

Wednesday, October 8

Laser Materials Processing - From Macro to Micro

Dr. Tony Hoult
Coherent, Inc.

*New meeting
location!*

*Please remember to indicate a
meal selection when you sign up!*

5:30 pm Social/Networking.....6:15 pm Dinner.....7:30 pm Speaker

Meeting Location:

Michael's at Shoreline
2960 Shoreline Blvd.
Mountain View
(650)962-1014

Dinner Cost: ASM Members \$20, Students \$10, Guests \$25

Meal Choices: Pork Loin, Chicken Portobello or Vegetarian Lasagna

RESERVATIONS REQUIRED:

Stacy Ewert at (408) 742-2521 or stacy.s.ewert@lmco.com
Reservation deadline is 1pm on Monday, Oct 6 (\$5 late fee after this time)



**The Materials
Information Society**

Santa Clara Valley Chapter
P.O. Box 60487
Sunnyvale, CA 94089-0487

FIRST-CLASS MAIL
U.S. POSTAGE
PAID
SUNNYVALE, CA
PERMIT NO. 770

Meeting Directions

To get to **Michael's at Shoreline** from highway 101, exit at **Middlefield Rd. / Shoreline Blvd.** Head **north** on **North Shoreline Blvd.** Michael's is at the end of North Shoreline adjacent to the Shoreline golf course, about 2 miles from 101.

RETURN SERVICE REQUESTED

Inside this Issue...

<i>About the Talk</i>	2
<i>Job Listing</i>	2
<i>Upcoming Events</i>	4
<i>Chapter Members Honored</i>	6
<i>2003-2004 Program</i>	6

Have You Moved Recently?

If so, please remember to correct your address by logging onto the national website, www.asminternational.org, where you can review and update your membership record.

About the Topic

Laser Materials Processing - From Macro to Micro

Conventional laser processing, cutting, welding and drilling are now fairly well known and accepted by industry. As lasers have improved in terms of both power and sophistication, thicker and thicker metals are being processed. At the other end of the size scale, there are a host of less widely known micro-machining processes which reach down to the micron scale. In this talk, we will show examples of this huge size range, and discuss this in terms of laser power, power density and laser wavelength.

About the Speaker

Dr. Tony Hault

Coherent, Inc.

Dr. Tony Hault is a Materials Engineer who has been working with high power industrial lasers in both industrial and academic environments since 1987. This experience has been almost exclusively in the R & D field, associated with the development of novel laser materials processing applications. Since moving to the US in November 1999, his main interest has been the development of diode laser materials processing applications, where several interesting new developments are now underway.

September Sponsor

We'd like to thank **P.K. Selective Metal Plating, Inc.** for sponsoring last month's meeting. P.K. Selective specializes in graphic anodizing and cosmetic finishes. During the meeting, they displayed some very impressive works of anodizing art! In addition, P.K. Selective serves the ordinary metal finishing needs of various Silicon Valley industries. We appreciate P.K. Selective's support, which enables us to provide quality technical programming at a reasonable cost.



Graphic Anodizing Specialists

P. K. SELECTIVE
Metal Plating, Inc.

Peter Kellett
President

415 Mathew St.
Santa Clara, CA 95050
www.pkselective.com

Ph: 408.988.1910
Fax: 408.988.8606

Job Opening

Honeywell Electronic Materials is looking for a Senior Development Engineer at their Spokane, WA facility. The position involves leading development projects on new products and new processes for sputtering targets used in the semiconductor industry. The individual is responsible for transferring these new products into production. This will require working in a cross-functional team environment. The Senior Development Engineer will also need to keep up to date with technology trends and use this information to recommend new manufacturing techniques and processes that will complement or expand Honeywell's core competencies.

A successful candidate will be a team player with good communication skills who is also enthusiastic, goal oriented, and self-motivated. The position requires an education in Materials Science or Metallurgical Engineering, and hands on experience in PVD. A working knowledge of 6 Sigma tools is preferred.

Interested Candidates should visit myinterconnect.com and honeywell.com to learn more about Honeywell and the Electronic Materials Division. Please submit resumes via e-mail to Dr. Susan Strothers at susan.strothers@honeywell.com.



BUEHLER
APPARATUS AND SUPPLIES FOR MICROSTRUCTURAL ANALYSIS
Buehler Ltd. • 41 Waukegan Rd. • P.O. Box One • Lake Bluff, Illinois 60044 USA
Telex 210019 • Fax: 847 295-7979 • Telephone: 847 295-6500

JAMIE SANDOZ
SALES ENGINEER
1-800 BUEHLER
(1-800-283-4537)
VOICE MAIL:
1-800-323-9330 X 5618
FAX 949-458-9208
Jamie.Sandoz@Buehler.com



Laser Kinetics
406 WEST DANA STREET • MOUNTAIN VIEW, CA 94041

Consulting in Laser Materials Processing

- Cutting
- Heat treating
- Feasibility
- Market studies
- Welding
- Development
- System design
- Documentation

