Patrice Rivard

List of Publications by Year
in descending order

74 papers	2,116 citations	201385 27 h-index	243296 44 g-index
75 all docs	75 docs citations	75 times ranked	1781 citing authors

#	Article	IF	Citations
1	Influence of supplementary cementitious materials on engineering properties of high strength concrete. Construction and Building Materials, 2011, 25, 2639-2648.	3.2	346
2	Evaluating damage during shear tests of rock joints using acoustic emissions. International Journal of Rock Mechanics and Minings Sciences, 2010, 47, 590-598.	2.6	156
3	Direct shear tests on cemented paste backfillâ€“rock wall and cemented paste backfillâ€“backfill interfaces. Journal of Rock Mechanics and Geotechnical Engineering, 2016, 8, 472-479.	3.7	104
4	Concrete Quality Designation based on Ultrasonic Pulse Velocity. Construction and Building Materials, 2016, 125, 1022-1027.	3.2	92
5	Shear mechanism of rock joints under pre-peak cyclic loading condition. International Journal of Rock Mechanics and Minings Sciences, 2016, 83, 197-210.	2.6	62
6	Measurement of alkaliâ€“silica reaction progression by ultrasonic waves attenuation. Cement and Concrete Research, 2007, 37, 948-956.	4.6	59
7	Effectiveness of nondestructive testing for the evaluation of alkaliâ€“silica reaction in concrete. Construction and Building Materials, 2010, 24, 1398-1403.	3.2	58
8	Highâ€Pressure Device for Fluid Extraction from Porous Materials: Application to Cementâ€Based Materials. Journal of the American Ceramic Society, 2008, 91, 2653-2658.	1.9	56
9	Decrease of pore solution alkalinity in concrete tested for alkali-silica reaction. Materials and Structures/Materiaux Et Constructions, 2007, 40, 909-921.	1.3	53
10	Assessing alkali-silica reaction damage to concrete with non-destructive methods: From the lab to the field. Construction and Building Materials, 2009, 23, 902-909.	3.2	50
11	Mineralogical and chemical assessment of concrete damaged by the oxidation of sulfide-bearing aggregates: Importance of thaumasite formation on reaction mechanisms. Cement and Concrete Research, 2012, 42, 1336-1347.	4.6	48
12	Valorization of unauthorized sea disposal dredged sediments as a road foundation material. Environmental Technology (United Kingdom), 2014, 35, 1997-2007.	1.2	48
13	Geometric Effect of Asperities on Shear Mechanism of Rock Joints. Rock Mechanics and Rock Engineering, 2016, 49, 801-820.	2.6	44
14	Correlating acoustic emission sources with damaged zones during direct shear test of rock joints. Canadian Geotechnical Journal, 2012, 49, 710-718.	1.4	42
15	Assessment of the expansion related to alkali-silica reaction by the Damage Rating Index method. Construction and Building Materials, 2005, 19, 83-90.	3.2	41
16	Alkali mass balance during the accelerated concrete prism test for alkaliâ€“aggregate reactivity. Cement and Concrete Research, 2003, 33, 1147-1153.	4.6	40
17	Internal deterioration of concrete by the oxidation of pyrrhotitic aggregates. Cement and Concrete Research, 2005, 35, 99-107.	4.6	40
18	Reduction of ASR-expansion using powders ground from various sources of reactive aggregates. Cement and Concrete Composites, 2009, 31, 438-446.	4.6	39

