

Antoine Morandea

FULL PUBLICATION LIST

International peer reviewed journal papers

- [1] A.E. Morandea, C.E. White. *The role of magnesium-stabilized amorphous calcium carbonate in mitigating the extent of carbonation in alkali-activated slag*. Chemistry of Materials, 2015, DOI : 10.1021/acs.chemmater.5b02382.
- [2] A.E. Morandea, J.P. Fitts, H.D. Lee, S.M. Shubeita, L.C. Feldman, T. Gustafsson, C.E. White. *Nanoscale heterogeneities in a fractured alkali-activated slag binder : A helium ion microscopy analysis*. Cement and Concrete Research, 2015, DOI : 10.1016/j.cemconres.2015.07.007
- [3] A. Morandea, C.E. White. *In situ X-ray pair distribution function analysis of accelerated carbonation of a synthetic calcium-silicate-hydrate gel*. Journal of Materials Chemistry A, 2015,3, 8597-8605
- [4] P. Dangla, M. Thiéry, A. Morandea. *Thermodynamic equilibrium of C-S-H in their solutions : a differential form of the law of mass action*. Advances in Cement Research, 2015, DOI : 10.1680/adcr.15.00010
- [5] A. Morandea, M. Thiéry and P. Dangla. *Impact of accelerated carbonation on OPC cement paste blended with fly ash*. Cement and Concrete Research, 2015, 67, 226 - 236.
- [6] A. Morandea, M. Thiéry, P. Dangla. *Investigation of the carbonation mechanism of portlandite and C-S-H in terms of kinetics, microstructure changes and released water*. Cement and Concrete Research, 2014, 56, 153 - 170.

International conferences with peer review and proceedings

- [7] [A. Morandea](#), M. Thiéry, P. Dangla. *An original use of carbonation profiles to investigate kinetics, microstructure changes and released water for type-I cement-based materials*. ICDCS Belfast (UK), 2012.
- [8] [A. Morandea](#), M. Thiéry, P. Dangla, V. Baroghel-Bouny. *Incorporating an ideal solid solution model for the C-S-H decalcification in a reactive transport modelling of carbonation*. RILEM International Symposium on Concrete Modelling, CONMOD Lausanne (Switzerland), 2010.

International conferences with proceedings

- [9] [A. Morandea](#), M. Thiéry, P. Dangla, C.E. White. *Accelerated carbonation modelling of fly ash-blended cement paste*. RILEM International Symposium on Concrete Modelling, CONMOD Beijing (China), 2014.
- [10] [P. Dangla](#), [A. Morandea](#), M. Thiéry. *Modeling kinetics of C-S-H dissolution during carbonation of cement paste. Beyond the solid solution approach*. RILEM International Symposium on Concrete Modelling, CONMOD Beijing (China), 2014.

- [11] M. Thiéry, P. Faure, A. Morandea, G. Platret, J.-F. Bouteloup, P. Dangla, V. Baroghel-Bouny. *Effect of Carbonation on the Microstructure and Moisture Properties of Cement-Based Materials*, DBMC Porto (Portugal), 2011.

National (French) conferences with peer review and proceedings

- [12] A. Morandea. *Influence des cendres volantes sur la carbonatation de matrices cimentaires à base de CEM I*, RUGC Cachan (France), 2013. **Young researcher award “René Houpert”, 4th *ex-aequo***
- [13] A. Morandea, M. Thiéry, P. Dangla. *Carbonatation de matrices cimentaires à base de CEM I et de cendres volantes en relation avec les évolutions microstructurales et hydriques induites*. NoMaD Toulouse (France), 2012.
- [14] M. Thiéry, V. Baroghel-Bouny, A. Morandea, P. Dangla. *Impact of carbonation on the microstructure and transfer properties of cement-based materials*. Transfert Lille (France), 2012.

Workshop, poster presentations

- [15] A. Morandea, S. Myneni, J.P. Fitts, C.E. White. Poster : *Controlling microcracking in low embodied energy concrete*. Poster : Princeton E-affiliates Partnership, Third Annual Meeting, Princeton Univ. (NJ, USA), Nov. 2014
- [16] A. Morandea, M. Thiéry, P. Dangla, C.E. White. Poster : *Decreasing cement CO₂ impact by substituting fly ash in clinker : Are these binders more resistant to atmospheric carbonation ?*. Poster : Princeton E-affiliates Partnership, Second Annual Meeting, Princeton Univ. (NJ, USA), Nov. 2013
- [17] Workshop : “Strains induced by phase changes in deformable porous solids : What about building materials?”, ENPC Paristech (France), July 2013.
- [18] A. Morandea. Poster : *Incorporating an ideal solid solution model for the C-S-H decalcification in a reactive transport modelling of carbonation*. Workshop : Lafarge week, TU Delft (The Netherlands), June 2010.
- [19] A. Morandea, M. Thiéry, P. Dangla, V. Baroghel-Bouny, J. Shen. Presentation : *Atmospheric & Supercritical carbonation of RC concrete structures. Mechanism and modelling*. Workshop : “CO₂ reactivity and mineral sequestration”, ENS Paris (France), May 2010.
- [20] A. Morandea, J.C. Hermanson, S.M. Cramer. Poster : *Creep behavior of wood plastic composite, a time temperature study*. Grad student defense, ENS Cachan (France), Sept. 2007.
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