

★★★★★ FIVE STAR CHAPTER



The Materials
Information Society

**Oak Ridge
Chapter**

Thursday, May 20, 2010
Oak Ridge Chapter of ASM International's
Awards Night

“Refractory Ceramics: An Opportunity for Improved Energy Efficiency”

Dr. James G. Hemrick
Materials Science and Technology Division
Oak Ridge National Laboratory

This talk will provide background on what defines refractory ceramic materials, a brief history of these materials, and why we care about these materials at a Department of Energy Research Laboratory. Also discussed will be the key properties of interest for this class of materials, along with how these fit in to key areas of research and current projects at Oak Ridge National Laboratory (ORNL) related to the Department of Energy/Energy Efficiency and Renewable Energy (DOE/EERE) Industrial Technology Program.

Speaker Bio

Dr. James G. Hemrick has been involved in research regarding refractory ceramics, thermal management and materials characterization for the past eight years at Oak Ridge National Laboratory as a post-doctoral fellow, a member of the High Temperature Materials Laboratory (HTML), and for the last five years as part of the research staff. During that time he has led projects related to characterization of refractories for the glass industry, refractories for containment and thermal management in the aluminum and molten metal industries, and material development and selection for high temperature/high alkaline environments. Dr. Hemrick has been the co-investigator on projects regarding materials development for heat exchangers in microturbine and fuel cell systems, mechanical testing of insulation material for space applications, and materials selection for black liquor gasification. He holds a PhD and BS for the University of Missouri – Rolla and a MS from Georgia Institute of Technology. He resides in Knoxville TN with his wife and two children.

Registration (Guests Welcome!)

Cost: \$20

Students: Free if RSVP by May 14th;
\$5 if RSVP late

RSVP by noon on Friday May 14th

Contact: Jun Qu

(865)-576-9304 or qujn@ornl.gov

Rothchild's Conference Center

8807 Kingston Pike
(865) 690-0103

Thursday, May 20th

Schedule

5:30 pm– Social Hour

6:30 pm– Dinner

7:30 pm– Talk