

MARCH 2002 MEETING

WHEN:

Thursday, March 21, 2002

SCHEDULE:

5:00 p.m. **Social Hour**

6:00 p.m. **Dinner, Choice of:**
Prime Rib or Fresh Mahi Mahi

7:00 p.m. **Speaker Presentation:**
Dr. Gernant Maurer

WHERE:

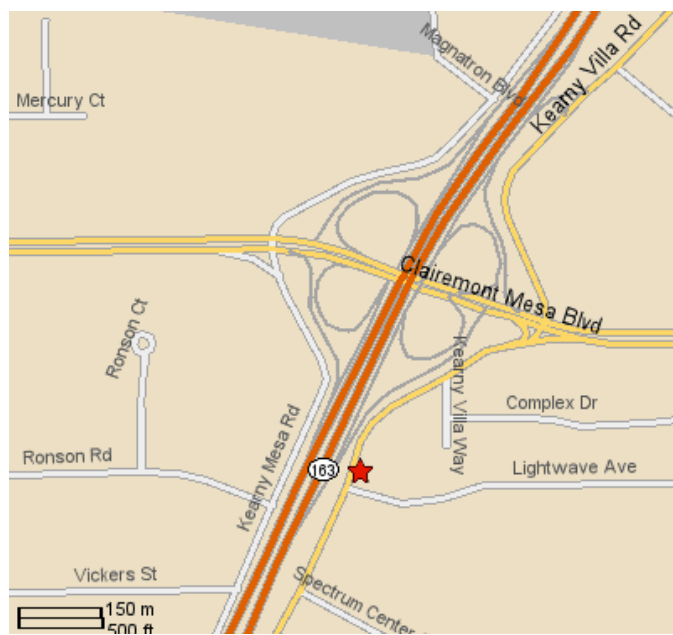
[The Butcher Shop Steakhouse](#)
5255 Kearny Villa Road
San Diego, CA 92123
(858) 565-2272

COST:

ASM Members & Students - \$20
Non-members - \$25

TO REGISTER:

Call ASM Hotline at (619) 685-8848, or send an e-mail by 3/18/02 to sandiego@asmchapters.org
Please include your dinner preference.



DR. GERNANT MAURER, FASM
SPECIAL METALS CORPORATION

PRESENTS:

Advances in the Melting and Processing of Wrought Nickel-based Superalloys

Abstract

Superalloys keep getting better and better. This presentation will briefly review the general processing used to make nickel-based superalloy billet and then focus on technologies that have improved ingot quality and billet microstructures. Alloys such as INCONEL[®] alloy 718, Waspaloy, and UDIMET[®] alloy 720 will be used as examples. Predictions for the future will also be discussed.

Improved understanding of melt related defects has led to new control methodologies that have enhanced ingot quality. Furnace controls of the future will even incorporate computational models that will make "smart" decisions during a remelt cycle. The applications of improved software and hardware has also made computer simulations of thermal mechanical processing a reality. However, challenges remain as users of superalloys want finer uniform grain sizes, improved ultrasonic inspectability and larger diameter billets. Finally, advances in PM superalloy technologies will be reviewed in light of efforts to reduce cost.

Biography

Dr. Maurer received a B.E.S. in chemistry and mechanics from The Johns Hopkins University in 1971 and a PhD in materials engineering from Rensselaer Polytechnic Institute in 1976. After completing his doctorate, Gern joined Special Metals Corporation where he is now Vice President of Technology.

Gern's areas of expertise encompass melt processing, alloy design, and advanced materials. He has published numerous technical papers and holds a variety of patents. He is active in numerous technical organizations and industry related activities. Gern has had a long association with ASM International. He is an ASM Fellow, a past member of the Board of Trustees, and has served on a wide range of committees.

*** Chapter Spotlight ***

Spring Seminar:
"Biomaterials"
April 19, 2002

Details in the
April Newsletter

The San Diego Chapter of ASM has
a new Website and E-mail Address!

We can now be reached by Email at
sandiego@asmchapters.org

Visit the San Diego Chapter Website at
<http://www.asmchapters.org/sandiego>

The ASM Hotline has not changed
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Proposal Deadline: **May 25**

Materials Camp 2002 for High School Juniors/Seniors!

- * Materials Camp USA-West (University of Washington, Seattle, WA) -- July 1-7, 2002
- * Materials Camp USA-East (Materials Park, Ohio) -- July 22-28, 2002

For more information or to get application forms, please visit <http://www.asminternational.org/foundation>



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