

Stéphane Poyet

List of Publications by Year in descending order

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42
papers

1,266
citations

471371

17
h-index

360920

35
g-index

42
all docs

42
docs citations

42
times ranked

942
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison between natural and accelerated carbonation (3% CO ₂): Impact on mineralogy, microstructure, water retention and cracking. Cement and Concrete Research, 2018, 109, 64-80.	4.6	151
2	Carbonation of hardened cement pastes: Influence of temperature. Cement and Concrete Research, 2019, 115, 445-459.	4.6	106
3	Impact of carbonation on unsaturated water transport properties of cement-based materials. Cement and Concrete Research, 2015, 74, 44-58.	4.6	103
4	Chemical modelling of Alkali Silica reaction: Influence of the reactive aggregate size distribution. Materials and Structures/Materiaux Et Constructions, 2007, 40, 229-239.	1.3	97
5	Temperature dependence of the sorption isotherms of cement-based materials: Heat of sorption and Clausius-Clapeyron formula. Cement and Concrete Research, 2009, 39, 1060-1067.	4.6	94
6	Experimental investigation of the effect of temperature on the first desorption isotherm of concrete. Cement and Concrete Research, 2009, 39, 1052-1059.	4.6	92
7	Experimental investigation of the variability of concrete durability properties. Cement and Concrete Research, 2013, 45, 21-36.	4.6	86
8	Influence of Water on Alkali-Silica Reaction: Experimental Study and Numerical Simulations. Journal of Materials in Civil Engineering, 2006, 18, 588-596.	1.3	64
9	Temperature influence on water transport in hardened cement pastes. Cement and Concrete Research, 2015, 76, 37-50.	4.6	56
10	Effect of crack openings on carbonation-induced corrosion. Cement and Concrete Research, 2017, 95, 257-269.	4.6	51
11	Assessment of the unsaturated water transport properties of an old concrete: Determination of the pore-interaction factor. Cement and Concrete Research, 2011, 41, 1015-1023.	4.6	49
12	Carbonation of model cement pastes: The mineralogical origin of microstructural changes and shrinkage. Cement and Concrete Research, 2021, 144, 106446.	4.6	38
13	The link between gas diffusion and carbonation in hardened cement pastes. Cement and Concrete Research, 2019, 123, 105795.	4.6	35
14	Modeling hydration kinetics based on boundary nucleation and space-filling growth in a fixed confined zone. Cement and Concrete Research, 2016, 83, 31-44.	4.6	30
15	Carbonation of low-alkalinity mortars: Influence on corrosion of steel and on mortar microstructure. Cement and Concrete Research, 2017, 101, 33-45.	4.6	23
16	Determination of the intrinsic permeability to water of cementitious materials: Influence of the water retention curve. Cement and Concrete Composites, 2013, 35, 127-135.	4.6	19
17	Microstructure and diffusion coefficient of an old corrosion product layer and impact on steel rebar corrosion in carbonated concrete. Corrosion Science, 2017, 125, 48-58.	3.0	18
18	Accelerated leaching of cementitious materials using ammonium nitrate (6M): influence of test conditions. European Journal of Environmental and Civil Engineering, 2012, 16, 336-351.	1.0	17

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19	Describing the influence of temperature on water retention using van Genuchten equation. Cement and Concrete Research, 2016, 84, 41-47.	4.6	16
20	Predicting the atmospheric carbonation of cementitious materials using fully coupled two-phase reactive transport modelling. Cement and Concrete Research, 2020, 130, 105966.	4.6	16
21	Simulations of the thermo-hydro-mechanical behaviour of an annular reinforced concrete structure heated up to 200 Å°C. Engineering Structures, 2012, 36, 302-315.	2.6	11
22	Sr immobilization in irradiated Portland cement paste exposed to carbonation. Cement and Concrete Research, 2018, 107, 152-162.	4.6	10
23	Modelling the influence of temperature on accelerated leaching in ammonium nitrate. European Journal of Environmental and Civil Engineering, 2012, 16, 322-335.	1.0	9
24	Water transport properties of virtual fractal porous media: Implications for the unsaturated transport properties of cement-based materials. Cement and Concrete Research, 2021, 150, 106613.	4.6	9
25	The Use of Sorption Balance for the Characterization of the Water Retention Curve of Cement-Based Materials. Journal of Advanced Concrete Technology, 2016, 14, 354-367.	0.8	8
26	Effect of accelerated carbonation conditions on the characterization of load-induced damage in reinforced concrete members. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	7
27	Relation between crack opening and extent of the damage induced at the steel/mortar interface. Construction and Building Materials, 2018, 193, 97-104.	3.2	6
28	Model synthetic pastes for low pH cements. Cement and Concrete Research, 2020, 136, 106168.	4.6	6
29	Impact of carbonation on the durability of cementitious materials: water transport properties characterization. EPJ Web of Conferences, 2013, 56, 01008.	0.1	6
30	Visual parameters of chloride-induced corrosion of reinforced concrete structures. European Journal of Environmental and Civil Engineering, 2011, 15, 9-24.	1.0	5
31	Experimental Investigation of Concrete Packages for Radioactive Waste Management: Permeability and Influence of Junctions. Transport in Porous Media, 2012, 95, 55-70.	1.2	5
32	Modeling of concrete carbonation in deep geological disposal of intermediate level waste. EPJ Web of Conferences, 2013, 56, 05004.	0.1	5
33	Analysis of water transport in unsaturated conditions: Comparison between labcrete and fieldcrete. Construction and Building Materials, 2019, 205, 443-455.	3.2	5
34	A simple method to measure the isosteric energy of adsorption. Cement and Concrete Research, 2021, 147, 106520.	4.6	4
35	Probabilistic and predictive performance-based approach for assessing reinforced concrete structures lifetime: The applet project. EPJ Web of Conferences, 2011, 12, 01004.	0.1	2
36	Data-Based Modeling of Early-Age Concrete Mechanical Behavior for Structural Calculation. Journal of Materials in Civil Engineering, 2020, 32, 04019370.	1.3	2

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37	Visual parameters of chloride-induced corrosion of reinforced concrete structures. European Journal of Environmental and Civil Engineering, 2011, 15, 9-24.	1.0	2
38	The Belgian supercontainer concept: Study of the concrete buffer behaviour in service life. European Physical Journal Special Topics, 2006, 136, 167-175.	0.2	1
39	Contribution to the French program dedicated to cementitious and clayey materials behavior in the context of Intermediate Level Waste management " Hydrogen transfer and materials durability. EPJ Web of Conferences, 2013, 56, 05001.	0.1	1
40	Experimental and numerical characterisation of load-induced damage in reinforced concrete members. , 0, , .		1
41	Etude expérimentale et modélisation de l'influence de l'eau sur la réaction alcali-silice. Revue Européenne De Génie Civil, 2004, 8, 345-366.	0.0	0
42	Modélisation chimique de la réaction alcali-silice: prise en compte de l'influence de la distribution granulaire réactive. Revue Européenne De Génie Civil, 2004, 8, 905-929.	0.0	0