National Officers Night
Thursday, March 21, 2013 - 6:00 pm

SPEAKER:
DR. GERNANT MAURER, FASM
President, ASM International

TOPIC:
Solving Alloy Design & processing Challenges: the Ongoing Revolution in Materials Engineering

The Material Genome Initiative (MGI), which was announced in June 2011 highlighted the revolution in materials engineering that has been gaining momentum for the last 20 years. The development of computational modeling tools along with ever advancing computational speeds are already having a great impact on alloy design, alloy processing and alloy applications. We are beginning to integrate these tools so that we will have the ability to rapidly develop engineering materials that will revolutionize our industry and enable the next generations of many technologies.

The first part of this presentation will give a high level overview of the MGI, ICME and the potential they offer, as well as the challenges that need to be overcome to make them successful. The second part will focus on a current example of how computational tools are used to solve materials engineering problems that could have a huge impact on our society.

The example comprises alloys required for fossil fuel power systems that are transitioning from stainless steels that operate below 600°C to nickel-based alloys that can operate up to 760°C in advanced ultra super critical steam turbines. This transition brings with it major metallurgical and economic challenges related to alloy design, melt processing, and fabrication of large size components. This paper will highlight these challenges as they have been addressed in smaller aerospace turbines and discuss strategies to overcome the problems. New computational modeling tools will play a critical role in engineering solutions for alloy design, solidification, forging, and heat treatment. Since any solution also needs to be economically viable, the presentation considers processing cost issues with respect to process yields and operational strategies. The use of powder metallurgy will also be reviewed as a cost-effective alternative to alloys that have traditionally been cast wrought processed.

Dr. Gernant E. Maurer is a seasoned technology professional with 35 years of industry experience. The positions that he has held range from research and development engineer to corporate technology officer at a billion dollar specialty alloy corporation. He has contributed and led many successful specialty alloy products, as well as process developments that have been implemented in numerous markets. His business development experiences include creating profitable new businesses and being part of a corporate management team that formulated strategic plans in response to changing economic conditions. Professional activities include active leadership roles in international symposium committees and industrial task forces to solve industry wide problems.

Technical Chair: Al Singmaster, Singmaster Personnel Serv.
Meeting Sponsors: TBA

Menu: French Onion Soup, Roast Top Sirloin of Beef, Baked Potato, String Beans Lyonnaise, Brownie Delight with Ice Cream
Social Hour: 6:00 - 7:00 p.m.    Dinner: 7:00 p.m. Prices: Members & Guests: $30.00; Retirees: $20.00; Students: $15.00
Spouses and guests are invited and welcome. Meetings held at Williamson Banquet, on the corner of Rt. 611 (Easton Road) and Blair Mill Rd., Willow Grove, PA 19044   For directions: www.williamsonrestaurant.com.
Meeting Registration: Register to attend our meeting on our website http://philadelphia.asminternational.org.
If you have a large group attending or do not have access to the web site, please contact Don Jordan at 215-721-1502 ext 1206 to register.

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.

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**Chairperson's Message**  
**March, 2013**

It is hard to believe, but there are only three ASM Philadelphia Chapter meetings remaining! That means there are only three additional opportunities to take advantage of networking with local professionals, academia, colleagues, and perhaps potential customers and suppliers. For those who are Professional Engineers, this also means time is running out to earn credits towards your required professional development hours for attending our technical presentations. And for those who are just looking to get out of the office, relax and listen to thought-provoking presentations, time is running out!

Last month’s meeting presented by Don Jordan, Chapter Executive Secretary, Sauveur Award Winner and Past Chairman, discussed “Controlling Compound Layer Formation during Vacuum Gas Nitriding.” This month meeting is special in that it is National Officers Night and our chapter is honored to have an indigenous southeastern Pennsylvania resident, the ASM International President, Dr. Germant Maurer, attend our meeting. Dr. Maurer will be providing a fascinating presentation of “Solving Alloy Design & Processing Challenges: the Ongoing Revolution in Materials Engineering.”

