This is a list of the provisional titles for which manuscripts have been received and these are at various stages of peer review and completion. The majority are complete and they have been grouped by topic, although this is not necessarily the order in which the papers will be presented at the Conference or indeed the Proceedings. We have taken the opportunity of the COVID19 related postponements to accept one or two additional manuscripts but they are not yet included on this list but will be added once the manuscripts have been received and formally accepted. Equally we hope that the authors listed will all be able to attend the conference, but we understand that this may not be possible in all cases.

### PART ONE – CALCIUM ALUMINATE TYPES AND MANUFACTURE

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<td>Characterization of different types of Bauxite, their effect on calcium alumin ate cement phase quantity and investigation of refractory properties</td>
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<td>Investigation of the effect of fuel types on Gehlenite and Mayenite phases and performance of Calcium Aluminate Cements</td>
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<td>CO$_2$-reduced sulfoaluminate cements using Belterra clay: An abundant bauxite overburden in Brazilian Amazon to produce eco-friendly binders - Abstract</td>
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<td>Earth Science Department “Ardito Desio”, University of Milan, 20133, Milan, Italy; MAPEI S.p.A., R&amp;D Central Laboratory, Milan, Italy; Górka Cement SP. Z. O. O., Lipcowa 58, 32540, Tureźbinia, Poland</td>
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<td>Department of Mineralogy, University of Halle/Saale, 06120 Halle, Germany</td>
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## PART TWO – HYDRATION AND METHODS OF ANALYSIS

**New advances in dynamic EIS (DEIS) methods for the understanding of the calcium aluminate cement hydration mechanisms**

*Dominika MADEJ*

AGH University of Science and Technology, Faculty of Materials Science and Ceramics, 30-059 Krakow, Poland

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**Hydration of CAC-based binders: Population balance equations for kinetic modelling**

*Nicolas MAACH, Jean-François GEORGIN, Judith POMMAY and Stéphane BERGER*

GEOMAS Laboratory, INSA Lyon, 69621 Villeurbanne, France; Imerys Technology Center, 38090 Vaulx-Milieux, France

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**Hydration kinetics of Ca$_2$-CA-filler mixes analysed by in-situ XRD and pore solution composition**

*Andreas KOEHLER, Juergen NEUBAUER and Friedlinde GOETZ-NEUNHOEFFER*

Friedrich-Alexander-University Erlangen-Nürnberg (FAU), GeoZentrum Nordbayern, Mineralogy, Erlangen, Germany

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**Influence of relative humidity exposure on the microstructure of hardened CAC paste**

*Sandra WAIDA, Mirco WAHAB and Thomas A. BIER*

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**Electric resistivity testing method to assess conversion in calcium aluminate cement concrete**

*Marwa M. KORAYEM, Aaron J. STRAND, Matt P. ADAMS and Anthony BENTIVEGNA*

John A. Reif, Jr. Department of Civil and Environmental Engineering, New Jersey Institute of Technology, Newark, NJ, USA; Jensen Hughes, Baltimore, MD, USA

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**Decoupling the effect of hydrate mineralogy and porosity resulting from conversion on calcium aluminate cement corrosion resistance**

*W. LIU, A. W. H. CHEUNG and Margorie VALIX*

The University of Sydney, Sydney, NSW, Australia

## PART THREE – USES AS ACCELERATORS FOR PORTLAND CEMENTS

**Ettringite accelerator in Portland cement dominated systems: A comparison of different calcium aluminate technologies**

*Stéphane BERGER, D. TOURLAKIS and Sébastien PERROT*

Imerys Technology Center, 38090 Vaulx-Milieux, France

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**Amorphous flash calcined alumina, effect on shrinkage and set of Portland cement**

*Ludo C. VAN NES BLESSING*

CALTRA Nederland BV., 3640 AH Mijdrecht, The Netherlands.

## PART FOUR – ADMIXTURES FOR CAC

**Effect of Li$_2$CO$_3$ on early hydration of CA-cement mixed with CaCO$_3$: Hydrate and liquid phase analysis**

*Tanja MANNINGER and Friedlinde GOETZ-NEUNHOEFFER*

Friedrich-Alexander-University Erlangen-Nürnberg (FAU), GeoZentrum Nordbayern, Mineralogy, Erlangen, Germany

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**Accelerating calcium aluminate cements with lithium salt: New insights on the hydration mechanism and on the properties**

*Camille NALET, Nicolas MAACH, Eric CHARPENTIER, Stéphane BERGER and Hervé FRYDA*

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**Specific biopolymers as accelerator for alumina cement**

*Alexander ENGBERT and Johann PLANK*

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**Hydration control of CAC using alkali carboxylic compounds**

*Herbert POLLMANN*

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PART FIVE – HYDRATION AND DURABILITY OF BINARY SYSTEMS

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Valentin ANTONOVIĆ, Renata BORIS, Rimvydas STONYS and Jurgita MALAIŠLIENĖ
Laboratory of Composite Materials, Institute of Building Materials, Vilnius Gediminas Technical University, Vilnius 08217, Lithuania

