



# Philadelphia Liberty Bell Chapter Newsletter



www.asm-philadelphia.com

Thursday, February 15, 2007

## Continuing Education Night

Spouses and guests are invited and welcome.  
Williamson Restaurant, Easton Road, Horsham, PA



**Speaker: ANNEMARIE WEIST, PH.D**  
Air Products Inc.

**Topic: Recycle & Purification of Quenching Gases**

Her title might be "Technology Owner, Gas Recycle and Recovery," but Annemarie Weist could very well be called "Juggler Extraordinaire."

"Sometimes I get cost estimates together for customers. Sometimes I'm working on globalization. I spend time doing literature and patent research," Weist says. "I also focus on ways we can improve our industrial gas recycle systems, which lowers overall engineering costs in the long run. We pass these savings on to our customers."

With more than 13 years of industry expertise, Weist leverages Air Products' extensive knowledge and product base, including adsorption systems, membrane systems, combustion systems and cryogenic technologies, to offer customers the best low-cost solutions for gas capture and purification.

Not only is Weist a multitasker-she's also a supersleuth.

"One time a customer thought they had a leak because the analytical testing showed an impurity that could only come from a leak in a piece of equipment," she says. "I suggested that their sampling technique was incorrect. Sure enough, when we had personnel that were experts in taking high-pressure samples, we were able to rule out a leak and help the customer focus their efforts on improving their process."

Weist holds a Bachelor of Science degree in chemical engineering from the University of Massachusetts and an MSE and Ph.D.- both in chemical engineering-from the University of Pennsylvania.

### **TOPIC: Recycle & Purification of Quenching Gases**

The high thermal conductivity of helium makes it ideal for many fast quenching applications. However, its high price can

*(continued on page 4)*

### **Meeting Cancellation Notification**

In the event of cancellation of a meeting due to inclement weather, we will broadcast the news as part of KYW News radio's (1060AM) Storm Center Service. ASM cancellations will be specifically announced when KYW airs community cancellations at :20 and :50 past each hour during the afternoon of the day of the meeting. ASM's name will be specifically mentioned, so listen for the name rather than an organization number as is used for schools.

### **Technical Chairperson**

Don Jordan  
Solar Atmospheres, Inc.

### **Meeting Sponsor:**

B & G Manufacturing

### **Dinner Menu**

French Onion Soup  
Veal Parmesan  
Side of Spaghetti  
Caesar Peas  
Sweetheart Sundae

### **Social Hour**

6:00 - 7:00 p.m.

### **Dinner**

7:00 p.m.

Price: Members & Guests: \$24.00;  
Retirees: \$15.00; Students: \$12.00

### **Reservations are necessary -**

**Please make your reservations online at [www.asm-philadelphia.com](http://www.asm-philadelphia.com)**

If you have a large group or do not have access to the website, you can make your reservation by contacting Rob DeKalb at 215-542-7600.

## ASM Philadelphia Sustaining Members (2006-2007)

Air Products & Chemicals Co.  
Ajax Electric Company  
Allied High Tech Products, Inc.  
Apollo Designs  
B & G Manufacturing Co. Inc.  
Buehler, Ltd.  
Carpenter Technology Corp.  
Clemex Corporation  
Conroy Engineering Co. Inc.  
Consulting Engineers & Scientists, Inc.  
Delaware Valley Utility Advisors  
DEPTCOR - NJ Dept. of Corrections  
Donovan Heat Treating Company  
Dynatec Process Systems, Inc.

ECRI-MSLB  
Edward A. Boll Co. Inc.  
Electro Science Laboratory  
EMSL Analytical Inc.  
Exelon PowerLabs  
Forensic Sciences Inc.  
Fredericks Company  
Handy & Harmon Tube Co.  
Hoeganaes Corporation  
Houghton International Inc.  
Inductotherm Corporation  
Laboratory Testing, Inc.  
Leco Corporation  
Lehigh Testing Laboratories Inc.

LTK Engineering Services  
Magna-Tech P/M Laboratories  
Metlab  
National Basic Sensor  
Newage Testing Instruments, Inc.  
Penn Stainless Products  
Pressure Technology, Inc.  
Ramball Testlab, Inc.  
Rex Heat Treat  
A.L. Singmaster Personnel Svc.  
Solar Atmospheres, Inc.  
Solar Manufacturing, Inc.  
SPS Technologies, Inc.  
Stork MMA Testing Labs

Superior Tube Company  
Tinius Olsen Testing Machine Co., Inc.  
Ugine Stainless & Alloys Inc.  
Vacuum Furnace Systems  
Robert Wooler Company  
**Institutional Members**  
Drexel University  
Temple University  
University of Pennsylvania  
Villanova University  
William Tennent High School  
Williamson Trade School

## Chapter Officers 87th Year

Tom Reid, Chairperson  
United Terex Inc.

David Von Rohr, Vice Chairperson  
Stork MMA Testing Laboratories

Robert Taraborelli, Secretary  
Laboratory Testing Inc.

Tim Steber, Treasurer  
Solar Atmospheres, Inc.

Robert DeKalb, Executive Secretary  
Robert Wooler Co.

