



METALLAGRAM



LONG ISLAND CHAPTER

Volume 56 Issue 4

Chapter website: <http://www.matscieng.sunysb.edu/asm/>

Joint Meeting with Long Island Section of the American Nuclear Society

Next Meeting Wednesday, January 21, 2015

Where Pollo Rico, Centereach, NY

*******John Weeks Lecture*******

Topic: A Robot for Studying Radioactive Materials at the X-ray Powder Diffraction Beamline at the National Synchrotron Light Source-II

Speaker: Lynne Ecker, BNL

Social Hour ... 6 pm Dinner ... 7:00 pm Meeting ... 8:00 pm

Members ...\$25 Guests ...\$27 Students ...\$15

(New and recently transferred-in members free)

Please reserve (RSVP) by Tuesday: January 20, 2015 to Peter Indrigo at 631-589-6666 or email peterd@unitronusa.com

. WELCOME TO THE CHAPTER!

*Nasser Al-Harbi, SABIC T&I Amanda Erhart, Oerlikon Metco Paul Kammer, Kammer Associates
Collin Olson, D'Addario Terence Rouge, Clad Metal Specialties Inc.*

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice (not applicable to this wine tasting!). Please take us up on this offer - come along to the meeting and introduce yourself. This is an excellent way to meet with other Chapter members and to establish new business and social relationships in the area.

The Topic

Advanced synchrotron-based methods will contribute crucial information to the characterization and quantification of steels and other advanced materials for nuclear energy applications. The contribution of composition, dose and irradiation temperature to the evolution of crystallographic phases, quantity of voids and irradiation-induced precipitation can all be systematically determined with synchrotron measurements using high-throughput experiments. A unique, new tool for characterization of radioactive materials is being developed at the X-ray Powder Diffraction Beamline (XPD) at the National Synchrotron Light Source – II (NSLS-II). XPD will deploy a novel, high throughput, robot for sample manipulation that will be specifically customized to accommodate radioactive samples (or multiple samples) up to 100 mrem/hr at 30cm in containment. The XPD facility at NSLS-II will soon offer unprecedented resolution performance while maintaining high levels of photon flux in the 30-70 keV x-ray energy range. XPD will provide High Resolution powder diffraction (XRD), total scattering (PDF), medium- or small-angle scattering (MAXS or SAXS with a resolution 1-100 nm), and tomography (CT). Opportunities also exist for *in-situ* and *in operando* structural science (variety of sample environments, complex materials in working conditions or in operating devices). In addition to the hardware being designed, automated data analysis techniques are being developed to handle the large quantities of data that will be generated with high-throughput experiments. Representative data from some of the techniques available at XPD (Rietveld fitting of XRD data, PDF and SAXS) will be presented for reactor pressure vessel steels and other advanced alloys.

The Speaker

Dr. Lynne Ecker has a PhD in Solid State Physics from Syracuse University. She is currently the Deputy Department Chair and lead for a group that provides materials science expertise in synchrotron and other characterization techniques to improve and develop materials for nuclear and energy technologies. This includes the development of techniques to study materials in extreme environments through *in-situ* environmental cells, furnaces and other specialized equipment for the synchrotron. She was employed for 8 years at Knolls Atomic Power Laboratory and has extensive experience in material phenomenon for nuclear reactors including elastic-plastic materials, thermal and irradiation creep, anisotropic swelling, fracture mechanics parameters, failure mechanisms, crack growth and contacting surfaces in complex mechanical systems and corrosion films.

Directions to Pollo Rico Latin Bistro

Pollo Rico is located at 2435 Middle Country Road (Rte. 25), Centereach. Probably the simplest way to get there from the LIE is to take Exit 62 (Nicolls Road) and go north on CR 97 (towards Stony Brook). Continue north for about 3 miles then take the exit to Rte. 25. At the traffic signals at the end of the ramp go left and head west (Smithtown). The restaurant will appear after about 1.5 miles, on the right side of the highway. Their telephone number is 631-471-0585. Their website is: <http://www.polloricolatinbistro.com/>.



