



Quad Chapter Newsletter



January 2011

Calendar of Events

See www.asmwest.com for the latest updates

JANUARY

Los Angeles/South Bay Joint Chapter General Meeting

Tuesday, January 18: Vacco, Dan Mukerji, Maggie's Pub, 5:30 pm

Orange Coast Chapter General Meeting

Wednesday, January 19: The Science & Technology of Liquidmetal Alloys®, Theodore (Andy) Waniuk (Ph.D), 6:00 pm

San Fernando Chapter General Meeting

Thursday, January 27: Plant tour, Galpin Auto Sports, 5:00 pm

FEBRUARY

Orange Coast Chapter General Meeting

Wednesday, February 16: Printed Circuit Board Failure Analysis, Hans Shin, Pacific Testing Laboratories, 6:00 pm

San Fernando Chapter General Meeting

Thursday, February 24: Edward Chen, Transition 45 Technologies, Inc. (Santa Susana Room, University Student Union – CSUN, 7:00pm-dinner, 7:15pm-presentation)

MARCH

Orange Coast Chapter General Meeting

Wednesday, March 16: Nanoindentation and Nano Scratch Testing for Improving and Monitoring your Products and Processes Ethel Poiré, EP Laboratories Inc. 6:00 pm

San Fernando Chapter General Meeting

Thursday, March 24: Moh El-Naggar, Dept. of Physics & Astronomy, USC (Marie Callender's – The Garden Room, Northridge, CA, 7:00pm-dinner, 8:00pm-presentation)

JUNE 2011

Summer Party, Monday, June 6, San Dimas

★★★★★ FIVE STAR CHAPTER



The Materials Information Society

The Los Angeles

Chapter of ASM International thanks its sustaining members:

[SEAL Laboratories – El Segundo](#)

[RTI Pierce Spafford Metals Co. – Garden Grove](#)

[Vacco – South El Monte](#)



Table of Contents

Calendar.....	page 1
General Meeting Notices.....	pages 2-4
Advertising Rates.....	page 5
Educational Opportunities.....	page 5



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**ASM International
San Fernando Valley Chapter
Presents**

January 2011 Meeting

Plant Tour

Date: Thursday, January 27, 2011

Time: 5:00pm

Plant tour:

Galpin Auto Sports

15600 Roscoe Blvd.

Van Nuys, CA 91406

RSVP required: e-mail Hans Shin at hshin@pacifictesting.com

Galpin Auto Sports (or GAS) is a full service custom automotive shop located in Van Nuys, California that specializes in customizing cars specifically for the vehicles' owners. GAS specializes in interior and exterior design, custom wheels and tires, custom cloth and leather interiors, complete audio systems, custom fabrication and design, and complete handling and performance upgrades, just to name a few.

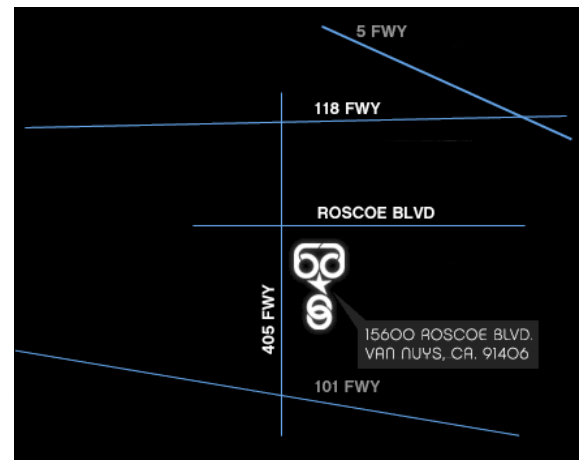
Galpin Auto Sports is the car garage featured on the USA version of MTV's *Pimp My Ride* hosted by Xzibit. On site at the main garage is an extensive array of customized cars which can be bought direct from the garage.

GAS's work can also be seen on the new television show *Knight Rider*. They were asked to create the star of the show, a new version of the 2008 Ford Mustang called the *GT500KR*. "GAS had one week to create the new KITT, and they pulled out all the stops. Six people worked full time to create the *Mustang* that would be sent over to *Picture Car Warehouse* as the father of all the KITT derivatives and stunt cars."

