

Article 107834

[View PDF](#)

REVIEWS

☐ Review article ☐ Abstract only

Numerical investigation of mechanisms affecting alkali-silica reaction advancement by reactive transport simulations

Lucie Gomez, Frédéric Perales, Stéphane Multon, Adrien Socié, ... Matthieu Argouges
Article 107791

Article preview

RESEARCH ARTICLES

☐ Research article ☐ Abstract only

Effects of varying grades/pretreatments of recycled aggregates on the development of pore structures and ITZs within reactive magnesia cement (RMC) concrete

Yufeng Song, Jiaze Wang, Yinjie Huang, Jiawen Wang, ... Shaoqin Ruan
Article 107782

Article preview

☐ Research article ☐ Abstract only

High-temperature strengthening of Portland cementitious materials by surface micro-ceramization

Weizheng Shi, Zixiao Wang, Chaoqun Li, Qingya Sun, ... Aming Xie
Article 107790

Article preview

☐ Research article ☐ Abstract only

The monocarbonate $\text{Ca}_2\text{Al}_{1-x}\text{Fe}_x(\text{OH})_6 \cdot \frac{1}{2}\text{CO}_3 \cdot n\text{H}_2\text{O}$ AFm system

Aurore Lechevallier, Yunge Bai, Antoine Rochelet, Rodolphe Thirouard, ... Guillaume Renaudin
Article 107804

Article preview

☐ Research article ☐ Open access

Which factors impact the effectiveness of PCEs in alkali-activated slag cements?

Jiaxin Chen, Johann Plank

Article 107807

[View PDF](#)[Article preview](#) ✓☐ Research article [Abstract only](#)

Effects of Triethanolamine-Gallate on the workability, hydration and microstructure of steel slag supplementary cementitious materials

Bin Zeng, Xumin Zhuang, Shaojie Jia, Wenjin Han, ... Toshiharu Kishi

Article 107810

[Article preview](#) ✓☐ Research article [Abstract only](#)

Discrete element modeling on nanoindentation creep behavior of C-S-H under berkovich and flat-tip indenters

Weiqiang Guo, Ya Wei

Article 107808

[Article preview](#) ✓☐ Research article [Abstract only](#)

Polymorph and minor phase quantification in Portland clinker by X-ray powder diffraction analysis: Addressing challenges and foreign ion effects

Paulo R. de Matos, José S. Andrade Neto, Carlos E.M. Campos, Ruben Snellings, ... Ana P. Kirchheim

Article 107801

[Article preview](#) ✓☐ Research article [Abstract only](#)

Effects of Al in C–A–S–H gel on the chloride binding capacity of blended cement paste

Tiao Wang, Yuqian Zheng, Hao Qian, Zhenguo Shi, ... Wei Zhang

Article 107805

[Article preview](#) ✓☐ Research article [Open access](#)

Characterisation of steel corrosion and matrix damage in reinforced mortar combining analytical, electrical and image-based techniques

Andreas Alhede, Jelke Dijkstra, Alessandro Tengattini, Karin Lundgren

Article 107792

[View PDF](#)[Article preview](#) ✓

- ☐ Research article *Open access*
Early hydration and viscoelastic properties of tricalcium aluminate pastes influenced by soluble sodium salts
Daniel Axthammer, Tobias Lange, Joachim Dengler, Torben Gädt
Article 107788
 [View PDF](#) Article preview 
- ☐ Research article ☐ Abstract only
Insights into autogenous shrinkage of alkali-activated slag under elevated curing temperature
Weiwei Chen, Xinyan Liu, Xinyu Shen, Shu Liu, ... Bo Li
Article 107803
Article preview 
- ☐ Research article ☐ Abstract only
Underlying mechanisms of the effect of microfines of manufactured sand on non-linear structural build-up of cement paste
Jiang Zhu, Jiaping Liu, Kamal H. Khayat, Xin Cheng, ... Yongbo Huang
Article 107812
Article preview 
- ☐ Research article *Open access*
Incorporation of boron into metakaolin-based geopolymers for radionuclide immobilisation and neutron capture potential
Xiaobo Niu, Yogarajah Elakneswaran, Ang Li, Sivasubramaniam Seralathan, ... Brant Walkley
Article 107814
 [View PDF](#) Article preview 
- ☐ Research article ☐ Abstract only
New insights into the surface coverage dependences of rheological properties of cement paste: Measurement and scaling analysis
Xiaohan Yu, Le Teng, Xin Shu, Xin Liu, ... Jiaping Liu
Article 107816
Article preview 
- ☐ Research article ☐ Abstract only
Numerical modeling of unidirectional sulfate attack on tunnel lining concrete considering water evaporation at free face
Zirui Fan, Dujian Zou, Ming Zhang, Shanshan Qin, Tiejun Liu
Article 107813

Article preview 

☐ Research article  Abstract only

New insight into self-antifoaming effect of entrained CO₂ bubbles in fresh cement paste

Suhui Zhang, Min Liu, Keren Zheng, Lou Chen, ... Qiang Yuan

Article 107815

Article preview 

☐ Research article  Abstract only

Heating-induced transformations in calcium silicate hydrate (C-S-H): In-situ investigations of composition, structure, and morphology

Yuefeng Ma, Ming Jin, Fei Wang, Diederik Jacques, ... Jiaping Liu

Article 107819

Article preview 

☐ Research article  Abstract only

New insight into the effects of silane-modified silica fume on the performance of cement pastes

Yanrong Zhang, Xuesong Zhang, Zichen Lu, Kai Wu, Xiaopei Cai

Article 107818

Article preview 

☐ Research article  Abstract only

Mechanical behavior of concrete under high water pressure: Water penetration as a critical factor for mechanical properties

Atichon Kunawisarut, Yuichiro Kawabata, Mitsuyasu Iwanami

Article 107820

Article preview 

SHORT COMMUNICATIONS

☐ Short communication  Abstract only

Grain-scale stress heterogeneity in concrete from in-situ X-ray measurements

Mohmad M. Thakur, N. Axel Henningsson, Jonas Engqvist, Pierre-Olivier Autran, ... Ryan C. Hurley

Article 107789

Article preview