Fred Klock, Exec. Treasurer  
SPS Technologies, Retired

### For more info about the ASM Liberty Bell Chapter...

Contact Chapter Chairperson Tom Reid at 215-675-8122 or email him at reitmrd@aol.com.

### Do you have news...

that should be shared with the other members of the "Liberty Bell" Chapter? If so, please send your info to Jim Watters at his email address:

**dvua2@cs.com**

Be sure to add the phrase "Item to add to the ASM Chapter newsletter" in the subject line. We'll be sure to include it in the next monthly Chapter newsletter.

### Changes To Your Membership Information

Any Chapter Member who needs to make a change to their membership listing or to their company affiliation listing must call Membership Service, ASM International at 1-800-336-5152 or use the ASM website at [www.asminternational.org](http://www.asminternational.org). This will permanently update your information.

We depend on ASM International to receive our updated mailing list for this newsletter. So please do not send information to the return address on this newsletter.



## Chairperson's Message

February, 2007

Things are not always as they seem.

When I read the monthly chairperson's messages from my predecessors, it never occurred to me that they were not written a few days before being read. They must have done a great job of disguising the fact that they are written about a month before arriving in the newsletter.

I sometimes find it difficult to write a timely message for a meeting, when the previous meeting has not yet transpired. I would like to include something relating to the January meeting, but it will not take place for about 10 days. I would like to congratulate the Eagles for finally winning the Super Bowl, but the fact is that they just started their quest by beating the Giants a few hours ago. (Thank God for Brian Westbrook and David Akers) I would like to report that my surgery went well, but it is still a few days away.

I am planning to return for the February meeting on Continuing Education Night. The talk by Dr. Anne Marie Weist of Air Products is a continuation of the great variety of topics for our monthly meetings. I hope we have a good turn out. Speaking of attendance, I have yet to receive any e-mails on this topic which I covered in the January Message.

Sincerely,  
Tom Reid  
2006-2007 Chairperson

## C.F. Burns Memorial Poster Contest

The Liberty Bell Chapter will be holding its 6th annual poster contest for graduate students during our Sustaining Members Night on April 19, 2007. This will be the third year the contest is sponsored by Solar Atmospheres, Inc. Prize money will be \$500 for 1st Place, \$300 for 2nd Place and \$200 for 3rd Place. Due to limited space, we are asking students to pre-register. Space will be awarded on a first come, first serve basis. Please register your name and poster title with Don Jordan at [djf@solaratm.com](mailto:djf@solaratm.com). Good luck to everyone!

### Mission Statement - ASM International, Philadelphia "Liberty Bell" Chapter

The Philadelphia "Liberty Bell" Chapter of ASM International supports the development and continuance of the materials industry in the Philadelphia area. Chapter activities strive to inform the local technical community of new developments in materials, raise the visibility of the materials industry, provide educational opportunities in materials technology, recruit new people and organizations into materials-related activities, and provide networking opportunities for members of the materials community. The Chapter works with ASM International to use our joint resources to accomplish this mission.

## Upcoming Events...

2-15-07	Thursday	<b>Continuing Education Night</b> Topic: Recycle & Purification of Quenching Gases, Williamson Restaurant, Horsham, PA	6:00 pm
3-15-07	Thursday	<b>Sauveur Award Night</b> Topic: Unconventional Uses for Magnets: Truth, Fiction & Utter Nonsense, Williamson Restaurant, Horsham, PA	6:00 pm
4-19-07	Thursday	<b>Sustaining Members Night &amp; Poster Contest</b> Topic: Failure Analysis of the New Orleans Levees, Williamson Restaurant, Horsham, PA	6:00 pm
5-17-07	Thursday	<b>Honors and Past Chairmen Night</b> Topic: Awards & Honors, Williamson Restaurant, Horsham, PA	6:00 pm

## Three Scholarships in 2007

In the academic year of 2006-2007, the Philadelphia Liberty Bell Chapter will provide three scholarships (\$1500.00 each) to college engineering students who intend to pursue a career in Materials Science. All eligible students are encouraged to apply. One full-page essay (single spaced, Arial font, with font size between 10 to 12), stating his/her commitment to the Materials Science profession, will be required. Please contact Chris Li at Drexel University at 215-985-2083 or email him at cyl24@drexel.edu for the application form and details. The deadline for application is March 15, 2007.

## Materials Camp 2007

The third annual Materials Camp will be held June 25-29 at Drexel University. The camp will be open to high school students. Applications will be accepted during March and April. For more information, please contact David Von Rohr at daxione@voicenet.com.

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## High School Essay Contest

All high school students are eligible to participate in this contest with the chance to win one of three \$100 prizes. Participation in this competition requires the submission of an essay discussing the following topic, "How Has Materials Engineering Advanced Industry and Benefited Society."

1. Choose an object that has been significantly improved through the work of Materials Engineers. (Suggestions are provided below)
2. Compare the historical technology to the current state of the art technology of the object and discuss the role that advances in materials have made.
3. Briefly identify how the improvement of this object has benefited society keeping in mind safety, health, the environment, efficiency, sanitation, etc.