LEONARD MIGLIORE
PRESIDENT
LM@LASERK.COM

TEL 650 967-0977
FAX 650 967-1517
HTTP://WWW.LASERK.COM

LECO See What the Finest Products Can Do for Your Lab www.leco.com

- Sample Prep Equipment
- Metallographs
- Hardness Testers
- Image Analysis Systems
- Elemental Analysis
 - OES
 - C, H, N, S, O
- Accessories & Supplies


Call me for a demonstration...
Pete Miller 503-645-0665

Metallurgical Solutions
*Metallic Materials, Components, and Consulting
Specializing in Nitinol Alloys*

James L. Proft

2 Williams Lane, Foster City, CA 94404
Phone: (650) 358-4076 • Fax: (650) 357-8140
email: jimnitinol@aol.com

- Physical Test
- Chemical Analysis
- Metallography
- Microhardness
- SEM/EDS analysis
- Failure Analysis
- Non Destructive Insp.
- Welding Engineering



Bess Testlab, Inc.

991 George Street
Santa Clara, CA 95054
PH(408) 988-0101
FX(408) 988-0103
jose@besstestlab.com

Jose Bohorquez
President & CEO



Process-Research
Materials and Process
Consultants
P.O. Box 4343
Mountain View, CA 94040

650-968-1624
Fax: 903-0959
Cel: 465-3414

Stan Peters P.E.

E-mail: stan@process-research.com

Outside Engineering help with Composites, Adhesives, Plastics, Composite Failure Analysis, Proposal Support

Foothills Analytical Laboratory

A complete materials analysis and consulting service 



Auger	EDX	ESCA	FTIR	GC/MS	SEM	SIMS
-------	-----	------	------	-------	-----	------

We do provide a broad range of analytical services and techniques but, more importantly, we share our years of industry experience to work with you, to help solve problems, not just sell data. Give us a call to see how we may be able to help you.

Evaluation of Electropolished Stainless Steel	Failure Analyses	In-House Seminars
---	------------------	-------------------

Laboratory:	780 Montague Expressway, Suite 407, San Jose, CA, 95131	(408) 456-0370
Business Office:	3661 Mace Court, San Jose, CA, 95127	FAX (408) 923-5536
and now on the web at www.foothills-analytical.com		

When it comes to your metallographic preparation and testing success, Struers delivers...



**Powerful Equipment,
Intelligent Support,
Outstanding Service**

Contact Struers Executive Account Representative
Nancy Kacius at 1.888.STRUERS, ext. 862.
Visit our West Coast demonstration laboratory.
Call for an appointment today!
www.struers-solutions.com

S M

Shipp Metallurgical

Robert L. Shipp P.E.
Consultant

METALLURGY • WELDING ENGINEERING
PROCESS DEVELOPMENT • FAILURE ANALYSIS

2050 Jefferson Drive (408) 842-3344
Gilroy, California 95020 FAX (408) 847-1707

Upcoming Events

Oct 8: ASCE, "Construction Institute Meeting on Air-Train/BART Construction". Visit www.asce-sf.org/calendar/month.php?LocationID=&Month=10

Oct 8: IEEE-CPMT, "Flexible Automation - Going Where Human Eyes and Fingers Cannot Go". Visit cpmt.org/scv

Oct 9: SME, "Applying Lean Manufacturing in Different Industries". Visit chapters.sme.org/098

Oct 14: ASSE, "Disaster Planning and Emergency Preparedness". Visit assesj.org/meetings.htm

Oct 15: ASQ, "Quality Management System for the Homeland Security Department". Visit www.asq-silicon-valley.org

Oct 25: ACS, "Earth's Atmosphere and Beyond!". Visit www.sevacs.org/Local_Folder/ncw.htm

Oct 28: AIChE, "Electronic Perception Technology: Everyday Devices that See". Visit www.silicavalley.com

Nov 12: IEEE-CPMT, "OLED (Organic LED) Display Technology and Applications". Visit cpmt.org/scv/meetings/cpmt0311.html

Nov 16: AIChE, "Symposium on California's Fuel Cell Industry". Visit www.aiche-norcal.org/meetings.html

Dec 10: IEEE-CPMT, "Outlook for the Semiconductor Equipment/Materials Market.". Visit cpmt.org/scv/meetings/cpmt0312.html

Take Your Best Shot!

Whether you're imaging pollen grains or CVD thin films, the new JEOL JSM-6460LV and JSM-6360LV will give you your best shot at resolution, versatility and ease-of-use. Call now for more information.




