

Alain Sellier

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

103
papers

2,087
citations

26
h-index

42
g-index

109
ext. papers

2,375
ext. citations

5
avg. IF

5.02
L-index

#	Paper	IF	Citations
103	Coupled moisture-carbon dioxide-calcium transfer model for carbonation of concrete. <i>Cement and Concrete Research</i> , 2004 , 34, 1859-1872	10.3	169
102	Dependency of C ₅₀ carbonation rate on CO ₂ pressure to explain transition from accelerated tests to natural carbonation. <i>Cement and Concrete Research</i> , 2010 , 40, 1582-1589	10.3	114
101	Hydration of slag-blended cements. <i>Cement and Concrete Composites</i> , 2012 , 34, 1009-1018	8.6	105
100	Chemo-mechanical modeling for prediction of alkali silica reaction (ASR) expansion. <i>Cement and Concrete Research</i> , 2009 , 39, 490-500	10.3	98
99	Chemical modelling of Alkali Silica reaction: Influence of the reactive aggregate size distribution. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007 , 40, 229-239	3.4	82
98	Adaptive response surface method based on a double weighted regression technique. <i>Probabilistic Engineering Mechanics</i> , 2009 , 24, 135-143	2.6	76
97	Orthotropic modelling of alkali-aggregate reaction in concrete structures: numerical simulations. <i>Mechanics of Materials</i> , 2003 , 35, 817-830	3.3	71
96	Concrete creep modelling for structural applications: non-linearity, multi-axiality, hydration, temperature and drying effects. <i>Cement and Concrete Research</i> , 2016 , 79, 301-315	10.3	66
95	Effects of aggregate size and alkali content on ASR expansion. <i>Cement and Concrete Research</i> , 2010 , 40, 508-516	10.3	64
94	Experimental investigation of the variability of concrete durability properties. <i>Cement and Concrete Research</i> , 2013 , 45, 21-36	10.3	63
93	Toward a better comprehension and modeling of hysteresis cycles in the water sorption-desorption process for cement based materials. <i>Cement and Concrete Research</i> , 2011 , 41, 817-827	10.3	53
92	Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations. <i>Journal of Materials in Civil Engineering</i> , 2006 , 18, 588-596	3	50
91	Coupled effects of aggregate size and alkali content on ASR expansion. <i>Cement and Concrete Research</i> , 2008 , 38, 350-359	10.3	47
90	Multiphase finite element modeling of concrete hydration. <i>Cement and Concrete Research</i> , 2007 , 37, 131-138	10.3	45
89	Multi-scale analysis of alkali-silica reaction (ASR): Impact of alkali leaching on scale effects affecting expansion tests. <i>Cement and Concrete Research</i> , 2016 , 81, 122-133	10.3	42
88	Probabilistic approach to corrosion risk due to carbonation via an adaptive response surface method. <i>Probabilistic Engineering Mechanics</i> , 2006 , 21, 207-216	2.6	42
87	Impact of stresses and restraints on ASR expansion. <i>Construction and Building Materials</i> , 2017 , 140, 58-74	7.7	39

