



# NESM News

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## JEOL TO HOST SPECIAL SYMPOSIUM ON ELECTRON BACK-SCATTER DIFFRACTION ANALYSIS

JEOL USA, Inc. in Peabody, MA will host the **October 16, 2001 NESM meeting**. JEOL USA, Inc. is a wholly owned subsidiary of JEOL, Ltd. of Akishima, Japan. JEOL USA, Inc. was incorporated in the United States in 1962, and moved to present corporate offices at 11 Dearborn Road in Peabody, Massachusetts, in August 1979. The primary business of JEOL is the manufacture, sale and service of Electron Microscopes, such as SEMs and TEMs, and various types of analytical instruments including Mass Spectrometers, NMRs, ESRs, and Semiconductor Equipment.

This meeting will take an unusual format, being dedicated to a single subject, and relying entirely on our sustaining members for content. Electron back-scatter diffraction pattern analysis in the SEM is a relatively new electron beam technique which allows the determination of the crystallography of solid samples on a microscopic scale. It can be applied to phase determination in multi-phase samples, or orientation determination in single-phase polycrystalline samples, the latter being especially useful if some form of texture is present, as in drawn wires or thin films, for example.

We have invited the four vendors of commercial EBSD systems to be part of our symposium exploring the technique, and we are delighted that all four have willingly accepted. This is an exciting new application of electron microscopy, partly responsible for fueling the tremendous growth in the use of the SEM in materials science, and we think the time is absolutely right for this symposium. We are happy to offer it to the membership, and look forward to an enthusiastic response.

Members are invited to bring posters on the topic of EBSD analysis for display at the meeting. **Please call Tony Garratt-Reed (617-253-4622)** for more information about display requirements if you are interested.

Registration will begin at 5:00pm followed at 5:30pm by a demonstration of EBSP systems by John Sutliff of HKL Technology Inc. and Neil Rowlands and Richard McLaughlin of Oxford Instruments Microanalysis Division. From 7:15pm-9:00pm, technical talks will commence on the Theory and Applications of EBSD Analysis. Stuart Wright of TSL/EDAX and Patrick Camus of Thermo-Noran, Inc. will be the speakers. From 5:30pm-7:00pm, a Buffet Supper, courtesy of JEOL will be available. The registration fee for members is \$5.00 and \$20.00 for non-members. (Registration for non-members includes a one-year NESM membership.)

Please **register by Friday, October 12th**. Use the registration form found inside this newsletter or contact Mary McCann at (617) 484-7865 or by email: [mccanns@tiac.net](mailto:mccanns@tiac.net).

## **NESM'S October Meeting**

JEOL USA, Inc.  
11 Dearborn Road - Peabody, MA 01960 - (978)535-5900

**Tuesday, October 16, 2001**

- 4:15-5:15 pm      **NESM Council Meeting**
- 5:00-5:30 pm      **Registration**
- 5:30-7:00 pm      **Buffet Supper** (courtesy of JEOL)
- 5:30-7:15 pm      **Demonstration of EBSP Systems**  
- John Sutliff, HKL Technology Inc.  
- Neil Rowlands and Richard McLaughlin, Oxford Instruments Micro-  
analysis Division
- 7:15-9:00 pm      **Technical Presentations**—Theory and Applications of EBSD  
- Stuart Wright, TSL/EDAX  
- Patrick Camus, Thermo-Noran, Inc.
- 9:00 pm            **Adjournment - Rick Rogers, President NESM**

**Please note:** Posters on the topic of EBSD Analysis submitted by the membership and interested participants will be on display throughout the evening.

# Advance Registration Form

October Meeting, October 16, 2001

**Registration Deadline**  
**October 12, 2001**

To register, please fill out this form below and send it with your check, payable to NESM, to:

**Mary McCann**  
**NESM c/o McCann Imaging**  
**161 Claflin Street Belmont, MA 02478**

If you have questions, please call Mary at (617) 484-7865.

