Marta Castellote

List of Publications by Year
in descending order

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115 papers	3,555 citations	182225 30 h-index	169272 56 g-index
117 all docs	117 docs citations	117 times ranked	2760 citing authors

#	Article	IF	Citations
1	Photoelectrochemical global approach to the behaviour of nanostructured anatase under different irradiation conditions. Catalysis Today, 2022, 397-399, 286-295.	2.2	8
2	Synergetic adsorptionâ€“photocatalysis process for water treatment using TiO2 supported on waste stainless steel slag. Environmental Science and Pollution Research, 2022, 29, 39712-39722.	2.7	7
3	Face Mask Wastes as Cementitious Materials: A Possible Solution to a Big Concern. Materials, 2022, 15, 1371.	1.3	14
4	High-capacity adsorbents from stainless steel slag for the control of dye pollutants in water. Environmental Science and Pollution Research, 2021, 28, 23896-23910.	2.7	14
5	Unusual photodegradation reactions of Asteraceae and Poaceae grass pollen enzymatic extracts on P25 photocatalyst. Environmental Science and Pollution Research, 2021, 28, 24206-24215.	2.7	3
6	Evaluation of changes in surface temperature of TiO2 functionalized pavements at outdoor conditions. Energy and Buildings, 2021, 237, 110817.	3.1	11
7	Challenges in quantification of photocatalytic NO2 abatement effectiveness under real world exposure conditions illustrated by a case study. Science of the Total Environment, 2021, 766, 144393.	3.9	10
8	Optimising processing conditions for the functionalisation of photocatalytic glazes by ZnO nanoparticle deposition. Materiales De Construccion, 2021, 71, e261.	0.2	0
9	Preliminary Study of the Influence of Supplementary Cementitious Materials on the Application of Electro Remediation Processes. Materials, 2021, 14, 6126.	1.3	2
10	Durability and Safety Performance of Pavements with Added Photocatalysts. Applied Sciences (Switzerland), 2021, 11, 11277.	1.3	1
11	Primary and Secondary Emissions of VOCs and PAHs in Indoor Air from a Waterproof Coal-Tar Membrane: Diagnosis and Remediation. International Journal of Environmental Research and Public Health, 2021, 18, 12855.	1.2	4
12	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.	2.2	4
13	Interaction dynamics between a contaminated dredged sediment and extracting solutions of different nature. Journal of Soils and Sediments, 2020, 20, 2664-2671.	1.5	5
14	Assessment of urban air pollution related to potential nanoparticle emission from photocatalytic pavements. Journal of Environmental Management, 2020, 272, 111059.	3.8	15
15	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.	6.6	14
16	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.	3.9	15
17	Photocatalytic Activity of ZnxMn3â^'xO4 Oxides and ZnO Prepared From Spent Alkaline Batteries. Frontiers in Chemistry, 2020, 8, 661.	1.8	5
18	New Holistic Conceptual Framework for the Assessment of the Performance of Photocatalytic Pavement. Frontiers in Chemistry, 2020, 8, 743.	1.8	10

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19	Sediment as a dynamic natural resourceâ€"from catchment to open sea. Journal of Soils and Sediments, 2020, 20, 2541-2545.	1.5	3
20	Photocatalytic BiOX Mortars under Visible Light Irradiation: Compatibility, NOx Efficiency and Nitrate Selectivity. Catalysts, 2020, 10, 226.	1.6	17
21	Triboemission of FINE and Ultrafine Aerosol Particles: A New Approach for Measurement and Accurate Quantification. Lubricants, 2020, 8, 21.	1.2	4
22	Electrokinetic approach to assess the behaviour of a contaminated marine sediment. Journal of Soils and Sediments, 2020, 20, 2673-2684.	1.5	5
23	NOx removal efficiency of urban photocatalytic pavements at pilot scale. Science of the Total Environment, 2020, 719, 137459.	3.9	29
24	Expansive concretes with photocatalytic activity for pavements: Enhanced performance and modifications of the expansive hydrates composition. Construction and Building Materials, 2019, 218, 394-403.	3.2	17
25	Quick assessment of the photocatalytic activity of TiO2 construction materials by nitroblue tetrazolium (NBT) ink. Construction and Building Materials, 2019, 214, 1-8.	3.2	16
26	In situ evaluation of the NOx 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.	2.7	24
27	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.	2.2	37
28	Degradation of pollen on nanofunctionalized photocatalytic materials. Journal of Chemical Technology and Biotechnology, 2017, 92, 210-216.	1.6	16
29	Photocatalytic behavior of colored mortars containing TiO 2 and iron oxide based pigments. Construction and Building Materials, 2017, 144, 300-310.	3.2	28
30	TiO 2 cement-based materials: Understanding optical properties and electronic band structure of complex matrices. Catalysis Today, 2017, 287, 203-209.	2.2	30
31	Photocatalytic decomposition of pollen allergenic extracts of Cupressus arizonica and Platanus hybrida. Chemical Engineering Journal, 2016, 286, 560-570.	6.6	10
32	Chloride Electroremediation in reinforced structures: preliminary electrochemical tests to detect the steel repassivation during the treatment. Electrochimica Acta, 2015, 181, 288-300.	2.6	12
33	Selecting enhancing solutions for electrokinetic remediation of dredged sediments polluted with fuel. Journal of Environmental Management, 2015, 151, 153-159.	3.8	26
34	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.	4.6	49
35	Characteristics and efficiency of photocatalytic cementitious materials: Type of binder, roughness and microstructure. Cement and Concrete Research, 2015, 71, 124-131.	4.6	103
36	TiO2 and TiO2â€"SiO2 coated cement: Comparison of mechanic and photocatalytic properties. Applied Catalysis B: Environmental, 2015, 178, 155-164.	10.8	88

