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DETROIT CHAPTER

SEPTEMBER 2000

58th Woodside Lecture

Automotive Materials in the 21st Century



W.F. Powers, Ph.D.
Vice President-Research
Ford Motor Company

The Detroit Chapter of ASM International is pleased to welcome William F. Powers Ph.D., Vice-President of Research at Ford Motor Company, as our 58th Woodside lecturer on **Monday, October 2, 2000**. Dr. Powers has been with Ford Motor Co. since 1969, and was elected Vice-President of Research in 1996. Prior to coming to Ford, Dr. Powers worked for NASA and was involved with the development of the Saturn Booster guidance system and Apollo mission analysis.

Due to environmental concerns, energy conservation, safety and continuing electrification of the vehicle, significant changes to the materials mix of the automobile will be inevitable in the next millennium. In order to achieve a significant increase in fuel economy, while maintaining the customer's desire for size, space and performance, extensive use of lightweight materials and structures will be imperative. In fact, very substantial weight reduction (in the 40% range) is also a key enabler for the fuel cell and hybrid electric vehicles currently underdevelopment.

In addition to this structural weight reduction, very significant materials challenges arise from potential new power plants and after-treatment devices. These onboard "chemical engineering" systems present a myriad of functional, temperature, corrosion, and safety issues that must be resolved from a materials aspect in a safe, cost effective, lightweight manner.

Finally, from vehicle safety and dynamics viewpoints, "smart" materials systems are also starting to show significant potential—for example, magnetorheological fluids/elastomers for flexible response systems. This presentation will address the state-of-the-art advances in these major areas, and discuss the risks and opportunities for 21st century applications.

Exclusive to the Detroit Chapter, this historical lecture is designed to honor both the speaker, for his current contributions to the field, and William Woodside, a founding member of both the Detroit Chapter and ASM. ASM International is a monument to the integrity of Bill Woodside's idea to form a society which would stimulate the mutual exchange of ideas.

NOTICE: DUE TO MATERIALS WEEK IN ST. LOUIS,
Our Technical Meeting will be Monday, October 2nd

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58th WOODSIDE LECTURE Mon., Oct. 2

**Vladimir's
28135 Grand River,
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- Social Hour** 5:45 p.m.
Price w/reservation \$17.00
- Dinner** 6:30 p.m.
Later reservations &
all non-reservation \$19.00
- Meeting** 7:00 p.m.
Students w/I.D. card \$ 5.00

Reservations must be phoned to our ASM Chapter office, 810-573-0700, by noon on Friday, Sept. 29

Next meeting: Nov. 13

Visit the Detroit Chapter's Website for up-to-date info at www.asm-detroit.org

Skäl

THE DETROIT CHAPTER would like to offer its sincere appreciation to the following companies for sponsoring the social hour before this month's technical dinner meeting:

Climax Research Services, Inc.
Mager Scientific, Inc.



CHAIRMAN'S MESSAGE

Welcome to the start of the 2000-2001 Chapter year! The Executive Board and Chapter Committee Chairs have exciting plans for this year's program. There will be excellent opportunities offered for student outreach, technical programming, and personal career growth. Of course, there will be plenty of activities for continuing old friendships and chances to make new friends with common interests. These are the goals of our Chapter functions, to benefit our membership. (Consult your monthly Micro Examiner for details).

The people on your Executive Committee are committed to making the Chapter year a success. This year's committee is brimming with talented and dedicated people. The new Committee Chairs this year include **Paul Decker** (TACOM) as Young Members/Student Affairs Chair, **John Keough**, FASM (Applied Process, Inc.) as Membership Chair, **John Tartaglia** (Climax Research Services, Inc.) as Publicity Chair, and **Joanna Zucker** (BASF Corp.) as Round Table Chair. Let us not forget our outgoing Committee Chairs who have served the last few years; our thanks to **Nathan Clark** (Meritor Automotive), **Gordon Hansen** (Ford Motor Co.), and **Subi Dinda**, FASM (Daimler-Chrysler) for their dedication and sacrifices. Special thanks also go out to **Tom Mackie** (AISI) for his long time dedication to the Publicity Committee. Please support the new Chairs by joining one of their committees and putting your ideas to work. The Executive Board wants to hear your ideas now!

If you are new to the Detroit Chapter,

introduce yourself to the Officers and Greeters. This year we will have two "Greeters" at the registration desk at Vladimir's to welcome new members and answer questions about ASM Detroit Chapter activities. The Greeters for October will be **Elaine Beckwith**, FASM and **Joanna Zucker**.

It is my greatest pleasure to announce the Detroit Chapters' three new ASM Fellows this year; **John Allison** (Ford Motor Co.), **Prof. Wayne Jones** (U of M) and **Donna Walker** (Stressolvers). Please join me in congratulating these new "Fellows" for their outstanding contributions to the materials community. Our new Fellows will officially be inducted Tuesday, October 10th in St. Louis during Materials Week.

As we approach this coming year please consider what contribution you can make to our Chapter. We need your ideas, your criticisms and concerns, and of course, we need you. Introduce yourself at the technical dinner meetings. Call us on the phone. Write or e-mail your comments. And if you can spare a little time, we can always use your unique abilities. Already over-extended, burned-out, and over committed? Then take a break, make sure your priorities are in order, and call us next year.

ASM Detroit is a great chapter and I feel honored and privileged to serve as Chapter Chairmen this year. I want to hear from you, because ASM International is your society. **See you Monday, October 2nd** at Vladimir's for our annual Woodside Lecture. And don't forget to say hello!

