Marta Castellote

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.

107 papers	2,710 citations	26 h-index	49 g-index
117 ext. papers	3,094 ext. citations	5.3 avg, IF	5.23 L-index

#	Paper	IF	Citations
107	Chloride threshold values to depassivate reinforcing bars embedded in a standardized OPC mortar. *Cement and Concrete Research*, **2000**, 30, 1047-1055	10.3	353
106	Chemical changes and phase analysis of OPC pastes carbonated at different CO2 concentrations. *Materials and Structures/Materiaux Et Constructions*, **2009**, 42, 515-525	3.4	212
105	Chloride threshold dependence of pitting potential of reinforcements. *Electrochimica Acta*, **2002**, 47, 3469-3481	6.7	166
104	Composition and microstructural changes of cement pastes upon heating, as studied by neutron diffraction. *Cement and Concrete Research*, **2004**, 34, 1633-1644	10.3	141
103	Measurement of the steady and non-steady-state chloride diffusion coefficients in a migration test by means of monitoring the conductivity in the anolyte chamber. Comparison with natural diffusion tests. *Cement and Concrete Research*, **2001**, 31, 1411-1420	10.3	108
102	Potentiostatic determination of chloride threshold values for rebar depassivation. *Electrochimica Acta*, **2004**, 49, 2731-2739	6.7	85
101	Accelerated carbonation of cement pastes in situ monitored by neutron diffraction. *Cement and Concrete Research*, **2008**, 38, 1365-1373	10.3	74
100	Characteristics and efficiency of photocatalytic cementitious materials: Type of binder, roughness and microstructure. *Cement and Concrete Research*, **2015**, 71, 124-131	10.3	73
99	Electrokinetic remediation of dredged sediments polluted with heavy metals with different enhancing electrolytes. *Electrochimica Acta*, **2012**, 86, 102-109	6.7	65
98	TiO2 and TiO2SiO2 coated cement: Comparison of mechanic and photocatalytic properties. *Applied Catalysis B: Environmental*, **2015**, 178, 155-164	21.8	64
97	Chloride-binding isotherms in concrete submitted to non-steady-state migration experiments. *Cement and Concrete Research*, **1999**, 29, 1799-1806	10.3	57
96	Natural and accelerated CO2 binding kinetics in cement paste at different relative humidities. *Cement and Concrete Research*, **2013**, 49, 21-28	10.3	56
95	Measurement of ageing effect on chloride diffusion coefficients in cementitious matrices. *Journal of Nuclear Materials*, **2011**, 412, 209-216	3.3	49
94	Electrochemical removal of chlorides. *Cement and Concrete Research*, **2000**, 30, 615-621	10.3	47
93	Accelerated simultaneous determination of the chloride depassivation threshold and of the non-stationary diffusion coefficient values. *Corrosion Science*, **2002**, 44, 2409-2424	6.8	46
92	Modelling the carbonation of cementitious matrixes by means of the unreacted-core model, UR-CORE. *Cement and Concrete Research*, **2008**, 38, 1374-1384	10.3	41
91	Non-steady-state chloride diffusion coefficients obtained from migration and natural diffusion tests. Part I: Comparison between several methods of calculation. *Materials and Structures/Materiaux Et Constructions*, **2000**, 33, 21-28	3.4	40

90	Evolution of pore solution chemistry, electro-osmosis and rebar corrosion rate induced by realkalisation. *Materials and Structures/Materiaux Et Constructions*, **1999**, 32, 427-436	3.4	40
89	Quantification of hydroxyl radicals on cementitious materials by fluorescence spectrophotometry as a method to assess the photocatalytic activity. *Cement and Concrete Research*, **2015**, 74, 108-115	10.3	39
88	Round-Robin Test on methods for determining chloride transport parameters in concrete. *Materials and Structures/Materiaux Et Constructions*, **2006**, 39, 955-990	3.4	39
87	Relation between colourimetric chloride penetration depth and charge passed in migration tests of the type of standard ASTM C1202-91. *Cement and Concrete Research*, **1999**, 29, 417-421	10.3	39
