StÃ©phane Multon

List of Publications by Year
in descending order

44 papers	1,387 citations	331538 21 h-index	330025 37 g-index
46 all docs	46 docs citations	46 times ranked	716 citing authors

#	Article	IF	Citations
1	Effect of applied stresses on alkaliâ€"silica reaction-induced expansions. Cement and Concrete Research, 2006, 36, 912-920.	4.6	145
2	Chemoâ€"mechanical modeling for prediction of alkali silica reaction (ASR) expansion. Cement and Concrete Research, 2009, 39, 490-500.	4.6	121
3	Concrete creep modelling for structural applications: non-linearity, multi-axiality, hydration, temperature and drying effects. Cement and Concrete Research, 2016, 79, 301-315.	4.6	95
4	Basic creep of concrete under compression, tension and bending. Construction and Building Materials, 2013, 38, 173-180.	3.2	84
5	Tensile, compressive and flexural basic creep of concrete at different stress levels. Cement and Concrete Research, 2013, 52, 1-10.	4.6	80
6	Effects of aggregate size and alkali content on ASR expansion. Cement and Concrete Research, 2010, 40, 508-516.	4.6	72
7	Multi-scale analysis of alkaliâ€"silica reaction (ASR): Impact of alkali leaching on scale effects affecting expansion tests. Cement and Concrete Research, 2016, 81, 122-133.	4.6	61
8	Coupled effects of aggregate size and alkali content on ASR expansion. Cement and Concrete Research, 2008, 38, 350-359.	4.6	58
9	Alkaliâ€"silica reaction (ASR) expansion: Pessimum effect versus scale effect. Cement and Concrete Research, 2013, 44, 25-33.	4.6	53
10	Effect of moisture conditions and transfers on alkali silica reaction damaged structures. Cement and Concrete Research, 2010, 40, 924-934.	4.6	52
11	Impact of stresses and restraints on ASR expansion. Construction and Building Materials, 2017, 140, 58-74.	3.2	51
12	Concrete modelling for expertise of structures affected by alkali aggregate reaction. Cement and Concrete Research, 2010, 40, 502-507.	4.6	49
13	Effects of restraint on expansion due to delayed ettringite formation. Cement and Concrete Research, 2012, 42, 1024-1031.	4.6	38
14	Chemical modelling of Delayed Ettringite Formation for assessment of affected concrete structures. Cement and Concrete Research, 2018, 108, 72-86.	4.6	35
15	Effects of stress on concrete expansion due to delayed ettringite formation. Construction and Building Materials, 2018, 183, 626-641.	3.2	35
16	Comparative study of a chemoâ€"mechanical modeling for alkali silica reaction (ASR) with experimental evidences. Construction and Building Materials, 2014, 72, 301-315.	3.2	31
17	Flexural performance of reinforced concrete beams damaged by Alkali-Silica Reaction. Cement and Concrete Composites, 2019, 104, 103412.	4.6	30
18	Estimation of the Residual Expansion of Concrete Affected by Alkali Silica Reaction. Journal of Materials in Civil Engineering, 2008, 20, 54-62.	1.3	26