The tour will include a walkthrough of the showroom

floor, showing some of the different products and accessories they represent, and through the front service area where GAS services their customers for everything from audio to performance and handling packages. Next, we will tour GAS's collection of classics and one-of-a-kind collectible cars. Lastly, we'll go through their fabrication shop where they build and fabricate parts for some of their larger jobs.

San Fernando Valley Chapter Event Details	
WHERE:	Galpin Auto Sports 15600 Roscoe Blvd. Van Nuys, CA 91406
TIME:	5:00 pm – Plant Tour
WHEN:	Thursday, January 27, 2011
COST:	No charge
RSVP:	Hans Shin, hshin@pacifictesting.com



Interested in being a speaker? Please contact us for more information.

San Fernando Valley thanks its Sustaining Members:	



**ASM International
Los Angeles and South Bay
Chapters**

January 2011

Joint Meeting

Vacco

Speaker: Dr. Dan Mukerji, Vacco, South El Monte, CA

Biography:

Dan Mukerji worked at Boeing in Huntington Beach for a number of years before coming to VACCO.

Abstract:

VACCO was founded in 1954 as Vacuum and Air Components Company of America, which was later changed to VACCO Industries. Since its inception, VACCO's extensive product development has diversified the company's products to better serve its customers.

Today VACCO Industries is the leading supplier of fluid components to the space and defense industry worldwide as well as MultiFab manufacturing services, which incorporate Precision Photochemical Etching, Micro Laser Machining and Vacuum Furnace Diffusion-Bonding Technology.

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Meeting Details

WHAT:	Vacco
WHO:	Dr. Dan Mukerji, President, Vacco
WHERE:	<u>Maggie's Pub</u> 11900 Telegraph Rd, Santa Fe Springs, CA 90670-3768 (North East of the I-5/I-605 interchange, on Telegraph just past Pioneer) 562-994-5399
TIME:	5:30 PM: Social 6:30 PM: Dinner 7:00 PM: Program
WHEN:	Tuesday, January 18, 2011
COST:	\$20 (Students \$5)
R.S.V.P.	Siari Sosa ssosa@semprautilities.com (562) 806-4847 or 213-220-5695



The South Bay Chapter of ASM International thanks its sustaining members:

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Is your information (mailing address, phone number, e-mail) current with ASM International?
You can contact ASM to update their records at ASM International at 800-336-5152 or cust-srv@asminternational.org, or you may e-mail Michael.t.hahn@ngc.com



Orange Coast Chapter January - March 2011

<http://www.asmwest.com/occhapt/occhap.html>
asmorangecoast@gmail.com

January-March 2011 Meetings

When: Every 3rd Wednesday of the month

January:

Wednesday, 19th January

Theodore (Andy) Waniuk Ph.D., Liquidmetal Technologies

Topic: The Science & Technology of Liquidmetal Alloys[®].

February:

Wednesday, 16th February

Hans Shin, Pacific Testing Laboratories

Topic: Printed Circuit Board Failure Analysis

March:

Wednesday, 16th March

Ethel Poiré, (EP Laboratories Inc)

Topic: Nanoindentation and Nano Scratch Testing for Improving and Monitoring your Products and Processes

Schedule:

6:00 *Dinner and Social Hour*
6:35 *Welcome Remarks*
6:40 *Chair Presentation*
6:45 *Guest Speaker*

Where: *Irvine Duck Club*
5 Riparian Views
Irvine, California

Cost: *ASM members-free!*
Non-members-please contact
(Dinner is served free of charge)

Please RSVP to asmorangecoast@gmail.com

Announcement:

The direction to the Duck Club is changed due to construction. It is through Campus Drive, at Campus and University Drive intersection right next to the bridge over the Creek. Please check the website for the detailed direction and the map below.

The anticipated Spring One Day Symposium is planned tentatively in May 2011.