86	Some principles of service life calculation of reinforcements and in situ corrosion monitoring by sensors in the radioactive waste containers of El Cabril disposal (Spain). *Journal of Nuclear Materials* , **2006**, 358, 82-95	3.3	37
85	Effect of the marine environment on reinforced concrete durability in Iberoamerican countries: DURACON project/CYTED. *Corrosion Science*, **2007**, 49, 2832-2843	6.8	36
84	Oxygen and chloride diffusion in cement pastes as a validation of chloride diffusion coefficients obtained by steady-state migration tests. *Cement and Concrete Research*, **2001**, 31, 621-625	10.3	36
83	In-situ monitoring the realkalisation process by neutron diffraction: Electroosmotic flux and portlandite formation. *Cement and Concrete Research*, **2006**, 36, 791-800	10.3	27
82	Hydroxyl radical and free and shallowly trapped electron generation and electron/hole recombination rates in TiO2 photocatalysis using different combinations of anatase and rutile. *Applied Catalysis A: General*, **2018**, 565, 20-25	5.1	26
81	Ground water leaching resistance of high and ultra high performance concretes in relation to the testing convection regime. *Cement and Concrete Research*, **2006**, 36, 1583-1594	10.3	26
80	Round-Robin test on chloride analysis in concrete Part I: Analysis of total chloride content. *Materials and Structures/Materiaux Et Constructions*, **2001**, 34, 532-549	3.4	26
79	Modelling of the processes during steady-state migration tests: Quantification of transference numbers. *Materials and Structures/Materiaux Et Constructions*, **1999**, 32, 180-186	3.4	26
78	Feasibility of determining corrosion rates by means of stray current-induced polarisation. *Journal of Applied Electrochemistry*, **2008**, 38, 1467-1476	2.6	25
77	Alkaline leaching method for the determination of the chloride content in the aqueous phase of hardened cementitious materials. *Cement and Concrete Research*, **2001**, 31, 233-238	10.3	24
76	TiO 2 cement-based materials: Understanding optical properties and electronic band structure of complex matrices. *Catalysis Today*, **2017**, 287, 203-209	5.3	23
75	Round-robin test on chloride analysis in concrete Part II: Analysis of water soluble chloride content. *Materials and Structures/Materiaux Et Constructions*, **2001**, 34, 589-596	3.4	22
74	Thermogravimetrical analysis for monitoring carbonation of cementitious materials. *Journal of Thermal Analysis and Calorimetry*, **2012**, 110, 309-319	4.1	21
73	Hydrogen embrittlement of high-strength steel submitted to slow strain rate testing studied by nuclear resonance reaction analysis and neutron diffraction. *Nuclear Instruments & Methods in Physics Research B*, **2007**, 259, 975-983	1.2	21

72	Selecting enhancing solutions for electrokinetic remediation of dredged sediments polluted with fuel. *Journal of Environmental Management*, **2015**, 151, 153-9	7.9	20
71	Influence of the composition of the binder and the carbonation on the zeta potential values of hardened cementitious materials. *Cement and Concrete Research*, **2006**, 36, 1915-1921	10.3	20
70	Photocatalytic behavior of colored mortars containing TiO 2 and iron oxide based pigments. *Construction and Building Materials*, **2017**, 144, 300-310	6.7	19
69	In situ evaluation of the NO removal efficiency of photocatalytic pavements: statistical analysis of the relevance of exposure time and environmental variables. *Environmental Science and Pollution Research*, **2019**, 26, 36088-36095	5.1	19
68	Heterogeneous photocatalysis on construction materials: effect of catalyst properties on the efficiency for degrading NOx and self cleaning. *Materiales De Construccion*, **2014**, 64, e013	1.8	19
67	NO removal efficiency of urban photocatalytic pavements at pilot scale. *Science of the Total Environment*, **2020**, 719, 137459	10.2	17
66	Advancements in non-destructive control of efficiency of electrochemical repair techniques. *Corrosion Engineering Science and Technology*, **2009**, 44, 108-118	1.7	16
