

## Calendar of Events

### Tuesday, November 15, 2005

*Los Angeles Chapter Awards Night*

Time: 5:45 pm

Title: Awards Night

Speaker: Dr. Reza Abbaschian, FASM

ASM International President and Trustee (2005-2006)

University of California, Riverside

### Thursday November 17, 2005

*Orange Coast Chapter General Meeting*

Time: 6:00 pm

### Tuesday, November 15, 2005

*South Bay Chapter General Meeting*

Joint meeting with LA Chapter

### Thursday, November 17, 2005

*San Fernando Valley Chapter*

*CSUN Student Night*

Time: 6:30 pm

Corrosion Sensors for High-Strength Steel Strands in  
Suspension Cables – *Ami Garcia*

Fracture Properties of Multi-layered Steel Fiber-  
Reinforced Concrete – *Victor Cervantes*

Synthesis of Faceted  $Ba_xSr_{x-1}TiO_3$  Microcrystals -  
*Nallely Olguin*

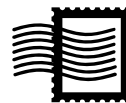
To all ASM Members -

*With the release of the annual yearbook and directory, it has been brought to the attention of the Executive Board that personal or business information shown for members may be outdated and therefore no longer valid. In order to provide the most up-to-date information available, we urge each and every member to update their profile as necessary at the ASM International website ([www.asm-intl.org](http://www.asm-intl.org)). The process is simple, and should only take a few minutes. This will allow both the National and local chapters to updated their records and ensure an accurate listing for the directory and other chapter correspondences. As always, we appreciate your participation and support at both the national and local levels.*

*Richard Schreiman  
Chairman, Los Angeles Chapter*

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## **Los Angeles Chapter Joint Quad Chapter Meeting and Awards Night**

### **Dr. Reza Abbaschian, FASM Biography:**

Dr. Reza Abbaschian is Dean, College of Engineering at the University of California, Riverside. He received his Ph.D. in materials science and engineering from the University of California, Berkeley, in 1971, M.S. degree in metallurgical engineering from Michigan Technological University in 1968, and B.Sc. in mining and metallurgy from Tehran University in 1964.

Before moving to UC Riverside in 2005, Dr. Abbaschian was Vladimir A Grodsky Professor at the University of Florida Department of Materials Science & Engineering.

Before joining UF in 1981, he was chairman and member of the faculty at Pahlavi University, Shiraz, Iran, Visiting Associate Professor at the University of Illinois, and Visiting Scientist at Massachusetts Institute of Technology. He has produced more than 200 scientific publications on subjects ranging from metal processing, crystal growth, solidification, and intermetallic matrix composites to phase diagrams. He also has four patents, three patent disclosures, and eight books, including the third edition of *Physical Metallurgy Principles*, which he co-authored.

Dr. Abbaschian has been active in several regional and national educational and professional organizations, including National Materials Advisory Board, NASA Space Station Users Advisory Committee, TMS Board of Directors, Trustee of Federation of Materials Societies, NSF-Materials Research Advisory Committee, and chairman of the University Materials Council. He has served or chaired numerous panels and committees, such as the ASM Government and Public Affairs Committee, ASM/MSD Thermodynamics and Phase Equilibria Committee, the NSF panel for education in Materials Science and Engineering, TMS-Solidification Committee, the ASM-MSD Materials Processing Committee, and MRS External Academic Affairs Committees.

Awards and citations he has received include UF Top Researcher or Research Achievements Awards for eight consecutive years, the 1992 ASEE Southeastern Best Paper Award, the 1998 Educator Award of TMS for outstanding contributions in engineering education, TMS 1999 Leadership Award, and the Structural Material Division's 1999 Distinguished Scientist/Engineer Award. He was also elected an ASM Fellow 1992 and a Fellow of TMS in 2000.

### **Los Angeles Chapter (continued)**

#### **Topic: An Overview of Advanced Materials**

Everything we use is composed of advanced materials, from computer chips to flexible concrete skyscrapers, from plastic bags to artificial hips, from optical cables to automobiles. Designing and making materials in an innovative and efficient manner are critical not only to the manufacturing competitiveness, but also to meeting societal needs and national security. As such, the impact of advanced materials extends beyond products, in that tens of millions of jobs depends on their availability. In this presentation, an overview of the recent advances in materials processing and properties together with a review of the recent progress in producing diamond single crystals for jewelry applications will be presented.

