

Christian La Borderie

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

1,263
citations

361045

20
h-index

377514

34
g-index

70
all docs

70
docs citations

70
times ranked

861
citing authors

#	ARTICLE	IF	CITATIONS
1	Coupled diffusion-damage modelling and the implications on failure due to strain localisation. <i>International Journal of Solids and Structures</i> , 1998, 35, 4107-4120.	1.3	116
2	Rate Dependent Damage Model for Concrete in Dynamics. <i>Journal of Engineering Mechanics - ASCE</i> , 1996, 122, 939-947.	1.6	109
3	Isotropic and anisotropic descriptions of damage in concrete structures. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 1999, 4, 339-359.	1.2	105
4	Experimental study on an alternative oil stimulation technique for tight gas reservoirs based on dynamic shock waves generated by Pulsed Arc Electrohydraulic Discharges. <i>Journal of Petroleum Science and Engineering</i> , 2012, 88-89, 67-74.	2.1	76
5	Electrohydraulic shock wave generation as a means to increase intrinsic permeability of mortar. <i>Cement and Concrete Research</i> , 2010, 40, 1631-1638.	4.6	74
6	Inelasticity-based damage-based model for numerical modeling of concrete cracking. <i>Engineering Fracture Mechanics</i> , 2009, 76, 1087-1108.	2.0	46
7	Continuum damage modelling: Approximation of crack induced anisotropy. <i>Mechanics Research Communications</i> , 1997, 24, 109-114.	1.0	45
8	Modeling of the quasibrittle fracture of concrete at meso-scale: Effect of classes of aggregates on global and local behavior. <i>Cement and Concrete Research</i> , 2016, 89, 35-44.	4.6	45
9	Parametrical study of transient thermal strain of ordinary and high performance concrete. <i>Cement and Concrete Research</i> , 2013, 48, 40-52.	4.6	44
10	Experimental analysis of concrete spalling due to fire exposure. <i>European Journal of Environmental and Civil Engineering</i> , 2013, 17, 453-466.	1.0	42
11	Experimental discussion on the mechanisms behind the fire spalling of concrete. <i>Fire and Materials</i> , 2015, 39, 619-635.	0.9	40
12	2D mesoscopic modelling of concrete bond. <i>Engineering Structures</i> , 2013, 49, 696-706.	2.6	38
13	On the influence of aggregate nature on concrete behaviour at high temperature. <i>European Journal of Environmental and Civil Engineering</i> , 2012, 16, 236-253.	1.0	32
14	The effect of compressive loading on the residual gas permeability of concrete. <i>Construction and Building Materials</i> , 2019, 217, 12-19.	3.2	28
15	A practical method to estimate crack openings in concrete structures. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2010, 34, 1615-1633.	1.7	27
16	A mesoscopic model for a better understanding of the transition from diffuse damage to localized damage. <i>European Journal of Environmental and Civil Engineering</i> , 2010, 14, 751-776.	1.0	25
17	FraC: A new conforming mesh method for discrete fracture networks. <i>Journal of Computational Physics</i> , 2019, 376, 713-732.	1.9	24
18	Containment Evaluation under Severe Accidents (CESA): synthesis of the predictive calculations and analysis of the first experimental results obtained on the Civaux mock-up. <i>Nuclear Engineering and Design</i> , 2001, 209, 155-163.	0.8	22

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19	Creep Consideration Effect on Meso-Scale Modeling of Concrete Hydration Process and Consequences on the Mechanical Behavior. <i>Journal of Engineering Mechanics - ASCE</i> , 2013, 139, 1808-1817.	1.6	22
20	A model for computation of leakage through damaged concrete structures. <i>Cement and Concrete Composites</i> , 2001, 23, 279-287.	4.6	20
21	Experimental and numerical study of shock wave propagation in water generated by pulsed arc electrohydraulic discharges. <i>Heat and Mass Transfer</i> , 2014, 50, 673-684.	1.2	20
22	Influence of flexible fibers on the yield stress of fresh cement pastes and mortars. <i>Cement and Concrete Research</i> , 2020, 138, 106221.	4.6	20
23	Fire Spalling Behaviour of Concrete: Role of Mechanical Loading (Uniaxial and Biaxial) and Cement Type. <i>Key Engineering Materials</i> , 0, 711, 549-555.	0.4	17
24	Effect of compressive loading on the risk of spalling. <i>MATEC Web of Conferences</i> , 2013, 6, 01007.	0.1	16
25	Impact of Acid Attack on the Shear Behaviour of a Carbonate Rock Joint. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 1439-1451.	2.6	16
26	Earth stabilisation via carbonate precipitation by plant-derived urease for building applications. <i>Geomechanics for Energy and the Environment</i> , 2022, 30, 100230.	1.2	16
27	Effect of elevated temperatures on concrete made with recycled concrete aggregates - An overview. <i>Journal of Building Engineering</i> , 2021, 44, 103235.	1.6	16
28	Simulation of damageâ€“permeability coupling for mortar under dynamic loads. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2014, 38, 457-474.	1.7	15
29	Effect of temperature and moisture on the instantaneous behaviour of concrete. <i>Cement and Concrete Composites</i> , 2017, 80, 326-332.	4.6	15
30	Spatial variations in soil properties and their influence on structural reliability. <i>Civil Engineering and Environmental Systems</i> , 2007, 24, 73-83.	0.4	13
31	Experimental Study of Crack Closure on Heterogeneous Quasi-Brittle Material. <i>Journal of Engineering Mechanics - ASCE</i> , 2015, 141, .	1.6	13
32	Modelling anisotropic damage and permeability of mortar under dynamic loads. <i>European Journal of Environmental and Civil Engineering</i> , 2011, 15, 727-742.	1.0	12
33	Evolution of mechanical properties of concrete with temperature and humidity at high temperatures. <i>Cement and Concrete Composites</i> , 2018, 91, 59-66.	4.6	12
34	A street in perspective: Thermography simulated by the finite element method. <i>Building and Environment</i> , 2019, 148, 225-239.	3.0	9
35	Spalling behaviour of concrete made with recycled concrete aggregates. <i>Construction and Building Materials</i> , 2022, 344, 128124.	3.2	9
36	Mechanical damage, chemical damage and permeability in quasi-brittle cementitious materials. <i>European Journal of Environmental and Civil Engineering</i> , 2009, 13, 963-982.	1.0	7