I look forward to seeing you all at this month’s meeting. As always, if you are interested in actively participating in your Philadelphia Liberty Bell Chapter, please contact me or track me down at the meeting.

Sincerely,

Trevor Jones
2012-2013 Chapter Chairperson

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**Sustaining Members Expo**

The **Sustaining Members Expo** will be April 18, 2013 at 5:30 pm! Come and see what your fellow ASM Member Companies have to offer. If your company has a Sustaining Membership with the ASM Liberty Bell Chapter, don’t forget to sign up to participate in the Expo.

If you are not a current ASM Sustaining Member, and want more information on how to become a Sustaining Member with the Liberty Bell Chapter, or if you are a current Sustaining Member and have questions about upcoming Sustaining Member events: Contact Sarah Mansuetti: email - sarah.mansuetti@rexht.com  Phone: 215.855.1131 x221.

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**C.F. Burns Memorial Poster Contest**

The Liberty Bell Chapter will be holding its 12th annual poster contest for graduate students during our **Sustaining Members Night on Thursday, April 18, 2013**. This will be the 9th year the contest is sponsored by **Solar Atmospheres, Inc.** and 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 Mike Moyer at miken@m@solartm.com or call him at 215-721-1502 x1207. Good luck to everyone!
Speaker/Topic  continued from page 1

Gern's technical expertise has evolved from the development of numerous new product activities in areas that have applications in aerospace, energy, industrial, consumer, and medical markets. The research efforts that he has directed have taken full advantage of computational modeling to streamline alloy development and process improvements. In many instances he has implemented powder metallurgy solutions to solve challenging problems that face traditional cast-and-wrought processing of highly alloyed specialty materials. All of these activities have demanded that online data resources and technical information are utilized to the fullest.

One of the most notable aspects of his career has been the management and development of technology personnel in both R&D and manufacturing technology roles. Many material engineers that he has hired and has worked with have risen to prominent technical positions in many companies.

Dr. Maurer received his B.E.S. from The Johns Hopkins University and his Ph.D. from Rensselaer Polytechnic Institute. An active member of ASM, Dr. Maurer has served and led numerous committees, councils and chapters including service on the Awards Policy Committee, Technical Programming Board, the Mohawk Valley Chapter as an Executive Committee member, vice chair and chair and is currently a senior advisor to the Lehigh Valley Chapter. Dr. Maurer became a Fellow of ASM in 1988 and received the William Hunt Eisenman Award in 2008. He served on the ASM Board of Trustees from 1992-1995.

2013 ASM Materials Camp

We are accepting applications for our 9th Annual Materials Camp at Drexel University June 24-28. The demand for camp continues to grow. Last year we received 119 applications for the 28 available spaces. The days of struggling to find enough students to fill the camp are clearly in our rear view mirror. The talent level of the students continues to get stronger. The 2012 Class was truly remarkable. The very best engineering oriented students in our whole region are being served by our camp. As a result of their experiences at camp many are pursuing a Materials Engineering Career.

The program is one that should make our Chapter extremely proud. It really makes a difference in the lives of the students. We depend on the generosity of local companies and individuals to continue providing this priceless learning experience. Please contact Brian Gorney at bgorney@labtesting.com to become a sponsor and have your company linked to this wonderful program.

Further information can be found on the new chapter web site http://philadelphia.asminternational.org.

This Month’s E-Newsletter Sponsored by:

2012-2013 Sustaining Members

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Help the chapter- and Delaware Valley Science Fairs

Once again this year, ASM chapter members will be involved in judging the Delaware Valley Science Fairs. On April 3, 2013, judging will occur for the Delaware Valley Science Fairs. The DVSF is an annual competition for middle and high school students from eastern Pennsylvania, Delaware, and southern New Jersey. In addition to selecting the recipients of ASM prizes for materials-related projects, some members have assisted in judging categories such as physics, chemistry, and engineering.

But, more judges are always welcome. The judges are all volunteers and come from a variety of technical areas, including industry, education, and research. Although there is not a specific materials category, your materials background qualifies you for a variety of areas.