65	Nondestructive decontamination of mortar and concrete by electro-kinetic methods: application to the extraction of radioactive heavy metals. *Environmental Science & Technology*, **2002**, 36, 2256-61	10.3	15
64	Controlling the levels of airborne pollen: can heterogeneous photocatalysis help?. *Environmental Science & Technology*, **2013**, 47, 11711-6	10.3	14
63	Electrochemical chloride extraction: influence of testing conditions and mathematical modelling. *Advances in Cement Research*, **1999**, 11, 63-80	1.8	13
62	Degradation of pollen on nanofunctionalized photocatalytic materials. *Journal of Chemical Technology and Biotechnology*, **2017**, 92, 210-216	3.5	12
61	Physico-chemical material characterization of historic unreinforced masonry buildings: The first step for a suitable intervention. *Construction and Building Materials*, **2013**, 40, 352-360	6.7	12
60	Influence of the inlet air in efficiency of photocatalytic devices for mineralization of VOCs in air-conditioning installations. *Environmental Science and Pollution Research*, **2014**, 21, 11198-207	5.1	11
59	Assessment of electrophoresis and electroosmosis in construction materials: effect of enhancing electrolytes and heavy metals contamination. *Journal of Applied Electrochemistry*, **2010**, 40, 1195-1208	2.6	11
58	Radioactively contaminated electric arc furnace dust as an addition to the immobilization mortar in low- and medium-activity repositories. *Environmental Science & Technology*, **2004**, 38, 2946-52	10.3	11
57	Quick assessment of the photocatalytic activity of TiO2 construction materials by nitroblue tetrazolium (NBT) ink. *Construction and Building Materials*, **2019**, 214, 1-8	6.7	10
56	Photocatalytic BiOX Mortars under Visible Light Irradiation: Compatibility, NOx Efficiency and Nitrate Selectivity. *Catalysts*, **2020**, 10, 226	4	10
55	Turning waste into valuable resource: potential of electric arc furnace dust as photocatalytic material. *Environmental Science and Pollution Research*, **2014**, 21, 12091-8	5.1	10

54	Phenomenological mass-balance-based model of migration tests in stationary conditions. *Cement and Concrete Research*, **2000**, 30, 1885-1893	10.3	10
53	High-capacity adsorbents from stainless steel slag for the control of dye pollutants in water. *Environmental Science and Pollution Research*, **2021**, 28, 23896-23910	5.1	10
52	PIXE/RBS as a tool to study cementitious materials: Application to the dynamic leaching of concrete. *Nuclear Instruments & Methods in Physics Research B*, **2009**, 267, 3670-3674	1.2	9
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50	Influencia del electrolito externo en el flujo electroosmtico inducido por realcalinizacin. *Materiales De Construccion*, **2003**, 53, 101-112	1.8	9
49	Assessment of urban air pollution related to potential nanoparticle emission from photocatalytic pavements. *Journal of Environmental Management*, **2020**, 272, 111059	7.9	9
48	Expansive concretes with photocatalytic activity for pavements: Enhanced performance and modifications of the expansive hydrates composition. *Construction and Building Materials*, **2019**, 218, 394-403	6.7	8
47	Photocatalytic decomposition of pollen allergenic extracts of Cupressus arizonica and Platanus hybrida. *Chemical Engineering Journal*, **2016**, 286, 560-570	14.7	8
46	Synchrotron Radiation Diffraction Study of the Microstructure Changes in Cement Paste due to Accelerated Leaching by Application of Electrical Fields. *Journal of the American Ceramic Society*, **2004**, 85, 631-635	3.8	8
45	Nanoscale studies of cement chemistry with 15N resonance reaction analysis. *Nuclear Instruments & Methods in Physics Research B*, **2005**, 241, 441-445	1.2	8
