ASM International - Houston Chapter

Failure Analysis Seminar

April 2 & 3, 2012

MONDAY, APRIL 2
Failure Analysis Seminar I - Introduction to Failure Analysis Course
9:00 am – 5:00 pm

TUESDAY, APRIL 3
Failure Analysis Seminar II -Case Histories
9:00 am – 8:00 pm

SEMINAR LOCATION
Brady's Landing Restaurant, 8585 Cypress St. Houston, TX 77012 713-928-9921
www.bradyslandingrestaurant.com

Program Chair:
Diane Nielsen 281-221-6717
Materion Brush Performance Alloys
Diane.Nielsen@materion.com

Seminar Registration:
Please go to the ASM Houston Chapter website, www.asmhou.org.

You may register for one day or 2 days. For 2 day seminar, ASM members or sustaining members, $ 375, non-members $ 425, full time students and retirees free. There is a $ 50 discount for early registration. Please refer to registration form online at www.asmhou.org for further information and to register.

Continuing Education Credits:
Attendees will receive 7 Continuing Education Credit Hours.

Exhibitors (10 ft space):
Register online at www.asmhou.org or contact John Starkweather at 832-265-5974 or jstarkweather@magnummetaltreating.com

PROGRAM SCHEDULE, APRIL 2

Registration: 8:00 – 9:00

9:00 am – 5:00 pm
Introduction to Failure Analysis Course

Session Chair
Elizabeth Huber, Element

Course Abstract
Whether made of metal, plastic, rubber, glass, ceramic or composites, failure analysis and prevention is a valuable tool to improve products. Some causes and mechanisms of failure are identical or similar for different materials, while others are not. The process of failure analysis is discussed in this seminar with an emphasis on the fundamental principles, the important failure mechanisms, and the features characterizing failures. The distinctions and commonalities between failures in different materials will also be highlighted. Case histories of materials failure analysis are illustrated with numerous photographs, fractographs and photomicrographs. In addition, because macroscopic visual examination is the most important aspect of a failure analysis, the instructor will provide a tutorial on visual examination of materials failures including an interactive, hands-on failure analysis workshop.

Speaker
Ronald J. Parrington, P.E., FASM is the President of IMR Test Labs, a full service materials laboratory. Ron is a graduate of Rensselaer Polytechnic Institute with BS and MS degrees in Materials Engineering. He has over 30 years of experience in failure analysis of metallic and nonmetallic materials, has presented and published numerous papers on failure analysis, teaches the ASM courses (Principles of Failure Analysis, Practical Fractography, and Introduction to Polymers and Polymer Testing), is past chairman of the ASM International Failure Analysis Committee and the ASM Chapter Council, and is currently the Chairman of the ASM Materials Education Foundation Board of Trustees.

Failure Analysis Seminar
ASM International - Houston Chapter
PROGRAM SCHEDULE APRIL 3, 2012

Registration: 7:30 am– 8:30 am

Session I: 8:30 – 10:30 am

8:30 am – 9: 15 am
TBD, Stress Engineering
Optimizing Photography for Failure Analysis

9:15 am – 10:00 am
David Hendrix, The Hendrix Group, Inc.
The elusive goal of "Root Cause" failure analysis – the importance of persistence, as illustrated by O&G production corrosion case histories: (1) Distinguishing between MIC, CO_2 and H_2S pitting and (2) the accelerated corrosion of alloy 625 injection tubing in wet gas production wells.

