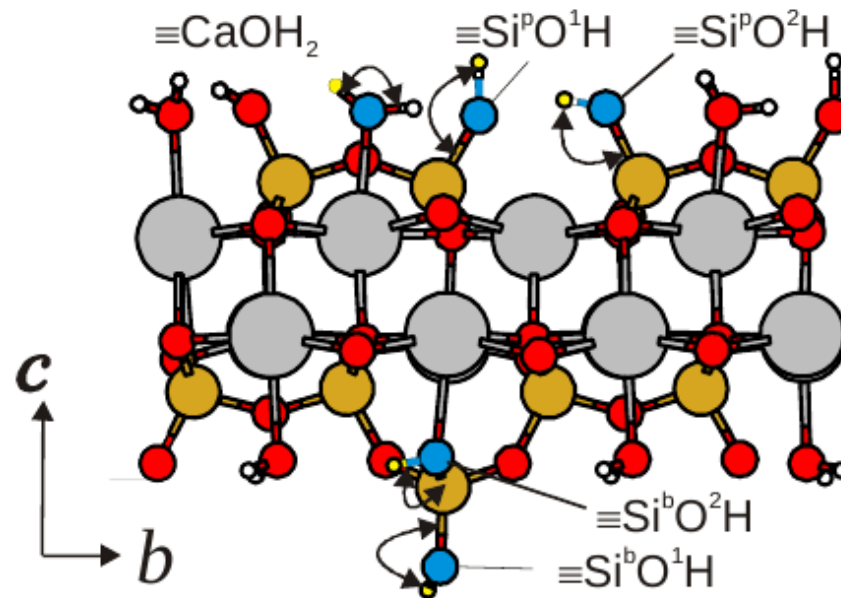


Programme

Calcium Silicate Hydrates containing Aluminium: C-A-S-H



Churakov et al 2014

Monday, 23.4.2018

Experimental 1

09:00	Sylvain Grangeon	Structure and reactivity of nanocrystalline calcium silicate hydrates: the parallel with clay minerals
09:30	Krassimir Garbev	Some new insights in the temperature-induced phase transformations in the C-(A)S-H System
09:50	Christiane Rößler	Characterisation of C-(A)-S-H phases using selected area diffraction in the TEM

10:10 Coffee

10:30	Barbara Lothenbach	Calcium silicate hydrates with aluminium
10:50	Jiaqi Li	Synchrotron-based characterization of the chemistry and structure of calcium (alumino) silicate hydrate

Molecular modelling

11:10	Andrey Kalinichev	Atomistic modeling of the structure and dynamics of water and ions in calcium silicate hydrate and calcium aluminate hydrate phases
11:40	Jean-Francois Dufreche	Multi-scale modelling of silica interfaces: the role of the charges

12:10 Lunch

13:10	Sergey Churakov	Molecular level insight into ions uptake by C-(A)-S-H
13:40	Valera Veryazov	Multiscale (force field - semiempirical - density functional - ab initio) modelling of C-A-S-H
14:00	Hendrik Heinz	A C-S-H builder and interface modeling tools towards accurate reactive full electrolyte simulations of cement materials up to the micrometer scale
14:20	Aslam Kunhi Mohamed	Atomic structure of Calcium Silicate Hydrate

14:40 Coffee

Chemical modelling

15:00	Colin Walker	C-S-H gel solubility modeling at high temperatures
15:30	Philippe Blanc	Thermodynamic properties of C-S-H, C-A-S-H and M-S-H phases: results from direct measurements and predictive modelling
16:00	Dmitrii Kulik	C-A-S-H solid solutions: multisite vs quasichemical?
16:20	Dan Miron	GEMSfits to model C-(A)-S-H

16:40 Poster session

Programme C-A-S-H workshop 23.-24. April 2018, Empa Dübendorf

Monday, 23.4.2018

16:40 Poster session

Experimental studies

Sonya Barzgar

Natechanok Chitvoranund

Ekoe Kangni-Foli

Andrea Mancini

Marta Palacios

Franziska Taube

Jan-Martin Wolter

Sheng-Yu Yang

Chengyin Yin

Effect of aluminium on C-S-H structure, stability and solubility

Effect of temperature on C-A-S-H composition of white PC blended with metakaolin

Carbonation of low calcium C-A-S-H

Uptake of aluminium and iron by C-S-H

New insights into the early reaction of alkali activated slag cements

Investigations on the intercalation of An(III)/Ln(III)-malate complexes in CSH phases

Stability of U(VI) and Cm(III) doped calcium silicate hydrate phases in high saline brines

The role of aluminum in calcium silicate hydrate phases: a multinuclear solid-state NMR investigation

Influence of calcium to silica ratio on H₂ gas production in calcium silicate hydrate

Molecular modelling

Yiru Yan

Structural and mechanical property determination of calcium silicate hydrate (C-S-H): a theoretical and experimental study

Chemical modelling

Dan Miron

Dale Prentice

A PHREEQC version of CEMDATA'18 generated using ThermoMatch

Thermodynamic modelling of synthetic C(-A)-S-H using the pitzer model – what is gained?

Kinetic / transport

Sanheng Liu

Jirawan Siramont

Florian Roman Steindl

Effect of Al on the dissolution rates of glass in hyperalkaline solutions

Synthetic Calcium Silicate Hydrate –formation kinetics – the key to understanding cement microstructures

Uptake of heavy metal ions during C-S-H precipitation

18:30 End poster session

19:00 Dinner Hotel Sonnentel

Programme C-A-S-H workshop 23.-24. April 2018, Empa Dübendorf

Tuesday, 24.4.2018

Experimental 2

08:30	Grégory Lefèvre	Probing the solid/solution interface by in situ real-time infrared spectroscopy
09:00	Guoqing Geng	Studying the intrinsic mechanical properties of calcium (alumino) silicate hydrate using synchrotron-radiation-based high-pressure X-ray diffraction
09:20	Rotana Hay	Effect of aluminum inclusion on morphology and mechanical properties of calcium alumino silicate hydrate
09:40	Xinyuan Ke	Chloride sorption onto C-(N)-A-S-H gels as a function of Ca/Si and Al/Si ratios
10:00	Coffee	
10:20	Gilles Plusquellec	Interaction between C-(A-)S-H and anions
10:40	Kazuo Yamada	Alkali uptake evaluations of C-A-S-H with structure analysis by NMR and degraded OPC paste
11:00	Ellina Bernard	Effect of magnesium on C-A-S-H

Kinetic

11:20	Alejandro Fernandez-Martinez	C-S-H nucleation pathways
11:50	Frank Bellmann	Analysis of C-S-H growth rates in supersaturated conditions
12:10	Lunch	
13:10	Elisabeth John	The impact of the calcium to silicon ratio of C-S-H crystal seeds
13:40	M. Reza Andalibi	On the mesoscale mechanism of synthetic calcium–silicate–hydrate precipitation: a population balance modeling approach
14:10	Christophe Labbez	From nucleation to particle assemblage: what can we learn from mesoscopic simulations?
14:40	Long Nguyen Tuan	Simulation of growing C-S-H phases using 3D sheet growth model
15:00	Coffee	
15:20	Ravi Patel	Multiscale modeling of ion transport in cementitious system: Surface charge effects
15:40	Christoph Naber	C-S-H precipitation kinetics in C ₃ S paste and suspension
16:00	Jean-Baptiste d'Espinose	Molecular understanding of tricalcium silicate hydration in absence and in presence of aluminate ions
16:30	END C-A-S-H workshop	

Programme C-A-S-H workshop 23.-24. April 2018, Empa Dübendorf