



Quad Chapter Newsletter



November 2011

Calendar of Events
See www.asmwest.com for updates

NOVEMBER

Orange Coast Chapter Special Event

Monday, November 14, 2011: Symposium on Biomaterials, Medical Devices and Tools: Challenges with Design, Fabrication and Testing, UC Irvine

LA/South Bay Joint Chapter General Meeting

Thursday, November 10, 2011: Plant Tour, Lisi Hi-Shear, Torrance, 4 pm

San Fernando Chapter General Meeting

November 17, 2011: CSUN – University Student Union (Balboa Room), 18111 Nordhoff St., Northridge, CA 91330, 6:30pm – Executive Board Meeting, 7:00pm – Social/Dinner, 7:15 – Presentations (Aileen Shin, Chris Crawford).

JUNE 2012

Summer Party, Monday, June 5, SAVE THE DATE contact Dick Berryman 626-812-1907 or Richard.berryman@ngc.com

ASM-OC is looking for sponsors for January, February, March, April, and May monthly meetings. The sponsorship fee is \$100 per meeting. The company logo will be advertised on the website and newsletter for sponsorship. A table will also be provided for display of company information at the monthly meeting.

Incoming Executive Committee

Chair: Khinlay Maung
Vice Chair: Ethel Poire
Treasurer: Joe Breslin
Secretary: Joe Horwath
Industrial Relations: Scott Poveromo
Communications: Tim Montalbano

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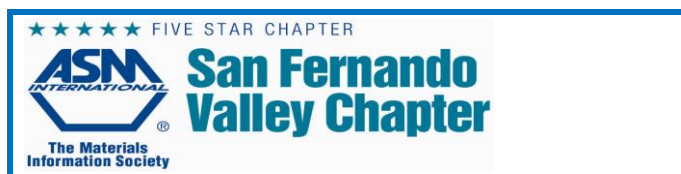
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ASM International San Fernando Valley Chapter Presents November 2011 Meeting

Student night – Balboa Room, CSUN

Production and Coalescence of Monodisperse
Bubbles in Adsorbed Surfactant-Particle Foams
Christopher Crawford

Department of Manufacturing Systems Engineering
and Management, California State University
Northridge

Foams can be stabilized by particles and surface active agents such as surfactants and polymers. In aqueous colloidal dispersions, hydrophobic particles are driven to the interfacial layers by their hydrophobicity. By adsorbing surfactant to these particles, it is possible to tune their hydrophobicity, effecting transport dynamics and consequently altering the interfacial properties of the aqueous dispersion. Adsorbed surfactant-particle mixtures were created by mixing charge stabilized silica nanoparticle dispersions with cationic surfactant solutions. Nitrogen gas bubble production in a T-junction with mixtures was characterized as a function of flow parameters and surfactant concentration. Stability of bubbles in these mixtures was characterized by observing destabilization over time in a widening channel which serves to decrease flow speed allowing bubbles to collect and pack closely. It was found that the addition of CTAB surfactant to silica nanoparticle dispersions severely reduces bubble stability in PDMS microfluidic devices.

DNA-Micelle Trading and Surfactant Dynamics
Aileen Shin

Department of Manufacturing Systems Engineering
and Management, California State University
Northridge

This research involved studying DNA and micelle interactions as well as surfactant dynamics through the use of a free-solution electrophoretic DNA separation technique involving micelles. By using capillary electrophoresis, surfactant dynamics can be observed. A sharper electropherogram peak was

correlated with faster DNA-micelle trading. The resolution of the peaks is dependent on the effect of micelle polydispersity and DNA-micelle interactions, therefore, further research is done to decrease micelle polydispersity and increase the DNA-micelle trading by looking into different surfactants mixtures to improve the peak resolution.

San Fernando Valley Chapter Event Details

WHO:	Christopher Crawford, Aileen Shin, CSUN
WHAT:	Production and Coalescence of Monodisperse Bubbles in Adsorbed Surfactant-Particle Foams AND DNA-Micelle Trading and Surfactant Dynamics
WHERE:	Balboa Room – University Student Union, CSUN (Bldg B – 1 st floor, across from Wells Fargo) 18111 Nordhoff St. Northridge, CA 91330 (Parking: G4 or G3 Parking Lots – off Zelzah Ave., \$6) http://www.csun.edu/maps/cm1.html http://usu.csun.edu/about/hoursmaps.php
TIME:	6:00 pm – Executive Board Meeting 7:00 pm – Dinner 7:15 pm – Presentations
WHEN:	Thursday, November 17, 2011
COST:	No charge; Refreshments (Sandwiches, drinks) will be provided
More info:	Hans Shin, hshin@pacifictesting.com

San Fernando thanks its Sustaining Members

	 Dept. of Manufacturing Systems Eng. and Management Metals Engineering Program
	<u>Pratt Whitney</u> <u>Rocketdyne</u>
	

Interested in being a speaker or serving as an Executive Committee Officer? Please contact us for more information.