*Passton Flower
Pollen Grains -
1500x at 1kV*



*Teflon -
40,000x at 5kV*

JSM-6460LV

JEOL

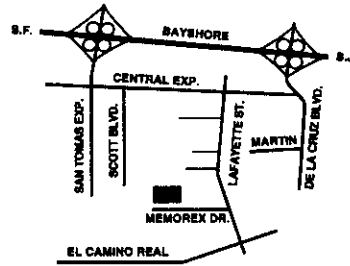
11 Dearborn Road, Peabody, MA 01960
(978)555-5900 eod@jeol.com

BILL BYINGTON
President



**BYINGTON
STEEL
TREATING
INC.**

1225 MEMOREX DRIVE
SANTA CLARA, CALIFORNIA 95050
TELEPHONE (408) 727-8630



EVERYTHING IN HEAT TREATING

- GENERAL HEAT TREATING
 - ALUMINUM HEAT TREATING
 - INDUCTION HARDENING
 - STRESS RELIEVING
 - FLAME HARDENING
 - CARBURIZING
 - CYANIDING
 - NORMALIZING
 - VACUUM HEAT TREATING
- BRIGHT HARDENING
- BRIGHT ANNEALING
- DEEP FREEZING
- STRAIGHTENING
- SANDBLASTING
- BEAD BLASTING
- ROTOBLASTING
- DEGREASING

GOVERNMENT CERTIFIED

MILESTONE TECHNOLOGY

Scanning Electron Microscope Analysis

- Failure Analysis
- Fracture Analysis
- Steels
- Thin Films
- Recording Media & Heads
- Semiconducting Materials

EDX and Light Element Analysis

High Quality • Economical Rates • Overnight Service

(408) 243-TEST (8378)

1122-A Aster Avenue, Sunnyvale, CA 94086

Chapter Information & Upcoming Activities

Officers

Chair:

Jacques Matteau (650)591-7787

Vice Chair:

Ramas Raman (408)295-8976

Treasurer:

Richard Chung (408)924-3927

Secretary:

Stacy Ewert (408) 742-2521

Executive Committee

Paul Fojas (650)361-2969

Ed Francis (408)653-1700

Alfred Kwong (408)248-1916

Fred Landry (650)508-8700

Mingwei Li (650)966-5735

Gabriel Toea (650)474-0160

Lou Wirtz (408)756-0621

Shari Yokota (650)954-4065

Special Positions

SVEC Rep:

Ed Kaminski (408)241-4842

Newsletter Editor:

Scott Dickerson (408)986-3655

Thanks to our ASMI-SCV Sustaining Member:

CSU - Fresno Henry Madden Fresno

Would your company like to support the chapter by being a sustaining member? To find out more, contact Jacques Matteau at (650)591-7787.

Executive Committee Meetings: ASM-SCV Executive Committee meetings are held in September, October, January, March and May. Any member can attend! Call Jacques Matteau at (650)591-7787 for meeting times and locations, and to reserve a seat at the table.

**Diamond Coatings, ARC Coatings, SEM/EDAX,
Optical Microscope to 1000X,
Thin Film Coating Consulting**



Crystallume
Engineered Diamond Products
A Division of Robbjack Corporation

3397 De La Cruz Blvd.
Santa Clara, CA 95054
800 789-4322
Fax 408 653-1710



Crystallume
ENGINEERED PVD COATINGS

3300 Nicolaus Road
Lincoln, CA 95648
866 783-9700
Fax 916 645-1668

Visit www.ASM-SCV.org
for more information on your ASM Chapter!

ASMI-SCV Members Honored

Several Chapter members have received national honors recently. **Professor William D. Nix**, FASM, Lee Otterson Professor of Engineering Emeritus, Stanford University, will receive the 2003 Albert Sauveur Achievement Award from ASM International. Professor Nix was cited for "outstanding work on mechanical behavior of solids, pioneering research on mechanical behavior of thin films, multilayers and silicon small volume structures, and for stimulating other researchers in this field." Professor Nix has also been elected to the National Academy of Science for his distinguished and continued achievements in original research. Election to membership in the Academy is considered one of the highest honors that can be accorded a U.S. scientist or engineer. We congratulate Professor Nix on these awards, and we are honored to have him in the Santa Clara Valley Chapter.

ASMI has also announced the 2003 Class of Fellows. **Dr. Robert D. Caligiuri**, Group Vice President, Materials and Structures, Exponent Failure Analysis Associates (Menlo Park, CA), has been nominated to the 2003 class of ASMI Fellows. Dr. Caligiuri was nominated for "contributions to the application of materials science fundamentals and fracture mechanics methods to the solution of failure and reliability problems in materials technology." Again, we congratulate Dr. Caligiuri on his award, and we are honored to have him in our Chapter.

2003-2004 Technical Program

Oct 8	Laser Materials Processing - From Macro to Micro (Dr. Tony Hoult, Coherent, Inc.)	
Nov 12	Corrosion (Speaker TBA)	
Dec 10	Artificial Muscle (Speaker TBA)	Companion's Night
Jan 14	From Sand to Chips - Manufacturing Computer Chips (Speaker TBA)	SCV Fellow's Night
Feb 11	Bioceramics (Dr. James Shackelford, UC Davis)	Joint with ACerS
Mar 10	Flat Panel Displays (Speaker TBA)	
Apr 21	TBD	Joint with SAMPE Student Posters & Scholarships
May 12	TBD	Trustee's Night Awards & Elections Night