

ACI Committee 236: Material Science of Concrete

ACI 2010 Spring Convention
Monday, March 22, 2010, 4:30-5:30 pm
Ontario, Sheraton Chicago, Illinois

Meeting Minutes

Members in attendance: Maria Juenger (secretary), Matthew Adams, Joe Biernacki, Andrew Boyd, Javier Castro, Peter Claisse, Clarissa Ferraris, Christopher Ferraro, Zach Grasley, Jason Ideker, Burkan Isgor, Eric Koehler, Maria Konsta-Gdoutos, Tyler Ley, Ben Mohr, Moncef Nehdi, Kamran Nemati, Naryanan Neithalath, Jan Olek, Aleksandra Radlinska, Sulapha Peethamparan, Farshad Rajabipour, Laila Raki, Aly Said, Florence Sanchez, Yixin Shao, Qizhong Sheng, Konstantin Sobolev, Mohammed Sonebi, Mahmoud Reda Taha, Jussara Tanesi, Wilasa Vichit-Vadakan, Jason Weiss

Visitors: Anthony Bentivegna, Matthew Brynick, Ben Byard, Alex Cozzi, Marwan Daye, Igor De la Varga, Yogini Deshpande, Rex Donahey, Brian Green, Sean Hayman, Mohammad Khan, Mauricio Lopez, Robert Moser, Marissa Reigel, Kyle Riding, Anton Schindler, Robert Sculthorpe, Suru Shah, Michael Stolts, Z. Yamaguchi, Chuck Weiss, Jieying Zhang

1. Juenger (Secretary) called the meeting to order at 4:31 pm, acting as Chair because Kurtis (chair) could not be present. Ideker took notes.
2. Introductions were made at 4:32 pm, the purpose of the meeting was discussed and the agenda was reviewed.
3. Juenger gave a membership update and purpose of the meeting.
Membership:
54 voting members – increased by 3
3 consulting members
50 associate members – increased by 2
4. The meeting minutes for Fall 2010 were reviewed. Neithalath motioned to approve, Ferraro seconded, and the committee unanimously approved the minutes.
5. TAC Liason (Ferraris) was not present to report.
6. Subcommittee Reports
236-B (Transport Mechanisms) – Basheer
Basheer cancelled the meeting for this convention as he was unable to attend the conference. Basheer may be willing to pass along the chair responsibilities. However, it is important to gage interest in this subcommittee before proceeding.

Discussion by the committee followed:

Juenger took a strawpole and 5 people were planning to attend the subcommittee meeting at this convention. Claisse expressed the need to define fundamental transport properties and to how to test/measure. Shah mentioned that we might consider expanding the scope of transport properties. Rajabipour agreed and suggested expanding the scope to cracking, corrosion, etc. Juenger stressed the need to find out what would get people involved in the subcommittee. Rajabipour highlighted that much discussion over definitions and terminology weighed down the

Committee. The document from 236B is not near being finished, the biggest challenge is with definitions. Juenger indicated that there is interest still in the committee, she will convey this to Kurtis and will discuss with Kurtis and Basheer a possible change in leadership should Basheer wish to stop down.

236-C (Computational Materials Science) – Tanesi

Jussara Tanesi – The subcommittee didn't meet at this convention. Her group is working on getting together a database.

236-D (Nanotechnology of Concrete) – Sobolev

Still working on their state-of-the-art report. Sobolev indicated that the document needs to be officially approved by TAC in order to proceed.

7. Liaisons with other Committees

EAC – Significant Changes to EAC – educational committees are no longer under EAC and are now part of SYPAC and no longer under the 800 designation.

123 – Olek – engaging a broader audience in contributing to the presentations. Encouraged participation from this committee in both Research in Progress and Open Paper Sessions.

130 - Rajabipour will be the liaison to 130. The main goal is to get a document out very quickly, then follow-up with a slower more developed document that will come out on a 2 year renewal basis.

130A- Ley will be the liaison to 130A. ACI is pushing to get the sustainability documents out on a very accelerated timeline. Hoping to have a document balloted by Fall 2010. Ley thinks there is a role that 236 can play, but for the immediate push we need to be involved but not too overly concerned.

201 – Ideker - main document being majorly overhauled.

207- Ferraro - Gajda is now chair; mostly documents in revision in that committee.

224 – Ferraro will be this official liaison, gave a brief update.

228 – Ferraro – document going to TAC in the next 2 weeks on NDT for Concrete.

238 – Ferraris - will be her last convention as chair; Koehler will take over.

522 – Neithalath -New document – 522R has been published on pervious concrete, it is updated every 3 years, last was 07 and now 10.

548 – Taha - Full day session on Wednesday – Frontiers in Polymers in Concrete, some nano-focused talks are is related to this committee and may be of interest.