10:00 am – 10:30 am
L.Louis Loushin, P.E.
Mechanical Integrity of Hydrocarbon Process Equipment

10:30 am – 10:45 am Break

Session II: 10:45 am – 11:45 am

10:45am – 11:15 am
Matt Stage, Weatherford
Failure Analysis of Weatherford's line of FracGuard Composite Bridge Plugs: *two brief case studies*

11:15 am – 11:45 am
TBD
Polymer Failure Analysis

11:45 – 12:15
Charles Bolfrass, Mechanical Engineering Department, Texas A & M University
Humans Cause as many Component Failures, as do Materials

12:15 pm – 1:15 pm Buffet Lunch
Exhibits / display table area open

Session III: 1:15 pm – 2:45 pm

1:15 pm – 1:45 pm
James E. Martinez, NASA Johnson Space Center. **Failure Analysis of Space Shuttle Reaction Control System (RCS) Thruster**

1:45 pm – 2:15 pm
John D. Figert, NASA Johnson Space Center
Failure Analyis of a Capsule Parachute Assembly System (CPAS) Wire Rope

2:15pm – 2:45 pm
Dr. Johnny L. Golden, Boeing Research & Technology, **Failure Analysis of a Nitrided 15-5 PH Steel**

2:45 pm – 3:00 pm Break

Session IV: 3:00 pm – 4:30 pm

3:00 pm – 3:30 pm
Don Van Arnam, NOV – Quality Tubing
Coiled Tubing Failure Investigations

3:30 pm – 4:00 pm
Bruce Urband, Spinnaker Engineering;LLC
Oil Country Tubular Goods

4:00 pm – 4:30 pm
Krutibas Panda, Halliburton – Sperry Sun Drilling Services
Failure Analysis of an Acoustic LWD (Logging While Drilling) Sonic Collar

4:30 – 5:00 pm
TBD, T imken
Oilfield Component Failure Analysis

Social Hour & Display Tables: 5:00 pm – 6:15 pm

6:15 pm – 7:00 pm Buffet Dinner

Key Note Speaker: 7:00 pm

Ronald J. Parrington, P.E., FASM
Product Liability and Failure Analysis
Continuing Education Credits - 7

ASM International – Houston Chapter

www.asmhou.org

Failure Analysis Seminar
April 2 & 3, 2012
Registration Form

First Name: _____ Last Name: _____

Job Title: _____ Company: _____

Address: _____

City: _____ State: _____ Zip: _____ Country: _____

Tel: _____ Fax: _____ Email: _____

Registration fee for each day includes technical sessions, continental breakfast, lunch and break time refreshments . April 3 registration fee or 2 day registration fee also includes social hour and dinner/keynote address on April 3.

You can register for one day or both days. Registration for attendance both days is at a discounted rate. Please refer to the program for session details.

April 2 Introduction to Failure Analysis Course
April 3 Failure Analysis Seminar – Presentation of papers and case histories
Exhibits/social hour, technical dinner meeting with keynote address

	FA – I April 2	FA – II April 3	FA – I & II Reg for 2 days
Non Member	$ 250	$ 275	$ 425
ASM, Sustaining & Affiliate Member	$ 200	$ 225	$ 375
Full Time Student	0	0	0

EARLY REGISTRATION DISCOUNT: Save $ 50 off any attendee rate if registered and paid by March 16, 2012.

Exhibitor (10 ft space)	**Non Seminar Attendee**	**Seminar Attendee**
Can accommodate 10 x 10 pop up or table top	$ 250	$ 200

(Exhibitor $250 fee includes social hour and technical dinner fee for 2 representatives. For Symposium attendees, the exhibitor fee is reduced as social hour and technical dinner is included as part of your symposium registration package). Contact John Starkweather for futher information 832-265-5974

Total Registration Fees (US Dollars): ☐ ☐

NOTE: If registering only for standard ASM April monthly meeting (social hour, dinner and evening technical presentation), registration will be conducted late March through our chapter's website, asmhou.org. Please check the website for details. A monthly meeting notice will be sent to members.

Please register on line at www.asmhou.org. Credit Cards: Visa, Master Card, American Express

Payment by check, payable to ASM International- Houston Chapter or credit card information can also be mailed to: Diane Nielsen, Materion Brush Performance Alloys, 1110 Kingwood Drive, Suite 200M, Kingwood, TX 77345 Tel: 281-221-6717 Fax: 281-358-6850

Card Number: _____ Exp Mo/Yr: _____

Signature: _____