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## **Solidia Technologies, Purdue University Present New Research at American Ceramic Society's Advances in Cement-Based Materials Conference**

*Research focused on low-lime calcium silicate cement technology and sulfate reactions*

**ATLANTA, June 27, 2017**—New research conducted by teams at [Purdue University](#) and [Solidia Technologies®](#) show that low-lime calcium silicate cement and carbon-cured concrete offer a durable and sustainable solution for the industry. Two presentations during the American Ceramic Society's 8th annual Advances in Cement-Based Materials Conference focused on studies of Solidia Cement™ and Solidia Concrete™ products.

"We found that, after 18 months of exposure, the Solidia cement-based samples subjected to sodium sulfate solution did not develop any visible changes in appearance," said Solidia Technologies Senior Research Scientist Jitendra Jain, Ph.D., presenting "*Sulfate Attack Resistance of Carbonated Low-Lime Calcium Silicate Systems.*" The study's co-authors also include Purdue graduate student Raikhan Tokpatayeva and Professor of Civil Engineering [Jan Olek](#), Ph.D., P.E. who directed the research work at Purdue University.

The second presentation, "*Low-lime calcium silicate cement: Reaction products and their properties,*" detailed the strength and structural makeup of Solidia Technologies cement and concrete. In addition to Dr. Olek and Dr. Jain, this study was co-authored by Purdue Research Assistant Warda Ashraf, currently working as Assistant professor at University of Maine and Solidia Technologies Technology Director [Anuj Seth](#), Ph.D.

"In addition to safely storing carbon dioxide, we found that, after 128 hours of carbonation curing, the CSC mortar and concrete can achieve, respectively, compressive strength of up to 35 MPa and 80MPa, which is comparable to ordinary Portland cement-based products," said Dr. Jain.

The team at the Purdue School of Engineering led by Dr. Olek has previously reported on Solidia Concrete's outstanding performance in freeze-thaw, freeze-thaw with deicing salts and sulfate environments.

### **About Solidia Technologies®**

Based in Piscataway, N.J. (USA), [Solidia Technologies®](#) is a cement and concrete technology company that makes it easy and profitable to use CO<sub>2</sub> to create superior and sustainable building and construction materials. Solidia's investors include [Kleiner Perkins Caufield & Byers](#), [Bright Capital](#), [BASF](#), [BP](#), [LafargeHolcim](#), [Total Energy Ventures](#), [Bill Joy](#) and other private investors. Honors include: 2017 [ERA Grand Challenge](#) Second Round Finalist, 2016 [Sustainia 100](#); 2015 [NJBiz Business of the Year](#); 2014 [Global Cleantech 100](#); 2013 [R&D Top 100](#); 2014 [Best Place to Work in NJ](#); 2014 [CEMC Grand Challenge](#) First Round finalist; 2013 [Katerva Award](#) finalist; and MIT's [Climate CoLab](#) shortlist. Follow Solidia at [www.solidiatech.com](http://www.solidiatech.com) and on [LinkedIn](#), [YouTube](#) and Twitter: [@SolidiaCO2](#).

### **About Purdue University**

[Purdue University](#) is a state-assisted doctoral-granting institution founded in 1869. It is a leading research institution with a system-wide enrollment of more than 69,000 students from 50 states and 130 countries. Twenty-three Purdue alumni have become NASA astronauts, including Neil Armstrong, the first man to walk on the moon, and Eugene Cernan, the last to do so. Purdue's engineering program is one of the largest in the nation. Forty-seven Purdue faculty, students, and staff had discoveries that were patented in 2012. The Purdue Research Foundation reported 356 invention disclosures, 446 patent applications worldwide, 95 issued patents worldwide and the creation of five startups from Purdue-licensed technologies.