

## St. Louis Section/RCD 56<sup>th</sup> Annual Symposium: March 25-26 2020

The St. Louis Section and the Refractory Ceramics Division of The American Ceramic Society will sponsor the 56<sup>th</sup> Annual Symposium on Refractories on the theme “**Properties and Performance of Refractory Ceramics – A Tribute to Richard C. Bradt**” on March 25-26, 2020 and a kickoff event (TBD) will held the evening of March 24, 2020. The meeting will be held in St. Louis, Missouri, at the Hilton St. Louis Airport Hotel. Co-program chairs are Kelley Wilkerson and Jeff Smith of Missouri University of Science and Technology.

Partial list to be presented are...

“Increased Usage of Scientific Methodology for the Advancement of Refractory Technology”

Charles E. Semler  
Refractories Consultant

“Thermal Shock of Refractories: A Comprehensive Review”

Joseph Homeny  
The Edward Orton Jr. Ceramic Foundation

“Reflections on the Thermal Shock Fundamentals and Their Parameters”

Vânia R. Salvini <sup>(1)</sup>, Richard C. Bradt <sup>(2)\*</sup> and Victor C. Pandolfelli <sup>(1)</sup>

<sup>1</sup> Federal University of São Carlos – Materials Engineering Department – GEMM – Via Washington Luiz, Km 235 – São Carlos, SP, Brazil; <sup>2\*</sup> In Memoriam - University of Alabama, Metallurgical and Materials Engineering Department, Tuscaloosa, Alabama, USA

“Derivation of Thermal Stress Parameters through Dimensional Analysis”

Jay J. Tu  
HTMS, LLC

“Sample Preparation, Thermal Expansion, and Hasselman’s Thermal Shock Parameters of Self-Flow Refractory Castables”

William L. Headrick, Jr.  
Missouri Refractories Company

“Let’s Make a Castable with Almost No Water – and No Cement. Use of Particle Packing Principles to Minimize Water Addition to Castables”

Bjørn Myhre  
Elkem Silicon Materials

“Corrosion Interaction between Copper Melt, Slags and Sic-Based Refractories”

Sarra Boubtane<sup>(1)</sup>, Almuth Sax<sup>(2)</sup>, Dieter Heumannskämper<sup>(3)</sup>, Peter Quirnbach<sup>(4)</sup>

<sup>1</sup> University of Applied Sciences, WesterWaldCampus, Höhr-Grenzhausen; <sup>2</sup> University of Koblenz-Landau, Chair of Technical Chemistry and Corrosion Science, Koblenz; <sup>3</sup> Morgan Molten Metal Systems GmbH, Berkatal-Frankenrain; <sup>4</sup> Deutsches Institut fuer Feuerfest und Keramik, Germany

“Applications of Fiber Optic Sensors in Ceramic Industry”

Muhammad Roman and Jie Huang  
Missouri University of Science and Technology

“Machine Learning to Predict Refractory Corrosion during Nuclear Waste Vitrification”

Natalie Smith-Gray

Washington University in St. Louis

“Stronger Is Not Always Better” and Other Lessons from Dick Bradt as Applied to Monolithic Refractories Development and Characterization”

Len Krietz

“Investigation of the Solidification Behavior of an Industrial Mold Flux Film Using the Single Hot Thermocouple Technique”

Cassandra Hurley, Ronald J. O’Malley and Laura Bartlett

Missouri University of Science and Technology

“Electrochemical Suppression for Steel-Flux Reduction-Oxidation Reactions between Silica and Aluminum”

Tiffany N. Wysong, Ronald J. O’Malley, Michael M. Moats and Jeffrey D. Smith

Missouri University of Science and Technology

“Interactions between Molten Materials and Periclase/Periclase-Olivine Tundish Linings”

Tyler Richards, Jeffrey D. Smith, Ronald J. O’Malley and Todd Sander

“Imerys' Aluminosilicate Calcines- A Data-Based Comparison of Our Expanded Higher Alumina Range”  
Scot Graddick, Cyrille Deteuf and Phil Edwards

Imerys RAC

“Guyanese Bauxite Source Fills the Gap in the Alumina Raw Materials Line”

John Karson

First Bauxite, LLC

The **Tabletop Expo** format is the same as previous years, with each vendor having a 6-foot table to display products and literature. The charge is \$300, which will be used to cover the cost of the Expo Hall and provide an open two hour bar during the “Meet and Greet” for the attendees prior to the dinner buffet on Wednesday evening. If you are interested in participating in the Tabletop Expo, contact Patty Smith at (573) 341-6265 or [psmith@mst.edu](mailto:psmith@mst.edu).

Please note that a meeting of the **ASTM International C-8 Committee on Refractories** will be held on March 24th, before this joint St. Louis Section/RCD conference. Contact Melissa Marcinowski at [mmarcinowski@astm.org](mailto:mmarcinowski@astm.org) for more information on this meeting.

The pre-registration fee of \$225.00 or on-site registration fee of \$275.00 (\$125.00 for Emeritus/Seniors and \$50.00 for students) includes the cost of your bound copy of the Symposium Technical Papers, Continental Breakfast, Lunch, Dinner and Coffee Breaks.

A block of rooms has been set aside for the evenings of March 23-27, 2020 at the Hilton (314) 426-5500. The rate is \$115 a single or double. To receive the \$115 rate mention the Group Name: St. Louis Section of The American Ceramic Society or Group Code: SAC when making your reservation. The web address to make online reservations is: :

[https://secure3.hilton.com/en\\_US/hi/reservation/book.htm?inputModule=HOTEL&ctyhocn=STLHIHF&spec\\_plan=SAC&arrival=20200323&departure=20200327&cid=OM,WW,HILTONLINK,EN,DirectLink&fromId=HILTONLINKDIRECT](https://secure3.hilton.com/en_US/hi/reservation/book.htm?inputModule=HOTEL&ctyhocn=STLHIHF&spec_plan=SAC&arrival=20200323&departure=20200327&cid=OM,WW,HILTONLINK,EN,DirectLink&fromId=HILTONLINKDIRECT)

All hotel reservations must be received on or before **February 22, 2020**.

For further information please contact Patty Smith at tel: (573) 341-6265, Fax: (573) 341-2071 or email: [psmith@mst.edu](mailto:psmith@mst.edu).