**RELIACOAT
TECHNOLOGIES, LLC**

WANHUK BRIAN CHOI, PH.D.
Chief Operating Officer

10 Technology Drive, Unit 3
East Setauket, NY
11733-4063, USA

Tel: (631) 739-8818
Fax: (631) 675-2533
brian.choi@reliacoat.com
www.reliacoat.com



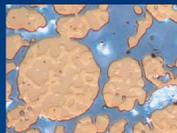
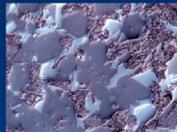
3-D PRINTED SENSORS AND ANTENNAS

JEFFREY BROGAN, PH.D.
CEO

7 FLOWERFIELD, No. 28
SAINT JAMES, NY 11780
WWW.MESOSCRIBE.COM

TEL: 631 686 5710 EXT. 1#
CELL: 631 335 8991
JTBROGAN@MESOSCRIBE.COM

Carl Zeiss... for all your state-of-the-art Microscopy & Digital Imaging needs



Offering features such as Image Archiving, Grain Size analysis, Dendritic Arm Spacing measurement, Non-Metallic Inclusion, Graphite and more...

Carl Zeiss MicroImaging, Inc.
Thornwood, NY
1.800.233.2343
micro@zeiss.com
zeiss.com/materials



We make it visible.



LAWRENCE RIPA K CO., INC.

NDT • METAL FINISHING

LAWRENCE RIPA K, JR.
President, CEO



Lawrence Ripak Co., Inc.
165 Field Street
West Babylon, NY 11704-1299

Office: (631) 694-1818
Fax: (631) 694-1818
Email: lripak@ripak.com

NONDESTRUCTIVE TESTING

- Magnetic Particle
- Fluorescent Penetrant
- Visible Dye Penetrant
- Contact Ultrasonic
- Immersion Ultrasonic with data acquisition
- X-Ray
- Nital Etch
- Eddy Current

CLEANING

- Passivation
- Abrasive Blasting
- Glass Bead Blasting
- Plastic Media Blasting
- Acid Pickle Cleaning
- Alkaline Cleaning
- Parts up to 20' Long

ANODIZING

- Boric-Sulfuric
- Chromic
- Sulfuric
- Parts up to 18' Long

PLATING

- Titanium-Cadmium
- Cadmium
- Brush Plating

PAINTING

- Primers
- Top Coats
- Dry Film Lubricants
- Fuel Tank Coating
- Teflon
- High Temp Primers
- Masking

SHOT PEENING

- Automatic and Manual
- Regular & Hard Cast Steel
- Glass Bead
- Ceramic
- Parts up to 8 Feet Long
- Post-Peen Cleaning

CONVERSION COATINGS

- Alodine 1200
- Phosphate Fluoride
- Sol-Gel

OTHER PROCESSING

- Stress Relieving
- Conductivity Testing
- Hardness Testing
- High Humidity Testing
- Salt Spray Testing



CLAD METAL SPECIALTIES

www.cladmetal.com
1516 Fifth Industrial Court
Bayshore, New York 11706

"Your Need Time is our Lead Time"

Denise Marcoccia
Vice President

ph 631/666-7750
fax 631/666-5347
dmarcoccia@cladmetal.com

**A World Of
Engineering & Testing
Under One Roof™**



www.dtbtest.com

ATUL B. GOKHALE, PH.D.

Chief Metallurgist /
Technical Specialist
Engineering & Test Division

1195 Church St.
Bohemia, NY 11716-5014

Main: 631-589-6300 Ext: 614
Cell: 631-926-0209
Fax: 631-567-9045
E-mail: agokhale@dtbtest.com

FORMISANO & ASSOCIATES, INC.

Welding Engineers • Consultants
Expert Witness • Litigation Support
QA/QC • Certified Inspection

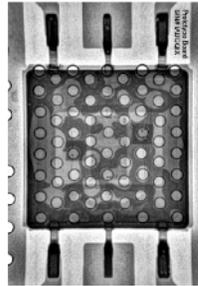
BARRY FORMISANO, PRESIDENT

Cell: (914) 388-0155
Email: formisano.assoc@att.net

P.O. Box 324 125 Wolf Road
Gardiner, NY 12525 Albany, NY 12205
Phone/Fax: (845) 255-8225 Phone: (518) 925-8306

WALDVOGEL METALLURGICAL, INC.

