



The Materials Information Society

LONG ISLAND CHAPTER

METALLAGRAM



Volume 62 Issue 2

Chapter website: <http://DoL1.eng.sunysb.edu/asm/>

EMERGING PROFESSIONALS NIGHT YEAR

Next Meeting Wednesday, October 21, 2020

Where Pollo Rico Latin Bistro, Centereach, NY

Topic: Materials for Next Generation Batteries

Speaker: Nav Nidhi Rajput ... SBU

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

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

(New and recently transferred-in members free)

Reservations appreciated – call Peter Indrigo at 631-589-6666

WELCOME TO THE CHAPTER!

Gary Chawla, Axim Mica Sabrina Hernandez, East Patchogue

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice. 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 Speaker

Nidhi Rajput received her M.S. and Ph.D. degrees in Chemical Engineering at Louisiana State University specializing in molecular dynamics studies of ionic liquids (ILs) confined inside nanoporous materials for applications in electrochemistry. She worked as a postdoctoral research associate in the Energy Technologies Area Division at Lawrence Berkeley National Laboratory, California, where she worked on developing infrastructure for high-throughput computations for the Joint Center for Energy Storage (JCESR) and Electrolyte Genome, which is a coupled first-principle and classical molecular dynamics code-base for rapid understanding and design of optimal electrolytes. Her research group at Stony Brook University seeks to use materials informatics to understand and predict the properties of fluids and solid/fluid interfaces by gaining a fundamental understanding of synthesis-structure-property relationships.

The Topic

Today, the pursuit of transformative gains in the performance of electrical energy storage (EES) systems and industrial technologies is intrinsically a materials problem, which requires development of novel electrode materials, electrolytes, and architecture. Such innovations of novel electrodes as well as electrolytes for future EES systems lie inherently in the computationally driven design of materials by obtaining a fundamental understanding of the interplay between events scaling over wide spatial and temporal ranges. The state-of-the-art lithium ion batteries are limited by their energy density and high cost. The work in our lab is focused on designing optimal materials for next generation energy storage devices. In this talk, I will present our work on using computer simulations to understand and predict the unique physical and chemical properties of electrolytes, electrodes and electrode/electrolyte interfaces in a battery system. We use a synergetic fusion of high-throughput multi-scale simulation, artificial intelligence, and experimental input to screen thousands of materials and identify the optimal materials at a faster speed and lower cost.



RELIACOAT
TECHNOLOGIES, LLC

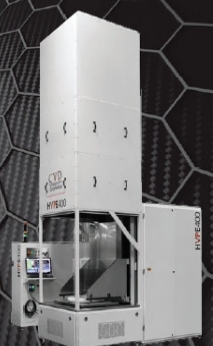
WANHUK BRIAN CHOI, PH.D.
Chief Operating Officer

10 Technology Drive. Unit 1
East Setauket, NY 11733-4063, USA

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

CVD
Equipment
Corporation

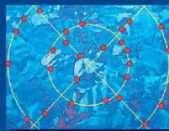
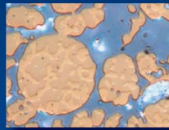
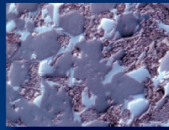
enabling tomorrow's technologies™



631 981 7081 | www.cvdequipment.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.



Since 1952

LAWRENCE RIPAK CO., INC.

NDT • METAL FINISHING

LAWRENCE RIPAK, 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



Denise Marcoccia
CEO

dmarcoccia@cladmetal.com
C: 631.988.0732

P: 631.666.7750 x 111 | F: 631.666.5347
1516 Fifth Industrial Court, Bay Shore, NY 11706

www.cladmetal.com



Quality Products for Metallographic
Sample Preparation & Analysis



Contact Mike Hattie
(800) 675-1118 (HQ)
(203) 751-2779 (Cell)

www.alliedhightech.com

A World of
Engineering & Testing
Under One Roof™



www.dtb.com

ATUL GOKHALE PHD

Chief Metallurgist
Engineering & Test Division

1195 Church St.
Bohemia, NY 11716

Direct: (631) 589-6300 x614
Mobile: (631) 926-0209
Fax: (631) 589-3648
E-mail: agokhale@dtb.com

FORMISANO & ASSOCIATES, INC.