ASM Los Angeles Chapter

EDUCATION COURSES

Education Opportunities coming up in January

The Los Angeles Chapter will offer two Continuing Education Courses starting January 5, 2012. The courses will be given on the campus of California State University-Dominguez Hills (CSUDH) in the city of Dominguez Hills. The campus is just south of the 91FWY on Victoria Street. Take the Central Avenue off ramp-south. The courses will be held in the Natural Science-Mathematics (NSM) Building, room 239 and 243.

The courses are:

Met 0135. Metallurgy for the Non-Metallurgist.....a popular introduction to the science and technology of the metal working industry. This course carries 3 Continuing Education Credits (3CEU). Tuition is \$1575.

Met 0001. Introduction to Heat Treating....a popular introduction to the fundamentals of steel heat treatment and metallurgical processing. This course carries 2 Continuing Education Credits (2CEU). Tuition is \$1575. The Los Angeles chapter has reduced the tuition in order to make the course available to more local members. Also, the tuition covers membership for one year in ASM International and a huge notebook full of vital information / data / charts and terminology useful on the job. (The tuition at Headquarters is \$1989, not including the cost of transportation and lodging).

Both courses have been approved by The International Council for Continuing Education. Both courses are the same as those offered at ASM Headquarters. All the teaching materials are from Headquarters.

Here are the enrollment details:

Tuition can be paid by check or credit card. Make checks payable to Los Angeles Chapter, ASM International.

Contact Dr. John R. Ogren if you plan to attend either course.

drjogren@aol.com
424 228 2708 land line
310 918 3028 cell

Dr. Ogren must order supplies from ASM and needs a head count in advance of the start date.

One last item: Classes are from 6-8 PM. Coffee and soft drinks will be available free.

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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



The Los Angeles Chapter of ASM International thanks its sustaining members:

[SEAL Laboratories – El Segundo](#)

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[VACCO – South El Monte](#)

[Engineering Systems, Inc. – Foothill Ranch](#)

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ASM International Los Angeles Chapter

November 2011

Meeting

Facility Tour: LISI AEROSPACE, Torrance, CA

Business Unit: Airframe Fasteners

Basic tour guidelines:

- **RSVP Required**
- US Person (resident or citizen) ID required
- Not employed by direct competitors
- Closed toe shoes required

Background:

LISI AEROSPACE is a leading supplier of aerospace fasteners and assembly components to some of the world's greatest aircrafts, including Airbus and Boeing.

LISI, Link Solutions for Industry, is heir to a long industrial tradition and can trace its roots to several family owned fastener businesses dating back to 1777. LISI entered the aerospace business in 1951. From there they have acquired many businesses along the way incorporating them into one company and one vision LISI AEROSPACE. LISI's robust diversification incorporates other divisions such as automotive components and Medical devices along with Aerospace. Most recently acquiring Creuzet Aéronatique, LISI AEROSPACE expands their global footprint. Today, LISI AEROSPACE's product range is extensive, ranging from standard fasteners to safety parts and more. As a result, LISI AEROSPACE is able to satisfy a majority of its customers' requirements and continues to be a customer focused, multi-specialist group renowned for its customer service and innovative capabilities. LISI AEROSPACE's success is based on a shared vision and shared values and principles. They foster teamwork, using the diverse experience of its numerous sites to develop an internal "best practices" culture in various areas of operation.

This includes quality control, human resources, production, research and development, and marketing. LISI AEROSPACE has sales teams worldwide who can offer local expertise to customers, no matter where they are located.

This helps facilitate the exchange of information between the customer and LISI AEROSPACE's development and industrial teams, which creates the best result for the customer by adapting to their needs.

LISI AEROSPACE's priority is to maintain occupational health, safety, and environment; they are ISO 14001 certified at all sites. LISI AEROSPACE ensures products and operations comply with all applicable regulations,

requirements, and guidelines as prescribed by HSE agencies or regulatory commissions.