The effect of calcium nitrate and silica fume on properties of calcium aluminate cement
H. X. WANG, Gui-zhi DIAO, G. H. LIU and Danielle M. VAN NES
China Building Materials Academy, Beijing 100024, China; State Key Laboratory of Green Building Materials.
China; Kaifeng Qiming Refractory Materials Co. Ltd. China; Caltra Nederland B.V. Netherlands

Long-term durability of calcium aluminate cement concrete in Japan
Daiki SHIMAZAKI, Taichiro MORI, Yukio SASAGAWA and Etsuo SAKAI
Denka Co., Ltd. Omi Plant, Cement & Special Cement Additives Research Dept., Niigata 949-0393, Japan; Denka Co., Ltd. Head Office, Production & Process Technology Dept., Tokyo 103-8338, Japan; Tokyo Institute of Technology, School of Materials and Chemical Technology, Department of Materials Science and Engineering, Tokyo 152-8552, Japan

Aggregate impacts on chemistry, conversion, and strength in calcium aluminate cement concrete systems
Matt P. ADAMS, Marwa M. KORAYEM and Jason H. IDEKER
John A. Reif, Jr. Department of Civil and Environmental Engineering, New Jersey Institute of Technology, Newark, NJ, USA; School of Civil and Construction Engineering, Oregon State University, Corvallis, OR, USA

Impacts of conversion on drying shrinkage of calcium aluminate cement using finely ground limestone
Marwa M. KORAYEM and Matt P. ADAMS
John A. Reif, Jr. Department of Civil and Environmental Engineering, New Jersey Institute of Technology, Newark, NJ, USA

Time-resolved investigation of the early hydration of calcium aluminate cement in the presence of calcite
Julian GOERGENS, Tanja MANNINGER and Friedlinde GOETZ-NEUNHOEFFER
Friedrich-Alexander-University Erlangen-Nürnberg (FAU), GeoZentrum Nordbayern, Mineralogy, Erlangen, Germany

PART SIX – TERNARY BINDERS

Influence of sulphate source on hydration and phase formation in ternary binders
Elsa QOKU and Thomas A. BIER
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Impact of calcium sulfate combination on performance and phase evolution in self-levelling compound
Ingrid MIKANOVIC, Ronnie KADEN, Arno REIL, Markus SCHMID, Gunther WALENTA and Dubravka MARETIC
CALUCEM GmbH, 68219 Mannheim, Germany; CALUCEM d.o.o, 52100 Pula, Croatia

Towards understanding the ageing behaviour of SLU formulations: Impact of pre-hydration on individual components and the role of admixtures
Florian A. HARTMANN, Alexander ENGBERT and Johann PLANK
Chair for Construction Chemistry, Technische Universität München, 85747 Garching, Germany

Investigation of CAC - PC - ČS in a ternary system and determination of ratio of CAC cement to PC
A. B. ÖZTÜRK, Ayten ÇAPUTÇU, Metehan SEVEROĞLU and Berrak AVCIOĞLU
Çimsa Cement Plant- Çimsa Research and Application Center, Turkey; Çimsa Cement Plant- Çimsa Cement Research and Application Center, Turkey

Dimensional stability of CSA-based binders for flow-applied screeds
Federica BERTOLLA, Livio Capelli and Fulvio CANONICO
Buzzi Unicem, 13039 Casale Monferrato, Italy
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Influence of calcined clay on the hydration of ternary binders based on calcium aluminate cement, calcium sulfate and Portland cement
Sarra EL HOUSSEINI, Karen SCRIVENER and Barbara LOTHENBACH
Laboratory of Construction Materials, Ecole Polytechnique Fédérale de Lausanne, 1015 Lausanne, Switzerland; Laboratory Concrete/Construction Chemistry Empa, Uberlandstr.129, CH-8600 Dubendorf, Switzerland

Quantification of phase compositions of complex mixtures of CAC with PC, anhydrite and metakaolinite
Herbert PÖLLMANN and Sabrina GALLUCCIO
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Stability of ettringite in blended systems with CAC-PC-C\textsubscript{S}
Jason A. IDEKER, Anika T. SARKAR, J. A. SMITH and Lamiya NOOR
School of Civil & Construction Engineering, Oregon State University, Corvallis, Oregon 97331, USA; Department of Civil and Environmental Engineering University of Tennessee, Knoxville, TN 37996, USA

Performance of rapid-repair (ettringite-based) concrete in a harsh marine environment
Edward (Ted) G. MOFFATT, Mike D. A. THOMAS, Racheal LUTE, Thanos DRIMALAS and Kevin FOLLIARD
Royal Military College of Canada, Kingston, Ontario, Canada; University of New Brunswick, Fredericton, New Brunswick, Canada; Katerra, Austin, Texas, USA; University of Texas at Austin, Austin, Texas, USA

PART EIGHT – WIDE RANGING APPLICATIONS

Blended calcium aluminate cements for digital fabrication with concrete
Arnesh DAS, Lex REITER, Sara Mantellato and Robert FLATT
Institute of Building Materials, ETH Zurich, Switzerland

