



# Philadelphia Liberty Bell Chapter Newsletter



[www.asm-philadelphia.com](http://www.asm-philadelphia.com)

Thursday, March 15, 2007

## Albert Sauveur Night

*Spouses and guests are invited and welcome.*

*Williamson Restaurant, Easton Road, Horsham, PA*



**Speaker: DR. CHAD GRAHAM**

**University of Pennsylvania (Ret.)**

**Topic: *Unconventional Uses for Magnets:  
Truth, Fiction, and Utter Nonsense***

C.D. Graham graduated from Cornell University with a degree in Metallurgical Engineering, and then was a Fulbright Scholar at the University of Birmingham in the U.K., where he received a Ph.D. in Physical Metallurgy. He worked fifteen years at the General Electric Research Laboratory in Schenectady, N.Y., including one year as a Guggenheim Fellow at the Institute for Solid State Physics of the University of Tokyo. In 1969 he moved to the University of Pennsylvania in the Department of Metallurgical Engineering (now Materials Science and Engineering), where he served for five years as department chairman in the late 1970s, spent sabbatical leaves at University College Cardiff (Wales), the Research Institute for Electrical and Magnetic Alloys in Sendai, Japan, and at the Department of Physics of the University of Bath (U.K.). After retiring in 1996 he has continued to do some teaching, research and consulting.

### **TOPIC: *Unconventional Uses for Magnets: Truth, Fiction, and Utter Nonsense***

The mysterious force between magnets has been a source of interest, fascination, and awe for centuries. Albert Einstein noted it as the origin of his early attraction to science, and there is a brisk market in toys and gadgets based on magnets. There is an even brisker market in magnetic devices for the cure of diseases, purification of water, increase of gas mileage, improvement of wine, and other controversial purposes. This talk will cover some of the many claims that have been made, examine the evidence for such claims and the theoretical arguments that have been advanced to explain them. The field provides many examples of highly doubtful effects, preposterous explanations, and appeals to ignorance.

*(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**

Dr. Sam Nash  
University of Pennsylvania

### **Meeting Sponsor:**

Donovan Heat Treating  
Superior Tube Co. Inc.  
Hoeganaes Corp.

### **Dinner Menu**

Fresh Fruit Cup  
Beef Stroganoff  
Glazed Belgium Carrots  
Winter Mix  
Ice Cream Croquette

### **Social Hour**

6:00 - 7:00 p.m.

### **Dinner**

7:00 p.m.

Price: Members & Guests: \$25.00;  
Retirees: \$16.00; Students: \$13.00

### **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.  
Inductoform 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 reitmr@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](mailto: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 ASMI 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

March, 2007

Alive but not yet kicking.

My surgery went as planned. I now have a close up relationship with new materials. My ankle is fused with three 2 1/2" long molly chrome stainless screws. My lower leg is encased in a rock hard lightweight fiberglass cast. I get around on lightweight aluminum crutches. If everything looks good, the cast will be removed on Feb 28th, and I will begin partial weight bearing in a walking boot. (not sure what material it is made from). For now I have to be patient, and keep it elevated as much as possible.. Hopefully, I will be strutting around at the March meeting in my boot.

Meeting attendance continues to be a major concern. We had only 31 for the January meeting in great winter weather. I would like to share with you a summary of the responses I received on the subject, but I only received two. One of these was from Dr. Fred Schmidt, the ASM trustee who represented national at the Liberty Bell presentation. There were almost as many in attendance for that function as there were at the January meeting. Dr Schmidt stated that his largest audience when speaking as an ASM Trustee, was two years ago at our chapter when he filled in for president Reza. There were about 90 in attendance. Where has everyone gone?

Hopefully we have a good turn out for Dr. Chad Graham, our Saviour Award winner. His topic on unconventional uses of magnets should be very interesting. Perhaps I will learn about something that will cure my ankle problems.

Sincerely,  
Tom Reid  
2006-2007 Chairperson

## 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...

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
6-4-07	Monday	<b>20th Annual ASNT/ASMI Golf Outing</b> Limekiln Golf Club	8:00 am

## 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.

## 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.

### 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

Robert Baren Temple University

Gregory Krug Lampire Biological Laboratories, Inc.

Bill McHale Premier Dental Products

## 20th Annual Golf Outing

Hosted By The Greater Philadelphia Section of ASNT

will be a joint outing with the Liberty Bell Chapter of ASM International

MARK YOUR CALENDARS:

Monday, June 4, 2007

at the LIMEKILN GOLF CLUB  
1776 Limekiln Pike, Ambler, PA

More details to follow in future newsletters.

## 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 fourth 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 tile with Don Jordan at djf@solaratm.com. Good luck to everyone!

## Yearbook Advertising Campaign Begins!

The Liberty Bell Chapter advertising committee is putting together the advertisers' list for the 2007-2008 chapter yearbook. **The Liberty Bell yearbook is seen by over 900 materials professionals and companies in the Delaware Valley and South Jersey.** And, it has been consistently recognized by ASM International as one of the top chapter publications worldwide. Professionally put together and printed, the Liberty Bell yearbook provides a focused method of getting your company's products and services in front of the people who use them!

If you would like to reserve preferred space or for more information including ad options and rates, please contact Advertising Committee chair, Mike Drakeley at 215-721-1502 ext. 203 or mjd@solaratm.com.

## **TOPIC: Unconventional Uses for Magnets: Truth, Fiction, and Utter Nonsense**

(continued from page 1)

It also turns up some genuine but odd uses for magnets, and a few cases – actually the most interesting – where the effect seems on the surface to be unlikely, but is supported by careful experimental work.

## **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.  
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Castle Metals  
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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  
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Vacuum Furnace Systems, Corp.  
Villanova University, Dept. of Mech. Eng.  
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