86	Probabilistic approach for durability design of reinforced concrete in marine environment. <i>Cement and Concrete Research</i> , 2009 , 39, 466-471	10.3	39
85	Alkali-silica reaction (ASR) expansion: Pessimism effect versus scale effect. <i>Cement and Concrete Research</i> , 2013 , 44, 25-33	10.3	38
84	Concrete modelling for expertise of structures affected by alkali aggregate reaction. <i>Cement and Concrete Research</i> , 2010 , 40, 502-507	10.3	34
83	Structural analysis of a multi-span railway masonry bridge combining in situ observations, laboratory tests and damage modelling. <i>Engineering Structures</i> , 2013 , 56, 837-849	4.7	33
82	Orthotropic damage coupled with localized crack reclosure processing. Part I: Constitutive laws. <i>Engineering Fracture Mechanics</i> , 2013 , 97, 148-167	4.2	31
81	Effects of restraint on expansion due to delayed ettringite formation. <i>Cement and Concrete Research</i> , 2012 , 42, 1024-1031	10.3	31
80	Effect of a temperature change from 20 to 50°C on the basic creep of HPC and HPFRC. <i>Materials and Structures/Materiaux Et Constructions</i> , 2011 , 44, 1629-1639	3.4	29
79	Accelerated carbonation tests for the probabilistic prediction of the durability of concrete structures. <i>Construction and Building Materials</i> , 2014 , 66, 597-605	6.7	27
78	Coupled damage tensors and weakest link theory for the description of crack induced anisotropy in concrete. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 1925-1939	4.2	26
77	Drying creep in cyclic humidity conditions. <i>Cement and Concrete Research</i> , 2015 , 76, 91-97	10.3	23
76	Mechanical characterization of limestone from sound velocity measurement. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2015 , 79, 149-156	6	23
75	Chemical modelling of Delayed Ettringite Formation for assessment of affected concrete structures. <i>Cement and Concrete Research</i> , 2018 , 108, 72-86	10.3	23
74	Bond stress-slip behaviour of steel reinforcing bar embedded in hybrid fiber-reinforced concrete. <i>KSCE Journal of Civil Engineering</i> , 2013 , 17, 1700-1707	1.9	23
73	Prediction of relative permeabilities and water vapor diffusion reduction factor for cement-based materials. <i>Cement and Concrete Research</i> , 2013 , 48, 53-63	10.3	23
72	Comparative study of a chemo-mechanical modeling for alkali silica reaction (ASR) with experimental evidences. <i>Construction and Building Materials</i> , 2014 , 72, 301-315	6.7	22
71	Effects of stress on concrete expansion due to delayed ettringite formation. <i>Construction and Building Materials</i> , 2018 , 183, 626-641	6.7	20
70	Behavior of HPC nuclear waste disposal structures in leaching environment. <i>Nuclear Engineering and Design</i> , 2011 , 241, 402-414	1.8	19
69	Flexural performance of reinforced concrete beams damaged by Alkali-Silica Reaction. <i>Cement and Concrete Composites</i> , 2019 , 104, 103412	8.6	18

68	Toward a probabilistic design of reinforced concrete durability: application to a marine environment. <i>Materials and Structures/Materiaux Et Constructions</i> , 2009 , 42, 1379-1391	3.4	18
67	Vers une modélisation simple et unifiée du fluage propre, du retrait et du fluage en dessiccation du béton. <i>European Journal of Environmental and Civil Engineering</i> , 2009 , 13, 1161-1182	1.5	18
66	Swellings due to alkali-silica reaction and delayed ettringite formation: Characterisation of expansion isotropy and effect of moisture conditions. <i>Cement and Concrete Composites</i> , 2012 , 34, 349-356	8.6	17
65	A comparison of methods for chemical assessment of reactive silica in concrete aggregates by selective dissolution. <i>Cement and Concrete Composites</i> , 2013 , 37, 82-94	8.6	17
64	Sealing process induced by carbonation of localized cracks in cementitious materials. <i>Cement and Concrete Composites</i> , 2013 , 37, 37-46	8.6	16
63	Finite element modelling of hardening concrete: application to the prediction of early age cracking for massive reinforced structures. <i>Materials and Structures/Materiaux Et Constructions</i> , 2011 , 44, 1821-1834	3.4	16
62	Mechanical behaviour of ancient masonry. <i>Materials and Structures/Materiaux Et Constructions</i> , 2009 , 42, 123-133	3.4	16
61	A study on the reinforced fibrous concrete elements subjected to uniaxial tensile loading. <i>KSCE Journal of Civil Engineering</i> , 2010 , 14, 547-556	1.9	16
60	Metallic fiber-reinforced concrete behaviour: Experiments and constitutive law for finite element modeling. <i>Engineering Fracture Mechanics</i> , 2013 , 103, 124-131	4.2	15
59	Analysis of interactions between damage and basic creep of HPC and HPFRC heated between 20 and 80 °C. <i>Materials and Structures/Materiaux Et Constructions</i> , 2013 , 46, 13-23	3.4	15
58	Numerical analysis of frost effects in porous media. Benefits and limits of the finite element poroelasticity formulation. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2012 , 36, 438-458	4	13
57	Orthotropic damage coupled with localized crack reclosure processing. <i>Engineering Fracture Mechanics</i> , 2013 , 97, 168-185	4.2	13
56	A three-step method for the recovery of aggregates from concrete. <i>Construction and Building Materials</i> , 2013 , 45, 262-269	6.7	12
55	Steel-fibre-reinforcement and hydration coupled effects on concrete tensile behaviour. <i>Engineering Fracture Mechanics</i> , 2008 , 75, 5207-5216	4.2	11
54	2016 ,		10
53	Application of thermo-hydro-chemo-mechanical model for early age behaviour of concrete to experimental massive reinforced structures with strain-restraining system. <i>European Journal of Environmental and Civil Engineering</i> , 2014 , 18, 814-827	1.5	9
52	The projection gradient algorithm with error control for structural reliability. <i>Engineering Structures</i> , 2010 , 32, 3725-3733	4.7	9
51	Effects of water and temperature variations on deformation of limestone aggregates, cement paste, mortar and High Performance Concrete (HPC). <i>Cement and Concrete Composites</i> , 2016 , 71, 131-143	8.6	9

