

56th Refractories Symposium honors Richard C. Bradt despite pandemic

The emerging coronavirus pandemic forced cancellation in March 2020 of the 56th Annual St. Louis Section/Refractory Ceramic Division Refractories Symposium. Unfortunately, the pandemic situation precluded an in-person gathering in 2021, too, prompting organizers to proceed with the symposium in an online virtual format on March 24–25, 2021.

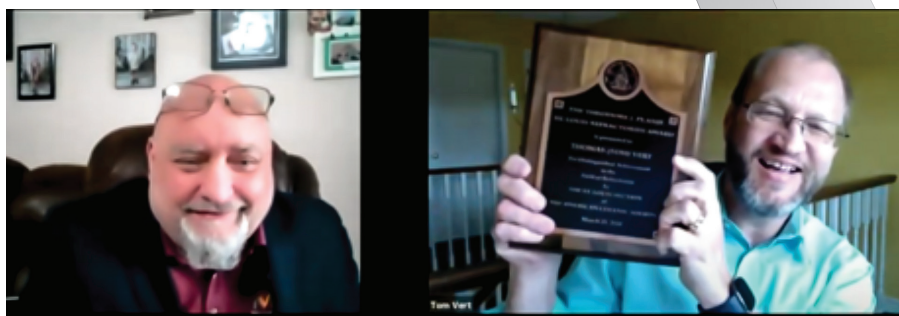
“Even though we couldn’t be in person this year, the Refractories family still reunited for a fun two days. Each speaker is a familiar face for most of the attendees, which I believe helped the audience stay focused and connected to the virtual meeting,” says co-organizer Kelley Wilkerson, assistant teaching professor at the Missouri University of Science and Technology.

The 56th symposium honored the late Richard Bradt, one of the great luminaries in the refractories industry. Speakers reflected on the impact he had on them personally and his tremendous global influence. Bradt was an ACerS Distinguished Life Member and Fellow of The American Ceramic Society.

Charles Semler of Semler Materials Services spoke about Bradt’s “early” years, comprising the first 30 or so years of his career. From the beginning, Bradt’s research focused on structure–property relationships with an emphasis on mechanical properties, especially the application of fracture mechanics to brittle materials. He applied rigorous quantitative methods, used statistics, looked for correlations, and adopted modeling and visual imaging to improve understanding of refractories.

“Dick was highly instrumental in pushing our industry into the modern era,” says Semler.

Despite being online, nearly 180 people registered for the event to hear 19 talks over two days. Highlights included the presentation of the St. Louis Section’s Theodore Planje Award for 2020 and 2021. Tom Vert, retired from Dofasco/Arcelor Mittal and



Jeff Smith (left) introduces 2020 Theodore Planje Award winner, Tom Vert, who is displaying his award.

president of UNITECR 2021 (now 2022), gave the 2020 Planje Award lecture. His engaging talk, titled “Top ten things they don’t tell you in university about the refractory industry,” noted that “what happens in the lab and in the steel plant are two different things.” His tips covered a wide range, including that customers can be grumpy, never check luggage, teamwork is essential, there are no friends during breakout investigation, and lifelong friendships are inevitable.

The 2021 Planje Award winner, Ruth Engel, Refractory Consulting Services, also worked in the steel industry. Her talk, “The path to career planning is SERENDIPITY,” highlighted key nodes and lessons from her 25-year career as a refractories engineer with Armco/AK Steel. She says, “One thing that has never changed is that refractories are always blamed for the operations problems. When you have a refractory problem, the operation stops.”

RCD also presented its Allen Award to Bruno Luchini, Joern Grabenhorst, Jens Fruhstorfer, Victor C. Pandolfelli, and Christos G., Aneziris for their paper, “On the nonlinear behavior of Young’s modulus of carbon-bonded alumina at high temperatures,” published

in the January 2018 issue of *JACerS* (pp. 4171–4183).

Next year, the 57th Refractories Symposium will be held in conjunction with UNITECR in Chicago, Ill., March 15–18, 2022 (originally scheduled for Sept. 14–17, 2021).

“Missing the symposium in 2020 meant we had a lot to do this year, and it was amazing to work with the Society, PCSA, and Bravura to make it happen. I am so thankful for everyone’s hard work to make this event a success, and I can’t wait to see everyone in person again soon,” says Wilkerson. ¹⁰⁰



Ruth Engel’s first hardhat. Engel was the 2021 St. Louis Section Theodore Planje Award winner.