In the U.S. are sites include facilities in Torrance, City of Industry, Paramount (LISI AEROSPACE), and Escondido (LISI MEDICAL).

TOUR AGENDA:

4:00pm - Introduction by General Manager/Patrick Hutchins
Video of our processes

4:30pm – Prepare to take facility tour

- Safety Overview
- PPE (Personal Protective Equipment)
- Headphone (Usage/channel designation)

4:50pm – 6:00pm – Facility tour with emphasis on:

- Manufacturing
- Plating
- Heat Treat
- QA Lab

6:15pm – Refreshments/Reception

Opportunity to meet/discuss with
LISI AEROSPACE Management

Meeting Details

WHAT:	Facility Tour
WHO:	LISI AEROSPACE, Torrance
WHERE:	2600 Skypark Dr. Torrance, CA 90509 Use Parking Lot D
TIME:	4:00pm - Introduction and Video 4:30pm – Prepare for tour 4:50pm – 6:00pm – Facility tour including Plating, Heat Treat, Manufacturing & QA Lab 6:15pm - Refreshments/Reception with LISI AEROSPACE Management
WHEN:	Thursday, November 10, 2011
COST:	Free
R.S.V.P. REQUIRED	Andrew Kent Andrew.Kent@ngc.com (626) 812-1502



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ASM MATERIALS CAMP® 2012

**California State University-Long Beach
Long Beach, CA**

June 25-29, 2012

Who: High school general science, chemistry, physics, math and technology teachers; middle school science teachers.

What: A one-week workshop to show you how to use low cost / no cost, simple labs and experiments using everyday materials that can be integrated into your existing lesson plans.

Why: To engage and excite young people in science and math!

Program Fees: None—program includes lunch and supplies; transportation and other costs are your expense.

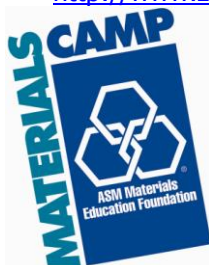
Credit: 2 graduate credits available for an additional cost of about \$200.

Schedule: This is a full day (8:00 to 5:00 PM) 5-day long workshop. (Note: Possibility of late afternoon/evening in the event of fieldtrips scheduled.)

Faculty: Primary faculty are two experienced high school “Master Teachers” who have taught materials science courses for many years and helped develop this innovative approach to hands-on learning of applied science principles.

How to apply:

- Click on link below.
<http://www.zoomerang.com/Survey/WEB22BQMD9DGLY/>; or visit www.asmfoundation.org.



Questions?

For more information, please visit www.asmfoundation.org or contact: Jeane Deatherage, Administrator of Foundation Programs at (jeane.deatherage@asminternational.org).





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ASM WEST / MATSCI UCI

Symposium on Biomaterials, Medical Devices and Tools: Challenges with Design, Fabrication and Testing

November 14th, 2011

UC Irvine
4100 Calit2 Building
Irvine, CA. 92697-2800
Phone: 949.824.6900 (for directions only)

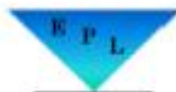
INTRODUCTION BY:

Gregory Washington, Ph.D.
Dean, The Henry Samueli School of Engineering
UC Irvine

KEYNOTE ADDRESS:

From "Solution Looking for Problem" to "Strategic Biomaterial" The Nitinol Story
Ming H. Wu, Ph.D.
Vice President Engineering Advanced Materials Technology
Edwards LifeSciences LLC

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ASM WEST Chapters

Orange Coast, Los Angeles, San Fernando

<http://www.asmorangecoast.com>

REGISTRATION (Includes Technical Program, Breakfast, Lunch and Coffee Breaks):

- o ASM members: \$40 (register by November 7th) - \$80 at the door
- o Non-members: \$60 (register by November 7th) - \$120 at the door
- o Full-time Students: \$10 (must show valid ID)

TO REGISTER:

1. Mail or email the following information

Name: _____
Company: _____
Address (#, street, city, state, zip): _____
Tel: _____
Fax: _____
Email: _____

2. Payment Options

Mail check payable to "ASM Orange Coast Chapter"

Attn: Joe Breslin, Buehler Ltd, 35 Parker, Irvine CA 92618

PayPal payment by Credit Card on www.asmorangecoast.com

Registration email: asmorangecoast@gmail.com

For more information: www.asmorangecoast.com

Orange Coast Chapter is proud to have a very diverse technical base of materials and industries. Through the years Orange County has been involved in the space race in the 60's with Rockwell, Boeing, McDonnell-Douglas, and Lockheed. It has been instrumental in the advance of medical devices, which has now become an industrial hub for the biomedical industry, and playing a significant role in the evolution of the electronics industry.

