

SEPTEMBER 2005 MEETING
Opening Night

WHEN:

Thursday, September 15th

SCHEDULE:

5:30 p.m. Social Hour

6:00 p.m. Dinner Choices:

Sizzling Shrimp Fajitas, Seafood Skillet Melt,
Carne Asada & Camarones Mojo de Ajo, or
Certified Angus Beef Sirloin Steak

7:00 p.m. Speaker Presentation:

Mr. Howard Gabel

WHERE:

Rockin' Baja Lobster (Old Town)

3890 Twigg's St.

San Diego, CA 92110

(619) 260-0305

COST:

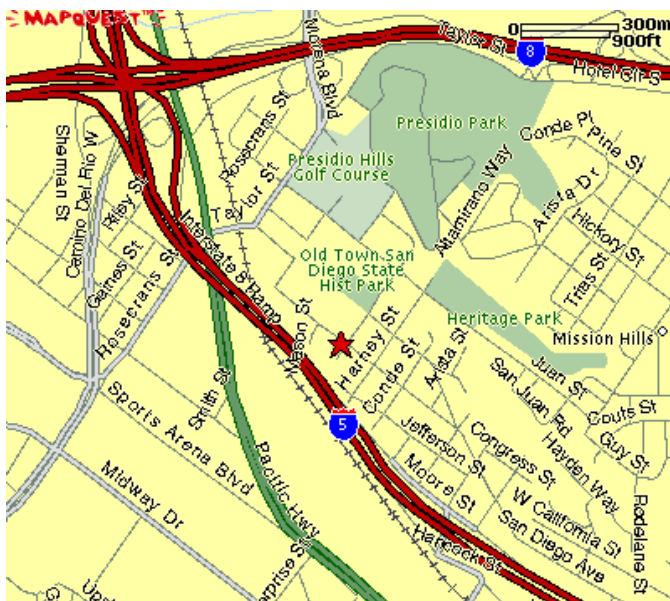
ASM Members - \$15

Non-members - \$20

Students - \$10

TO REGISTER:

Call ASM Info Line at (619) 685-8848, or send an e-mail to sandiego@asmchapters.org by Sept. 8th.



Note: There is no chapter meeting scheduled for October. Instead we will be offering the Fall Seminar on **Computer Applications in Materials Science. Details will be posted on the Chapter website.**

HOWARD GABEL
of Innovati

PRESENTS:

Kinetic Metallization

Abstract

Kinetic Metallization (KM)TM is a solid-state process in which metallic powders are sprayed through a specially designed, two phase, sonic deposition nozzle that accelerates metal particles entrained in an inert carrier gas. Once accelerated to high speed, the particles are directed onto a substrate, a mandrel, or into a mold. Subsequent high-speed collision of the metal particles causes very large strain (~80% in the direction normal to impact) in the particles. This deformation results in a huge increase in particle surface area (~400%), producing a new, oxide free surface. When these active surfaces come into contact, pure metallurgical bonds are formed. Metallurgical bonding is achieved exclusively through the solid-state reaction, with no bulk melting.

Mr. Gabel's talk will explain KMTM and compare the process to other deposition processes, including thermal spray and cold spray. How KMTM works and examples of KMTM coatings and spray formed deposits will be presented. Success with both high melting point / hardness and low melting point / hardness materials will be demonstrated. Application in aeronautics, automotive and space will be discussed. Feedstock and capital equipment requirements will also be covered.

Bio

Mr. Gabel earned BS and MS degrees in Metallurgical Engineering from the Univ. of Illinois, Urbana-Champaign. During the first part of his career, he specialized in corrosion, materials processing and metal combustion. He started Far East Technology, Inc. in Tokyo, Japan, providing services to Japanese high technology companies with a need to understand and interact with American counterparts. FET's largest customer was the NASDA, the Japanese space agency. He later returned to the US, but continued working in the Space program at the NASA White Sands Test Facility. Innovati was formed with others from WSTF. The company develops and markets Kinetic Metallization (KM)TM for a wide variety of products in the Aeronautical, Space, Automotive, and Defense sectors.

The San Diego Chapter is proud to announce that it has once again achieved 5 star status for the 2004-2005 Chapter Year. Thanks to all who helped make it happen. Let's do it again!

**Introducing Your
2005-2006 Executive Committee:**

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