EXPERT WITNESS • LITIGATION SUPPORT
WELDING ENGINEERS • CONSULTANTS
QA /QC • CERTIFIED INSPECTION

P.O. Box 324, Gardiner, NY 12525 Phone: (845) 255-8225

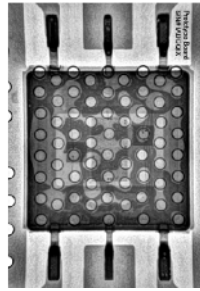
BARRY FORMISANO, PRESIDENT

Cell: (914) 388-0155

Email: formisano.assoc@att.net

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

L. I. T. Labs, Inc.

Metallurgists/Analysts



Since 1985

L.I.T. Labs, Inc.

Chemical Analysis	Mechanical Testing
Metallography	Tensile Testing
Failure Analysis	Fastener Testing
Expert Testimonies	Welder Qualifications
Hardness/Micro-Hardness	Weldability Evaluation

Rao Tipirneni, President

97 Marcus Boulevard

Hauppauge, NY 11788

www.litlab.com

P: 800-300-8176

F: 631-643-5628

rao@litlab.com

Accredited: Nadcap Materials Testing, ISO 17025 Compliant
Specialists in Aerospace Materials Testing

STONY BROOK

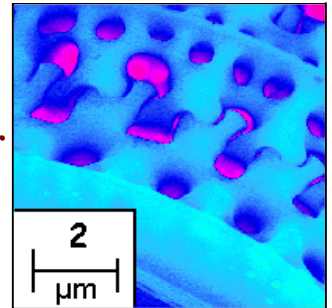
STATE UNIVERSITY OF NEW YORK

**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



FOR ALL YOUR METALLOGRAPHIC NEEDS SINCE 1968.

1-800-828-6866
www.metlabcorp.com

MetLab
Corporation

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 (Smittown). 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/>




BUEHLER
Innovative
Metallographic
& Hardness Testing
Solutions



Strong Partner, Reliable Solutions

Improve your Process, Contact
Sandra Anderson, Sales Engineer
sandy.anderson@buehler.com
Direct: 224-513-6335




Struers
Ensuring Certainty

Metallography & Hardness Testing

When it comes to your metallographic preparation and testing solutions, Struers delivers...

- Powerful Equipment
- High-Quality Consumables
- Intelligent Support
- Outstanding Service

Contact Struers Account Representative
John Rys at +1 440.986.0046
john.rys@struers.com



UNITRON® EXCELLENCE BY DESIGN

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



73 Mall Drive
Commack, NY 11725

631-543-2000 • 631-589-6975 • www.unitronusa.com

2020-2021 CHAPTER OFFICERS

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

Vice Chairman
Ken Trelewicz - (631) 244-6238, MatEcon, Inc.

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

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

Executive Committee Members

Ed Gildersleeve, Stony Brook University (CTSR)

Konrad Kozdra, Sartorius Stedim Biotech
(631) 870-8557

Dan Migliorino, ReliaCoat Technologies
(631) 739-8818

Nick Olynik, Long Island Testing Laboratories Inc.

Collin Olson, D’Addario
(631) 439-3335

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

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

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

EXTEC®

High quality, affordable, precision sample preparation supplies & equipment for: **Cutting • Mounting • Grinding • Polishing**

Order online today at WWW.EXTEC.COM or contact
John Long • (610) 662-7700 • jlong@extec.com



Meet the Extec Labcut 5000® Series
Advanced Precision Composite Plate Saw.
Your solution for highly accurate and repeatable composite test coupons.
Learn more at www.Labcut5000.com

Long Island Chapter Meeting Schedule

Nov. 18, 2020 **Student Nights**
Various speakers, posters
Place: Stony Brook University

Dec. 9, 2020 **Companions Night**
Topic; Life of Henry Moseley
Speaker: Jim Quinn, SBU
Place: Pollo Rico, Centereach, NY

Metro NY-NJ Chapter
www.asminternational.org/web/metro-ny-nj-chapter