AMERICAN CERAMIC SOCIETY

St. Louis Section
and the
Refractory Ceramics Division

Fifty-third Annual Symposium

on

Refractories

March 29-30, 2017

Hilton St. Louis Airport Hotel

Theme:

“Real World Applications of Refractory Testing”
PROGRAM

“Real World Applications of Refractory Testing”

March 28th, 2017

5:00 P.M. Kickoff Event – Gateway Arch Riverboat Cruise of the Mississippi

March 29th, 2017

7:15 A.M. Registration and Coffee

8:00 Morning Technical Sessions
Welcome and Introductions

St. Louis Section Chairman
Bill Davis
HarbisonWalker International
Refractory Ceramics Division Chair
Josh Pelletier
Kerneos, Inc.

Co-Program Coordinators
Ashley Hampton
Vesuvius
Brian Rayner
The Edward Orton Jr. Ceramic Foundation

8:15 Spinel: In-Situ versus Performed – Clearing the Myth
Dale Zacherl – Almatis, Inc.
Marion Schnabel & Andreas Buhr – Almatis GmbH, Germany
Reinhard Exenberger & Christian Rampitsch – voestalpine Stahl GmbH, Austria

8:45 The Effect of Aluminosilicate Calcine Quality on Finished Monolithic Refractory Hot Properties
Scot Graddick, Dave Tucker, Chris Beiter & Danilo Frulli – Imerys Refractory Minerals
Steffen Mohmel, CARRD

9:15 Why do Industrial-Sized No-Cement Castables Sometimes Explode during Heatup? A Remedy to Ensure Safe and Fast Heatup of Microsilica-Gel Bond Castables
Bjørn Myhre & Hong Peng – Elkem Silicon Materials, Norway

9:45 Coffee Break

10:15 Eradicating the Occurrence of Efflorescence, Carbonation and Alkali Hydrolysis (AH) on “Cured” Insulating Castables
Jason P. Street & Thomas R. Viverito – Morgan Thermal Ceramics

10:45 Determining and Enhancing the Permeability of Dense Refractory Castables: Implications for Installation
Josh Pelletier, Christoph Wöhrmeyer & Carl Zetterström – Kerneos, Inc.

11:15 The Application of Physical Properties to Refractory Design and Selection
Mike Alexander – Riverside Refractories, Inc.

11:45-1:00 Luncheon Banquet
Afternoon Session

1:00-1:45  Presentation of the T.J. Planje St. Louis Refractories Award to Andreas Buhr – Almatis GmbH

2:00  ASTM Committee C08 on Refractories – An Overview of the Definitive Standard Tests for Refractories
      Bill Headrick – Missouri Refractories Company (MORCO)

2:30  Coffee Break

3:00  Possibilities and Opportunities for Determining the Thermal Conductivity of Different Refractory Products
      Peter Quirmbach & Hartmut Koerber – Deutsches Institut fuer Feuerfest und Keramik, Germany
      Ralf Simmat & Christian Dannert – Forschungsgemeinschaft Feuerfest e.V., Germany

3:30  Refractory Testing to Capture Real World Applications
      Devdutt Shukla – Vesuvius USA

4:00  Slag Corrosion Test Methods
      Anna Mattione, Ronald O’Malley & Jeffrey D. Smith – Missouri University of Science & Technology

4:30  Questions & Discussion
      Co-Program Coordinator

4:45  RCD Annual Members Meeting

5:00  Closing Remarks
      Bill Davis
      HarbisonWalker International
      Josh Pelletier
      Kerneos, Inc.

5:00-7:00  Exposition and Cocktail Hour

Almatis  Kerneos, Inc.
Alteo-Alumina  Kyanite Mining Corp.
AluChem  Lancaster Products
American Ceramic Society  Orton Ceramic Foundation
BassTech International  Possehl Erzkontor N.A.
Blastcrete Equipment Company  PQ Corporation
Calucem, Inc.  RED Industrial Products
Christy Minerals  Refractory Minerals
Cilas Particle Size  TAM Ceramics
Conitex Sonoco  Washington Mills
DIFK GmbH, Germany  ZIRCAR Ceramics, Inc.
Electro Abrasives/US Electrofused Minerals
Elkem Materials, Inc.
FX Minerals
Great Lakes Minerals
Imerys Refractory Minerals

7:00  Dinner Buffet
March 30th, 2017

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

8:15  Morning Technical Sessions
Welcome and Introductions

**St. Louis Section Chairman**
*Bill Davis*
HarbisonWalker International

**Refractory Ceramics Division Chair**
*Josh Pelletier*
Kerneos, Inc.

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8:30  **Invited Paper – 2016 Alfred W. Allen Award Winner**
Reflections on Refractory Materials and Their Evaluation
*Victor C. Pandolfelli – Federal University of São Carlos, Brazil*

9:30  Turning Reheat Furnace into Science
*Yong Lee & Kurt Johnson – ArcelorMittal Steel Global R&D*

10:00  The Use of Heat Flow Analysis and Infrared Thermography for the Identification of Alternative Insulation Strategies
*James G. Hemrick – Reno Refractories, Inc.*

10:30  Coffee Break

11:00  Refractories for Coal Boilers
*Jeff Yakulis, Jeff Bogan, Josh Sayre & Corey Forster – HarbisonWalker International*

11:30  High Definition Imaging of Hot Refractory during Operating Conditions
*Bill Porter – Bet-Ker America LLC
Saku Kaukonen & Juha Roininen – Sapotech Oy, Finland*

12:00  Questions & Discussion
Co-Program Coordinator
*Bill Davis*
HarbisonWalker International
*Josh Pelletier*
Kerneos, Inc.

12:30  St. Louis Section Officer Business Meeting