50	Influence of building process on stiffness: numerical analysis of a masonry vault including mortar joint shrinkage and crack re-closure effect. <i>Materials and Structures/Materiaux Et Constructions</i> , 2012 , 45, 881-898	3.4	8
49	Optimising an expansion test for the assessment of alkali-silica reaction in concrete structures. <i>Materials and Structures/Materiaux Et Constructions</i> , 2011 , 44, 1641-1653	3.4	8
48	Modelling of change in permeability induced by dilatancy for brittle geomaterials. <i>Construction and Building Materials</i> , 2016 , 125, 613-624	6.7	8
47	Transient Thermal Deformation of high performance concrete in the range 20 °C-80 °C. <i>Cement and Concrete Research</i> , 2019 , 116, 19-26	10.3	8
46	Expansion modelling based on cracking induced by the formation of new phases in concrete. <i>International Journal of Solids and Structures</i> , 2019 , 160, 293-306	3.1	7
45	Simplified models for the engineering of concrete formulations in a marine environment through a probabilistic method. <i>European Journal of Environmental and Civil Engineering</i> , 2012 , 16, 362-374	1.5	7
44	Mechanical behaviour of granite: a compilation, analysis and correlation of data from around the world. <i>European Journal of Environmental and Civil Engineering</i> , 2019 , 23, 193-211	1.5	7
43	Modélisation physico-chimique de la réaction alcali-granulat: apport au calcul des structures dégradées. <i>Revue Européenne De Génie Civil</i> , 1997 , 1, 445-481		6
42	Modelling of chemo-mechanical behaviour of low pH concretes. <i>Cement and Concrete Research</i> , 2016 , 81, 70-80	10.3	6
41	Weakest link and localisation WL2: a method to conciliate probabilistic and energetic scale effects in numerical models. <i>European Journal of Environmental and Civil Engineering</i> , 2014 , 1-15	1.5	5
40	Probabilistic approach for durable design of concrete cover: application to carbonation. <i>European Journal of Environmental and Civil Engineering</i> , 2012 , 16, 264-272	1.5	5
39	Experimental and Numerical Analysis of Behaviour of Old Brick Masonries. <i>Advanced Materials Research</i> , 2010 , 133-134, 307-312	0.5	5
38	Damage Modeling of Metallic Fiber-Reinforced Concrete. <i>Procedia Engineering</i> , 2011 , 10, 1670-1678		5
37	Restrained shrinkage of massive reinforced concrete structures: results of the project CEOS.fr. <i>European Journal of Environmental and Civil Engineering</i> , 2016 , 20, 785-808	1.5	4
36	Incremental modeling of relaxation of prestressing wires under variable loading and temperature. <i>Construction and Building Materials</i> , 2018 , 163, 337-342	6.7	4
35	A review of continuum damage modelling for dam analysis. <i>European Journal of Environmental and Civil Engineering</i> , 2010 , 14, 805-822	1.5	4
34	Damage model for concrete reinforced with sliding metallic fibers. <i>International Journal of Mechanics and Materials in Design</i> , 2011 , 7, 83-97	2.5	3
33	Concrete mechanical behaviour and calcium leaching weak coupling. <i>Revue Européenne De Génie Civil</i> , 2006 , 10, 1147-1175		3