First Name \_\_\_\_\_ Last Name \_\_\_\_\_ Dr. Ms. Mr.  
Company \_\_\_\_\_ Title \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

## Advance Registration

- NESM member \$ 5.00       Student/retired member \$5.00  
 Non-member \$20.00\*      Total enclosed \_\_\_\_\_

\*Non-member registration includes current-year NESM membership.

On behalf of NESM's Board, I would like to take the opportunity to express our sorrow over the terrible tragedy that befell our country on Tuesday, September 11, 2001.

I know that our membership, which not only includes people from New England but from other parts of the country and world, has been affected by this event, some even on a personal level. We offer solace to our membership and fellow regional societies, the Metropolitan Microscopy Society (MMS), and the New York Society of Experimental Microscopy (NYSEM) in this time of crisis.

As NESM collaborates with, and draws upon, the international scientific community for its meeting formats, we ask for their support in the days, weeks, and months to come. Together we can show the world that communication among people of various ethnic and religious backgrounds will not only continue but flourish.

Please support our Society and our country. Thank you.

Peggy Sherwood, Editor & Corresponding Secretary (NESM)



Corporate Members

Thank you for your support. Your sustained commitment to NESM allows us to continue to promote excellence in microscopy here in New England.

- AMT
- Barry Scientific
- BOC Edwards Vacuum
- CF Associates
- CRI
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- EDAX
- Electro-Image
- EMS/Diatome
- Energy Beam Sciences
- FEI Company
- Fischione Instruments
- Ernest F. Fullam
- Gatan, Inc.
- Geller MicroAnalytical
- Hitachi
- ICT
- JEOL-USA, Inc.
- Kimball Physics
- KLA-Tencor/AMRAY
- Ladd Research
- LEICA
- Leo Electron Microscopy
- MEDTEC
- Micro Star Technologies
- NanoTech Consulting
- Noran Instruments
- Optechs, Inc.
- Oxford Instruments
- Polaroid
- Princeton Instruments
- Rontec
- Scanning
- South Bay Technology
- Spectra Physics
- SPI/Structure Probe, Inc.
- SSSC
- Ted Pella, Inc.
- Zeiss

## 18th Annual Woods Hole Symposium Draws an Enthusiastic Crowd

NESM's Eighteenth Annual Spring Symposium at MBL, Woods Hole, MA, Friday and Saturday, May 11th and 12th, 2001 was a success!

The nice weather, best known to avoid our traditional Spring Symposium finally gave us a break and ushered in a fantastic weekend. Crystal blue skies, light breeze and perfect temperature were the backdrop for a wonderful conference. We had over 100 participants gather from the New England region to listen to an excellent slate of speakers from around the country. In place of the cruise, the Marine Resources Center gave tours to interested parties. Those people who took advantage of the tour, were treated to a very interesting overview of research opportunities at Woods Hole. I want to thank the board, in particular, Lynne, Mary, Marilyn, Peggy, Ken, Louie and the Directors for a job well done.

I solicited comments from the membership regarding the conference and many have provided helpful suggestions and useful insights. The board thanks everyone who responded and will definitely make an effort to respond to these suggestions.

Rick Rogers, NESM President

## MSA Application for Membership

Mail directly to MSA!

### Microscopy Society of America

435 North Michigan Avenue, Suite 1717 ▪ Chicago, IL 60611-4067 ▪ 800-538-3672  
 FAX: 312-644-8577 ▪ E-mail: Business Office@MSA.Microscopy.Com

Name (print) \_\_\_\_\_ Dr. Ms. Mr.  
 Mailing address \_\_\_\_\_

Phone (days) \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Institutional Affiliation: \_\_\_\_\_ Major Interest: Physical Sciences  
Biological Sciences

Signature of nominating MSA member: \_\_\_\_\_

Signature of Advisor (for student applicants): \_\_\_\_\_

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Enclose a check (US funds drawn on a US bank) for one year's dues, payable to MSA, or complete the credit card information below. Also enclose a brief statement of your qualifications, experience, and/or student status.

Regular Member: \$40 Student Member: \$10 Sustaining Member: \$350

Expires: \_\_\_\_\_  
 Visa/Master Card Number (include all numbers) \_\_\_\_\_ Month/Year

For applicants outside of North America, please add \$18 to each membership to cover the cost of mailing.