#	Article	IF	Citations
19	A comparison of methods for chemical assessment of reactive silica in concrete aggregates by selective dissolution. Cement and Concrete Composites, 2013, 37, 82-94.	4.6	26
20	Influence of the distribution of expansive sites in aggregates on microscopic damage caused by alkali-silica reaction: Insights into the mechanical origin of expansion. Cement and Concrete Research, 2021, 142, 106355.	4.6	24
21	Mechanical behaviour of fired clay materials subjected to freezeâ€"thaw cycles. Construction and Building Materials, 2011, 25, 1056-1064.	3.2	21
22	Swellings due to alkali-silica reaction and delayed ettringite formation: Characterisation of expansion isotropy and effect of moisture conditions. Cement and Concrete Composites, 2012, 34, 349-356.	4.6	20
23	Numerical analysis of frost effects in porous media. Benefits and limits of the finite element poroelasticity formulation. International Journal for Numerical and Analytical Methods in Geomechanics, 2012, 36, 438-458.	1.7	19
24	Chemomechanical Assessment of Beams Damaged by Alkali-Silica Reaction. Journal of Materials in Civil Engineering, 2006, 18, 500-509.	1.3	18
25	Expansion modelling based on cracking induced by the formation of new phases in concrete. International Journal of Solids and Structures, 2019, 160, 293-306.	1.3	18
26	Permeability and damage of partially saturated concrete exposed to elevated temperature. Cement and Concrete Composites, 2020, 109, 103563.	4.6	18
27	The influence of restraint on the expansion of concrete due to delayed ettringite formation. Cement and Concrete Composites, 2021, 121, 104062.	4.6	16
28	A three-step method for the recovery of aggregates from concrete. Construction and Building Materials, 2013, 45, 262-269.	3.2	14
29	New approach for the measurement of gas permeability and porosity accessible to gas in vacuum and under pressure. Cement and Concrete Composites, 2019, 103, 59-70.	4.6	13
30	Optimising an expansion test for the assessment of alkali-silica reaction in concrete structures. Materials and Structures/Materiaux Et Constructions, 2011, 44, 1641-1653.	1.3	9
31	Water distribution in concrete beams. Materials and Structures/Materiaux Et Constructions, 2004, 37, 378-386.	1.3	9
32	Impact of reinforcement-concrete interfaces and cracking on gas transfer in concrete. Construction and Building Materials, 2017, 157, 521-533.	3.2	7
33	Non-destructive measurements for the evaluation of the air permeability of concrete structures. Measurement: Journal of the International Measurement Confederation, 2022, 196, 111204.	2.5	7
34	Modelling the mechanical behaviour of concrete subjected to Alkali-Silica Reaction (ASR) under multi-axial stress. Cement and Concrete Research, 2022, 158, 106823.	4.6	7
35	Evaluation of structures affected by Alkali-Silica reaction (ASR) using homogenized modelling of reinforced concrete. Engineering Structures, 2021, 246, 112845.	2.6	6
36	RESONANT FREQUENCIES MONITORING OF ALKALI AGGREGATE REACTION (AAR) DAMAGED CONCRETE BEAMS. Experimental Techniques, 2005, 29, 37-40.	0.9	5

#	Article	IF	Citations
37	A review of continuum damage modelling for dam analysis. European Journal of Environmental and Civil Engineering, 2010, 14, 805-822.	1.0	5
38	Water distribution in beams damaged by Alkali-Silica Reaction: global weighing and local gammadensitometry. Materials and Structures/Materiaux Et Constructions, 2004, 37, 282-288.	1.3	4
39	Concrete beams submitted to various moisture environments. Structural Engineering and Mechanics, 2006, 22, 71-83.	1.0	2
40	Requirements for the Modeling of Medium-Term Behavior of Nuclear Containment Concrete for a â€œLoss of Coolant Accidentâ€•Analysis. Key Engineering Materials, 2016, 711, 916-923.	0.4	1
41	Sensitivity of an alkali-silica reaction kinetics model to diffusion and reactive mechanisms parameters. Construction and Building Materials, 2021, 299, 123913.	3.2	1
42	Effets structuraux de l'alcali-rÃ©action. Apports d'une expÃ©rimentation sur Ã©lÃ©ments de structures Ã la validation de modÃ¨les. Revue EuropÃ©enne De GÃ©nie Civil, 2005, 9, 1219-1247.	0.0	1
43	Benchmark Problems for AAR FEA Code Validation. RILEM State-of-the-Art Reports, 2021, , 381-410.	0.3	0
44	Characterization of DEF affected concretes: detection and modification of properties. Materiales De Construccion, 2022, 72, e284.	0.2	0