Examples:

- Automotive: paint, bumpers, body, windows/glass, engine components,
- Medical: dental fillings, implants
- Electronic Devices: computer processors, flat panel televisions
- Clothing/Fabrics: Stain resistant carpeting, moisture wicking clothing
- Sports Equipment: Hockey stick, tennis racquet, baseball bat, kayak

Please submit the following application form, along with your type written essay of no more than 500 words to: Attn: Christopher Hovanec, Drexel University, Department of Materials Science and Engineering, 3141 Chestnut St., Philadelphia, PA 19104.

Applications will be accepted no later than March 15th, 2007. Winners will be notified in early April. Questions regarding the essay contest can be directed to: cjh@drexel.edu.

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### ASM Liberty Bell Chapter 2007 High School Essay Contest Application Form

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Date \_\_\_\_\_ High School \_\_\_\_\_

Home Street Address \_\_\_\_\_

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

e-mail (optional) \_\_\_\_\_

Phone Number \_\_\_\_\_

\_\_\_\_\_ *Check if you would like to learn more about materials science and engineering.*

## Welcome New Members

Michael Barsoum	Drexel University
Daryl B. Bear	C-E Minerals
Massimiliano Binci	Drexel University
Steven Bovett	C-E Minerals
Richard B. Cass	Advanced Cerametrics, Inc.
J-Wen Chen	University of Pennsylvania
Jeffrey A. Conn	Jet Pulverizer Co.
Peter K. Davies	University of Pennsylvania
Ron Dise	Penn Engineering
Yogin Dixit	
Bernard Durstberger	C-E Minerals
David Dychala	Orthovita
Vern Ford	Red Bank Charter School
Kevin W. Gallich	Penn Fastening Technologies
Eileen Girten	Southern Regional HS
George Gower	RMCI
David Hasinki	Heraeus Electro-Nite
Michael Havel	Drexel University
Christine E. Henry	Jet Pulverizer Co. Inc.
Dennis Johnson	Castle Metals
Henry Justi	Justi Group Inc.
Dan Keck	Heraeus Electro-Nite
Cheryl Lechtanski	North Plainfield HS
Bob LeGrand	Linseis Inc.
Pierre Leparlouer	Setaram, Inc.
Joanna Lin	Lockheed Martin
Claus Linseis	Linseis, Inc.
Florian Linseis	Linseis, Inc.
Alexander Lukacs	Kion Specialty Polymers
Leonard MacAdams	Clariant Corp.
Kristy McMullin	Heraeus Electro-Nite
Lisa A. Nyce	Accellent Endoscopy
Kenneth Orié	Mittal Steel USA
Scott Peterson	Peake Solutions
Chris Petruccelli	Goodfellow Corp.
Michael Pierce	C-E Minerals
Diane Rehiel	ASTM
J. David Saulnier	Boeing IDS Rotorcraft, Phila.
Geoge Scherer	Princeton University
Wei-Heng Shih	Drexel University
Lewis Speiran	C-E Minerals
Nigel Swift	Setarian, Inc.
Vidya Venkan	

## TOPIC: Recycle & Purification of Quenching Gases

(continued from page 1)

prohibit its use for many products. A recycle system in which the majority (>90%) of the helium is captured from the furnace, processed and ready for the next quench step can make quenching with helium affordable. This processing involves recompression and usually purification.

Depending on the impurities, either a membrane or simple adsorption system is used for the purification. With only 10% of the process helium coming from make-up, a recycle system can reduce helium costs and sensitivity to market price.

## Advertisers in the 2006-2007 ASM Yearbook

Air Products & Chemicals, Inc.  
Allied High Tech Products, Inc.  
Apollo Designs  
Benedict-Miller LLC  
Bennett Heat Treating & Brazing Co., Inc.  
Buehler Ltd.  
Castle Metals  
Consarc  
Consulting Engineers & Scientists, Inc.  
Craig Clauser Engineering Consulting Inc.  
Delaware Valley Utility Advisors  
Drexel Univ., Dept. of Mat. Eng.  
Electron Energy Corp.  
Evans Heat Treating Co.  
Extec- Excel Technologies Inc.  
Forensic Sciences, Inc.  
Hoeganaes Corporation  
Houghton International Inc.  
Inductotherm Corporation  
Industrial Metal Treating  
Earle M. Jorgensen Co.  
L&L Special Furnace Co., Inc.  
Laboratory Testing, Inc.  
Leco Corporation  
Materials Resources International  
Micron, Inc.  
Newage Testing Instruments, Inc.  
Penn Stainless Products  
Pressure Technology, Inc.  
Ramball Test Lab, Inc.  
Rex Heat Treat  
A.L. Singmaster Personnel Svcs.  
Solar Atmospheres, Inc.  
Solar Manufacturing, Inc.  
Stork -MMA Testing Labs  
Struers, Inc.  
Superior Tube Company  
Tinius Olsen Testing Mach. Co., Inc.  
Vacuum Furnace Systems, Corp.  
Villanova University, Dept. of Mech. Eng.  
Westmoreland Mech. Testing Machine  
Williamson Restaurant  
Robert Wooler Company