



The Materials Information Society

www.ASM-SCV.org

Santa Clara Valley Chapter

April 2002

Volume 45, Number 8

Wednesday, April 10

Material & Process Challenges in Fiber Optic Technology

Different meeting location and times this month only! (see directions below)

Donald Polensky
Lockheed Martin

Our April Meeting is Joint with SAMPE

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

5:30 pm Social/Networking.....6:00 pm Dinner.....7:00 pm Speaker

Meeting Location:

Michael's at Shoreline Restaurant

2960 North Shoreline Blvd.
Mountain View, CA
(650)962-1014

Dinner Cost: ASM Members \$18, Students \$8, Guests \$20

Meal Choices: Steak, Salmon, or Vegetarian

RESERVATIONS REQUIRED:

Janine Kardokus at (408) 986-7568 or janine_kardokus@amat.com

Reservation deadline is noon on Monday, Apr 8

April Meeting Sponsor: Struers



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, about 2 miles from 101.

RETURN SERVICE REQUESTED

Inside this Issue...
About the Talk...2
Science Fair Report...2
Upcoming Events...3
Biomaterials Committee...8
2002 Election Info...8
May Meeting Preview...8

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 you membership record.

About the Topic

Material & Process Challenges in Fiber Optic Technology

Although investment in telecommunications infrastructure has slowed recently, there is no question that the fiber optic revolution is here to stay. In fact, now more than ever there is a drive for technologies that allow cost effective increases in fiber optic bandwidth, such as the development of dense wave divisional multiplexing. This presentation will discuss some of the material and process engineering challenges inherent to the components for fiber optic systems. The talk will also include a brief overview of the basic principles of wavelength divisional multiplexing, and a discussion of how and why it will dominate fiber optic systems for the next 10 years.

About the Speaker

Donald Polensky

Lockheed Martin Space Systems

Donald Polensky is a staff engineer with Lockheed Martin Space Systems. Prior to his return to the defense sector he was with Optcom (a precision thin film filter deposition firm), and Ohara Corporation (a supplier of optical glass and components to the fiber optics industry). Mr. Polensky holds a B.S. in Ceramic Engineering from Rutgers University and a M.S. from Rensselaer Polytechnic Institute.

Thanks, Donald...

Yes, we had a last minute topic change! Due to unforeseen circumstances, we were unable to present our originally-scheduled topic. We would like to offer a special thanks to Donald Polensky for graciously stepping in at the last minute and agreeing to give us this fascinating technical presentation!

April Meeting Sponsor

ASMI-SCV would like to thank Struers for sponsoring our April meeting. Struers offers a complete range of metallographic preparation equipment and consumables for cross-sectional analysis of all materials - from simple manual preparation to sophisticated computerized solutions. Since 1943, Struers has led the industry by introducing equipment and consumables that ensure faster, more efficient sample preparation. We appreciate Struers' support, which enables us to provide quality technical programming to our membership at a reasonable cost.



Struers THE BEST METALLOGRAPHIC SUPPLIES TO MEET ALL YOUR LABORATORY NEEDS ...

- Sectioning
- Grinding and Polishing
- Mounting and Embedding
- Consumables
- Hardness Testing
- Image Analysis
- Fully Automatic Preparation Systems

For More Information:
Nancy Kacius
Executive Account Representative
310-320-6288, extension 862

VISIT US!

IN CALIFORNIA: Demonstration Lab: 2910 East LaPalma Avenue Anaheim (call for appointment)
IN OHIO: Demonstration Lab and Main Office: 810 Sharon Drive Westlake 888-STRUERS
ON THE WEB: WWW.STRUERS.COM EMAIL: info@struers.com