<b>WHERE:</b>	<b>So. Cal Gas Co. Energy Resource Center 9240 East Firestone Blvd. Downey, CA 90241</b>
<b>TIME:</b>	<b>5:45 pm – Social 6:30 pm – Dinner 7:15 pm – Presentation 8:00 pm – Awards</b>
<b>WHEN:</b>	<b>Tuesday, November 15, 2005</b>
<b>COST:</b>	<b>\$20.00 members \$25.00 non-members \$8.00 students with ID Awardees – NO CHARGE</b>
<b>RSVP:</b>	<b>Fred Minter (714-993-3479) <a href="mailto:frederickminter@sbcglobal.net">frederickminter@sbcglobal.net</a></b>

### **South Bay Chapter**

The south bay November meeting will be held in conjunction with the Los Angeles Chapter meeting. For questions or more information, please contact Marc Kashinsky at 805-271-2242.

**San Fernando Valley Chapter**  
**STUDENT NIGHT**  
**all students invited**

**Corrosion Sensors for High-Strength Steel Strands in Suspension Cables – Ami Garcia**

Corrosion sensors have been highly sought after due to high levels of corrosion evident inside the main cables of suspension bridges. This research describes the design of atmospheric corrosion sensors used to assess corrosion rates within main cables.

**Fracture Properties of Multi-layered Steel Fiber-Reinforced Concrete – Victor Cervantes**

Fiber reinforced concrete has recently been used to increase the energy absorption capacity and toughness of concrete. The fibers can be made of materials like steel, polypropylene, or polyethylene and are randomly mixed into the concrete mixture; they make up less than one percent of the mixture by volume. This study uses steel crimped fibers as an additive to a concrete mixture.

**Synthesis of Faceted Ba<sub>x</sub>Sr<sub>x-1</sub>TiO<sub>3</sub> Microcrystals – Nallely Olguin**

Faceted microcrystals of BaTiO<sub>3</sub> and SrTiO<sub>3</sub> were made. For the BaTiO<sub>3</sub> microcrystals to facet, heating to a temperature of 1100°C for 10 hours was required, while SrTiO<sub>3</sub> required 1300°C for 8 hours. The increase in salt does not make much of a difference, what is more helpful in attaining single crystals for the SrTiO<sub>3</sub> is magnetic stirring overnight. BaTiO<sub>3</sub> and SrTiO<sub>3</sub> are reacted to create BaSrTiO<sub>3</sub>.

<b>WHERE:</b>	<b>Marie Callender's The Garden Room 19310 Business Center Dr., Northridge, CA 91324 (on Tampa south of Nordhoff)</b>
<b>TIME:</b>	<b>6:30 p.m. to 9:00pm</b>
<b>WHEN:</b>	<b>Thursday, November 17, 2005</b>
<b>COST:</b>	<b>\$15 per person</b>
<b>Questions?</b>	<b>Scott Schroeder <a href="mailto:sschroeder@exponent.com">sschroeder@exponent.com</a></b>

**San Fernando Valley Chapter**  
**December Meeting**

**Date: December 8, 2005**

**Shape Morphing Structures for Aerospace Applications by Sergio Lucato**

One of the goals in shape morphing technology is to cause surfaces to displace even when resisted by large pressure loads (or heavy weights). The challenges become especially demanding when minimum weight requirements and power budgets are imposed. This challenge can be addressed by seeking structures that are simultaneously statically-determinate, yet stiff. Applications of such structures range from the aerospace and marine sectors to optical devices. Sensing and control circuitry facilitate a structure suitable for high-amplitude large-force vibration or displacement control. A concept for a high authority shape morphing plate is described and demonstrated. The design incorporates an active back-plane comprising a Kagome truss, capable of changing the shape of a solid face, connected to the back-plane by means of a tetrahedral truss core. One of the most important benefits of this Kagome based structure results from its ability to attain several target shapes equally well while using only one configuration of actuators. Such a system is not possible with a classical hinge-design. Two basic shapes are demonstrated in this presentation. The design is performed by a combination of analytic estimation and numerical simulation, guided by previous assessments of the Kagome configuration. Optimization procedures to guide the material selection for a given shape morphing application as well as the placement of the individual subsystems and control parameters are introduced.

**Orange Coast Chapter**

<b>WHERE:</b>	<b>Fish Market Irvine Spectrum</b>
<b>TIME:</b>	<b>6:00 pm – Social Hour 7:00 pm – Dinner 8:00 pm – Presentation</b>
<b>WHEN:</b>	<b>Thursday, November 17, 2005</b>
<b>COST:</b>	<b>Dinner is \$10, students \$5</b>
<b>RSVP:</b>	<b>Ian Nieves <a href="mailto:inieves@uci.edu">inieves@uci.edu</a></b>

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We thank our Sustaining Members and Corporate Sponsors for their support of the 2004/05 season.

