



**AMERICAN CERAMIC SOCIETY**

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

**Fifty-fourth Annual Symposium**

**on**

**Refractories**

**March 21-22, 2018**

**Hilton St. Louis Airport Hotel**

**Theme:**

**“Refractories for the Cement, Glass, and Minerals Manufacturing Industry”**

## PROGRAM

### “Refractories for the Cement, Glass, and Minerals Manufacturing Industry”

#### March 20<sup>th</sup>, 2018

5:00 P.M. Kickoff Event – 99 Hops House – Hollywood Casino

#### March 21<sup>st</sup>, 2018

7:15 A.M. Registration and Coffee

8:00 Morning Technical Sessions  
Welcome and Introductions

#### **St. Louis Section Vice Chairman**

*Chris Perry*

Christy Refractories

#### **Refractory Ceramics Division Chair**

*Matt Lambert*

Allied Mineral Products

#### **Co-Program Coordinators**

*Andrew Domann*

Bucher Emhart Glass

*Steven Ashlock*

Kyanite Mining Corporation

- 8:15 How to Deal with Alkalis Infiltration in Mag-Spinel Bricks Used in Cement Rotary Kilns  
*Daniela Mancini Fonseca, Eduardo Márcio Reis & Graziella Rajão Cotz Pacheco – Magnesita Refractories S.A.*
- 8:45 Moisture Pick Up and Strength of Hydraulically Bonded Pre-Cast Shapes  
*Dale Zacherl – Almatís, Inc. USA*  
*Dagmar Schmidtmeier & Andreas Buhr – Almatís GmbH, Germany*  
*Brunhilde Franz – RHI Urmitz AG & Co. KG, Germany*  
*Milos Michael Blajs – RHI Refractories Technology Center, Austria*  
*Jerry Dutton – United Kingdom*
- 9:15 Update on Use of Spherical Particles in NCC  
*Bjørn Myhre & Hong Peng – Elkem Silicon Materials, Norway*
- 9:45 Coffee Break
- 10:15 Classical vs Modern Refractoriness Test Methods for Fireclay Brick  
*Glenn McIntyre – HarbisonWalker International*
- 10:45 Minerals in the Glass Industry  
*Craig Carmody – Glass Technology*
- 11:15 Critical Factors Affecting the Performance of Refractory Repair Materials and the Influence of Calcium-Aluminates on These Factors  
*Josh Pelletier – Kerneos, Inc.*
- 11:45-1:00 Luncheon Banquet

## **Afternoon Session**

- 1:00-1:45 Presentation of the T.J. Planje St. Louis Refractories Award to **Nancy E. Bunt – Kerneos Aluminate Technologies**
- 2:00 Automated Rotary Drum Furnace for Testing Refractories for Cement Rotary Kiln Applications  
*Peter Quirnbach – Deutsches Institut fuer Feuerfest und Keramik, Germany*  
*Ralf Simmat & Christian Dannert – Forschungsgemeinschaft Feuerfest e.V., Germany*
- 2:30 Coffee Break
- 3:00 The Glass Formation Boundary in Silicate Systems: Potential to Predict Corrosion Products  
*William M. Carty & Hyojin Lee – New York State College of Ceramics at Alfred University*  
*Tom Lam – Smithsonian Institute*
- 3:30 Cement and Lime Kiln Rings and Refractory Strategies to Combat Them  
*James G. Hemrick & John L. Waters – Reno Refractories, Inc.*
- 4:00 Development of an Optimized Set for Application on Burner Pipes  
*A.G.S. Mangualde, V.G. Domiciano, M.A.M. Brito, R.S. Lara & M.G. Oliveira – Magnesita S&D, Brazil*
- 4:30 Questions & Discussion  
Co-Program Coordinator
- 4:45 RCD Annual Members Meeting
- 5:00 Closing Remarks  
*Chris Perry*  
Christy Refractories  
*Matt Lambert*  
Allied Mineral Products
- 5:00-7:00 Exposition and Cocktail Hour
- |                              |                                      |
|------------------------------|--------------------------------------|
| Almatis                      | Kerneos, Inc.                        |
| Alteo NA                     | Kyanite Mining Corp.                 |
| AluChem                      | Norchem-Ferroglobe                   |
| American Ceramic Society     | Materials Technology Innovation, LLC |
| BassTech International       | Orton Ceramic Foundation             |
| Blastcrete Equipment Company | Palmetto Industries                  |
| Calucem, Inc.                | Possehl Erzkontor N.A.               |
| Christy Minerals             | R-E-D Industrial Products            |
| DIFK GmbH, Germany           | Refractory Minerals                  |
| Elkem Materials, Inc.        | TAM Ceramics                         |
| FX Minerals                  | Washington Mills                     |
| Great Lakes Minerals         | ZIRCAR Ceramics, Inc.                |
| Gorka Cement SP Z O.O.       |                                      |
| Imerys Refractory Minerals   |                                      |
| Ingredient Masters           |                                      |
| Iwatani Corp of America      |                                      |
- 7:00 Dinner Buffet

March 22<sup>nd</sup>, 2018

- 6:30 A.M. Refractory Ceramics Division (RCD) Breakfast Meeting
- 8:15 Morning Technical Sessions  
Welcome and Introductions
- St. Louis Section Vice Chairman**  
*Chris Perry*  
Christy Refractories
- Refractory Ceramics Division Chair**  
*Matt Lambert*  
Allied Mineral Products
- Co-Program Coordinators**  
*Andrew Domann*  
Bucher Emhart Glass  
*Steven Ashlock*  
Kyanite Mining Corporation
- 8:30 Trends and Challenges on Raw Materials for Refractories  
*A. Platzer, D. Frulli & S. Graddick – Imerys Refractory Minerals*
- 9:00 Failure Analysis Studies in Cement Kiln Zones  
*Dana Goski – Allied Mineral Products*
- 9:30 Refractory Challenges in Glass Melting  
*Ruth Engel – Refractory Consulting Services*
- 10:00 Coffee Break
- 10:30 Cold Setting Phosphate Bonded Castables for Repairs  
*S.L.C. Silva, A.M. Correa, A. Mangualde & M.A.M. Brito – Magnesita R&D, Brazil*
- 11:00 Comparing Bonding Systems used in Preheat Tower Shotcrete Mixes  
*Gus Hughes – Mt. Savage Specialty Refractories*
- 11:30 Determining the Water Content for Castable Slump Using Specific Volume Diagram Approach  
*William M. Carty, Hyojin Lee, Martin Monk, Josh Onofrio & Greg Pomarico – New York State College of Ceramics at Alfred University*
- 12:00 Questions & Discussion  
Co-Program Coordinator
- Closing Remarks  
*Chris Perry*  
Christy Refractories  
*Matt Lambert*  
Allied Mineral Products
- 12:30 St. Louis Section Officer Business Meeting