

4th European Cement Calorimetry Conference

Programme

Day 1; December 11

12:00 Registration with coffee

13:00 *Welcome*
Thomas Matschei (HTW Dresden)

Main topic #1 – FprEN196-11 Heat of Hydration Isothermal Calorimetry Method

Facilitator: Thomas Matschei (HTW Dresden)

13:15 *Introduction*
Lars Wadsö (Lund University)

13:30 *How to capture the HoH for the first 10 minutes*
Lars Wadsö (Lund University),
Paul Sandberg (Calmetrix Inc., Needham)

14:00 *Precision estimation and comparison with EN 196-9 (Langavant)*
Fabrizio Moro (LafargeHolcim Research Centre)

14:30 *Discussion on best practice for heat of hydration using isothermal calorimetry*
Lars Wadsö (Lund University)

15:00 Coffee break

Application Examples – Cement Chemistry I

Facilitator: Christian Ortmann (TA Instruments, Eschborn)

15:30 *Combination of different methods in order to understand the heat released during hydration of cementitious materials*
Julian Wolf (FAU Erlangen),
Daniel Jansen (FAU Erlangen)

16:00 *Limestone particle size and cement performance: can we apply calorimetry for process control?*
Michael Enders (Thyssen-Krupp Industrial Solutions)

16:30 *Internal curing of concrete by superabsorbent polymers (SAP): sorption kinetics by neutron radiography imaging linked to the progress of cement hydration*
Christof Schröfl (TU Dresden)

Evening programme

17:30 Walk to the “Striezelmarkt”

19:30 Dinner at “Kurfürstenschänke”
(An der Frauenkirche 13, 01067 Dresden)

Day 2; December 12

Main topic #2 – Sulfate Optimization

Facilitator: Lars Wadsö (Lund University)

08:00 *Introduction*
Lars Wadsö (Lund University)

08:15 *The improved ASTM C563 (sulfate optimisation of cement) with focus on isothermal calorimetry*
Paul Sandberg (Calmetrix Inc., Needham)

09:00 *Discussion on potential mechanisms of sulfate balance*
Thomas Matschei (HTW Dresden)

09:30 *Comparison of calorimetry with other methods for accelerated Portland cements*
Tamino Hirsch (TU Berlin)

10:00 Coffee break

Main topic #3 – Reactivity of Supplementary Materials

Facilitator: Fabrizio Moro (LafargeHolcim Research Centre)

10:15 *Development of a robust test to evaluate the reactivity of SCMs*
François Avet (École polytechnique fédérale de Lausanne)

10:45 *Calorimetry on natural pozzolan based geopolymer*
Rafia Firdous (TU Berlin)

11:15 *Assessment of pozzolanic heat of supplementary cementitious materials in blended cements by calorimetry method*
Martin Palou (Slovak Academy of Sciences)

11:45 *Chemical and physical moisture binding in hydrating cement paste – sorption, calorimetry and RH*
Oskar Linderöth (Lund University)

12:15 Lunch

Application Examples – Cement Chemistry II

Facilitator: Arnd Eberhardt (Sika Technology AG)

13:15 *New approach to analyze cement hydration data using TAM Air*
Christian Ortmann (TA Instruments, Eschborn)

13:45 *Influence of TEA on cement hydration at early age*
Marie Jachiet (Chryso R & D)

14:15 *Application of calorimetry for hydration study of belite-ferrite-ye’elimite cements*
Maciej Zajac (HeidelbergCement Global R & D)

14:45 Coffee break

Application Examples – contd.

Facilitator: Paul Sandberg (Calmetrix Inc., Needham)

15:00 *Hydration behavior of Celitement*
Angela Ullrich (Karlsruhe Institute of Technology)

15:30 *Studies of cement hydrates by application of sorption calorimetry*
Luis Baquerizo (LafargeHolcim Research Centre)

16:00 *Calorimetry and relative humidity for self desiccation studies*
Lars Wadsö (Lund University)

16:30 *Closing remarks*
Thomas Matschei (HTW Dresden)