44	Non-steady-state chloride diffusion coefficients obtained from migration and natural diffusion tests. Part II: Different experimental conditions. Joint relations. *Materials and Structures/Materiaux Et Constructions*, **2001**, 34, 323-331	3.4	8
43	Characterization of transport of caesium, strontium, cobalt and iron ions through concrete by steady-state migration and natural diffusion tests. *Advances in Cement Research*, **1999**, 11, 161-168	1.8	8
42	Determinacin del contenido de OH- en la fase acuosa de los poros de matrices cementantes por un mtodo empco de lixiviacin. *Materiales De Construccion*, **2002**, 52, 39-56	1.8	8
41	Environmental impact of nano-functionalized construction materials: leaching of titanium and nitrates from photocatalytic pavements under outdoor conditions. *Science of the Total Environment* , **2020**, 744, 140817	10.2	8
40	Electrokinetic decontamination of heavy metals in construction materials: contribution of the different parameters to the global efficiency. *Journal of Applied Electrochemistry*, **2011**, 41, 695-703	2.6	7
39	From analysis to decision: Revision of a multifactorial model for the in situ assessment of NOx abatement effectiveness of photocatalytic pavements. *Chemical Engineering Journal*, **2020**, 402, 126250	14.7	7
38	Neutron diffraction for studying the influence of the relative humidity on the carbonation process of cement pastes. *Journal of Physics: Conference Series*, **2011**, 325, 012015	0.3	6
37	Accelerated leaching of ultra high performance concretes by application of electrical fields to simulate their natural degradation. *Materials and Structures/Materiaux Et Constructions*, **2003**, 36, 81-90	3.4	6

36	Chloride Electroremediation in reinforced structures: preliminary electrochemical tests to detect the steel repassivation during the treatment. *Electrochimica Acta*, **2015**, 181, 288-300	6.7	5
35	Photocatalytic Activity for NO Degradation by Construction Materials: Parametric Study andMultivariable Correlations. *Journal of Advanced Oxidation Technologies*, **2010**, 13,		5
34	Neutron diffraction as a tool to monitor the establishment of the electro-osmotic flux during realkalisation of carbonated concrete. *Physica B: Condensed Matter*, **2006**, 385-386, 526-528	2.8	5
33	In situ accelerated leaching of cement paste by application of electrical fields monitored by synchrotron X-ray diffraction. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 661-669	2.6	5
32	Reply to the discussion of the paper Chloride threshold values to depassivate reinforcing bars embedded in a standardized OPC mortarby T.U. Mohammed and H. Hamada. *Cement and Concrete Research*, **2001**, 31, 839-840	10.3	5
31	New Holistic Conceptual Framework for the Assessment of the Performance of Photocatalytic Pavement. *Frontiers in Chemistry*, **2020**, 8, 743	5	5
30	Challenges in quantification of photocatalytic NO abatement effectiveness under real world exposure conditions illustrated by a case study. *Science of the Total Environment*, **2021**, 766, 144393	10.2	5
29	Triboemission of FINE and Ultrafine Aerosol Particles: A New Approach for Measurement and Accurate Quantification. *Lubricants*, **2020**, 8, 21	3.1	4
28	Understanding cementitious materials in fresh state: A nano-scale study on the effect of the mixing time. *Journal of Alloys and Compounds*, **2012**, 536, S569-S574	5.7	4
27	Preparation of Co-doped TiO2 for Photocatalytic Degradation of NOx in Air under Visible Light. *Journal of Advanced Oxidation Technologies*, **2009**, 12,		4
26	Heavy ion beam measurement of the hydration of cementitious materials. *Applied Radiation and Isotopes*, **2010**, 68, 683-7	1.7	4
25	Comparison between several methods for determining the depassivation threshold value for corrosion onset. *European Physical Journal Special Topics*, **2006**, 136, 79-88		4
24	In situ hydration of Portland cement monitored by neutron diffraction. *Applied Physics A: Materials Science and Processing*, **2002**, 74, s1224-s1226	2.6	4
