Miguel Ãngel Climent

List of Publications by Year
in descending order

71 papers	1,891 citations	201674 27 h-index	276875 41 g-index
72 all docs	72 docs citations	72 times ranked	1257 citing authors

#	Article	IF	Citations
1	Early Detection of Corrosion-Induced Concrete Micro-cracking by Using Nonlinear Ultrasonic Techniques: Possible Influence of Mass Transport Processes. Corrosion and Materials Degradation, 2022, 3, 235-257.	2.4	8
2	Violin Ceramic Joist Slabs: Evaluation and Proposal for Intervention with Duplex-Type Stainless Steel. Buildings, 2022, 12, 942.	3.1	0
3	Detecting cracks due to steel corrosion in reinforced cement mortar using intermodulation generation of ultrasonic waves. Construction and Building Materials, 2021, 286, 122915.	7.2	21
4	Cement mortar cracking under accelerated steel corrosion test: A mechanical and electrochemical model. Journal of Electroanalytical Chemistry, 2021, 896, 115222.	3.8	5
5	Modelos de estimativa do grau de saturaÃ§Ã£o do concreto a partir das variÃ¡veis ambientais aplicados Ã anÃ¡lise de confiabilidade de estruturas de concreto armado atacadas por Ãons cloreto. Revista Materia, 2021, 26, .	0.2	2
6	Use of Higher-Harmonic and Intermodulation Generation of Ultrasonic Waves to Detecting Cracks due to Steel Corrosion in Reinforced Cement Mortar. International Journal of Concrete Structures and Materials, 2020, 14, .	3.2	13
7	The Use of Volcanic Powder as a Cement Replacement for the Development of Sustainable Mortars. Applied Sciences (Switzerland), 2020, 10, 1460.	2.5	10
8	Recomendaciones sobre DifusiÃ³n de Cloruros. , 2020, , 1-21.		0
9	Non-destructive evaluation of internal sulphate attack in cement-based materials applying non-linear ultrasonic techniques. , 2020, 67, .		0
10	Rebar Shape Time-Evolution During a Reinforced Concrete Corrosion Test: An Electrochemical Model. Applied Sciences (Switzerland), 2019, 9, 3061.	2.5	2
11	Use of Non-Linear Ultrasonic Techniques to Detect Cracks Due to Steel Corrosion in Reinforced Concrete Structures. Materials, 2019, 12, 813.	2.9	29
12	Effects of Red Mud Addition in the Microstructure, Durability and Mechanical Performance of Cement Mortars. Applied Sciences (Switzerland), 2019, 9, 984.	2.5	26
13	Skin friction coefficient change on cement grouts for micropiles due to sulfate attack. Construction and Building Materials, 2018, 163, 80-86.	7.2	12
14	Effects of Environment in the Microstructure and Properties of Sustainable Mortars with Fly Ash and Slag after a 5-Year Exposure Period. Sustainability, 2018, 10, 663.	3.2	9
15	Long-term effects of waste brick powder addition in the microstructure and service properties of mortars. Construction and Building Materials, 2018, 182, 691-702.	7.2	89
16	Short-Term Performance of Sustainable Silica Fume Mortars Exposed to Sulfate Attack. Sustainability, 2018, 10, 2517.	3.2	10
17	Influence of Waste Glass Powder Addition on the Pore Structure and Service Properties of Cement Mortars. Sustainability, 2018, 10, 842.	3.2	14
18	Application of combined electrochemical treatments to reinforced concrete: Electrochemical chloride extraction plus cathodic protection. Hormigon Y Acero, 2018, , .	0.2	0