Silicon Valley Science and Technology Fair Special Awards Judging

Each year the local chapters of ASMI and SAMPE participate in judging the science fair projects at the Silicon Valley Science and Technology Fair held at the San Jose Convention Center. This year there were 750 projects from students in grades 6 through 12, over 100 of which were materials and/or chemistry related. The ASMI/SAMPE judging team was impressed by the background research and hard work done by the students, as well as how much they learned from their experience. ASMI/SAMPE Special Awards were made to 24 projects that had significant content relating to materials and/or processing. The awards consisted of cash, framed certificates, magazine subscriptions, and pocket magnifiers. Due to the high quality of the projects, the ASMI/SAMPE team awarded three First Prizes rather than the planned two (one for each Society). A special thanks to all the judges who gave of their time to review this mountain of projects! This year's ASMI judges were:

Dennis Baker
Richard Beckwith
Frank Crossman
Richard Chung
Paul DeCarli

Bob Elliott
Dave Himmelblau
Gary Holmquist
Jim Knowles
Alfred Kwong

Carl Lampert
Hui Hui Lin
Dennis Majchrowicz
Bob Petrusha
Lou Wirtz

Reminder: Revision To Our Chapter Bylaws

Proposed amendments to the "Rules for Government of the Santa Clara Valley Chapter of ASM International" (commonly called "bylaws") were included in last month's newsletter and are posted on the Chapter's web site (www.asm-scv.org). These proposed amendments will be presented to the membership for approval (vote) at the regularly scheduled May 8, 2002 meeting.


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




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



LECO[®]
Corporation

ROBERT PRISTERA
bob_pristera@leco.com (Email)

LECO Corporation Colorado: 303-770-8198
3000 Lakeview Avenue Fax: 303-770-8442
St. Joseph, MI 49085-2396 Nevada: 702-614-1190
Voice Mail: 877-877-4377 ext. 5520 Fax: 702-263-6579
Fax: 616-982-8987 Toll Free: 800-292-6141

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

Upcoming Events

Apr 9: IEEE, "Replacement Solutions for Low and Medium Duty Switchgear". Visit www.ee.com/grid/grid03.02/sum.htm

Apr 10: IEEE-CPMT, "The Semiconductor Packaging & Assembly Roadmap". Visit cpmt.org/scv/

Apr 16: ISA, "Tour of Berkeley Process Controls". Visit www.isanorcal.org/upcoming_events.html

Apr 17: ASQ, "The ABC's of Baldrige in Education (How the Baldrige Model is Helping Our Kids)". Visit www.asq-svc.org

Apr 18: ASME, "The Great White Fleet: Technology Development Meets International Politics". Visit www.asme.org/sections/scvs/

Apr 18: SME, "Freetech Plastics Presentation and Tour". Visit chapters.sme.org/098/

Apr 23: IEEE-LEOS, "The Scanning Goniometric Radiometer – A Revolutionary Technique for Characterizing Divergent Light Sources: Laser Diodes, VCSEL's, Optical Fibers, Waveguides, and LED's,...". Visit www.silicavalley.com

Apr 25: AIAA - SFS, "Life in Extreme Environments on Earth and Mars". Visit www.aiaa-sf.org/

Apr 26: AIChE - North Bay, "Meeting the Energy Needs of the New Millennium" (One Day Symposium). Visit www.aiche-norcal.org/meetings.html

May 21: SME, "Creating the Virtual Enterprise - Challenges for the Manufacturing Professional". Visit chapters.sme.org/098/

Also, visit San Jose State's online discussion board at: www.engr.sjsu.edu/cgi-bin/cme/mate/mate.cgi

View an online version of this event listing at:

www.asm-scv.org

- 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

Buehler full page ad

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

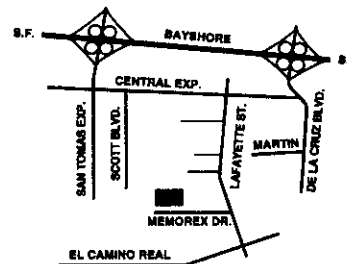
Laboratory:	780 Montague Expressway, Suite 407, San Jose, CA, 95131	(408) 456-0370
Business Office:	3661 Mace Court, San Jose, CA, 95127	FAX (408) 923-5536
	and now on the web at www.foothills-analytical.com	

BILL BYINGTON
President



BYINGTON STEEL TREATING INC.