MATERIALS ANALYSIS - FAILURE ANALYSIS - MATERIALS TESTING



ELECTRONIC DEVICE FAILURE ANALYSIS
PRECISION METALLOGRAPHIC ANALYSIS
IMMEDIATE TURNAROUND

TELEPHONE: 516-564-7839
FAX: 516-485-2039
CELLULAR: 516-967-8576
E-MAIL: waldvogelmet@verizon.net

Long Island Testing Laboratories, Inc.

Specialists in Aerospace Materials Testing, Since 1985
METALLURGISTS – ANALYSTS

- Chemical Analysis
- Metallurgy
- Expert Testimonies
- Mechanical Testing
- Metallurgical Failure Analysis
- Welder's Qualifications

T. Rao Tipirneni, President

243-A Wyandanch Avenue, North Babylon, New York 11704
Phone (631) 643-6792 Fax (631) 643-5628
www.litlab.com Email: rao@litlab.com

STONY BROOK

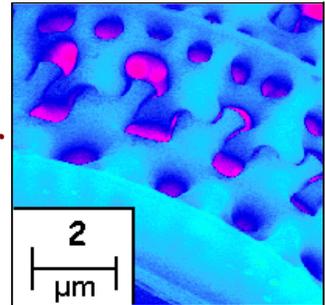
STATE UNIVERSITY OF NEW YORK

**University/Industry
Partnering Together**

Your samples-Our SEM

We also have OM, XRD,
RP, and much more.....

Dr. Jim Quinn
631-632-6663 or 8495
james.quinn@stonybrook.edu



MetLab Corporation **FREE SHIPPING & 10% OFF**
call 1-800-828-6866 for more information

starting at \$2,995

starting at \$6,995

starting at \$5,995

FOR ALL YOUR METALLOGRAPHIC NEEDS SINCE 1968
www.metlabcorp.com 1-800-828-6866



**Solutions for
Materials Preparation,
Testing & Analysis**



BUEHLER
An ITW Company
41 Waukegan Road • Lake Bluff, IL 60044
(847) 295-6500 • www.buehler.com

**For more information,
contact:**
Scott Prenovitz
(508) 361-8451
scott.prenovitz@buehler.com



Struers Inc.
24766 Detroit Road
Westlake, OH 44145-2525

Direct/fax 203.380.0563
Telephone 440.871.0071 ext 867
Fax 440.871.8188
www.struers.com • lservino@struers.com

Luca A. Servino
Account Representative
New England

Long Island Chapter Meeting Schedule

Feb: 18, 2015 **Topic: tbd**
 Place: Pollo Rico

Mar. 11, 2015 **Topic: tbd**
 Place: Pollo Rico

April 15, 2015 **Topic: Student Night**
 Place: Old Field Club

Metro NY-NJ Chapter
(<http://metronynj.asminternational.org/portal/site/metronynj/>)
No meetings in December, 2014 or January, 2015

Long Island Metal Workers Society
(website <http://www.limws.org>)

2014-2015 CHAPTER OFFICERS
[() – term expires]

Chairman (2015)
Jim Quinn - (631) 632-6663
Stony Brook University

Vice Chairman (2015)
Ken Trelewicz - (631) 244-6238
Dayton T. Brown Inc

Secretary (2015)
Mike Guggenheim – (631) 643-6792
Long Island Testing Lab., Inc.

Treasurer (2015)
Peter Indrigo - (631) 589-6666
Unitron Ltd.

Executive Committee Members

Alex Chi (2013) – (631) 491-1592
Demeton Technologies

John Coyle (2015) - (631) 589-6666 x2619
Unitron Ltd.

Atul Gokhale (2016) – (631) 926-0209 x614
Dayton T. Brown Inc.

Jake Ranneklev (2015) – (631) 643-6660
Burton Industries

Rao Tipirneni (2014) - (631) 643-6792
Long Island Testing Laboratories Inc.

James Waldvogel (2016) – (516) 564-7839
Waldvogel Metallurgical Inc.

Al Wirth (2015) - (516) 333-7429
Retired

ADVISORY

Biays Bowerman (2014) - (631) 344-2946
Brookhaven National Laboratory

EMERITUS

Richard Richards (Retired) - (631) 567-6163



UNITRON®
Excellence by Design



Peter D. Indrigo
Senior Vice President
peterd@unitronusa.com

73 Mall Drive, Commack, New York 11725
www.unitronusa.com
Phone: 631-543-2000
FAX: 631-589-6975