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19	Depassivation time estimation in reinforced concrete structures exposed to chloride ingress: A probabilistic approach. Cement and Concrete Composites, 2017, 79, 21-33.	10.7	22
20	Influence of different ways of chloride contamination on the efficiency of cathodic protection applied on structural reinforced concrete elements. Journal of Electroanalytical Chemistry, 2017, 793, 8-17.	3.8	23
21	Influence of Silica Fume Addition in the Long-Term Performance of Sustainable Cement Grouts for Micropiles Exposed to a Sulphate Aggressive Medium. Materials, 2017, 10, 890.	2.9	14
22	Long-Term Behaviour of Fly Ash and Slag Cement Grouts for Micropiles Exposed to a Sulphate Aggressive Medium. Materials, 2017, 10, 598.	2.9	30
23	Short-Term Behavior of Slag Concretes Exposed to a Real In Situ Mediterranean Climate Environment. Materials, 2017, 10, 915.	2.9	9
24	Performance of Sustainable Fly Ash and Slag Cement Mortars Exposed to Simulated and Real In Situ Mediterranean Conditions along 90 Warm Season Days. Materials, 2017, 10, 1254.	2.9	20
25	Non-Destructive Study of the Microstructural Effects of Sodium and Magnesium Sulphate Attack on Mortars Containing Silica Fume Using Impedance Spectroscopy. Applied Sciences (Switzerland), 2017, 7, 648.	2.5	31
26	Impedance Spectroscopy Study of the Effect of Environmental Conditions on the Microstructure Development of Sustainable Fly Ash Cement Mortars. Materials, 2017, 10, 1130.	2.9	12
27	Graphiteâ€“Cement Paste: A New Coating of Reinforced Concrete Structural Elements for the Application of Electrochemical Anti-Corrosion Treatments. Coatings, 2016, 6, 32.	2.6	19
28	Microstructure and durability of fly ash cement grouts for micropiles. Construction and Building Materials, 2016, 117, 47-57.	7.2	37
29	Comparison BetweenDcritConsidering the Abrupt Variation and Inï¬‚exion in the Concrete Mercury Intrusion Porosimetry Curve. Experimental Techniques, 2015, 39, 43-52.	1.5	4
30	Chloride Penetration Prediction in Concrete through an Empirical Model Based on Constant Flux Diffusion. Journal of Materials in Civil Engineering, 2015, 27, .	2.9	13
31	Shape Effect of Electrochemical Chloride Extraction in Structural Reinforced Concrete Elements Using a New Cement-Based Anodic System. Materials, 2015, 8, 2901-2917.	2.9	16
32	Procedure for calculating the chloride diffusion coefficient and surface concentration from a profile having a maximum beyond the concrete surface. Materials and Structures/Materiaux Et Constructions, 2015, 48, 863-869.	3.1	61
33	Efficiency of a conductive cement-based anodic system for the application of cathodic protection, cathodic prevention and electrochemical chloride extraction to control corrosion in reinforced concrete structures. Corrosion Science, 2015, 96, 102-111.	6.6	92
34	Impedance spectroscopy study of the effect of environmental conditions in the microstructure development of OPC and slag cement mortars. Archives of Civil and Mechanical Engineering, 2015, 15, 569-583.	3.8	48
35	Durability and compressive strength of blast furnace slag-based cement grout for special geotechnical applications. Materiales De Construccion, 2014, 64, e003.	0.7	20
36	Moisture Distribution in Partially Saturated Concrete Studied by Impedance Spectroscopy. Journal of Nondestructive Evaluation, 2013, 32, 362-371.	2.4	35

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37	Feasibility of electrochemical chloride extraction from structural reinforced concrete using a sprayed conductive graphite powderâ€“cement paste as anode. Corrosion Science, 2013, 77, 128-134.	6.6	54
38	An improved procedure for obtaining and maintaining well characterized partial water saturation states on concrete samples to be used for mass transport tests. Materials and Structures/Materiaux Et Constructions, 2013, 46, 1389-1400.	3.1	22
39	Recommendation of RILEM TC 178-TMC: Testing and modelling chloride penetration in concrete*. Materials and Structures/Materiaux Et Constructions, 2013, 46, 337-344.	3.1	36
40	Influence of using slag cement on the microstructure and durability related properties of cement grouts for micropiles. Construction and Building Materials, 2013, 38, 84-93.	7.2	25
41	Viabilidad de utilizaciÃ³n de una pasta de cemento con nanofibras de carbono como Ã¡nodo en la extracciÃ³n electroquÃmica de cloruros en hormigÃ³n. Materiales De Construccion, 2013, 63, 39-48.	0.7	14
42	Influencia de diferentes condiciones de curado en la estructura porosa y en las propiedades a edades tempranas de morteros que contienen ceniza volante y escoria de alto horno. Materiales De Construccion, 2013, 63, 219-234.	0.7	17
43	Durability related transport properties of OPC and slag cement mortars hardened under different environmental conditions. Construction and Building Materials, 2012, 27, 176-183.	7.2	39
44	Impedance spectroscopy: An efficient tool to determine the nonâ€steadyâ€state chloride diffusion coefficient in building materials. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 139-145.	1.5	30
45	Determination of chloride diffusivity through partially saturated Portland cement concrete by a simplified procedure. Construction and Building Materials, 2011, 25, 785-790.	7.2	55
46	Determination of the selectivity coefficient of a chloride ion selective electrode in alkaline media simulating the cement paste pore solution. Journal of Electroanalytical Chemistry, 2010, 639, 43-49.	3.8	31
47	Electrochemical extraction of chlorides from reinforced concrete using a conductive cement paste as the anode. Corrosion Science, 2010, 52, 1576-1581.	6.6	71
48	Improvement of the chloride ingress resistance of OPC mortars by using spent cracking catalyst. Cement and Concrete Research, 2009, 39, 126-139.	11.0	27
49	Investigation of performance properties of novel composite fire-extinguishing powders based on mineral raw materials. WIT Transactions on Engineering Sciences, 2009, , .	0.0	3
50	Experimental confirmation of some aspects of the microstructural model of the impedance spectra of porous materials. , 2009, , .		1
51	Influence of curing conditions on the mechanical properties and durability of cement mortars. , 2009, , .		9
52	Microstructural modifications in Portland cement concrete due to forced ionic migration tests. Study by impedance spectroscopy. Cement and Concrete Research, 2008, 38, 1015-1025.	11.0	102
53	A test method for measuring chloride diffusion coefficients through partially saturated concrete. Part II: The instantaneous plane source diffusion case with chloride binding consideration. Cement and Concrete Research, 2007, 37, 714-724.	11.0	82
54	Impedance spectroscopy as a tool to study modifications in the microstructure of concrete in ionic migration experiments. WIT Transactions on Engineering Sciences, 2007, , .	0.0	0