Recently, chapter member judges have also been distributing applications to Materials Camp to students in their sophomore and junior years. This has been quite effective in finding Materials Camp participants.

So, in addition to helping the DVSF, you could help the chapter further its educational goals by being a judge. This year’s fair will be held at the Greater Philadelphia Expo Center in Oaks, PA. Judging will be done on April 3, 2013. If you are interested in being a judge, you can sign up at http://www.drexel.edu/dvsf. If you need more information about judging, or some encouragement, talk to John Janiszewski (jjaniszewski@ltk.com or 215.641.8849).

Welcome New Members

Paul L. Schmele Laboratory Testing Inc.
Shirley Aravich Laboratory Testing Inc.
Adam Shiffer Solar Atmospheres Inc.
Majid Beidaghi Drexel University
Michael E. Barron Lehigh University
Dennis Moreno Metlab Potero
Paul Lowry Revtur Welding
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Christopher Lake Laboratory Testing Inc.
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David McCloud Laboratory Testing Inc.
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Please update your membership listing or your company affiliation listing. You can do this by calling Membership Service, ASM International at 800-336-5152 or using the ASMI website at www.asminternational.org. This will permanently update your information. We depend on ASM International to receive our updated Chapter roster for emailing newsletter and mailing yearbook.

Check us out on Facebook at:

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http://www.linkedin.com/groups?mostPopular=&gid=2897863

Check out our website at: http://philadelphia.asminternational.org
27th Annual Golf Outing - Monday, June 3, 2013

Hosted By: The Greater Philadelphia Section of ASNT

Closest to the Pin, Longest Drive, Putting Contest

Registration - 7:00 a.m.  Golf - 8:00 a.m. (Shotgun Start)

Buffet - 1:30 p.m. at the

LIMEKILN GOLF CLUB - 1776 Limekiln Pike, Ambler, PA 215-643-0643
IN CASE OF RAIN PLEASE CALL LIMEKILN GOLF CLUB

The 27th Annual Golf Tournament has been scheduled and reservations are now being taken. The cost of this outing is only $95.00, if paid by May 27, 2013, $100.00 if paid after May 27, 2013. Price includes golf fees, golf cart, buffet, refreshments, and prizes.

Hole Sponsors are being sought for this event at all holes. The cost of becoming a Hole Sponsor is only $85.00. A "Sponsor Sign" is included in the cost and will be displayed at your hole.

27th Annual Golf Outing - Monday, June 3, 2013
Registration Form

RSVP: Golf/Hole Sponsor by Monday, May 27, 2013
Cost: $95:00 - Golf & Buffet ______ (Number)  $85:00 - Hole Sponsor ______
Foursome:
Name: ______________________________Name: ______________________________
Name: ______________________________Name: ______________________________
Amount Enclosed: __________  Checks Payable to "Greater Philadelphia Section of ASNT"


Return to: Golf Committee:
Anthony Gatti, Sr.  Anthony Gatti
7525 Brous Avenue  267-251-8808
Philadelphia, PA 19152  agattisr@yahoo.com

Directions to Limekiln Golf Club: Limekiln Golf Club is located in Horsham Township, Pennsylvania, on Limekiln Pike (Rt.#152), 1/2 mile north of Horsham Rd.(Rt.#483). Heading north, the driveway is on the right side of Limekiln Pike, across from Whitemarsh Memorial Park.
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.

For more info about the ASM Liberty Bell Chapter...
Contact Chapter Chairperson Trevor Jones at 215-721-1502 ext. 1220 or email tmj@solaratm.com.

Upcoming Events...


4-18-13 Thursday Sustaining Members Night - Sustaining Members Mini Expo/Annual Charles F. Burns Poster Contest, Williamson Banquet, Willow Grove, PA

5-16-13 Thursday Honors & Past Chairmen Night - Awards & Honors

6-3-13 Monday 26th Annual Golf Outing - LIMEKILN GOLF CLUB - 1776 Limekiln Pike, Ambler, PA

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