The Science & Technology of Liquidmetal Alloys[®]

Theodore (Andy) Waniuk (Ph.D)

Liquidmetal Technologies, Lake Forest, CA

Abstract: Amorphous alloys have been known to exhibit favorable properties such as high strength and good corrosion resistance. However, the use of amorphous alloys has never been realized in engineering applications, as formation of those alloys were limited to very thin shapes due to required very high cooling rates from the melt. In the last decade, there have been exciting developments in the field with the development of bulk-forming amorphous alloys. These alloys are now developed and marketed for commercial use by Liquidmetal Technologies under the trade name of Liquidmetal Alloy. The leading family of these alloys, Zr-Ti-Ni-Cu-Be system, is such an exceptional system that fully amorphous objects with section thickness up to 30 mm can be prepared. These alloy systems also permit us to study thermal and physical properties in deeply under-cooled liquid regime. With the development of Liquidmetal Alloys, other unique characteristics have also been noted. One unique aspect of Liquidmetal Alloy is the availability of desired mechanical properties (up to 270 ksi yield strength) in as-cast condition. Furthermore, the unique casting characteristics of Liquidmetal Alloy provide near-to-net shape component fabrication with reduced post-finishing processes. As such, Liquidmetal alloy can provide enabling solutions in several engineering applications.

A brief history of amorphous alloys from the early rapid quenching to the current state will be presented. After the origin of amorphous alloy formation is discussed, the Zr-Ti-Cu-Ni-Be alloy system will be presented as an example. Engineering properties and potential applications of Liquidmetal Alloys will be mentioned.

Dr. Theodore Waniuk: Dr. Waniuk earned a Ph.D. in Materials Science from the California Institute of Technology in 2004, and is currently a senior scientist at Liquidmetal Technologies, Inc. His Ph.D. studies focused on the thermo-physical properties of amorphous alloys and involved the characterization of thermal stability, crystallization time scales, and low temperature viscosity in this class of materials. Dr. Waniuk has led a team of engineers and technicians at Liquidmetal Technologies, Inc in several projects related to the development of prototype Liquidmetal alloys and composites for kinetic energy penetrator applications.

February 16: Printed Circuit Board Failure Analysis

Hans Shin

Pacific Testing Laboratories

Abstract: Mr. Shin will present an overview of associated materials and construction of Printed Circuit Boards (PCB), relating some of the failures due to changes in technology and PCBs becoming more complex. He will focus mainly on surface failures (i.e. contamination, solder joint defects, laminate problems, corrosion, whiskers, etc.), but will also include a brief introduction to internal defects and anomalies.

Bio: Mr. Shin received his M.S. in Materials Engineering from California State University Northridge (CSUN), and his B.S. in Environmental Toxicology (with an emphasis in Analytical Chemistry) from UC Davis. He has over 13 years experience in PCB materials testing and failure analysis. He is currently the chemical lab manager at Pacific Testing Laboratories in Valencia, CA, and is involved with materials testing and failure analysis of PCBs, metals, plastics, rubbers, composites, and medical devices.

March 16: Nanoindentation and Nano Scratch Testing for Improving and Monitoring your Products and Processes

Ethel Poiré,

EP Laboratories Inc.

Abstract: This talk will present an overview of two advanced surface mechanical testing techniques: the instrumented indentation testing (nanoindentation) and the single point scratch testing (nano scratch testing). Both techniques can be used for studying bulk or thick materials, they are however powerful tools in the cases of thin layers and small features, elastic materials and surfaces with poor optical contrast. Most samples can be tested "as is" or with minimal preparation.

Bio: Ethel Poiré is co-founder of EP Laboratories Inc, a lab service provider for nano and micro mechanical testing that serves the U.S. and international markets. Her work experience includes 7 years with Micro Photonics Inc. where she built, structured, managed and operated their West Coast laboratory. She also worked for nearly 5 years with the Canadian Space Agency as a Material Test Scientist on the effects of space environment on materials and coatings. She has a bachelor degree in Physics from Université de Montréal and a Masters degree in Engineering Physics from Ecole Polytechnique de Montréal; 20 years of experience in material testing.

Executive Committee 2010 – 2011

Chair: Khinlay Maung (kmaung@uci.edu)