Calcium aluminate cement composites to improve CO\textsubscript{2} injection well integrity
Krunoslav SEDIĆ, Neven UKAINCZYK, Vilko MANDIĆ and Nediljka GAURINA-MEDIMUREC
Crosco, Integrated Drilling & Well Services Co., Ltd., 10 313 Graberje Ivaničko, Croatia; Technische Universität Darmstadt, Institut für Werkstoffe im Bauwesen, 64 287 Darmstadt, Germany; University of Zagreb, Faculty of Chemical Engineering and Technology, 10 000 Zagreb, Croatia; University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, 10 000 Zagreb, Croatia

Applicability of ternary blended calcium aluminate cement-based mortar in deep sea conditions
Keisuke TAKAHASHI, Mari KOBAYASHI and Yuichiro KAWABATA
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Setting shrinkage measurements during cement hydration
Stefan KUIPER, Geert WAMS, Alexandra SPIES, Dagmar SCHMIDTMEIER, Sebastian KLAUS, Andus BUHR and Jerry DUTTON
Almatis B. V., Rotterdam, The Netherlands; Almatis GmbH, Frankfurt/Ludwigshafen, Germany

Mineral interactions of CAC in refractory castables during thermal treatment
Alexandra GERZ, Markus SCHMID and Gunther WALENTA
CALUCEM GmbH, 68219 Mannheim, Germany

Research on properties of cost-effective structural heat resistant concrete using CAC and EAF slag aggregates
Ahmad EMAMI ALORAIZI and M. J. REZAEI ABADI
Iran refractory cements, Esfahan, Iran; Najaf Abad Azad University; Mobarakhe Steel Structural Laboratory, Iran
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Amr ABOULELA, Cédric PATAPY, Alexandra BERTRON, Amaury BUVIGNIER and Matthieu PEYRE LAVIGNE
LMDC, Université de Toulouse, UPS, INSA, Toulouse, France ; TBI, Université de Toulouse, CNRS, INRA, INSA, Toulouse, France

CAC-based binder for microbiologically induced corrosion resistant concretes and mortars
Markus SCHMID, Gunther WALENTA, Danilo PASSALAQUA, Francesco SURICO, Fiorenza CELLA and Davide SALVIONI
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Microbiologically induced corrosion resistant concrete for sewer networks
Markus SCHMID, Alexandra GERZ, Ingrid MIKANOVIC and Gunther WALENTA
CALUCEM GmbH, 68219 Mannheim, Germany

Comparison of converted and unconverted CAC pastes, reactivity in sewer environment using transport-reaction modelling
Matthieu PEYRE LAVIGNE, Amaury BUVIGNIER, Cédric PATAPY, Etienne PAUL and Alexandra BERTRON
TBI, Université de Toulouse, CNRS, INRA, INSA, Toulouse, France; LMDC, Université de Toulouse, UPS, INSA, Toulouse, France

Microbial activity in calcium aluminate based materials
Eva KRÄNZLEIN, Paul BRUMM, Thomas BIER, N. SHAHEEN and Syed Ali RIZWAN
Institute of Ceramic, Glass and Construction Materials, TU Bergakademie Freiberg, 09599 Freiberg, Germany; NUST, Islamabad, Pakistan

Comparative acid resistance of one-part geopolymer and calcium aluminate cement mortar
Cherdphong SEEDAO, M. E. FISHER and Marjorie VALIX
The University of Sydney, NSW 2006, Australia

Degradation of mortar in acetic acid: Calcium aluminate versus Portland cement
Neven UKRAINCZYK, Eduardus KOENDERS, Cyrill GRENGG and Martin DIETZEL
Technische Universität Darmstadt, Institut für Werkstoffe im Bauwesen, 64 287 Darmstadt, Germany; Graz University of Technology, Institute of Applied Geosciences, 8010 Graz, Austria

Characterisation of a 60-year old cementitious lining on a concrete sewer pipe removed from Mahatma Gandhi road sewer network in Durban, South Africa
Moses W. KILISWA
Department of Civil Engineering, University of KwaZulu-Natal, 4041, South Africa
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Yun BAI, Shaoyan LI and Raman MANGABHAI
University College London, London, UK; Mangabhai Consulting, UK

A review on the effects of adding other materials on the properties of calcium aluminate cement
Salim A. BARBHUIYA, A. ALI and Ayub ELAHI
School of Civil Engineering, University of Leeds, UK; Department of Civil Engineering, Karakoram International University, Gilgit, Pakistan; Department of Civil Engineering, University of Engineering Technology, Taxila, Pakistan

Early-age hydration of anhydrous calcium aluminate phases on suspension
Birsen C. BUDAN, Jean-Baptiste CHAMPENOIS, Céline CAU DIT COUMES, Jean-Baptiste D’ESPINOSE DE LACAILLERIE
CEA, DES, ISEC, DE2D, SEAD, LCBC, Univ Montpellier, Marcoule, France; Laboratoire de Sciences et Ingénierie de la Matière Molle, UMR CNRS 7615, ESPCI Paris, PSL Research University, 75231 Paris Cedex 05, France

The effect of chemical admixtures on the hydration of binary systems of CAC and calcium sulfate
Denise A. SILVA
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