

Wednesday, January 14

Overview of Semiconductor Wafer Processing Technologies

Mark A. Alexander
Consultant

Back to our usual 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: Roast Pork Loin, Chicken Portobello, or Vegetarian

RESERVATIONS REQUIRED:

Stacy Ewert at (408) 742-2521 or stacy.s.ewert@lmco.com
Reservation deadline is 1pm on Monday, Jan 12 (\$5 late fee after this time)



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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

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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

Overview of Semiconductor Wafer Processing Technologies

“Computer Chips” have escaped the confinement of being used solely in computers. They are now an integral part of everything from automobiles to consumer electronics and games to kitchen appliances. The manufacture of a semiconductor chip is a complex process involving many steps and technologies. The presentation will include a brief discussion of the basic component of the chip, the transistor, as well as discussing the steps a wafer undergoes as it progresses through the manufacturing process, being transformed from a single crystal (Silicon) substrate to an array of many different devices.

About the Speaker

Mark A. Alexander

Consultant

Mark A. Alexander is a Physics graduate of Case Western Reserve University and also a graduate of the US Naval Nuclear Power program. He has worked in several high tech industries in Silicon Valley since 1980. Most recently, Mr. Alexander was a member of the Technical Staff at Applied Materials, specializing in failure analysis and material selection for semiconductor manufacturing hardware. Prior to joining Applied Materials, he worked on the development of 3M Company’s proprietary archival optical data recording media, and managed the pilot manufacturing line Engineering group. Mr. Alexander also worked at Exxon Enterprises (Kyllex) on the development of novel liquid crystal materials for use in flat panel LCD displays.

Participate in Your Chapter!

Consider joining one of the teams and help to shape the SCV ASM the way you want it:

Technical Program (monthly dinner meetings)... *Contact: Ramas Raman, ramas@surmet.com*

Sponsorship (advertising and meeting sponsors)... *Contact: Dave Himmelblau, dave.himmelblau@lmco.com*

Membership (servicing and expanding membership)... *Contact: Fred Landry, fred@altairusa.com*

Education (interfacing with local schools and Chapter education)... *Contact: Mingwei Li, mli@splasers.com*

Yearbook (publishing the Chapter membership directory)... *Contact: Shari Yokota, shari.yokota@cpii.com*

Publicity (newsletter and website)... *Contact: Scott Dickerson, scott_dickerson@amat.com*

Long Range Planning (long-term Chapter goals and development)... *Contact: Jacques Matteau, Jacques@altairusa.com*

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.



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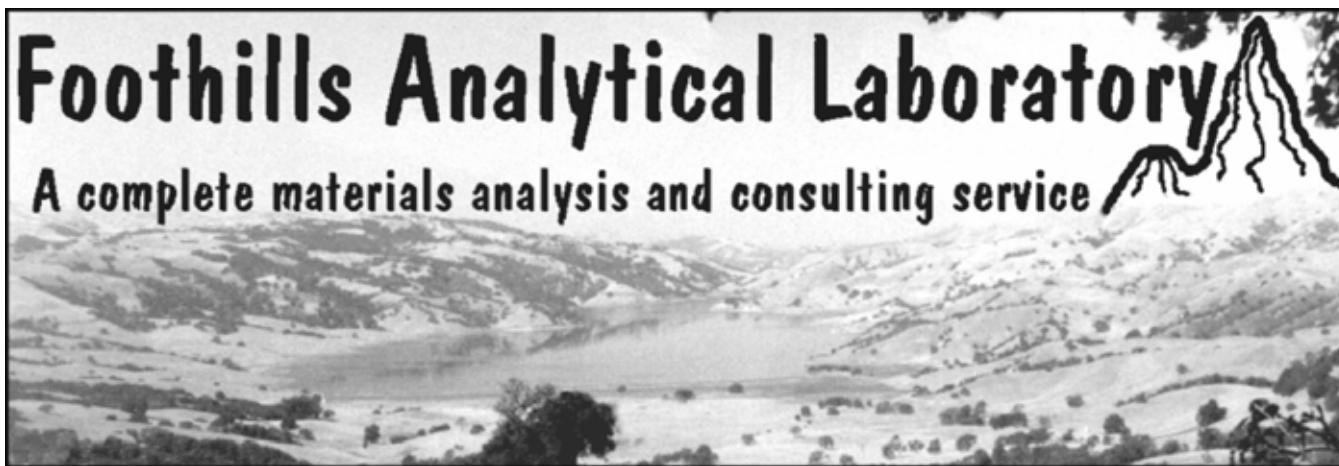
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Upcoming Events