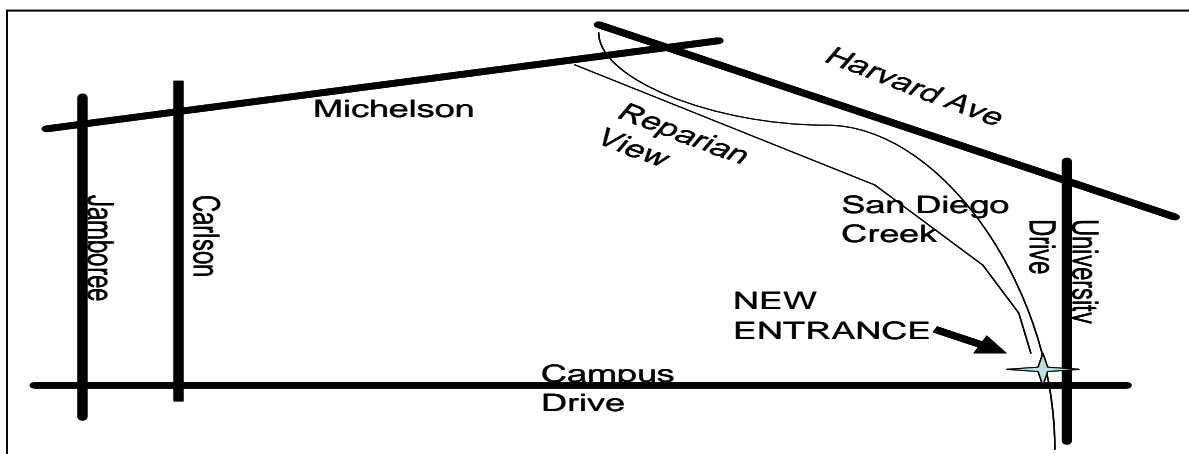
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Industrial Relations: Ethel Poire (epoire@ep-labs.com) Communications: Joe Horwath (jhorwath@gmail.com)

Past Chair: Steven Schroeder (steven.schroeder@hotmail.com)



ADVANCE ANNOUNCEMENT

The Los Angeles chapter has two important events coming up in the general area of Heat Treating.

First of all, Assembly Bill-34: This is a bill aimed at capping carbon emissions and is very important to all heat treating companies / metal fabrication facilities. A person from the California state Assembly (several individuals are candidates) will explain the details of the proposed bill at a local ASM Chapter meeting in the February-April time frame. Details are being worked out even as this newsletter is going to press.

Second, a Saturday Seminar is planned on the subject, "Essentials of Purchase Orders for Heat Treating Services". This seminar will be held shortly after (about a month) the Assembly Bill is presented to the local ASM Membership. The seminar speaker will be Ed Kopaskie, President / Owner of Aremac Heat Treating. Keep an eye on the Quad Chapter Newsletter for future announcements concerning this seminar

Advertising Rates

Take advantage of this opportunity to reach over 1000 materials professionals in the LA area.

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1/8 page	\$25
1/4 page	\$50
1/2 page	\$87.50
Full page	\$150
Back 1/2 page	\$87.50

* 10% discount for full year purchase, 8 issues September-May (no December newsletter). Paper newsletter is sent in spring and fall with monthly electronic updates.

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SPECIAL ANNOUNCEMENT ASM Education Courses Winter 2011

The Los Angeles Chapter of ASM International offers winter courses beginning Wednesday evening, January 19, 2011.

The courses are:

Metallurgy for the Non-MetallurgistDr. Michael O'Brien, The Aerospace Corporation
Titanium Technology.....Mr. Richard Berryman, Northrop Grumman Electronic Systems (Formerly Director of Technology, Martin Marietta Titanium Division)

The first sessions for both courses will be at the Semptra Utility Company's **Energy Resource Center at 9240 Firestone Blvd in Downey**. This is the Gas Company.

Subsequent classes will be held at locations chosen by the students.

The Metallurgy for the Non-Metallurgist course covers 15 lessons. Frequently, the students ask for 2 lessons per session in order to complete their course in 8 weeks...before the spring breaks.

The **Titanium Technology** course also covers 15 lessons and students in this course also frequently ask for 2 lessons per session. When requested, field trips to titanium fabrication facilities are arranged.

The courses are all certified by the **International Association for Continuing Education and Training**. (IACET) and are the internationally recognized "gold standard" for professionals seeking quality continuing education. Many states now require Professional Development Hours to maintain licensure. ASM has been reviewed and has been approved as an authorized provider. The courses come from ASM headquarters and include i) one-year membership in ASM ii) a choice of either a big notebook containing all 15 lessons or a CD containing the same information, and iii) evening coffee.

The cost is **\$1898** in Cleveland. Travel and per diem expenses must be added. The cost for each course in Los Angeles is \$1575. Good deal.

