



AMERICAN CERAMIC SOCIETY

**St. Louis Section
and the
Refractory Ceramics Division**

Forty-eighth Annual Symposium

on

Refractories

March 28-29, 2012

Hilton St. Louis Airport Hotel

Theme:

“Refractories for Non-Ferrous Applications”

PROGRAM

“Refractories for Non-Ferrous Applications”

March 27th

5:00 P.M. Kickoff Event

March 28th

7:30 A.M. Registration and Coffee

8:45 Morning Technical Sessions
Welcome and Introductions

St. Louis Section Chairman

Mary Reidmeyer

Missouri S&T

Refractory Ceramics Division Chair

Jason Canon

The Christy Refractories Company

Co-Program Coordinators

Ben Markel

Resco Products

Rick Solak

Wahl Refractories

9:00 Evaluation of a 99+% Alumina Refractory taken from Service in a Distribution Channel in a Container Glass Furnace
Dave Lankard – Lankard Materials Laboratory

9:30 Mechanism of Corrosion Resistance to Carbon Monoxide of Analusite
Xiaoyong Xiong – Imerys-Damrec

10:00 Coffee Break

10:30 The Crack Growth Resistance of Refractories
Richard C. Bradt – The University of Alabama

11:30 Questions and Discussion
Co-Program Coordinator
Ben Markel
Resco Products

11:45-1:00 Luncheon Banquet

1:00-1:30 Presentation of the T.J. Planje St. Louis Refractories Award to ***Rick Volk – UNI-REF, Inc.***

Afternoon Session

1:30 Trends in Refractory Linings of O₂-Enriched Sulfur Recovery Unit
Syed Rahman – Conoco Philips

2:00 Novel Spinel-Family Refractories for High-Temperature, High-Alkaline Environments
James Hemrick – Oak Ridge National Laboratory

- 2:30 Coffee Break
- 3:00 Development of New Procedures for Combined Corrosion-Erosion Testing on Refractories for Aluminum Furnaces
Peter Quirnbach – Deutsches Institut für Feuerfest und Keramik GmbH (DIFK)
- 3:30 Effect of Cement Content on the Properties of Self-Flowing Refractory Castables with Nano-Zirconia
Cem Cogtas – University of Wisconsin-Milwaukee, Materials Engineering Department
- 4:00 ASTM C08 Celebrates 200th Meeting and Award Presentation
Len Krietz – Plibrico
- 4:30 RCD Annual Members Meeting
- 4:45 Questions & Discussion
Co-Program Coordinator
Rick Solak
Wahl Refractories
- Closing Remarks
Mary Reidmeyer
Missouri S&T
Jason Canon
The Christy Refractories Company
- 5:00-7:00 Exposition and Cocktail Hour
- Almatis
Aluchem
American Ceramic Society
BassTech International
Calucem, Inc.
CE Minerals
Christy Minerals
Cilas Particle-Size
Fibercon International
Great Lakes Minerals
Kerneos
Kyanite Mining
LAEIS GmbH
Lancaster Products
Missouri S&T
Orton Ceramic Foundation
Possehl Erzkontor N.A.
Refractories WORLDFORUM
Refractory Minerals
Rio Tinto Alcan
Washington Mills
- 7:00 Dinner

March 29th (2nd Day)

6:30 A.M. Refractory Ceramics Division (RCD) Breakfast Meeting

7:45 Morning Technical Sessions
Welcome and Introductions

St. Louis Section Chairman

Mary Reidmeyer

Missouri S&T

Refractory Ceramics Division Chair

Jason Canon

The Christy Refractories Company

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8:00 Microsilica-Gel Bonded Castables for Rapid Heatup

Bjorn Myhre – Elkem Materials

8:30 Advantages of Calcium Hexaluminate in a Corrosive Environment

Dale Zacherl - Almatris

9:00 Coffee Break

9:30 Phase Diagram Short Course *Jeff Smith – Missouri S&T*

For us to have sufficient course materials, please sign-up on registration form

Getting the Diagrams to Work For You: Basic Applications of Ternary Phase Equilibria

This very short course will provide a review of the fundamentals of ternary phase diagrams and then highlight ways that the diagrams can be used to address refractory production and application. Topics will include liquid phase sintering aids, reactions and phase stability, refractoriness, refractory dissolution in liquid slags and glasses, among others. This review is intended to be "hands on" where you will be provided diagrams so you can follow along in the mining of the useful information contained within these diagrams. Some basic drafting tools will be provided; a calculator may be useful.