Jan 14 IEEE-CPMT, "OLED Display Technology and Applications". Visit cpmt.org/scv

Jan 18-24: SPIE, "Electronic Imaging 2004". Visit electronicimaging.org/program/04

Jan 20: SME, "Tour of Northrup Grumman". Visit chapters.sme.org/098/

Jan 20: AIChE, "Chevron Refinery Tour". Visit www.aiche-norcal.org/meetings.html

Jan 21: ASQ, "ISO 9000:2000 in 2004 – Panel of Registrars". Visit www.asq-silicon-valley.org

Jan 22: ASC, "Unraveling the Past through Chemistry". Visit www.scvacs.org

Jan 24-29: SPIE, "Photonics West 2004". Visit spie.org/Conferences/Programs/04/pw

Jan 24-29: SPIE, "Micromachining and Microfabrication". Visit spie.org/conferences/programs/04/pw/mf

Feb 22-27: SPIE, "Microlithography 2004". Visit spie.org/conferences/programs/04/ml

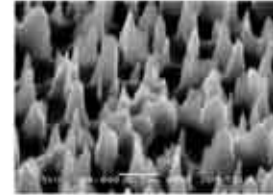
Feb 27: SVEC Engineers Week Banquet, Keynote Address: "From Nano to Zeta: Large Scale Engineering with Atomic Precision" by Dr. K. Eric Drexler. Also, Dr. Marcian E. Hoff, Jr. (Intel, Teklicon), Dr. Chang-Lin Tien (UC Berkeley), and Steve Wozniak (Apple Computer, Wheels of Zeus) will be inducted into the Hall of Fame. For more info, visit www.svec.org.

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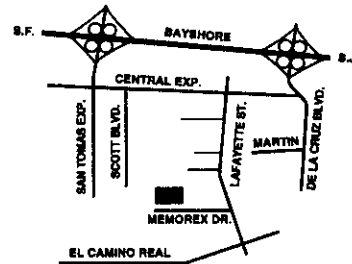
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Chapter Information & Upcoming Activities

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Vice Chair:

Ramas Raman (408)567-0941

Treasurer:

Richard Chung (408)924-3927

Secretary:

Stacy Ewert (408) 742-2521

Executive Committee

Mark Alexander (831)338-4790

Paul Fojas (510)538-7309

Ed Francis (408)653-1700

Dave Himmelblau (408)743-7893

Alfred Kwong (408)248-1916

Fred Landry (650)508-8700

Mingwei Li (650)966-5735

Lou Wirtz (408)756-0621

Shari Yokota (650)594-4065

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 Fred Landry at fred@altairusa.com.

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.

SM

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Upcoming Meetings: Feb: Bioceramics... Mar: Flat Panel Displays... Apr: Materials Selection Software... Stay tuned for more info!

Do You Know a Student that Should be Going to Materials Camp 2004?

What is Materials Camp?

- Summer camp program utilizing hands-on learning principles of applied math, physics, chemistry, and basic physics.
- A very unique team-based, intensive problem solving science experience under the direction of a distinguished world-class faculty "Materials Mentor".
- Combination of mini-demonstrations, field trips with extensive involvement in unique laboratory facilities to actively explore materials science & engineering principles.
- Students will:
 - **Have fun!** Our number one goal is to make applied science an exciting, fun experience.
 - Solve a technical problem. Using the "failure analysis" exploration model, students work in small groups and investigate the failure of a man-made material to perform its intended function.
 - Learn to use state-of-the-art research equipment in an engineering laboratory under the guidance of experts.

When and Where are This Year's Materials Camps?

- The program is growing! This year there will be 2 residential camps (Canada and OH), 4 nonresidential day camps (Chicago, Seattle, Quad Cities, and Lehigh Valley), and 2 Mini-camps (1 day events in Los Angeles and Columbus, OH). The events are all held in the summer months, see the website below for details.

Who is Eligible?

- Students entering their Junior or Senior year in high school are eligible for the program.
- The program costs absolutely nothing. Students receive free travel, housing, meals, tuition, and entertainment.
- This is a competitive application process. Students must have basic knowledge of algebra, chemistry, and physics and describe why they want to learn more about engineering and materials science as a possible college major and career.
- Experienced practicing engineers review each application to select the "best and brightest", highly motivated students who have not yet made a firm decision about a college major or career.

Where Can I Get More Information and Applications?

- For more information, visit the ASM International Foundation at www.asminternational.org/foundation
- Call the ASM International Foundation toll-free: 1-800-336-5152.
- Applications are available online (at the website noted above), and are due by **January 31**.

Deadline Coming Soon!