ASM International Orange Coast Chapter Executive Committee - 2011 to 2012

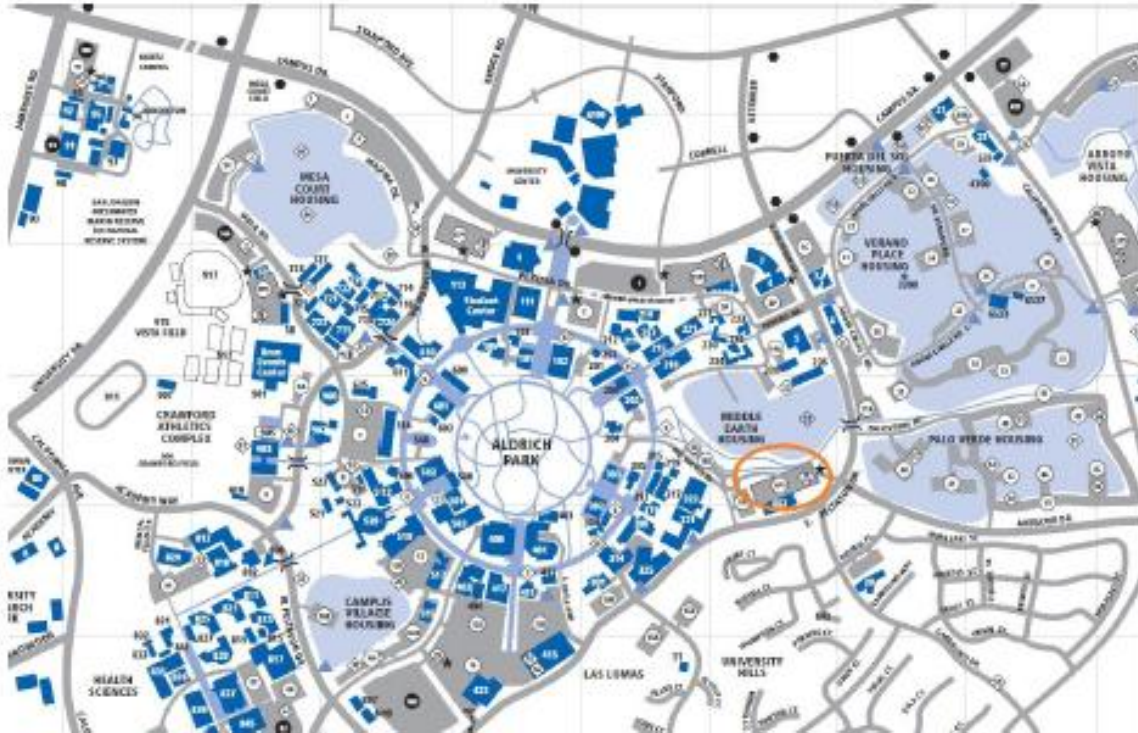
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Scott Poveromo (UC Irvine):	Industrial Relations
Timothy Montalbano (UC Irvine):	Communications Specialist