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37	A comparative study of the effects of particle grading and compaction effort on the strength and stiffness of earth building materials at different humidity levels. Construction and Building Materials, 2021, 306, 124770.	3.2	7
38	3D Numerical Modeling of the Crack-Permeability Interaction in Fractured Concrete. , 0, , .		7
39	Estimation of Fracture Energy from Hydraulic Fracture Tests on Mortar and Rocks at Geothermal Reservoir Temperatures. Rock Mechanics and Rock Engineering, 2021, 54, 4111-4119.	2.6	5
40	Failure Analysis of Initially Cracked Concrete Structures. Journal of Engineering Mechanics - ASCE, 1997, 123, 1153-1160.	1.6	4
41	A comparative study of isotropic and anisotropic descriptions of damage in concrete structures. Studies in Applied Mechanics, 1998, , 259-274.	0.4	4
42	Numerical modelling and in-situ experiment for self-sealing of the induced fracture network of drift into the Callovo-Oxfordian claystone during a hydration process. Computers and Geotechnics, 2022, 141, 104487.	2.3	4
43	Steam flows in concrete cracks: Design of an experiment. Nuclear Engineering and Design, 2022, 393, 111807.	0.8	4
44	A mesoscopic model for a better understanding of the transition from diffuse damage to localized damage. European Journal of Environmental and Civil Engineering, 2010, 14, 751-776.	1.0	3
45	Approche mÃ©soscopique du comportement du bÃ©ton. Apport de la reprÃ©sentation gÃ©omÃ©trique. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 407-421.	0.0	3
46	Approche mÃ©soscopique du comportement du bÃ©ton. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 407-421.	0.0	2
47	Etude du tassement diffÃ©rentiel sur sols hÃ©tÃ©rogÃ©nes. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 453-462.	0.0	2
48	Investigation of Hydro-mechanical Behaviour of Excavation Induced Damage Zone of Callovo-Oxfordian Claystone: Numerical Modeling and In-situ Experiment. Rock Mechanics and Rock Engineering, 2022, 55, 6079-6102.	2.6	2
49	Closure to "Rate Dependent Damage Model for Concrete in Dynamics" by Jean-FranÃ§ois DubÃ©, Gilles Pijaudier-Cabot, and Christian La Borderie. Journal of Engineering Mechanics - ASCE, 1997, 123, 1327-1328.	1.6	1
50	Analyse de dÃ©sordres affectant un remblai sur sols renforcÃ©s. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 477-492.	0.0	1
51	A new experimental device for assessing the radial strains of concrete at high temperatures. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 1187-1198.	0.0	1
52	ModÃ©lisation des effets unilatÃ©raux basÃ©s sur l'ouverture de fissures. European Journal of Environmental and Civil Engineering, 2008, 12, 1105-1122.	1.0	1
53	Isotropic and anisotropic descriptions of damage in concrete structures. , 1999, 4, 339.		1
54	Analyse de dÃ©sordres affectant un remblai sur sols renforcÃ©s. Apport de mÃ©thodes statistiques et de simulations numÃ©riques. Revue EuropÃ©enne De GÃ©nie Civil, 2007, 11, 477-492.	0.0	1

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55	Modèle d'endommagement microplans. Revue Européenne De Génie Civil, 2003, 7, 621-634.	0.0	0
56	Electrohydraulic shock wave generation as a mean to increase intrinsic permeability of concrete. , 2009, , .		0
57	Shear Behavior Evolution of a Fault due to Chemical Degradation of Roughness: Application to the Geological Storage of CO2. , 2013, , 95-114.		0
58	Fracture cleaning: Experimental study on the unclogging process within a propped fracture under a dynamic stimulation. Journal of Petroleum Science and Engineering, 2021, 206, 109028.	2.1	0
59	Etude du tassement différentiel sur sols hétérogènes. Revue Européenne De Génie Civil, 2007, 11, 453-462.	0.0	0
60	A new experimental device for assessing the radial strains of concrete at high temperatures. Revue Européenne De Génie Civil, 2007, 11, 1187-1198.	0.0	0
61	Modélisation des effets unilatéraux basés sur l'ouverture de fissures. Revue Européenne De Génie Civil, 2008, 12, 1105-1122.	0.0	0
62	Mechanical damage, chemical damage and permeability in quasi-brittle cementitious materials. Revue Européenne De Génie Civil, 2009, 13, 963-982.	0.0	0
63	Influence of Chemical Degradation on Shear Behaviour of a Rock Joint - Application to CO2 Geological Storage. , 2013, , .		0
64	A Summary of the Research Conducted at Uppa in Relation to the Rouse CO2 Storage Project. , 2013, , .		0
65	Permeability and Microcracking of Geomaterials Subjected to Dynamic Loads. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 451-459.	0.3	0