

Agenda 7th AXS CEM March 19 - 21, 2024



Tagungszentrum Buhlsche Mühle
Pforzheimer Str. 68, 76275 Ettlingen, GER

Meeting Room: Werner von Siemens **Showroom:** Charles Augustin Coulomb

Tuesday, March 19, 2024

- 12:00 – 13:10 Registration/Lunch
- 13:10 – 13:30 Welcome and Introduction
Soodabeh Durali-Müller (Bruker AXS)
- 13:30 – 14:00 Crystal chemistry of brownmillerite in sulphate resisting Portland cement: a study by X-ray diffraction, electron microprobe analysis and Mössbauer spectroscopy
Marie-Noëlle de Noirfontaine (Ecole Polytechnique de Palaiseau)
- 14:00 – 14:30 Search for new suppliers and new raw materials, and their characterisation through different techniques, with particular attention towards potentially hazardous minerals
Simone Ferrari (Kerakoll)
- 14:30 – 15:00 Clinker reduced binders following the path of hydration with admixtures - the early age
Peter Schwesig (BASF Construction)
- 15:00 – 15:30 Optimizing and controlling sample preparation for XRD
Rainer Schmidt (Bruker AXS)
- 15:30 – 16:00 Coffee Break
- 16:00 – 16:30 Recent trends in the preparation of pressed pellets and in borate fusion
Martin Lischka (Herzog)
- 16:30 – 17:00 The role of X-ray diffraction in understanding the hydration behaviour of innovative composite cements
Daniela Gastaldi (Buzzi)
- 17:00 – 17:30 Mineralogical effects in very early hydration reactions: the path from process control with X-rays to product quality control including calorimetry
Michael Enders (Thyssenkrupp)
- 17:30 – 18:00 Determination of complex cementitious compositions by XRD
Markus Paul (Dyckerhoff)
- 19:00 Dinner „Watt’s Brasserie“, Pforzheimer Str. 67, 76275 Ettlingen

Wednesday, March 20, 2024

- 08:00 – 08:30 CEM VI (S-V) - analytical accuracy and precision of XRD methods
Peter Lausser (Bruker AXS)
- 08:30 – 09:00 Characterization of the glassy part of supplementary cementitious materials (SCMs) and recycled glass: contribution of XRD, XRF and Raman spectroscopy
Marie-Noëlle de Noirfontaine (Ecole Polytechnique de Palaiseau)
- 09:00 – 09:30 Fortera’s low CO₂ cement manufacturing and advanced XRD analysis for effective process control
Craig Hargis (Fortera)
- 09:30 – 10:00 Proficiency Testing – a tool for continuous improvement of XRF and XRD analysis
Markus Arndt (Heidelberg Materials)
- 10:00 – 10:30 Coffee Break
- 10:30 – 11:00 TOPAS 7: Disorder-Models for the analysis of clay materials
Dominique Ectors (Bruker AXS)

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- 11:00 – 11:30 Cluster Analysis – rapid XRD method for raw clay quality control in calcined clay cement production
Natalia Dietrich (VDZ)
- 11:30 – 12:00 Importance of determination of loss on ignition and loss on melt for XRF analysis in the cement industry
Frederic Davidts (XRF Scientific)
- 12:00 – 12:30 New grinding aids in pressed tablet preparation: requirements for XRD and XRF applications
Jasmin Holzer (ThyssenKrupp)
- 12:30 – 13:30 Lunch
- 13:30 – 14:00 Stacking faults of the hydrous carbonate-containing brucite (HCB) phase in hydrated magnesium carbonate cements
Daniel Jansen (FAU Erlangen)/ Frank Winnefeld (EMPA)
- 14:00 – 14:30 Measure twice, get it right: A deep dive into measurement repeatability
Soodabeh Durali-Mueller (Bruker AXS)
- 15:15 Transfer to Bruker
- 15:45 – 18:00 Tour and visit of the Bruker AXS production and application facilities
- 18:45 Evening Event: Dinner & Wine Tasting „Weingut Stadler“, Hauptstraße 59, 76889 Dierbach

Thursday, March 21, 2024

- 08:30 – 09:00 XRF and XRD results for predicting the strength development
Dilek Teoman (CRH Group Technical Services)
- 09:00 – 09:30 Characterization and use of thermal activated pozzolans as Supplementary Cementitious Materials (SCM) in building products
Arianna Lo Presti (Mapei)
- 09:30 – 10:00 Determination of the composition of cements with new constituents: calcined clays and recycled concrete
Stefan Baumann (CTC Lafarge)
- 10:00 – 10:30 Automation of the external standard method and X-ray amorphous in cement
Patrick Ullrich (Heidelberg Materials)
- 10:30 – 11:00 Coffee Break
- 11:00 – 11:30 About the quality assurance of the X-ray amorphous binder Celitement
Daniel Hinder (Celitement)
- 11:30 – 12:00 Prepmaster Analytics and its possibilities for process control and optimization
Marc Bornefeld (Herzog)
- 12:00 – 12:30 Getting in control of all sample data at the cement plant - Structured acquisition and storage of sample data as a foundation for Industry 4.0
Jens Asbjørn Pedersen (FLSmidth)
- 12:30 – 13:00 XRF applications for cement and raw materials
Rainer Schramm(Fluxana)
- 13:00 – 13:15 Wrap up and end of symposium
- 13:15 – 14:00 Lunch