

**2012/2013 Division & Class Report
to the
ACerS Board of Directors**

Division/Class: Cements Division

Current Division/Class Officers:

Chair: Benjamin Mohr
Chair-Elect: Kyle Riding
Secretary: Jeffrey Chen
Trustee: Joe Biernacki
Program Chair: Paramita Mondal
Program Co-Chair: David Lange and Tyler Ley

Incoming Division Officers: Cements changes officers at the MS&T meeting each year.

Chair: Kyle Riding
Chair-Elect: Jeffrey Chen
Secretary: Tyler Ley
Trustee: Joe Biernacki
Chair: Benjamin Mohr
Co-Chair: Joe Biernacki

Summary of Meetings and Activities Held/To Be Held (from Oct. 2012 through Oct. 2013):

The 4th Annual Meeting of The American Ceramic Society Cements Division and Center for Advanced Cement-Based Materials "Advances in Cement-Based Materials: Characterization, Processing, Modeling and Sensing" was held at the University of Illinois at Urbana-Champaign, July 8-10, 2013. The division held a ½ day tutorial "Probing the Structure of Hydration Products" that included 3 invited workshop seminars, and 2 full days of technical presentations with 50 oral presentations and 38 posters. The program included nine topical sessions:

- Calcium Silicate Hydrate
- Concrete Material Models
- Concrete Durability
- Shrinkage, Shrinkage Reducing Admixtures and Other Additives
- Nano-materials and Bio-materials
- Geopolymer
- Alternative Cements
- Early Age Properties
- Analytical Techniques for Characterization, Sensors, Other Smart Materials

Leslie Struble (UIUC) gave the Della Roy Lecture on "Effects of Calcium on the Geopolymer Reaction"

Seven student poster awards were given to the six best student poster presentations, with \$100 awarded per poster:

- Jeevaka Somaratna, Univ. of Illinois at Urbana-Champaign, "Global and nano-scale characterization of heat-induced damage in Portland cement paste"

- Suengmin Lim, Univ. of Illinois at Urbana-Champaign (Suengmin and Jeevaka co-won for a poster, and each split the \$100), "Global and nano-scale characterization of heat-induced damage in Portland cement paste"
- Elizabeth Nadelman, Georgia Institute of Technology, "A Resistivity-Based Approach to Optimizing Concrete Performance"
- Saamiya Seraj, Univ. of Texas at Austin, "Assessing the Potential of Natural Pozzolans to be a Suitable Replacement for Class F Fly Ash in Concrete"
- Nima Zohhadi, Univ. of South Carolina, Columbia, "Graphene Nanoreinforcement for Cement-based Composites"
- Scott Muzenski, Univ. of Wisconsin-Milwaukee, "High Performance Superhydrophobic Engineered Cementitious Composites (SECC) for use in Highway Applications"

There were 105 attendees at the meeting, compared to 100 in 2012, 107 in 2011, and 96 in 2010.

The 2012 Brunauer Best Paper Award was given to Alan J. Benesi, Hayden Black, Michael W. Grutzeck, Pearl Kaplan, Bernie O'Hare, and Rachel A. Steinle for their paper "Evidence of Solid Water Bridges Found in Hydrating Tricalcium Silicate Paste," *Journal of the American Ceramic Society*, 2011. 94(4): p. 1250-1255. The 2013 and 2014 Brunauer awards will be presented at the 2014 Cements Division meeting.

Future Planned Meetings/Activities (from Nov. 2013 – October 2014):

The 2014 ACerS Cements Division/ACBM meeting will be held at the Tennessee Technological University during summer 2014. The exact date will be announced shortly.

The 2015 ACerS Cements Division/ACBM meeting will be held at Kansas State University. The dates have not been determined yet.

New Initiatives/Opportunities: None.

Action Items for ACerS Board Consideration at October 26, 2013 meeting: None.

Issues/Concerns: None.

Additional Items of Note: None.

Financial Statement: attached

Submitted By: Kyle Riding