8. Update on publications in *Concrete International*

Juenger clarified goal of 236 – organize sessions to educate the broader community on material science aspects of concrete through sessions, SPs, and papers disseminated through means such

as CI to educate the broader community. Kurtis would like to focus future papers to coincide with future issue themes.

A paper by Neithalath on pervious concrete will be published in May 2010 in an issue with the theme “Green and Emerging Trends.”

Olek’s accepted paper on shrinkage and cracking risk will be in the November issue on “Durability.”

For example, for future papers the CI on Repair and Renovation would be a good place for Ideker’s CAC paper could be a good issue. Zhang suggested a possible paper on methods of examining corrosion of reinforcing steel, which would be a good fit for a “Durability” issue.

The review process was discussed. If we can streamline our process internally with the committee, then the papers can be processed more quickly. Donahey clarified that CI works 2 months out, at least 2-4 months out it needs to be through internal committee review process. Juenger said a conservative idea is to consider 1 year from submission if the article is in an appropriate form for the CI readership. Weiss indicated that a good approach may make a subcommittee of 6-8 members who will agree to review quickly, this will help us to get this through committee faster.

Donahey mentioned that we need to keep in mind the broader audience. Consider that these are introductory lessons for students think about it on this level; don’t give 40 references (if you give that many they will likely go online as an appendix). This is a magazine and keep references less than 20. Claisse mentioned that pictures should be graphically telling, not “cleaned-up.” Also, submit text and figures separately.

Mohr’s paper on wood pulp fibers, Ideker’s paper on calcium aluminate cements, Sobolev’s paper on foamed concrete, and Ley’s paper on air voids have not been written yet.

Tanesi and Green already published their papers in an SP, but Green volunteered to write a version for the CI audience.

Biernacki withdrew his paper on multiscale concrete performance.

Upcoming CI issue themes:

June	Formwork
July	Floors and Foundations
August	Decorative Concrete
September	Concrete in Extreme Environments
October	Precast/Prestress & Post-Tensioned
November	Durability
December	Specifiers' Product Guide

Potential 2011 CI themes (taken from 2010 themes):

January	Admixtures & Cementitious Materials
February	Bridges & Highways
March	Mixing, Placing, & Curing
April	Repair & Renovation
May	Green & Emerging Trends

9. Sessions at this convention:

Advances in Material Science of Concrete - SP available at this convention.

10. Future Sessions

Fall 2010 Pittsburgh - Green Binder Technology –Olek and Rajabipour have 9 speakers

Spring 2011 Tampa – Basheer and Ferraro - Performance Testing of Concrete: preliminary approval has been received. There was some discussion about having a half day or a full day session and combining (or not) with a session sponsored by 201 by Obla and Neithalath.

Fall 2011 Cincinnati – Don Janssen – Combined forms of attack. Already has 6 speakers lined up and is looking for a co-moderator from 236. Peethamparan volunteered to co-moderate.

Spring 2012 or Fall 2012 - Biernacki – Kinetics of hydration (and durability reactions). Grasley to help.

Fall 2012 – Toronto - Taha – Nano-materials in concrete – Focus it more on nano-materials rather than nano-technology (last session was nano-technology and was sufficiently long past given the rate of technological advancement).

Spring 2012 – Dallas - Claisse - Transport properties. Ideas to be fleshed out based on papers that come in for the Tampa session on performance testing.

Spring 2012 – Dallas - Ideker and Rajabipour – ASR.

Unspecified date – Popovics and Shah – Smart Materials and Sensors.

Taha suggested that it would be nice to have an email sent committee members to remind the committee about these sessions and calls for paper, rather than seeing it only in CI or in the meeting minutes.

11. New business and announcements.

Juenger asked if there was interest in forming a task group on the material science of concrete sustainability. She asked members to contact her after the meeting regarding their interest.

Upcoming conferences:

Concrete Sustainability Conference, April 13-15, Tempe, AZ.
(<http://www.sustainabilityconf.org/>)

First International Conference in North America on Nanotechnology in Cement and Concrete, May 5-7, 2010, Irvine, CA. (<http://guest.cvent.com/EVENTS/Info/Summary.aspx?e=ac0d41f9-25b7-41ab-8027-3f608b6bb1f>)

Cements Division of ACerS and the Center for Advanced Ceramic-Based Materials Meeting - Advances in Cement-based Materials: Characterization, Processing, Modeling and Sensing. July 11-13, 2010, West Lafayette, IN. (www.ceramics.org/cements2010). (Abstract deadline extended until April 9, 2010)

The Fourth North American Conference on the Design and Use of Self-Consolidating Concrete will be held September 26-29, 2010, Montreal. (<http://www.civil.usherbrooke.ca/SCC2010/>)

12. Next meeting Monday afternoon at ACI Fall in Pittsburgh.

13. Ferraris made a motion to adjourn, Taha seconded the motion, and the meeting was adjourned at 5:40pm.