Program

7:30 – 8:30			Registration and Continental Breakfast		
8:30 – 8:45	Gregory Washington, Ph.D. Dean, The Henry Samueli School of Engineering, UCI	Introduction			
8:45 – 9:25	Keynote: Ming H. Wu, Ph.D. Vice President Engineering Advanced Materials Technology Edwards LifeSciences LLC	From “Solution Looking for Problem” to “Strategic Biomaterial” The Nitinol Story			
9:25 – 9:55	Robert Gansert, Ph.D. President AMTS Inc.	Improved Properties of Light Alloys (Ti-,Ti-alloys, Mg-,Mg-alloys) Using Near-Nano and Nano-Based Materials for Medical Based Applications			
9:55 – 10:25	Jack Stiglich, Ph.D. Consultant Ultramet	Medical Materials, Devices by Chemical Vapor Deposition			
10:25 – 11:00			Morning Break- Tour of LEXI Microscopy Center and Table Top Exhibits		
11:00 - 11:30	Sanjai Shrivastava, Ph.D. Director of R & D Neurovascular Division of EV3, Inc	Engineering Solutions to Treat Cerebro-Vascular Aneurysms and Ischemic Stroke			
11:30 – 12:00	Huinan Liu, Ph.D. Department of Bioengineering University of California, Riverside	Challenges in Orthopedic Biomaterials			
12:00 – 1:30			Luncheon at University Club All-You-Can-Eat Buffet featuring two Daily Specialty Soups, a variety of Cold Entrees, a Salad Bar, and Chef’s three Daily Entrees		
1:30 - 2:00	Sepehr Fariabi, Ph.D. Director of Research and Development IDEV Technologies, Inc.	Key Design and Materials & Processing Challenges During Development Cycle of Nitinol Endovascular Implantable Devices			
2:00 – 2:30	Guna Selvaduray, Ph.D. Department of Chemical and Materials Engineering San Jose State University	Surfaces and the Bulk – Are They Identical?			
2:30 – 3:00	Wendy Liu, Ph.D. Department of Biomedical Engineering University of California, Irvine	Probing the cell-biomaterial interface to improve the host response to medical implants			
3:00 – 3:30			Afternoon Break- Table Top Exhibits		
3:30 – 4:00	James Earthman, Ph.D. Department of Chemical Engineering and Materials Science University of California, Irvine	Development of Percussion Diagnostics in Evaluating Natural and Synthetic Materials			
4:00 - 4:30	Jian Xie, Ph.D. Senior Manager Advanced Bionics	Laser Hermetic Welding of Implantable Medical Devices			
4:30 – 5:00	Masaru Rao, Ph.D. Department of Mechanical Engineering University of California, Riverside	High-Aspect Ratio Titanium Micromachining: Enabling Technology for In Vivo Therapeutic Microdevice Applications			
5:15-?			Networking at Steelhead Brewery		

Directions to Symposium at UCI

Please park at the Anteater Parking Structure (Zone 4 per map below). Parking is free for Speakers and Attendees. There will be pedestrian signs directing you to the CALIT2 Building from Parking Structure.



Driving Directions to Event

405 Freeway-From the North

- Exit at Jamboree Rd.
- Right on Jamboree Rd.
- Left on Campus Dr.
- Right on West Peltason into UCI
- Right on Anteater Drive into Parking Structure (APS)

405 Freeway-From the South

- Exit at University Dr.
- Left on University Dr.
- Left on Campus Dr.
- Right on West Peltason into UCI
- Right on Anteater Drive into Parking Structure (APS)

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For more information: Tony Fischer-Cripps at tony.cripps@ibisonline.com.au, www.ibisonline.com.au



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 - Turnkey Systems
 - Tooling/Fixtures
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 - Mechanical/Blowers/Diffusion
 - Trades/Leases
- SALES**
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Chapter Realignment

Advertising Rates

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

Business Card (1/10 page)	\$20
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.

To advertise in this newsletter, contact us at michael.t.hahn@ngc.com

The South Bay Chapter is being merged with the Los Angeles Chapter. The Chapter boundaries are being realigned for Los Angeles, Orange Coast, and San Fernando. Those affected by the realignment should have received something from ASM headquarters. If you have not already responded to the notice from ASM, please do so. No member's chapter affiliation will be changed without consent. As before, any member may choose to affiliate with any chapter.