Talk to your company management and get an agreement as soon as possible because ASM needs to know the class size in order to plan trips.








Please contact **Dr. John Ogren**, for either course, at 424-644-6611 or drjogren@aol.com.



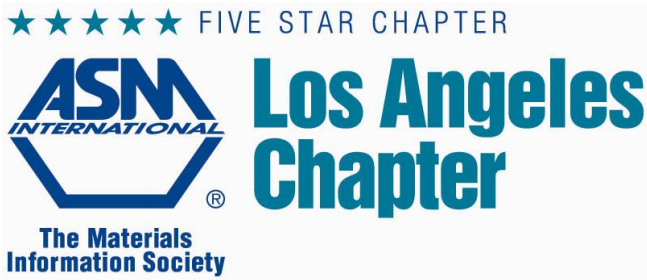
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Scholarship Program

Scope of Scholarship:

The Los Angeles Chapter of ASM International is offering multiple merit-based scholarships for undergraduate and graduate students living in the Quad Chapter area.

Applicants must have a Materials Science/Metallurgy/Materials Engineering Major or a Science and Engineering major with emphasis in Materials Science. High school seniors and college freshman students that express a desire to have such a degree are also encouraged to apply.

Scholarships will be awarded to students who have demonstrated strength in academics as well as leadership, character. Students must be US Citizens or legal residents living or attending school in the area served by the ASM Quad Chapters (Los Angeles, South Bay, San Fernando, and Orange Coast) and can receive consecutive awards and apply in consecutive years. The scholarship amounts will be from \$1000 to \$3000. Awardees will be required to provide a 5-10 min presentation at one of our technical meetings, and will also become student members of ASM International.

MUST BE POSTMARKED BY February 28, 2011

If you have any questions regarding this scholarship program please contact:

ASM International Los Angeles Chapter

Eric Fodran, Scholarship Selection Committee Chairman

Email: eric.fodran@ngc.com

Address: 3548 Lime Ave, Long Beach, CA 90807

Scholarship Applications are available at:

www.asmwest.com

Click on "Special Programs"

Click on "Scholarship Program – Deadline: February 28, 2011"

Or use the following link: [Scholarship Program - Deadline: February 28, 2011](#)



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2011 ASM SUMMER PARTY GOLF TOURNAMENT

Monday, June 6, 2011

San Dimas Golf Course

<http://sandimas.americangolf.com/>

Welcome to the Year 2011 ASM Summer Party Golf Tournament.

Today's Weather in San Dimas, CA

8:00 AM Shotgun Start

(and Putting Contest)

Thanks to This Year's Tournament Sponsors

Shultz Steel

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Welcome to the ASM Golf Tournament. You are being provided with an innovative form of advertising to support your business throughout the year. Your sponsorship provides funds that the Los Angeles Chapter of ASM uses to promote Educational Courses, Student Scholarships and Quad Chapter Activities.

You may promote your business on our website and (receives hits from all over the world) and maintain your presence throughout the tournament by having a strategically placed Tee Sponsor Sign. Your advertising will remain on our website until one month before next year's tournament.

🟢 Tee sponsors will be provided an opportunity to promote their company through a contest of their choice: Hole-In-One, Longest Ball, Closest to the Hole, etc.... Company promotional items such as pens, golf balls, etc. may be handed out at the tee... A sign will be positioned at the hole displaying the Sponsor's company name and advertising.

🟢 Tee Sponsorship rate is: \$100.00

🟢 Website Sponsors will have a page residing on our site to include their company logo, a selected photo that represents their company and supporting marketing text (If you already have a website, then a link to your website will be provided). The Website Sponsorship will include the additional Tee Sponsor benefits. A further perk will be Four Complimentary rounds of play in the Putting Contest.

🟢 Website Sponsorship rate is: \$250.00

🟢 Tournament Sponsorship rate is: \$2000.00

For further information please contact: Dick Berryman , 626-812-1907 or Richard.Berryman@ngc.com

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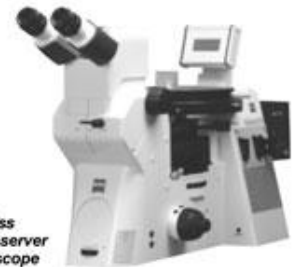


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January 2011

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