11:45 Questions & Discussion

Co-Program Coordinator

Ben Markel

Resco Products

Rick Solak

Wahl Refractories

St. Louis Section Chairman

Mary Reidmeyer

Missouri S&T

Refractory Ceramics Division Chair

Jason Canon

The Christy Refractories Company

12:00 St. Louis Section Business Meeting & Lunch

REGISTRATION FORM

Please select:

- Pre-Registration Fee (Deadline March 25) \$225.00
 - On-Site Registration Fee \$275.00
 - Emeritus/Senior Fee \$125.00
 - Student Fee \$50.00
 - Exhibitor for Exposition (Table Top) \$300.00
- (Exhibitor cost does not include registration fee)**

- Will attend the **Phase Diagram Short Course**
- Lunch - Chicken Fish Pasta/Vegetarian
- Dinner

(Fill in below)

NAME:	
NAME ON BADGE:	
COMPANY:	
ADDRESS:	
CITY/STATE/ZIP:	
TEL:	EMAIL:

METHOD OF PAYMENT

CHARGE MY CARD: \$		
MC: <input type="checkbox"/>	VISA: <input type="checkbox"/>	AMEX: <input type="checkbox"/>
CC#:		
EXP:		
NAME ON CARD:		
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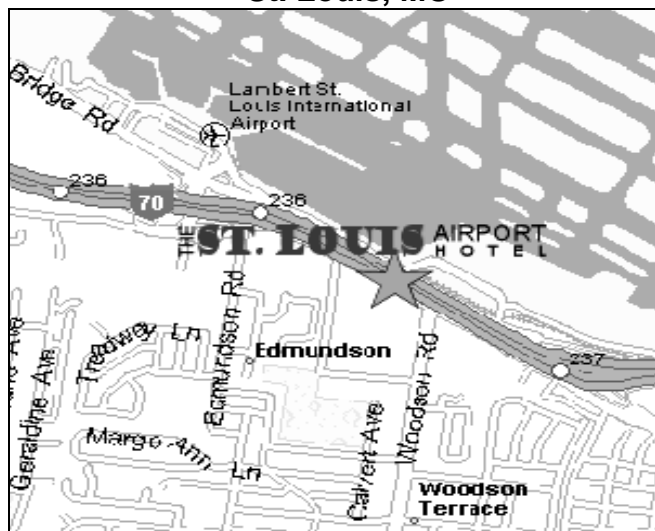
Company or Personal Check in U.S. Dollars
(Make checks payable to: St. Louis Section)

Send To: Patty Smith
 Missouri S&T
 104 Materials Research Center
 401 W. 16th St.
 Rolla, MO 65401
 Tel (573) 341-6265; Fax (573) 341-2071
 Email: psmith@mst.edu

NOTE: Dress Attire – Semi Casual (Tie Optional)

LOCATION

Hilton St. Louis Airport Hotel
 10330 Natural Bridge Road
 St. Louis, MO



A block of rooms has been set aside at the Hilton St. Louis Airport Hotel in St. Louis, MO for this meeting. Please refer to **Group Code MUS** at the Hilton when reserving a room for which the rate is \$99.00 single/double per night. **Reservations must be made before March 10th, 2012**

HOTEL ACCOMMODATIONS

- Hilton Hotel (*Mar 10, 2012*) (800) 314-2117
- Your web page address is:
http://www.hilton.com/en/hi/groups/personalized/S/STLHIH F-MUS-20120326/index.jhtml?WT.mc_id=POG
- Hampton Inn (314) 429-2000
- Drury Inn (314) 423-7700
- Marriott Airport (314) 423-9700