

Wednesday, November 14

Wafer Level Packaging

Luu T. Nguyen

National Semiconductor Corporation

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

Meeting Location:
WYNDHAM GARDEN HOTEL
1300 Chesapeake Terrace
Sunnyvale
(408)747-0999

Dinner Cost: ASM Members \$18, Students \$8, Guests \$20
Meal Choices: Chicken Dijon, Chef's Salmon, or Vegetarian

RESERVATIONS REQUIRED:
Janine Kardokus at (408) 986-7568 or janine_kardokus@amat.com
\$2 late fee after noon on Monday, Nov 12

Searching the Internet for Materials Information - See Page 2



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Meeting Directions

From points south: north on Lawrence Expressway, pass over 237, make the first left (Moffett Park Drive/Baylands Park), then the first left onto Chesapeake Terrace. **From points east or west:** Caribbean Drive (Lawrence Expressway North) exit off 237, first left at Moffet Park Drive/Baylands Park, then left on Chesapeake Terrace. **In either case, once you are on Chesapeake, simply proceed to the end where you'll find The Wyndham Garden Hotel.**

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About the Topic

Wafer Level Packaging

A Wafer Level Package (WLP) is the product of the complete packaging of a component at the wafer level. A true WLP utilizes materials and equipment that process all the dies on the wafer simultaneously for all the process steps. The package does not depend on the fabrication of non-semiconductor layers such as flex films or the individual placement and connection of features. Masks and other tooling consistent with standard semiconductor processing are used, ensuring rapid turns on both new designs and adaptability to die shrinks. Low lead count packages and integrated passive RF components based on WLP technologies are already turning up in today's hand held telecom products. This talk will review the need for WLP, the current production processes, the reliability characterization (package and board level reliability), and the challenges (materials, processing, and tests) facing WLP adoption.

About the Speaker

Luu T. Nguyen, National Semiconductor Corp.

Luu T. Nguyen is a Senior Engineering Manager in the Package Technology Group at National Semiconductor Corp., working on various aspects of wafer level packaging, opto packaging, lead-free, thermal measurement and modeling, and design-for-manufacturability. He is also in charge of external leveraging with the government, industry consortia, and research universities. He obtained his Ph.D. in Mech. Eng. from MIT on a Hertz Foundation Fellowship, and has worked for IBM Research (Yorktown Heights, NY) and Philips Research (Sunnyvale, CA). He has co-edited 2 books on packaging, and has 10 patents, over 20 invention disclosures, and over 150 publications. He is an IEEE Fellow, and is currently an Associate Editor for the CPMT Transactions on Advanced Packaging, an Editorial Board Member for the Journal of Electronics Manufacturing, and the Chair of IEEE TC-18 on Wafer Level Packaging.

Meeting Sponsorships Available

ASMI-SCV has openings for meeting sponsorships. A meeting sponsorship gives your company valuable publicity with the valley's leading materials professionals. Sponsorship includes a 1-month business card ad here in the newsletter, and the opportunity for a brief "pitch" at the meeting itself. This is an excellent opportunity to support your local chapter, and it enables us to provide quality technical programming at a reasonable cost.

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Call Bob Petrusha at (408)732-1356 for more information on meeting sponsorship.

Searching the Internet for Materials Information - Saturday, December 1

ASMI-SCV will be hosting a hands-on class on Internet searching for materials related information. This half-day class will be held on Saturday, 1 Dec 2001, from 9am - 12pm at San Jose State University's Engineering Building.

Course Instructor: Ms. Sandra Kajiwaru, San Jose State University Librarian, who has more than 20 years of information technology experience and specializes in supporting research in materials and chemical engineering fields.

Course Contents

- Enhancing your searches on the Internet - effective use of search engines
- Searching for patent information
- Searching for business information
- Searching for technical materials information (such as phase diagrams and materials property information)

Fee: The cost is \$45 per person.

The class will be limited to 20 registrants and priority will be given to ASMI members who register before 16 Nov (i.e. non-member registrations will be held until 16 Nov pending availability). Pre-payment (check payable to ASMI-SCV for \$45 each) will be required to guarantee your reservation. Sorry, we cannot accept credit card payments of any kind. Once payment is received, you will receive an e-mail confirmation with details on the classroom location. Please contact Richard Chung at (408)924-3927 or wrchung@email.sjsu.edu for more information.

To Register: send your check (\$45 each, payable to ASMI-SCV) and your name, address, phone number, and e-mail address to: Dr. Richard Chung, Dept. of Chemical and Materials Engineering, San Jose State University, 1 Washington Square, San Jose, CA 95192-0082

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Upcoming Events

Nov 8: ACS, "Restoration and Conservation of Art".
Visit: www.scvacs.org/Local_Folder/din_mtg.html

Nov 10: ASME, "Tour of Historic Hendy Iron Works and Northrup Grumman in Sunnyvale". Visit www.asme.org/sections/scvs/

Nov 13: AIChE, "Golden Pacific Brewing Company Tour and Beer Tasting". Visit www.aiche-norcal.org/meetings.html

Nov 14: ASMI-Golden Gate, "Industrial Water Treatment Corrosion Protection for Open Recirculating Cooling Systems" Visit www.ggc-asmi.ucdavis.edu/

Nov 14: ASQ, "ISO 9001:2000 Got Questions? We Got Answers!" Visit www.asq-svc.org/nov-14-01-dinner-mtg.html

Nov 14: ASQ Statistics Task Group, "Process Capability Optimization". Visit www.asq-svc.org/statistics_meeting.html

Nov 14: IEEE-CPMT, "Plating Processes for IC and Microelectronic Interconnect Applications" Visit www.cpmt.org/scv/meetings/cpmt0111.html

Nov 28: IEEE Laser & Electro-Optics, "The Musical Score, the Fundamental Theorem of Algebra, and the Measurement of the Shortest Events Ever Created". Visit www.silicavalley.com/Home_40.html

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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 Wendy Chung at (408) 256-8614 to confirm the schedule and reserve a seat at the table.

2001-2002 Technical Program

Sept. 12	Materials Issues for Electricity Generation in the Near Future <i>Dr. John Stringer, EPRI, Palo Alto</i>	<i>Past Chair's Night</i>
Oct. 10	Thin Film Materials Science at Stanford <i>Professors W.D. Nix and B.M. Clemens, Stanford University</i>	
Nov. 14	Wafer Level Packaging <i>Luu Nguyen, National Semiconductor</i>	
Dec. 12	Underwriter Laboratories in Santa Clara <i>Martha Martinez, Underwriter Laboratories</i>	<i>Companion's Night</i>
Jan. 9	The Metallurgy of Sputtering Targets <i>Daniel Marx, Materials Research Corporation (Division of Praxair)</i>	<i>SCV Fellow's Night</i>
Feb. 13	<i>TBD - Ceramics Topic</i>	<i>Joint with ACerS</i>
Mar. 13	Nanotechnology Overview <i>Barbara Jones, IBM Almaden Research</i>	
Apr. 10	<i>TBD</i>	<i>Joint with SAMPE</i>
May 8	Update on Battery Technology <i>Fritz Kalhammer, Consultant</i>	<i>Awards Night</i>