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55	Use of impedance spectroscopy to determine the displacement of water in cement paste under small loads. WIT Transactions on Engineering Sciences, 2007, , .	0.0	0
56	Effect of the reinforcement bar arrangement on the efficiency of electrochemical chloride removal technique applied to reinforced concrete structures. Corrosion Science, 2006, 48, 531-545.	6.6	52
57	Round-Robin Test on methods for determining chloride transport parameters in concrete. Materials and Structures/Materiaux Et Constructions, 2006, 39, 955-990.	3.1	46
58	ExtracciÃ³n electroquÃmica de cloruros del hormigÃ³n armado: estudio de diferentes variables que influyen en la eficiencia del tratamiento. Materiales De Construccion, 2006, 56, .	0.7	6
59	Generalization of the possibility of eliminating the filtration step in the determination of acid-soluble chloride content in cement and concrete by potentiometric titration. Cement and Concrete Research, 2004, 34, 2291-2295.	11.0	26
60	A test method for measuring chloride diffusion coefficients through nonsaturated concrete. Cement and Concrete Research, 2002, 32, 1113-1123.	11.0	110
61	Bit shape geometric considerations when sampling by dry drilling for obtaining chloride profiles in concrete. Materials and Structures/Materiaux Et Constructions, 2001, 34, 150-154.	3.1	3
62	Chlorideâ€ion Activities in Simplified Synthetic Concrete Pore Solutions: The Effect of the Accompanying Ions. Journal of the American Ceramic Society, 2000, 83, 640-644.	3.8	21
63	Analysis of acid-soluble chloride in cement, mortar, and concrete by potentiometric titration without filtration steps. Cement and Concrete Research, 1999, 29, 893-898.	11.0	35
64	Embeddable Ag/AgCl sensors for in-situ monitoring chloride contents in concrete. Cement and Concrete Research, 1996, 26, 1157-1161.	11.0	76
65	Proof by UV-visible modulated reflectance spectroscopy of the breakdown by carbonation of the passivating layer on iron in alkaline solution. Surface Science, 1995, 330, L651-L656.	1.9	17
66	FTIR study of surface structure influence on the electrochemical behaviour of the ascorbate anion at platinum electrodes in neutral solutions. Journal of Electroanalytical Chemistry, 1994, 374, 263-268.	3.8	3
67	Voltammetric and subtractively normalized interfacial FTIR study of the adsorption and oxidation ofL(+)-ascorbic acid on Pt electrodes in acid medium: effect of Bi adatoms. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 609-615.	1.7	9
68	Alkali metal cations and pH effects on a splitting of the unusual adsorption states of Pt(111) voltammograms in phosphate buffered solutions. Journal of Electroanalytical Chemistry, 1993, 345, 475-481.	3.8	30
69	The behaviour of platinum single-crystal electrodes in neutral phosphate buffered solutions. Journal of Electroanalytical Chemistry, 1992, 326, 113-127.	3.8	35
70	Behaviour of the Cr(III)/Cr(II) reaction on goldî—graphite electrodes. Application to redox flow storage cell. Journal of Power Sources, 1991, 35, 225-234.	7.8	30
71	Electrocatalytic oxidation of L(+)-ascorbic acid on single crystal Pt surfaces modified by irreversibly adsorbed Bi. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1989, 260, 237-244.	0.1	18