NESM's 18th Annual Spring Symposium

**Poster Winners:**

Best Overall Poster (\$100) - Nina Derby, et al - "Pericyte Distribution and Microvessel Architecture in Adipose Tissue from Normal (C57BL/6) and Leptin-Deficient (OB/OB) Mice"

2nd Place Honorable Mention (\$25) - Praveena Bhakara, et al - "Processing and Characterization of bioactive ceramic composites Reinforced with Sapphire Fibers"

3rd Place Honorable Mention -Compilation of 3 Stories (\$25) - Martin Selig, et al "Giant Cell Tumor of Bone", Small Cell Osteosarcoma and Mesenchymal Chondrosarcoma", and "Gastrointestinal Stromal Tumors of the Stomach"

Best Student Poster (\$50) - Jennifer W. Lee - "An Ultrastructural Study of Tegument Muscle Layers, and Excretory Organs of *Schistosoma mekongi*"

**Photos As Art:**

\$50 First Prize - Janet E. Schwarz - "Some Days Electron Microscopy Makes Me Scream"

All other Poster Participants received Tote Bags.

**Door Prizes:**

2 X \$25 Gift Certificate to Amazon.com: April Savas and Devkant Gandhi

3 X I-Zone Polaroid Cameras: Harry Jen and Ken Orndorff

NESM would like to thank Zeiss, JEOL, FEI for their monetary contributions for the awards.

**CONGRATULATIONS TO ALL!**

**Meetings,  
Conferences,  
& Courses  
2001**

**October 10/19, 2001  
Optical Microscopy and  
Imaging in the Biomedical  
Sciences**

MBL - Woods Hole, MA  
(508)289-7401

**October 15/18, 2001  
NIST-MAS Special Topics  
Workshop "Understanding  
the Accuracy Barrier in  
Quantitative Electron  
Probe Microanalysis and  
the Role of Standards**

(NIST), Gaithersburg, MD  
(301)417-1321 [www.nist.gov](http://www.nist.gov)

**October 16, 2001  
NESM Meeting-Special  
Symposium on EBSD**

JEOL USA, Inc.  
Peabody, MA  
Contact: Mary McCann  
(617)484-7865  
[mccanns@tiac.net](mailto:mccanns@tiac.net)

**McCrone Research Insti-  
tute-2001 Schedule Info.**

Contact: Nancy Daerr  
(312)842-7100  
Fax: (312)842-1078  
Email: [ndaerr@mcri.org](mailto:ndaerr@mcri.org)

**December 8/12, 2001  
American Society for Cell  
Biology 41st Annual Mtg.**

Washington, D.C.  
(301)347-9300  
[www.ascb.org](http://www.ascb.org)

## Directions to JEOL

### To JEOL via Rt. 128:

If traveling **North** on Route 128, take Exit 44B, Rt.1 North(Danvers). Continue on the exit ramp for Rt.1 North (Danvers) until you see the sign for Dearborn Rd. on the left. This is an access road for Dearborn Road and is easy to miss. At the end of the access road, go right onto Dearborn Rd. JEOL is the second building on the right. The entrance is to the rear of building.

If traveling **South** on Route 128, take Exit 44, Rt. 1 North(Topsfield). Continue on the exit ramp for Rt.1 North until you see the sign for Dearborn Rd. on the left. This is an access road for Dearborn Road and is easy to miss. At the end of the access road, go right. JEOL is the second building on the right. The entrance is to the rear of building.

### To JEOL via Rt. I-95:

If traveling **North** on Rt. I-95 follow directions for ROUTE 128 North because I-95 and 128 are the same road at this point. If traveling **South** on Rt. I-95, follow the signs for I-95 South (Waltham). After Rt.I-95 feeds into 128 South, take Exit 44 Rt. 1 North (Topsfield), until you see the sign for Dearborn Rd. on the left. This is an access road for Dearborn Road and is easy to miss. At the end of the access road, go right. JEOL is the second building on the right. The entrance is to the rear of building.