23	Chloride transference numbers in steady-state migration tests. *Magazine of Concrete Research*, **2000**, 52, 93-100	2	4
22	Ageing management program for the Spanish low and intermediate level waste disposal and spent fuel and high-level waste centralised storage facilities. *EPJ Web of Conferences*, **2011**, 12, 01003	0.3	3
21	Accelerated leaching of ultra high performance concretes by application of electrical fields to simulate their natural degradation. *Materials and Structures/Materiaux Et Constructions*, **2003**, 36, 81-90	3.4	3
20	Metodologa para la intervencin en elementos histricos: el caso de la espadaa del convento de Nuestra Seora de la Consolacin (Alcal de Henares-Madrid-Espaa). *Informes De La Construccion*, **2013**, 65, 359-366	0.4	3
19	Interaction dynamics between a contaminated dredged sediment and extracting solutions of different nature. *Journal of Soils and Sediments*, **2020**, 20, 2664-2671	3.4	3

18	Electrochemical treatment to condition contaminated EAFD as addition to immobilisation mortar in low level waste concrete containers. *Corrosion Engineering Science and Technology*, **2011**, 46, 190-194	1.7	2
17	Modelamiento del proceso de carbonatación del hormigón (UR-CORE), con datos de conversión fraccional obtenidos a través de experimentos de difracción de neutrones monitoreados in-situ. *Revista Ingenieria De Construccion*, **2009**, 24,	1	2
16	A neutron diffraction study of changes induced in aluminous cement paste by the application of external electric fields. *Physica B: Condensed Matter*, **2004**, 350, E561-E564	2.8	2
15	Guidelines for assessing the valorization of a waste into cementitious material: dredged sediment for production of self compacting concrete. *Materiales De Construccion*, **2015**, 65, e057	1.8	2
14	Evaluation of changes in surface temperature of TiO2 functionalized pavements at outdoor conditions. *Energy and Buildings*, **2021**, 237, 110817	7	2
13	Electrokinetic approach to assess the behaviour of a contaminated marine sediment. *Journal of Soils and Sediments*, **2020**, 20, 2673-2684	3.4	2
12	Sediment as a dynamic natural resource from catchment to open sea. *Journal of Soils and Sediments*, **2020**, 20, 2541-2545	3.4	1
11	Synergetic adsorption-photocatalysis process for water treatment using TiO supported on waste stainless steel slag.. *Environmental Science and Pollution Research*, **2022**, 1	5.1	1
10	Progress in Nanoscale Studies of Hydrogen Reactions in Construction Materials **2009**, 131-138		1
9	Unusual photodegradation reactions of Asteraceae and Poaceae grass pollen enzymatic extracts on P25 photocatalyst. *Environmental Science and Pollution Research*, **2021**, 28, 24206-24215	5.1	1
8	Rapid assessment of the photocatalytic activity in construction materials: Pros and cons of reductive inks and oxidative fluorescence probes versus standardized NOx testing. *Catalysis Today*, **2020**, 358, 164-171	5.3	1
7	Photocatalytic Activity of Zn Mn O Oxides and ZnO Prepared From Spent Alkaline Batteries. *Frontiers in Chemistry*, **2020**, 8, 661	5	0
6	Neutron diffraction as a tool in the study of reinforced concrete. Compilation of some cases. *Journal of Physics: Conference Series*, **2014**, 549, 012028	0.3	
5	Optimum calcination temperature in the synthesis of a N-C-S co-doped TiO2 photocatalyst, as monitored by neutron diffraction. *Journal of Physics: Conference Series*, **2014**, 549, 012026	0.3	
4	Efficiency control of electrochemical repair techniques **2008**, 31-37		
3	A new leaching test based in a running water system to evaluate long-term water resistance of concretes. *Advances in Cement Research*, **2002**, 14, 157-168	1.8	
2	Durability and Safety Performance of Pavements with Added Photocatalysts. *Applied Sciences (Switzerland)*, **2021**, 11, 11277	2.6	
1	Tests for Leaching and Degradation in Soft or Carbonated Waters. *RILEM State-of-the-Art Reports*, **2013**, 235-250	1.3	