1225 MEMOREX DRIVE
SANTA CLARA, CALIFORNIA 95050
TELEPHONE (408) 727-6630



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

Struers full page ad

Serving Advanced Technology

And providing your instrumentation needs.

SEM TEM SPM EPMA

Auger NMR ESR

Mass Spectrometry



JEOL USA, Inc.
11 Dearborn Rd. Peabody, MA 01960
300-10 3rd St. Los Altos, CA 94022
978-535-5900 650-947-7940
www.jeol.com - eod@jeol.com

JEOL

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:

Jim Knowles is Acting Chair

Vice Chair:

Jim Knowles (650)728-3786

Treasurer:

Janine Kardokus (408)986-7568

Secretary:

Catherine Weathersby (408)742-6204

Executive Committee

Richard Chung (408)924-3927

Stacy Ewert (408)756-4360

John Ferrante (831)624-3966

Matt Henneberg (650)859-2701

Francis Honey (408)748-9955

Alfred Kwong (408)935-5805

Jen Lee (650)852-6371

HuiHui Lin (408)256-1072

Jacques Matteau (650)591-7787

Leonard Migliore (650)967-0977

Alison Olver (408)756-8187

Bob Petrusa (408)732-1356

John Stringer (650)855-2472

Lou Wirtz (408)756-0621

Special Positions

SVEC Rep:

Ed Kaminski (408)241-4842

Newsletter Editor:

Scott Dickerson (408)584-1013

Executive Committee Meetings: 4th Wednesday of Sep, Nov, Jan, Mar, and May at 6:30 pm, Round Table Pizza at El Camino & 237. Any member can attend! Call Jim Knowles at ((650)728-3786 to confirm the schedule/location and reserve a seat at the table.

Thanks to our ASMI-SCV Sustaining Members:

Evans Analytical Group	Charles Evans, Jr.	San Mateo
CSU—Fresno	Henry Madden	Fresno
R.L. Engineering	Richard Lund	Placerville
Vivid Incorporated	John H. Comeau	Santa Clara

Would your company like to support the chapter by being a sustaining member? To find out more, contact Jim Knowles at (650)728-3786.

Interested in Biomaterials?

ASM International has put together a National Committee to investigate how we can be of better service to those in the biomaterials industry, and also how we can increase our membership by attracting those working with materials in the medical device industries. The Committee has had several meetings so far, and is currently exploring possible ways to accomplish the above objectives. Some ideas discussed so far:

- Add "Materials for Medical Devices" session(s) to the annual ASM Meeting.
- Join with an existing conference, such as Medical Device Manufacturing (MDM), to hold an educational session prior to or during the MDM Show in Anaheim in January (and/or other similar events).
- Sponsor or aid other conferences which focus on various aspects of medical device materials.

Best of all, one of our very own Santa Clara Valley Chapter members is spearheading this effort, and he would like your help and input. If you have an interest in assisting in this exciting new area, contact Darel Hodgson at (408) 727-2221 or hodgsde@jmusa.com. Darel's committee will be making recommendations to ASM International at the end of May. They will also be asking for funding to execute the recommendations and meet the goals.

Website Updates

As some of you may have noticed, our chapter website has undergone major revisions recently (thanks, Catherine!). We hope that you find the new interface simpler and more useable. Keep checking back (www.asm-scv.org) as things are still being refined.

2002-2003 Election Slate

Several vacancies are coming up this year on the ASMI-SCV Executive Committee. We try to find "new blood" for the committee, and bring fresh faces into the officer positions. This year the Nominations Committee has presented the following slate of candidates. Voting will be done in person at the May meeting, or by mail-in ballots which will be printed in the May newsletter.

Officers

Chair: Janine Kardokus

Vice Chair: HuiHui Lin

Treasurer: Stacy Ewert

Executive Committee

Guilian Gao

Mingwei Li

Gabriel Toea

Paul Fojas

May Meeting Preview...

Our last talk of the season will be on May 8 back at our regular location. The topic is **Update on Battery Technology** by Fritz Kalhammer. Also, come to this meeting to vote on the bylaw revisions, and on the Executive Committee for next year. May is also our Awards Night.