32	Concrete mechanical behaviour and calcium leaching weak coupling. <i>Revue Européenne De Génie Civil</i> , 2006 , 10, 1147-1175		3
31	On the origins of transient thermal deformation of concrete. <i>Cement and Concrete Composites</i> , 2020 , 107, 103508	8.6	3
30	A homogenized formulation to account for sliding of non-meshed reinforcements during the cracking of brittle matrix composites: Application to reinforced concrete. <i>Engineering Fracture Mechanics</i> , 2019 , 213, 182-196	4.2	2
29	Simplified approach to model steel rebar-concrete interface in reinforced concrete. <i>KSCE Journal of Civil Engineering</i> , 2017 , 21, 1291-1298	1.9	2
28	Approche performantielle probabilisè pour la durabilitè des btons d'ouvrages en environnement marin. <i>Revue Européenne De Génie Civil</i> , 2009 , 13, 9-19		2
27	Multicomponent modelling of cement paste dehydration under different heating rates. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019 , 52, 1	3.4	2
26	Influence of crack reclosure on concrete permeability. <i>Theoretical and Applied Fracture Mechanics</i> , 2019 , 100, 65-77	3.7	2
25	Evaluation of structures affected by Alkali-Silica reaction (ASR) using homogenized modelling of reinforced concrete. <i>Engineering Structures</i> , 2021 , 246, 112845	4.7	2
24	Transient Thermal Creep at Moderate Temperature. <i>Key Engineering Materials</i> , 2016 , 711, 885-891	0.4	1
23	Requirements for the Modeling of Medium-Term Behavior of Nuclear Containment Concrete for a Loss of Coolant Accident Analysis. <i>Key Engineering Materials</i> , 2016 , 711, 916-923	0.4	1
22	Development and validation of a numerical model to predict the penetration of a glycerophosphate-based corrosion inhibitor through concrete. <i>Construction and Building Materials</i> , 2012 , 37, 541-547	6.7	1
21	STUDY ON THE FLEXURAL BEHAVIOUR OF REINFORCED FIBROUS CONCRETE BEAMS 2009 , 11-22		1
20	Méthode du gradient projetè avec contrle d'erreur. <i>European Journal of Computational Mechanics</i> , 2008 , 17, 1039-1056	0.5	1
19	Une mthode de surface de rponse adaptative en fiabilitè des structures basè sur la rgression pondèe. <i>European Journal of Computational Mechanics</i> , 2007 , 16, 53-77	0.5	1
18	Modlisation des anisotropies mcaniques induites par la fissuration du bton. <i>Revue Européenne De Génie Civil</i> , 2001 , 5, 1197-1224		1
17	Importance zone and importance sampling in reliability analysis of civil structures. <i>International Journal of Pressure Vessels and Piping</i> , 1995 , 61, 513-526	2.4	1
16	Physical and mechanical properties of clayband mixes to assess the performance of earth construction materials. <i>Journal of Building Engineering</i> , 2022 , 51, 104229	5.2	0
15	Modelling the mechanical behaviour of concrete subjected to Alkali-Silica Reaction (ASR) under multi-axial stress. <i>Cement and Concrete Research</i> , 2022 , 158, 106823	10.3	0

14	Risk due to creep of prestressed concrete at moderate temperature. <i>MATEC Web of Conferences</i> , 2019 , 281, 01007	0.3
13	Material and Geometric Heterogeneity Consideration for Cracking Risk Prediction of Young Age Behavior of Experimental Massive Reinforced Concrete Structure. <i>Key Engineering Materials</i> , 2016 , 711, 900-907	0.4
12	Approche performantielle probabilisè pour la durabilitè des btons d'ouvrages en environnement marin. <i>European Journal of Environmental and Civil Engineering</i> , 2009 , 13, 9-19	1.5
11	Sensibilitè aux paramères alatoires d'un modle pour le calcul des structures en bton atteintes par la raction alcali-silice. <i>Revue Europenne De Gnie Civil</i> , 2006 , 10, 549-563	
10	Requalification des ouvrages anciens. <i>Revue Europenne De Gnie Civil</i> , 2007 , 11, 1199-1218	
9	Modlisation chimique de la raction alcali-silice: prise en compte de l'influence de la distribution granulaire ractive. <i>Revue Europenne De Gnie Civil</i> , 2004 , 8, 905-929	
8	Evaluation probabiliste du risque de corrosion par carbonatation. <i>Revue Europenne De Gnie Civil</i> , 2004 , 8, 975-997	
7	Endommagement anisotrope du bton. <i>Revue Europenne De Gnie Civil</i> , 2003 , 7, 607-620	
6	Accelerated Expansion Test: France, LMDC-EDF. <i>RILEM State-of-the-Art Reports</i> , 2021 , 215-227	1.3
5	Benchmark Problems for AAR FEA Code Validation. <i>RILEM State-of-the-Art Reports</i> , 2021 , 381-410	1.3
4	Benchmark Study Results: EdF/LMDC. <i>RILEM State-of-the-Art Reports</i> , 2021 , 411-425	1.3
3	Accelerated Expansion Test Sample Report: Toulouse. <i>RILEM State-of-the-Art Reports</i> , 2021 , 357-365	1.3
2	Creep of concrete during Alkali-Aggregates Reaction. <i>Construction and Building Materials</i> , 2022 , 336, 127355	6.7
1	Relevance of Behavior Laws of Homogenized Reinforced Concrete in the Context of Finite Elements of Different Sizes. <i>RILEM Bookseries</i> , 2023 , 335-344	0.5