

## MARCH 2004 MEETING

### WHEN:

Thursday, March 18, 2004

### SCHEDULE:

5:30 p.m. **Reception**

6:00 p.m. **Dinner Buffet**

Ropa Vieja, Pescado en Salsa Roja,  
Pollo Al Horno, White rice, Black beans,  
Green Salad, Bread and Soft Drinks

7:00 p.m. **Speaker Presentation:**

**Mr. RICHARD KENNEDY**

### WHERE:

**Andres Restaurant**

1235 Morena Blvd.  
San Diego  
(619) 276-4624

### COST:

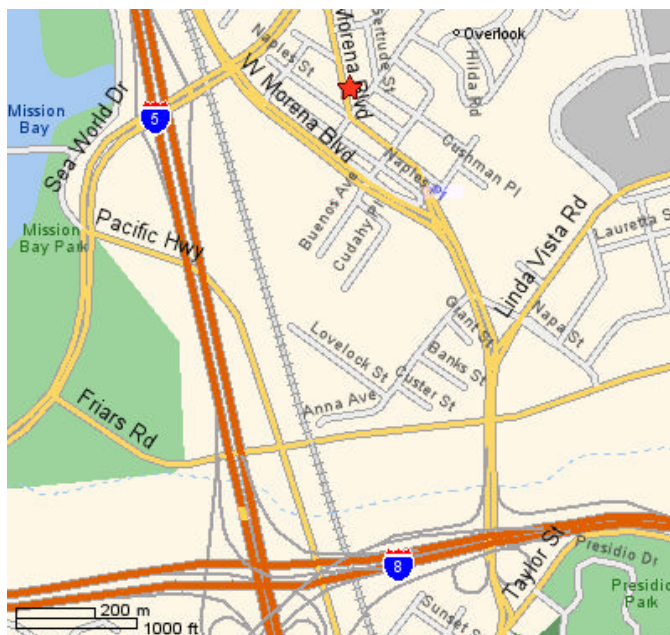
ASM Members - \$10

Guests - \$15

Students - \$5

### REGISTRATION REQUIRED BY NOON 3/16/04:

Call ASM Info Line at (619) 685-8848, or send an e-mail to [sandiego@asmchapters.org](mailto:sandiego@asmchapters.org).



## MR. RICHARD KENNEDY, FASM ASM Board of Trustees Vice-President of R&D, Allvac

Presents:

### **Alloy 718Plus<sup>®</sup>**

#### Abstract

Alloy 718 has become the most widely used superalloy and is available in all product forms. Although the alloy has good mechanical properties, moderate price and good producibility, its maximum use temperature is restricted to about 1200°F. Above this temperature, the  $\gamma'$  (Ni<sub>3</sub>Nb) precipitation hardening phase rapidly overages and properties fall dramatically. Previous attempts over the years to increase the temperature capability of 718 have failed. Until now, the only commercially significant choices for structural applications above 1200°F were  $\gamma'$  (Ni<sub>3</sub>Al, Ti) hardened alloys such as Waspaloy<sup>®</sup> and Rene<sup>®</sup> 41, which are more costly and difficult to fabricate and weld than 718.

This presentation will review efforts to improve the performance of 718-type alloys, including recent work by Allvac on a newly developed alloy, Allvac<sup>®</sup> 718Plus<sup>™</sup>. The chemistry, mechanical properties and processing characteristics of alloy 718Plus will be compared in detail to both 718 and Waspaloy, and the relative cost of these alloys will be discussed. Data will be presented from full scale, production sized ingots that show a 100°F temperature advantage for 718Plus alloy over 718, while maintaining good processing characteristics.

#### Bio

Mr. Kennedy holds BS and MS degrees in Metallurgical Engineering from Michigan State University and NC State University, respectively. Dick began his career in 1962 with PWA at their R&D Center in West Palm Beach, Florida. He has been employed by Allvac since 1965, serving in a number of mainly technical capacities. Dick has been VP of R&D since 1986. He has published numerous articles on the processing and properties of Ni-base superalloys and has 13 issued US patents. Dick was elected an ASM Fellow in 1991 and Trustee in 2003.

## Spring Education Series 2004: **NICKEL and NICKEL-ALLOYS**

Coming this April to a  
Classroom Near You!

### Abe Hurlich Award

Applications are currently being accepted for the 2003-2004 Abe Hurlich San Diego Chapter Student Award. This annual award is given to a local materials science student who exhibits outstanding merit in scholarship, leadership, and service. The award was established in memory of Abe Hurlich, a member and past-chair (1960) of our chapter, and past-president of ASM International (1977). The award consists of a \$1200 scholarship, one-year ASM membership, and medallion. For applications, visit the chapter website or call the Infoline at (619) 685-8848.

### ASM Night with the Padres at Petco Park

Friday, June 18th is ASM night with the Padres. Join the San Diego Chapter of ASM at new Petco Park. The Padres will take on the Toronto Blue Jays on beach towel night. Look for more details in the April ASM newsletter.

### San Diego Chapter Awards Night May 2004

**Watch for Details!**

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