#	Article	IF	Citations
19	Damage assessment for concrete structure using image processing techniques on acoustic borehole imagery. Construction and Building Materials, 2009, 23, 3166-3174.	3.2	39
20	Evaluation of Concrete Distributed Cracks by Ultrasonic Travel Time Shift Under an External Mechanical Perturbation: Study of Indirect and Semi-direct Transmission Configurations. Journal of Nondestructive Evaluation, 2013, 32, 25-36.	1.1	38
21	Influence of environmental parameters on application of standard ASTM C876-91: half cell potential measurements. Corrosion Engineering Science and Technology, 2008, 43, 93-96.	0.7	37
22	Evaluating the damage in reinforced concrete slabs under bending test with the energy of ultrasonic waves. Construction and Building Materials, 2014, 73, 663-673.	3.2	37
23	Application of acoustic emission for monitoring shear behavior of bonded concreteâ€“rock joints under direct shear test. Canadian Journal of Civil Engineering, 2012, 39, 887-896.	0.7	35
24	Roughness Effects on the Shear Strength of Concrete and Rock Joints in Dams Based on Experimental Data. Rock Mechanics and Rock Engineering, 2019, 52, 3867-3888.	2.6	32
25	Non-destructive evaluation of cracks in massive concrete using normal dc resistivity logging. NDT and E International, 2014, 63, 11-20.	1.7	30
26	Valorization of dredged sediments in self-consolidating concrete: Fresh, hardened, and microstructural properties. Journal of Cleaner Production, 2020, 263, 121472.	4.6	30
27	Monitoring of an hydraulic structure affected by ASR: A case study. Cement and Concrete Research, 2010, 40, 676-680.	4.6	29
28	Modeling the spatial variability of the shear strength of discontinuities of rock masses: Application to a dam rock mass. Engineering Geology, 2017, 220, 133-143.	2.9	28
29	Development of self-compacting mortars based on treated marine sediments. Journal of Building Engineering, 2019, 22, 252-261.	1.6	26
30	Characterization of the ASR rim. Cement and Concrete Research, 2002, 32, 1259-1267.	4.6	25
31	Feasibility of using marine sediments in SCC pastes as supplementary cementitious materials. Powder Technology, 2019, 344, 730-740.	2.1	20
32	Quantitative Petrographic Technique for Concrete Damage Due to ASR: Experimental and Application. Cement, Concrete and Aggregates, 2000, 22, 63-72.	0.1	19
33	Comparison of Joint Shearing Resistance Obtained with the Barton and Choubey Criterion and with Direct Shear Tests. Rock Mechanics and Rock Engineering, 2016, 49, 3357-3361.	2.6	18
34	Combining nonlinear acoustics and physico-chemical analysis of aggregates to improve alkaliâ€“silica reaction monitoring. Cement and Concrete Research, 2015, 67, 44-51.	4.6	17
35	Neural-network-based damage classification of bridge infrastructure using texture analysis. Canadian Journal of Civil Engineering, 2008, 35, 258-267.	0.7	16
36	Impact of Acid Attack on the Shear Behaviour of a Carbonate Rock Joint. Rock Mechanics and Rock Engineering, 2017, 50, 1439-1451.	2.6	16

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37	Influence of Roughness on the Apparent Cohesion of Rock Joints at Low Normal Stresses. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, 04020003.	1.5	16
38	Effects of freezing and thawing cycles on the shear resistance of concrete lift joints. Canadian Journal of Civil Engineering, 2012, 39, 1089-1099.	0.7	15
39	Characterization of rock discontinuity openings using acoustic wave amplitude â€" Application to a metamorphic rock mass. Engineering Geology, 2015, 193, 402-411.	2.9	14
40	Durability study of concrete incorporating dredged sediments. Case Studies in Construction Materials, 2019, 11, e00244.	0.8	14
41	Experimental Study of Crack Closure on Heterogeneous Quasi-Brittle Material. Journal of Engineering Mechanics - ASCE, 2015, 141, .	1.6	13
42	Durability and transport properties of SCC incorporating dredged sediments. Construction and Building Materials, 2021, 288, 123116.	3.2	13
43	Limitations of laser profilometry in measuring surface topography of polycrystalline rocks. International Journal of Rock Mechanics and Minings Sciences, 2012, 52, 56-60.	2.6	12
44	Effect of the Temperature on the Nonlinear Acoustic Behavior of Reinforced Concrete Using Dynamic Acoustoelastic Method of Time Shift. Journal of Nondestructive Evaluation, 2014, 33, 288-298.	1.1	12
45	Fluvial Sediments as SCMs: Characterization, Pozzolanic Performance, and Optimization of Equivalent Binder. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	11
46	Effect of dryingâ€"rewetting on the alkali concentration of the concrete pore solution. Cement and Concrete Research, 2003, 33, 927-929.	4.6	10
47	Impact of the alkaliâ€"silica reaction products on slow dynamics behavior of concrete. Cement and Concrete Research, 2011, 41, 422-428.	4.6	10
48	The shape effect on the morphology of the fracture surface induced by the Brazilian test. International Journal of Rock Mechanics and Minings Sciences, 2017, 93, 201-209.	2.6	10
49	Measuring electrical properties of mortar and concrete samples using the spectral induced polarization method: laboratory set-up. Construction and Building Materials, 2019, 210, 1-12.	3.2	10
50	Damages to residential buildings related to pyritic rockfills: field results of an investigation on the south shore of Montreal, Quebec, Canada. Canadian Journal of Civil Engineering, 2002, 29, 246-255.	0.7	9
51	Condition assessment of concrete in hydraulic structures by surface wave non-destructive testing. Materials and Structures/Materiaux Et Constructions, 2009, 42, 251-261.	1.3	9
52	The application of a new oxidation mortar bar test to mixtures containing different cementing systems. Construction and Building Materials, 2018, 173, 775-785.	3.2	9
53	Evaluation of damages due to alkali-silica reaction with nonlinear acoustics techniques. Proceedings of Meetings on Acoustics, 2009, , .	0.3	8
54	Nonlinear Acoustic Technique of Time Shift for Evaluation of Alkali-Silica Reaction Damage in Concrete Structures. ACI Materials Journal, 2014, 111, .	0.3	8

