AMERICAN CERAMIC SOCIETY

St. Louis Section
and the
Refractory Ceramics Division

Fifty-fifth Annual Symposium

on

Refractories

March 27-28, 2019

Hilton St. Louis Airport Hotel

Theme:

“Shaped Refractories”
**PROGRAM**

“Shaped Refractories”

**March 26th, 2019**

5:00 P.M. Kickoff Event – Westport Social

**March 27th, 2019**

7:15 A.M. Registration and Coffee

8:00 Morning Technical Sessions

Welcome and Introductions

**ACerS President**

*Sylvia Johnson*

**St. Louis Section Chairman**

*Chris Perry*

Christy Refractories

**Refractory Ceramics Division Chair**

*Simon Leiderman*

Shinagawa Advanced Materials

**Co-Program Coordinators**

*Beau Billet*

Edward Orton Jr. Ceramic Foundation

*Dawn Hill*

Xertech Specialties, LLC

8:30 An Overview of Ceramic Forming Processes

*William M. Carty – New York State College of Ceramics Alfred University*

9:00 Engineering Resilience with Precast Monolithic Refractory Articles

*Matthew Lambert and Dana Goski – Allied Mineral Products, Inc.*

9:30 Ideal Casting Procedures for Optimal Precast Shape Properties

*William L. Headrick Jr. – Missouri Refractories Company, Inc. (MORCO)*

*Dale Zacherl – Almatis, Inc., USA; Andreas Buhr – Almatis GmbH, Germany*

10:00 Coffee Break

10:30 A Study of Controlled Drying of Refractory Castable Shapes

*John Waters and James Hemrick – Reno Refractories, Inc.*

11:00 Comparison of Cement- and Hydratable Alumina-Bonded Alumina-Spinel Materials for Steel Ladle Purging Plugs

*Dale Zacherl – Almatis, Inc. USA; Bin Long – Almatis Qingdao China; Andreas Buhr – Almatis GmbH, Germany; In-Ho Jung – McGill University Canada; Shengli Jin and Harald Harmuth – Chair of Ceramics, Austria; Jerry Dutton – United Kingdom*

11:30 Fused Cast Refractories – Basic Blocks to Pre-Cast Shapes

*Kevin Selkregg - Monofrax*

12:00-1:15 Luncheon Banquet
Afternoon Session

1:15-2:00  Presentation of the T.J. Planje St. Louis Refractories Award to Dr. Dana G. Goski, PhD., Vice President, Research and Development – Allied Mineral Products, Inc.

2:15  Non-Destructive Testing to Determine Internal Defects in Shaped Refractories
    Thomas R. Viverito – Morgan Advanced Materials

2:45  Coffee Break

3:15  The History of Refractory Bricks in Missouri
    Shannon Jaeger, Kelley Wilkerson, Mary Reidmeyer and Jeffrey Smith – Missouri University of Science & Technology

3:45  Thermally Induced Distinct Materials Behavior of Andalusite Bricks
    Hartmut Koerber, Yannick Hemberger and Peter Quirmbach – Deutsches Institut fuer Feuerfest und Keramik GmbH, Germany

4:15  ACerS PCSA Overview
    Somnath Mandal – University of California, Irvine

4:30  Questions & Discussion
    Co-Program Coordinator

4:45  RCD Annual Members Meeting

5:00  Closing Remarks
    Chris Perry
    Christy Refractories
    Simon Leiderman
    Shinagawa Advanced Materials

5:00-7:00  Exposition and Cocktail Hour

Almatis, Inc.          IMERYS
Alteo NA, LLC          Ingredient Masters, Inc.
AluChem, Inc.          Kyanite Mining Corp.
American Ceramic Society Monofrax
BassTech International Norchem, Inc. - Ferroglobe
Bettersize Instruments Orton Ceramic Foundation
Blastcrete Equipment, LLC Possehl Erzkontor N.A.
Christy Minerals       PQ Corporation
DiFK GmbH, Germany     R-E-D Industrial Products
Electro Abrasives      Refractory Minerals Co., Inc.
Elkem Materials, Inc.  TAM Ceramics
FX Minerals            Thermo Fisher Scientific
Gorka Cement           Washington Mills
Great Lakes Minerals, LLC ZIRCAR Ceramics, Inc.
Hindalco/GBL

7:00  Dinner Buffet
March 28th, 2019

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

8:15 Morning Technical Sessions
Welcome and Introductions

St. Louis Section Chairman
Chris Perry
Christy Refractories

Refractory Ceramics Division Chair
Simon Leiderman
Shinagawa Advanced Materials

Co-Program Coordinators
Beau Billet
Edward Orton Jr. Ceramic Foundation
Dawn Hill
Xertech Specialties, LLC

8:30 Invited Paper – 2018 Alfred W. Allen Award Winner
New Advances in the Laboratory Characterization of Refractories: Testing, Modelling and Industrial Applications
J. Poirier, E. de Bilbao, L. Hennet and M.R. Ammar – CNRS, France

9:30 Thermomechanical Behavior and Slag Corrosion Mechanism of Spinel-Periclase-Zirconia Refractories for Ruhrstahl Heraeus Degasser
Somnath Mandal and Martha L. Mecartney – University of California, Irvine; Devendra Kumar – Indian Institute of Technology, India; C.J. Dileep Kumar – TRL Krosaki Refractories Limited, India

10:00 Coffee Break

10:30 Phase Changes in Aluminum Phosphates Caused by Refractory Fabrication and Service
James Bennett – National Energy Technology Laboratory, USDOE
Anna Nakano and Jinichiro Nakano – National Energy Technology Lab, USDOE & Leidos Research Support Team
Jack Widmer – National Energy Technology Lab, USDOE & ORISE

11:00 Regional Influences in Aluminosilicate Refractory Raw Material Selection
Scot Graddick, Chris Parr, Phil Edwards, Nancy Bunt and Dave Tucker – IMERYS

11:30 Processing of Magnesia Ceramic Shapes via Slip Casting
Keith DeCarlo – Blasch Precision Ceramics
William M. Carty and Hyojin Lee – New York State College of Ceramics Alfred University

12:00 Questions & Discussion
Co-Program Coordinator

Chris Perry
Christy Refractories
Simon Leiderman
Shinagawa Advanced Materials

12:30 St. Louis Section Officer Business Meeting & Lunch