presentation:* "The Circular Economy—A Pathway to Resource Recovery and Recycling"
- **Carolyn Hansson**, Professor of Mechanical and Mechatronics Engineering, Cross-Appointed to the Department of Civil and Environmental Engineering, University of Waterloo, Canada  
*Presentation:* "Designing Infrastructure Materials for 100-plus year Service Lives"
- **Enrique Lavernia**, Provost and Executive Vice Chancellor, University of California, Irvine, USA  
*Presentation:* "Recent Progress in High Entropy Alloy Research"
- **Pedro Dolabella Portella**, Department Head, Materials Engineering, Federal Institute for Materials Research and Testing (BAM), Germany  
*Presentation:* "Toward a Federation of American Materials Societies: The European Experience"
- **Fernando Rizzo**, Director, INT/MCTI, Brazil  
*Presentation:* "Steel: Phase Transformations"
- **Carlos Schvezov**, Professor of Chemical and Natural Sciences, National University of Misiones, Argentina, and CONICET Independent Researcher  
*Presentation:* "Production, Properties, and Applications of Titanium Dioxide Films"
- **Alejandro Toro**, Professor and Senior Researcher at Universidad Nacional de Colombia  
*Presentation:* "What Do Snakes Have to Say About Tribology? Biomimetics Applied to Friction and Wear Studies"
- **Salvador Valtierra**, Process Technology Manager, Nemak, Mexico  
*Presentation:* "High Temperature Solutions Through Materials and Processes for Engines under Heavy Thermal Fatigue Conditions"

**ORGANIZING COMMITTEE****Congress Chair**

Marc Meyers, University of California, San Diego

*Organizer of the 2010 and 2014 Pan American Materials Congresses*

**Committee Members**

**Argentina:** Roberto Arce, Sonia Brühl, Carlos Schvezov

**Brazil:** Andre Costa e Silva, Sergio Neves Monteiro, Horacido Leal

**Canada:** Mary Wells, Mihaiela Isac

**Chile:** R.V. Mangalaraja, Claudio Aguilar, Marta Lopez, Enrique Miranda Salinas

**Colombia:** Henry A. Colorado, Juan Manuel Velez

**Mexico:** Armando Salinas-Rodriguez, Marco Ramirez-Argaez, J. Gerardo Cabanas-Moreno

**Peru:** Mery Cecilia Gomez Marroquin, Yovanna Gisela Palomares Yallico, Maria Isabel Gomez Marroquin

**USA:** Michael Kaufman, Diana Farkas, Olivia Graeve

**HOST SOCIETIES**

- Asociación Argentina de Materiales (SAM)
- Associação Brasileira de Metalurgia, Materiais e Mineração (ABM)
- Asociación Peruana de Metalurgia, Materiales Y Minerales (APMMM)
- Colombian Materials Society
- Instituto Ingenieros de Minas de Chile (IIMCh)
- Metallurgy and Materials Society (MetSoc), Canadian Institute of Mining, Metallurgy, and Petroleum (CIM)
- Sociedad Chilena de Metalurgia y Materiales (SOCHIM)
- Sociedad Mexicana de Materiales (SMM)
- TMS (Host Society)

Questions or comments? Contact [webmaster@tms.org](mailto:webmaster@tms.org)  
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For more information about this meeting, please complete the [meeting inquiry form](#) or contact:

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The Minerals, Metals & Materials Society

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