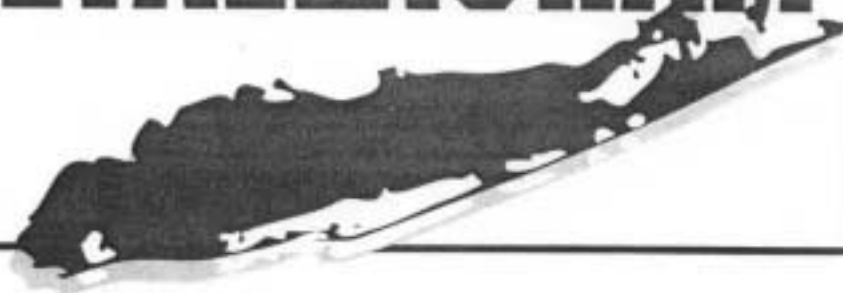




METALLAGRAM

LONG ISLAND CHAPTER



Volume 46 Issue 1

MEETING NOTICE: *Wednesday, November 17, 2004*

TOPIC: *Navy Oxygen Breathing Apparatus' Digital Imaging for Defects*

Speaker: *Dr. Atul Gokhale, Dayton T. Brown, Inc.*

Location ... *Weeping Willow Restaurant, Farmingdale, NY*

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

Members ... \$22 Guests ... \$25 ASM 25 years ... \$20 Students ... \$12

(New and recently transferred-in members free!)

Reservations - call John Coyle (631-589-6666, ext. 2619)

DIRECTIONS TO THE WEEPING WILLOW CAFÉ (via the LIE)

Take the Long Island Expressway to Exit 49 and go south on Route 110. About 2 miles south of the Expressway, turn left onto Smith Street - the intersection has a stoplight, there is a Hess gas station on the left side of the highway and an entrance to the SUNY Farmingdale campus on the right. The restaurant is at 25 Smith Street, on your left just past the gas station. Their phone number is (631) 293-0059.




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THE TOPIC

In April 2003, Dayton T. Brown Inc. (DTB) Metallurgical Laboratory was contacted by the US Navy (Naval Inventory Control Point, Mechanicsburg) for non-destructively evaluating fitness-for-use of oxygen breathing apparatus (OBA) canisters. The OBA canisters are used to provide emergency oxygen through a series of chemical reactions. The primary malfunction in these units has been associated with an out-of-control chemical reaction in one part of the OBA canister called the "candle." As a result of this inquiry, DTB developed a high throughput screening methodology that combines digital x-ray imaging with specialized image analysis software to measure through densitometric correlations the chemical content of the candle. The methodology is currently in use and has been applied to screen over 60,000 OBA canisters. Details of the evolution of this non-destructive screening methodology will be discussed, along with special challenges posed by the requirement of zero defects and high throughput screening (500 OBAs per day).

OUR SPEAKER

Dr. Atul Gokhale is a Senior Metallurgist/Technical Specialist at Dayton T. Brown, Inc. He received a B.E. in Metallurgical Engineering from Poona University, India and his M.S. and Ph.D. degrees in Materials Science and Engineering from the University of Florida. Atul has co-authored over 60 refereed technical and scientific publications and has given over 25 technical presentations at various national and international meetings. He is the recipient of two Special Achievement awards by NASA and is a member of the joint ASM/MSD committee on Materials Processing and Synthesis. He holds one patent on the reactive synthesis of intermetallic matrix composites. Atul has worked in many areas of metallurgy and materials science, including thermomechanical processing of metals and alloys, critical evaluation and thermodynamic modeling of phase equilibria, rapid solidification via containerless processing, microgravity crystal growth, melt infiltration processing of intermetallic matrix composites, and metallurgical failure analysis.

WELCOME TO THE CHAPTER!

Alex Chi, Demeton Technologies Inc.

Maria Nonni, Sulzer Metco

Julian Tawfik, East Islip High School

Jeanette Zerella, GAC International

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 establish new business and social relationships in the area.

What is it???



It's made of lead, you can see how big it is, and it was found in the waters just off Orient Point, near the ferry terminal. Any ideas? Email Skip at medeiros@bnl.gov.

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CHAPTER MEETING SCHEDULE

Long Island Chapter

12/8/04 Weeping Willow Restaurant, Farmingdale, NY
 Companions' Night
 Speaker – Carl Czajkowski

1/19/05 Brickhouse Brewery, Patchogue, NY
 Joint Meeting with LIANS
 Speaker/Topic – tbd

2/16/05 Place: tbd
 Topic: "F14 Stinger Cryogenic Testing with Fracture Mechanics Analysis to Avoid Failure"

Metro NY-NJ Chapter
 (contact Rich Lynch @ 201-891-8399)

11/9/04 SUNY Faculty Center, Manhattan
 Speaker: Dr. Sheldon Weinig
 Topic: From Professor (starving) to Entrepreneur (risky) to Corporate Executive (lap of luxury) to Professor (pro bono) and Having Fun

2/8/05 L'Affaire Restaurant, Mountainside, NJ
 Young Members Night
 Speaker: Professor Zafar Iqbal, NJIT
 Topic: "An Introduction to Nanophase Materials"