Rick Gundlach



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Midwest Testing Laboratories Open House

Midwest Testing Laboratories, Inc. is holding an open house **Tuesday, October 24th from Noon to 7 p.m.** Midwest Testing offers an array of services from Step Testing (Chrome), Coating Weight, Safety Eyewash and Shower Unit Testing, Failure Analysis and much, much more. Midwest Testing Laboratories is located at 1072 Wheaton, Troy. If you are interested in attending, please *RSVP* by *October 10th* at (248)689-9262.

Climax Research Services Open House

Climax Research Services, Inc. (CRS), an accredited metallurgical, engineering, consulting and laboratory testing company, is holding an Open House to display its new facility located in Wixom, MI. The Open House will be held **Wednesday, October 25th from 2 p.m. to 8 p.m.** Tours of the facility will be conducted during the Open House with food and beverages. Each guest will also receive a special gift of CRS memorabilia.

CRS is located at 51229 Century Court, Wixom, MI 48393. For more information, contact CRS at (248)960-4900 reservations and directions or visit their website at www.climaxresearch.com.

WE NEED YOU!

Various Committees are looking for members. If you would like to help, but don't have a lot of spare time, this may be for you. Committee's generally meet a few times a year, so the commitment is not overwhelming. And yet, you will be making a valuable contribution to your chapter. If you can spare a few hours, contact Caryn at the Chapter office. Involvement has it's rewards!

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Attendance Pays

Be sure to sign in when you attend our monthly technical meetings. Members in attendance at three consecutive meetings will eligible for our attendance drawing. The first drawing will be in January, 2001.

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2000-2001 ASM-Detroit Program

OCTOBER 2, 2000

58th Woodside Lecture
Automotive Materials in the 21st Century

William Powers, Ph.D.

FORD MOTOR COMPANY

NOVEMBER 13, 2000

Student Night
The Future of Materials Engineering in a Rapidly Changing World

Bhakta Rath, Ph.D.

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JANUARY 8, 2001

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George Pfaffman

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FEBRUARY 12, 2001

National Officers/Past Chairmen's Night
Stress Corrosion Cracking of Stainless & High Alloys

Aziz Ashphahani, Ph.D.

ASM INTERNATIONAL PRESIDENT

MARCH 12, 2001

Joint ASM/AFS Meeting
TBA

APRIL 9, 2001

Sustaining Members Night
Metallurgy in Sports Equipment

Robert Luetje, FASM

KOLENE CORPORATION

MAY 14, 2001

Old Timer's Night
Life as a Submarine Commander in the Cold War

Michael DeHaemer, Ph.D.

ASM INTERNATIONAL

Micro-Examiner

The 2000-2001 programs of the ASM Detroit Chapter come to you through the courtesy of the sponsors whose advertisements appear in this newsletter. The Chapter extends its thanks for their support.

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ASM International Leadership Days

To maintain our 'Chapter in good standing' status, Chapters must attend Leadership Days once every two years. However, the Detroit Chapter has made it a priority to attend on a yearly basis. Once again the Detroit Chapter was well represented. In attendance this year was Elaine C. Beckwith, FASM, Kathy Hayrynen, Ph.D., Caryn Ruzich, Michael Vinarcik, PE, Donna Walker, FASM, and Joanna Zucker.

Leadership Days is put on yearly and is a weekend full of information for chapter leaders. Attendees come from all over North America, and this year there was a representative from India, our newest ASM Chapter.

Once again this year, three of our 'leaders' were asked to facilitate Round Table discussions. Elaine C. Beckwith, FASM facilitated the Round Table on Awards & Recognition, Caryn Ruzich facilitated the Publications Round Table, and Mike Vinarcik facilitated the Round Table on Websites. The Round Table portion of the program is extremely valuable as it presents the opportunity to share experiences, as well as, ideas. It is a privilege for ASM-Detroit to be a part of the Leadership Days program, and exemplifies the fact that ASM-Detroit is the number one chapter in ASM International.

And last, but certainly not least, ASM-Detroit was once again honored as a five-star chapter! Thanks to Mike Wright of Kolene Corporation, ASM-Detroit's 1999-2000 Chairman, as well as, the entire Executive Board for working hard to meet the requirements of a five-star chapter. Good work and congratulations!!!

2001 BY 2001

The Detroit Chapter is proud to be participating in a membership drive in cooperation with ASM International. The target is to obtain 2001 new members by 2001. Do you have a co-worker who might benefit from membership in ASM? In addition to programs put on by the Detroit Chapter, membership in ASM International has many other benefits available to our membership. For a full listing of benefits, visit our website at www.asm-detroit.org. Need a membership application? Call Caryn at the chapter office or call ASM International at 1-800-336-5152. And remember 2001 by 2001!

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2000 ASM-Detroit Golf Outing

The Entertainment Committee, chaired by Mary Callahan of Mager Scientific, hosted nearly 300 golfers again this year at our annual golf outing held June 17th at Partridge Creek Golf Course. Golfers were treated to a full day of sunshine, golf, great eats, drinks, and lots and lots of door prizes.

Our thanks and appreciation go out to all of our Prize Donors and Sponsors. If it weren't for them, our Golf Outing would not be the one-of-a kind outing that it is! Please forgive us if we have omitted your company name. We have experienced a technical problem. If your company is not listed, please contact Mary Callahan at 734-426-3885. We will be glad to run corrections in our next Micro Examiner.

Again, thank you to all for your generous support!

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