



**ICMA** *International Cement Microscopy Association*

**PRELIMINARY PROGRAM OF THE THIRTY FIFTH  
INTERNATIONAL CONFERENCE ON CEMENT MICROSCOPY  
SPONSORED & ORGANIZED BY INTERNATIONAL CEMENT MICROSCOPY ASSOCIATION (ICMA)  
The Embassy Suites Hotel-O'Hare, Rosemont, Illinois, 60028, U.S.A.  
April 28 – May 1, 2013**

**SUNDAY, APRIL 28, 2013**

2:00 – 4:00 P.M. Registration – The Embassy Suites Hotel-O'Hare, Rosemont, IL  
5:00 – 6:00 P.M. Wine & Cheese Reception  
Hosted by ICMA & Past Committee Officers

**MONDAY, APRIL 29, 2013**

8:00 – 9:00 A.M. Registration – The Embassy Suites Hotel-O'Hare, Rosemont, IL

9:00 – 9:15 A.M. Welcome Address  
Arturo G. Nisperos  
General Chairman

9:15 – 9:30 A.M. Remarks  
Greg Scott  
President, Portland Cement Association (PCA)  
Keynote Speaker

9:30 – 9:35 A.M. Program Introduction  
Lou Jany  
Program Committee Chairman

9:35 – 10:05 A.M. Advances in Particle Characterization: Benefits and Application  
  
K. Luke and A. Silva  
Trican Well Service Ltd.  
Calgary, Alberta, Canada

10:05 – 10:20 A.M. BREAK

10:20 – 10:50 A.M. Quantification of the M1 and M3 Polymorphs of C<sub>3</sub>S (Alite) in  
Clinker  
  
T. Witze, T. Fuellmann, J.L. Anderson  
PANalytical  
Westborough, Massachusetts, U.S.A.



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- 10:50 – 11:20 A.M. Preliminary Investigations of Essential Oils as Corrosion Inhibitors in Steel Reinforced Cementitious Systems
- J. Hajar and A. Sakulich  
Department of Civil & Environmental Engineering  
Worcester Polytechnic Institute  
Worcester, Massachusetts, U.S.A.
- G. Keohane and J. Schiffman  
Department of Chemical Engineering  
University of Massachusetts-Amherst  
Amherst, Massachusetts, U.S.A.
- 11:20 – 11:50 A.M. Example of Mutual Benefits of XRD-Rietveld and SEM Image Analysis for Hydrated Cement Paste Quantification
- X. Cieren and S. Meulenyzer  
Lafarge Centre de Recherche (LCR)  
St. Quentin Fallavier, France
- 11:50 – 1:00 P.M. LUNCH BREAK
- 1:00 – 5:00 P.M. **Combined Bus Tour to Famous Landmarks & Architectural Buildings of the City of Chicago and Tour to Portland Cement Association (PCA) & Construction Technology Laboratories (CTL) Facilities, Skokie, Illinois**
- 5:00 – 6:00 P.M. End of Tours, Return to The Embassy Suites Hotel-O'Hare

## **TUESDAY, APRIL 30, 2013**

- 8:00 – 9:00 A.M. Registration & Welcome
- 9:00 – 9:10 A.M. Introduction of Exhibitors  
Exhibit Coordinator, Chairman
- 9:10 – 9:40 A.M. Hydration Control of Portland Cement and Calcium Aluminate Cement Using Different Earth Alkali Benzoate Hydrates
- H. Poellmann, P. Sturm, R. Kaden and S. Stober  
University of Halle/Saale  
Halle, Germany



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- 9:40 – 10:10 A.M.      API Standard Class G Cement and Its Inconsistencies in Slurry Thickening Times
- J. S. Lota  
Parmiters School, Garston, Watford, England, U.K.
- S. R. Farris,  
Keele University, Birchall Centre, Staffordshire, England, U.K.  
(Now at Babcock International group, Forss, Caithness, Scotland, U.K.)
- K. Luke  
Trican Well Service Ltd., Calgary, Alberta, Canada
- 10:10 – 10:25 A.M.      BREAK
- 10:25 – 10:55 A.M.      Determination of Water to Cementitious (W/CM) Binder Ratios By the Use of the Fluorescent Microscopy Technique in Hardened Concrete Samples: Part III
- T. Sibbick, S. Garrity, and C. LaFleur  
W. R. Grace & Company, Cambridge, Massachusetts, U.S.A.
- 10:55 – 11:25 A.M.      Optimization of Chloride Quantification in Cementitious Mortar Using Energy-Dispersive X-ray Microanalysis
- J. Pacheco and O. Copuroglu,  
Faculty of Civil Engineering and Geosciences  
Delft University of Technology, Delft, The Netherlands
- R. B. Polder  
Building Materials  
TNO, The Netherlands
- 11:25 – 11:55 A.M.      Petrographic Examination of Iron-Ore and Colemanite Aggregates Used in Radiation Shielding Concrete
- S.Y. Lee, A. Daugherty, and D. Broton  
CTL Group, Skokie, Illinois, U.S.A.
- 11:55 – 1:00 P.M.      LUNCH BREAK
- 1:00 – 3:00 P.M.      **PANEL DISCUSSION: Application of Microscopy in Relation to Energy Consumption in Cement Plants**  
Dr. Donald Campbell, Workshop Coordinator