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### **South Bay Chapter**

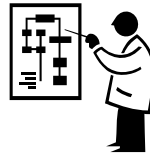
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## ***Support Your Local ASM Chapter***

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Sustaining member benefits include full member benefits for a single member of your company (includes AM&P magazine, member savings on registration for ASM conferences and expositions, education and training programs and publications, ability to vote on society issues), recognition by the local chapter at monthly meetings and recognition in this newsletter.

Corporate sponsors support the local chapters directly and receive recognition, but do not receive ASM membership benefits.



## ***Employment***

In future newsletters, we will use this space to post information about open positions. If you would like to advertise an opening at your company, please email us at [ASMQuadNews@hotmail.com](mailto:ASMQuadNews@hotmail.com).

Job seekers and corporations seeking employees can check out the resources on our website or the national website.

Quad Chapter Job Website

<http://www.asmwest.com/general/joblead.html>

ASM International Career Center

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## ***Advertising Rates***

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## **Welcome New Members!**

### **Los Angeles Chapter**

Li Li	Dan Ngo
John C. Tornatore	Ronald T. Truong

### **Orange Coast Chapter**

Reza Abbaschian, FASM	Brian Hernandez
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### **San Fernando Valley Chapter**

Robert V. Gansert, PhD	Lisa Reiner
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### **South Bay Chapter**

Robert Gratzinger	Russel Mastergeorge
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## **AWARDS**

### **5 Year Awards**

Subu Shanmugham	Bob Gaw
Mike Lazcano	Jose Curiel
Jonathan Kuntz	David Davison, P.E.
Matthew Polhman	Lawrence Fisher
John Bogler	David Richardson
Robert Weiermair	Stephen Kokenes
William Griffin	Robert Mogulich
Nigel Corlett	Gerry Moses
Paul Fojas	Frank Reyes
Mark Timko	Al Dillingham

### **15 Year Awards**

Xiaoxin Xia	Hubert Naus
Rajan Bamola	Damon Brink
W.G. Stapel	Jon Lindbeck
Scott Franklin	Randall Smith, P.E.
Marc Kashinsky	Peter Bingham

### **25 Year Award**

William May	Saul Zenk
Everett Schartzmann	Michael Neff
Daniel Harvey	Robert Carnahan
Michael Boldrick	Steve Driscoll
Kaz Hata	Robert Keener
Paul Kraatz	Kenichi Niji
Charles Beuyukian	Sherwood Bresler
Ashtok Mehta	Craig Baker

### **Lifetime Award**

Robert Strauss	James Roth
David Orfant	Josef Wrablicz
Normal Fulco	John Basco
Ed Kopaskie	William Cain
David Corn	Charles Daugherty

## **Don't miss the 2005 ASM Materials & Processes for Medical Devices (MPMD) Conference & Exposition!**

### **Register Today!**

[www.asminternational.org/meddevices/register.htm](http://www.asminternational.org/meddevices/register.htm)

### **Our [Technical Program](#) Covers All the Hot Topics**

This is **THE** event to find out more about the mechanical and physical properties of medical materials. We've built on our most popular session from last year, including nitinol properties, manufacturing and fatigue. We're also covering new areas in surface engineering, nanostructures and what medical device designers need to know about the effects of non-invasive visualization techniques.

## **Upcoming Conferences in 2006**

### **International Brazing & Soldering Conference**

April 24-26, 2006 - San Antonio, Texas  
<http://www.asminternational.org/ibsc/>

### **International Conference on Shape Memory and Superelastic Technologies**

May 7-11, 2006 - Asilomar, California  
Call for Papers deadline October 15, 2005  
<http://www.asminternational.org/shape/>

### **International Thermal Spray Conference & Exposition (ITSC)**

May 15-18, 2006 - Seattle, Washington  
<http://www.asminternational.org/itsc/>

### **5th International Surface Engineering Congress**

May 15-17, 2006 - Seattle, Washington  
Call for Papers deadline December 5, 2005  
<http://www.asminternational.org/surface/>

### **17th AeroMat Conference & Exposition**

May 15-18, 2006 - Seattle, Washington  
Call for Papers deadline December 5, 2005  
<http://www.asminternational.org/aeromat/>

### **Materials Science & Technology Conference (MS&T)**

October 16-19, 2006 - Cincinnati, Ohio  
Call for Papers deadline March 15, 2006

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**November 2005**

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