### To JEOL from Logan Airport:

Exit Logan Airport and proceed NORTH on Route 1A to rotary (junction of 1A and Route 60). Go through rotary, bearing left onto Route 60, Squire Road. Proceed around second rotary (junction of Route 107), continuing on Route 60, through 2 sets of lights.

At the next intersection/overpass, exit right, onto Rt.1 North for about 7 miles. After passing the Rt. 128/I-95 exit in Peabody, look for a small, green Dearborn Road sign on the right. Take this right (just before Wendy's Restaurant). JEOL is the second building on the right. The entrance is to the rear of building.

## NESM APPLICATION FOR MEMBERSHIP

- |                          |                   |          |
|--------------------------|-------------------|----------|
| <input type="checkbox"/> | Regular Member    | \$15/00  |
| <input type="checkbox"/> | Student Member    | \$5.00   |
| <input type="checkbox"/> | Retired Member    | \$5.00   |
| <input type="checkbox"/> | Corporate Member* | \$100.00 |

Please make your check payable to NESM and send along with this application to:

NESM  
c/o Mary McCann  
McCann Imaging  
161 Claflin Street  
Belmont, MA 02478

Current Members:

- Change of Address Only

\*Each Corporate Membership entitles two representatives to receive our newsletter. Please duplicate mailing information form as needed.

Mailing Information:

Date \_\_\_\_\_  Dr.  Ms.  Mr.

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Company/University \_\_\_\_\_  
(if not part of mailing address)

Major Interest:  Biological Sciences  Physical Sciences

Microscope Type:  SEM  TEM  Light

Confocal  STEM  Other

### NESM Membership News 2001

*The New England Society for Microscopy (NESM), a local affiliate of the Microscopy Society of America (MSA), is a professional organization dedicated to the promotion and advancement of the science and practice of all microscopical imaging, analysis, and diffraction techniques.*

*Each year, NESM holds four local meetings which feature speakers from both biological and physical science backgrounds. Social hours and buffet dinners are enjoyed at each meeting.*

**New Members:** NESM has a calendar-year membership; new members may join at anytime. To join, please check one of the member categories, and return the above application along with your check payable to NESM.

**Membership Renewal:** An invoice for annual membership dues will be sent with the first newsletter each year. Dues are payable at meeting registration, or by check no later than May 31st.

**Please make check payable to NESM and send c/o Mary McCann, 161 Claflin Street, Belmont, MA 02478**

### NESM Officers 2001

**President**  
2001 Rick Rogers  
HSPH (617) 432-3472  
rogers@bioimage.harvard.edu

**President-elect**  
2001 Lynne Garone  
Polaroid Corporation(781) 386-1446  
GaroneL@Polaroid.com

**Past President**  
2001 Doug Taatjes  
UVM (802) 656-8892  
dtaatjes@salus.uvm.edu

**Treasurer**  
2001 Mary McCann  
McCann Imaging (617) 484-7865  
mccanns@tiac.net

**Recording Secretary**  
2001 Marilyn Wadsworth  
UVM (802) 656-0813  
mwadswor@zoo.uvm.edu

**Corresponding Secretary**  
2001 Peggy Sherwood  
MGH-Wellman Labs of Photomedicine  
(617)724-4839; MESnesm@aol.com

**Materials Science Directors**  
2001 Anthony J. Garret-Reed-MIT  
(617) 253-4622; tonygr@MIT.EDU

2002 Hei-Ruey Harry Jen-M/ACOM Division  
(978) 442-4804; jenh@tycoelectronics.com

2003 Trisha Rice-FEI  
(978) 538-6921; trice@feico.com

**Biological Sciences Directors**  
2001 Eben Oldmixon-HSPH  
(617)432-2243; eben@ids.net

2002 Ken Orndorff-Dartmouth  
(603) 650-7661; keno@dartmouth.edu

2003 Ezequiel Rivera-UML  
(508)934-2868;ezequiel\_rivera@uml.edu

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**Mailing Address:** NESM  
**P.O. Box 425232**  
**Cambridge, MA 02142**