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55	Assessment of Corroded Rock Bolts with Pulse Echo Tests. Journal of Infrastructure Systems, 2017, 23, 04017007.	1.0	6
56	Damage classification of concrete structures based on grey level co-occurrence matrix using Haar's discrete wavelet transform. Computers and Concrete, 2007, 4, 243-257.	0.7	5
57	Validation of complex electrical properties of concrete affected by accelerated alkali-silica reaction. Cement and Concrete Composites, 2020, 113, 103660.	4.6	4
58	Rock mass properties and their suitability as a foundation for a rolled compacted concrete gravity dam: case study of Beni Haroun dam (Mila, NE Algeria). Bulletin of Engineering Geology and the Environment, 2021, 80, 1729-1743.	1.6	4
59	Experimental Assessment of the Tensile Bond Strength of Mortar-Mortar Interfaces: Effects of Interface Roughness and Mortar Strength. Geotechnical Testing Journal, 2018, 41, 20170173.	0.5	4
60	Evaluation Protocol for Concrete Aggregates Containing Iron Sulfide Minerals. ACI Materials Journal, 2016, 113, .	0.3	4
61	Application of the mechanical perturbation produced by traffic as a new approach of nonlinear acoustic technique for detecting microcracks in the concrete: A laboratory simulation. , 2012, , .		3
62	Characterization of discontinuities inside massive concrete structures with normal dc resistivity logging. Journal of Applied Geophysics, 2015, 120, 69-80.	0.9	3
63	Influence of Material Strength on the Apparent Cohesion of Unbounded Gravity Dam Joints under Low Normal Stress. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	3
64	Non-destructive non-invasive assessment of the development of alkali-silica reaction in concrete by spectral induced polarization: Evaluation of the complex electrical properties. Construction and Building Materials, 2020, 238, 117719.	3.2	2
65	Nondestructive Assessment of Alkali-Silica Reaction in Concrete: A Review. , 2013, , 317-322.		2
66	A Case Study of Selfâ€Potential Detection of Seepage at the Junction of Two Embankment Dams. , 2010, , .		1
67	Application of the time-shift technique with an indirect and semi-direct configuration of transducers for field investigation of concrete structures. , 2012, , .		0
68	EXPERIENCE IN ASSESSING CONCRETE DAMS CONDITION WITH NON-DESTRUCTIVE METHODS : CASE STUDIES AND LAB DEVELOPMENT. , 2013, , .		0
69	SEEPAGE AT LES CÃˆDRES EMBANKMENT DAM (PART 1): SP/ERT SURVEYS AND TEMPERATURE MONITORING. , 2013, , .		0
70	SEEPAGE AT LES CÃˆDRES EMBANKMENT DAM (PART 2): SELF-POTENTIAL TOMOGRAPHY AND ADDITIONAL SURVEYS. , 2013, , .		0
71	Comparative Study of Nonlinear Resonance and Wave Interaction Techniques for Concrete Damage Assessment. , 2013, , 137-142.		0
72	Assessment of bonding, delamination and interfaces. , 2012, , 227-262.		0

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73	Field Assessment of ASR-Affected Structures. RILEM State-of-the-Art Reports, 2021, , 41-93.	0.3	0
74	Performance of Rock Pins Galvanized Layers Assessed with Non-Destructive Method. Experimental Techniques, 0, , 1.	0.9	0