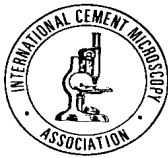


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- 3:00 – 3:15 P.M.                    BREAK
- 3:15 – 3:45 P.M.                    Evaluation of Mortar Microstructures in Ancient Roman Concrete  
From Ostia, Italy with PETROG Software
- J.L. Wehby  
Research Laboratory for Archaeology and the History of Art  
University of Oxford, U.K.
- M.D. Jackson  
Department of Civil & Environmental Engineering  
University of California, Berkeley, California, U.S.A.
- 3:45 – 4:15 P.M.                    Surface Greening and Microstructural Alteration of Blast Furnace Slag  
Concrete – A Case Study
- O. Copuroglu and W.J. Bouwmeester-van den Bos  
Faculty of CiTG, Materials & Environment  
Delft University of Technology, Delft, The Netherlands
- 4:15 – 4:45 P.M.                    Ettringite: A New Synthesis Approach
- A. Lo Presti, T. Cerulli, A. Biancardi, E. Moretti, and D. Salvioni  
Mapei, S.p.A. R&D Central Laboratory  
Milan, Italy
- 4:45 – 5:15 P.M.                    Relative Evaluation of Microstructure and Phase Composition of Clinker  
Sintered With Bituminous Coal and Pet Coke
- A. Sadangi, K. Suresh, and S. Chowdhury  
Ultra Tech Cement Ltd.  
Aditya Birla Science & Technology Center  
Mumbai, India

## **WEDNESDAY, MAY 1, 2013**

- 9:00 – 9:05 A.M.                    Welcome
- 9:05 – 9:35 A.M.                    Nanopetrography Technics Contribution to the Behaviour of Trace  
Elements Into Clinkers



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F. Amin and E. Moudilou  
CTG, Italcementi Group  
Cedex, France

P. Le Coustumer  
University of Bordeaux  
Bordeaux, France

9:35 – 10:05 A.M.

A Phenomenon of Heterogeneous Coloration in a Self-Leveller:  
Not Only an Aesthetic Problem

A. Lo Presti, T. Cerulli, D. Salvioni, E. Carlini, and S. Carra  
Mapei, S.p.A. R&D Laboratory  
Milan, Italy

10:05 – 10:35 A.M.

Comparison of Hardened Concrete Air-Void Test Results from  
Rapid Air 457 and Flatbed Scanner Automated Analysis Equipment

S. Nezami and K. Peterson  
Department of Civil Engineering  
University of Toronto  
Toronto, Ontario, Canada

K. J. Totty and R. Sibbick  
W. R. Grace & Company  
Cambridge, Massachusetts, U.S.A.

10:35 – 10:50 A.M.

BREAK

10:50 – 11:20 A.M.

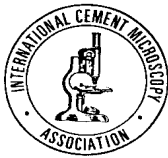
Petrographic Evaluation of Deleterious Materials in Aggregates Used  
for Airfield Pavements in Accordance With UFGS Specification

S. Y. Lee, V. Jennings, and A. Daugherty  
CTL Group, Skokie, Illinois, U.S.A.

11:20 – 11:50 A.M.

Petrographic Characterization of the Deterioration Products in Concrete  
Containing Sulfide Bearing Aggregates: A Particular Case of Internal  
Sulfate Attack

A. Rodrigues, B. Fournier, and J. Duchesne  
Centre de Recherche sur les Infrastructures en Beton (CTIB)  
Department of Geology and Geological Engineering  
University of Laval  
Quebec, Canada



# ICMA *International Cement Microscopy Association*

- 11:50 – 1:00 P.M.            LUNCH BREAK
- 1:00 – 1:30 P.M.            Influences of Different Sulfonic Acids and Salts on the Hydration Behaviour of Cement Pastes
- S. Stoeber and H. Poellmann  
                                         University of Halle/Saale  
                                         Halle, Germany
- 1:30 – 2:00 P.M.            Chloride Concentration Profile Collection With An Environmental Scanning Electron Microscope and X-ray Energy Dispersive Spectrometry
- G.C. Anzalone and L. L. Sutter  
                                         Michigan Tech Transportation Institute  
                                         Houghton, Michigan, U.S.A.
- 2:00 – 2:30 P.M.            Microstructural Features of Concrete from Some Bridges in the South Island in New Zealand, in Relation to Concrete Durability
- A. Shayan  
                                         Department of Civil Engineering  
                                         Swinburne University of Technology  
                                         Vermont, South Victoria, Australia
- 2: 30 – 2:45 P.M.            BREAK
- 2:45 – 3:15 P.M.            Supplemental Cementitious Material for Use in Oilwell Slurries at Temperatures Up to 250°F.
- T. Dealy  
                                         Halliburton Energy Services  
                                         Duncan, Oklahoma, U.S.A.
- 3:15 – 3:45 P.M.            Using Microscopy to Optimize the Manufacture of Oil Well Clinker
- P. Du Toit and K. Feiner  
                                         Lafarge Cement Technical Center  
                                         Industrial Performance Europe and American (IPEA)  
                                         Vienna, Austria



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3:45 – 4:15 P.M.

Chemical and Microstructural Changes Associated with Alkali-Silica Reaction in Mortar

X. Hou

Formerly with Department of Civil & Environmental Engineering  
University of Illinois, Urbana, IL, U.S.A.

Currently with Wiss, Janney, Elstner Associates, Inc.  
Northbrook, Illinois, U.S.A.

J. H. Shin

Formerly with Department of Civil & Environmental Engineering  
University of Illinois, Urbana, IL, U.S.A.

Currently with Hanyang University, Seoul, Korea

L.J. Struble

Department of Civil & Environmental Engineering  
University of Illinois, Urbana, Illinois, U.S.A.

R.J. Kirkpatrick

Formerly with Department of Geology  
University of Illinois, Urbana, Illinois, U.S.A.

Currently with Michigan State University,  
East Lansing, Michigan, U.S.A.

4:15 – 4:25 P.M

Closing Remarks  
Arturo G. Nisperos  
General Chairman

6:00 – 8:00 P.M.

**ICMA HOSTED RECEPTION**