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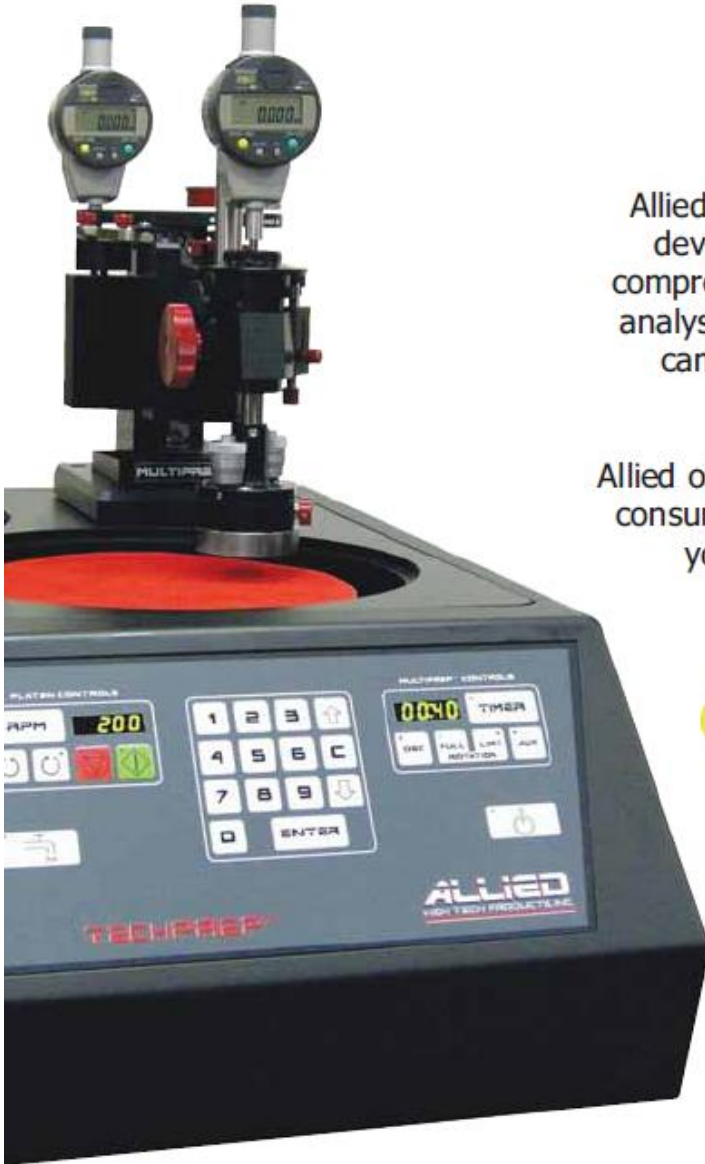
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Craig Bryan is Allied's Product Application Specialist for the Southern California Area and is available for on-site demonstrations.

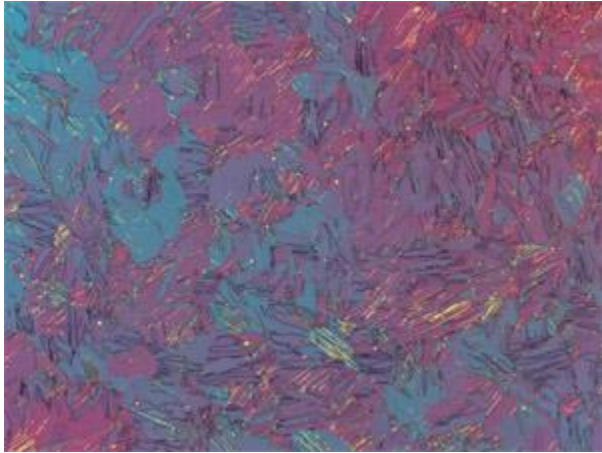
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**Join Allied & ASM International for
Metallographic Techniques Course
December 5-9, 2011!**



**Metallographic Techniques - December
5-9, 2011**

Location: Allied High Tech Products, Rancho Dominguez, CA, USA

The students of this class prepare a variety of, hard, soft, ferrous and nonferrous alloys under the guidance of the instructor. Manual preparation is required in order to understand the principle behind the process. Semi-automatic preparation is discussed and demonstrated on state of the art equipment. After a lecture on the best use of the metallograph the structures of the materials are documented and entered in a laboratory notebook that is graded and returned to the students for future reference. Grain size determination, measurements and microhardness testing complete the class.

WHO SHOULD ATTEND?

- Technicians
- Metallographers
- Engineers and QA personnel interested in hands on sample preparation

REQUIRED PRE-REQUISITES

None, but some knowledge of metallography is advantageous

LEARNING OBJECTIVES

Upon completion of this course, you should

be able to:

- Select proper consumables and techniques for sectioning, mounting, grinding, polishing
- Choose the correct etchant to reveal the structure and features for the alloy at hand
- Document structures using optical microscopes equipped with image capture cameras and software
- Distinguish artifacts from real structures
- Apply quantitative metallographic techniques

COURSE OUTLINE

1. Complete sample preparation: sectioning, mounting (cast and compression), grinding & polishing
2. Differences in techniques between manual and semiautomatic sample preparation
3. Use of chemical and electrolytic etching procedures
4. Use of the metallurgical microscope
5. Documentation of microstructures
6. Quantitative metallography – grain size and length measurements
7. Micro hardness testing demonstration

3 CEUs

To register directly, please use the link below. Allied is not registering the students for this course.

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