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37	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.	0.2	5
38	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, 11198-11207.	2.7	16
39	Turning waste into valuable resource: potential of electric arc furnace dust as photocatalytic material. Environmental Science and Pollution Research, 2014, 21, 12091-12098.	2.7	14
40	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	0
41	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	0
42	Heterogeneous photocatalysis on construction materials: effect of catalyst properties on the efficiency for degrading NOx and self cleaning. Materiales De Construccion, 2014, 64, e013.	0.2	23
43	Physico-chemical material characterization of historic unreinforced masonry buildings: The first step for a suitable intervention. Construction and Building Materials, 2013, 40, 352-360.	3.2	19
44	Natural and accelerated CO2 binding kinetics in cement paste at different relative humidities. Cement and Concrete Research, 2013, 49, 21-28.	4.6	94
45	Controlling the Levels of Airborne Pollen: Can Heterogeneous Photocatalysis Help?. Environmental Science & Technology, 2013, 47, 11711-11716.	4.6	17
46	MetodologÃa para la intervenciÃ³n en elementos histÃ³ricos: el caso de la espadaÃ±a del convento de Nuestra SeÃ±ora de la ConsolaciÃ³n (AlcalÃ¡ de Henares-Madrid-EspaÃ±a). Informes De La Construccion, 2013, 65, 359-366.	0.1	3
47	Tests for Leaching and Degradation in Soft or Carbonated Waters. RILEM State-of-the-Art Reports, 2013, , 235-250.	0.3	0
48	Thermogravimetrical analysis for monitoring carbonation of cementitious materials. Journal of Thermal Analysis and Calorimetry, 2012, 110, 309-319.	2.0	22
49	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.	2.8	5
50	Electrokinetic remediation of dredged sediments polluted with heavy metals with different enhancing electrolytes. Electrochimica Acta, 2012, 86, 102-109.	2.6	76
51	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.	0.1	4
52	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	11
53	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.	1.5	8
54	Measurement of ageing effect on chloride diffusion coefficients in cementitious matrices. Journal of Nuclear Materials, 2011, 412, 209-216.	1.3	62

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55	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.	0.7	2
56	Photocatalytic Activity for NO Degradation by Construction Materials: Parametric Study andMultivariable Correlations. Journal of Advanced Oxidation Technologies, 2010, 13, .	0.5	6
57	Assessment of electrophoresis and electroosmosis in construction materials: effect of enhancing electrolytes and heavy metals contamination. Journal of Applied Electrochemistry, 2010, 40, 1195-1208.	1.5	12
58	Heavy ion beam measurement of the hydration of cementitious materials. Applied Radiation and Isotopes, 2010, 68, 683-687.	0.7	5
59	Advancements in non-destructive control of efficiency of electrochemical repair techniques. Corrosion Engineering Science and Technology, 2009, 44, 108-118.	0.7	19
60	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.	0.6	9
61	Chemical changes and phase analysis of OPC pastes carbonated at different CO2 concentrations. Materials and Structures/Materiaux Et Constructions, 2009, 42, 515-525.	1.3	296
62	Modelamiento del proceso de carbonataciÃ³n del hormigÃ³n (UR-CORE), con datos de conversiÃ³n fraccional obtenidos a travÃ©s de experimentos de difracciÃ³n de neutrones monitoreados in-situ. Revista Ingenieria De Construccion, 2009, 24, .	0.4	2
63	Preparation of Co-doped TiO2 for Photocatalytic Degradation of NOx in Air under Visible Light. Journal of Advanced Oxidation Technologies, 2009, 12, .	0.5	5
64	Progress in Nanoscale Studies of Hydrogen Reactions in Construction Materials. , 2009, , 131-138.		2
65	Feasibility of determining corrosion rates by means of stray current-induced polarisation. Journal of Applied Electrochemistry, 2008, 38, 1467-1476.	1.5	31
66	Accelerated carbonation of cement pastes in situ monitored by neutron diffraction. Cement and Concrete Research, 2008, 38, 1365-1373.	4.6	99
67	Modelling the carbonation of cementitious matrixes by means of the unreacted-core model, UR-CORE. Cement and Concrete Research, 2008, 38, 1374-1384.	4.6	63
68	Efficiency control of electrochemical repair techniques. , 2008, , 31-37.		0
69	Assessment of the behaviour of concrete in the initiation period of chloride induced corrosion of rebars. , 2008, , 155-156.		0
70	The Use of Polarization Resistance to Evaluate the Environmental Impact on Reinforced Concrete Structures in the Iberoamerican Region. ECS Transactions, 2007, 3, 111-116.	0.3	0
71	Effect of the marine environment on reinforced concrete durability in Iberoamerican countries: DURACON project/CYTED. Corrosion Science, 2007, 49, 2832-2843.	3.0	56
72	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.	0.6	23

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73	Comparison between several methods for determining the depassivation threshold value for corrosion onset. European Physical Journal Special Topics, 2006, 136, 79-88.	0.2	6
74	In-situ monitoring the realkalisation process by neutron diffraction: Electroosmotic flux and portlandite formation. Cement and Concrete Research, 2006, 36, 791-800.	4.6	32
75	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.	4.6	38
76	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.	4.6	23
77	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.	1.3	6
78	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.	1.3	45
79	Round-Robin Test on methods for determining chloride transport parameters in concrete. Materials and Structures/Materiaux Et Constructions, 2006, 39, 955-990.	1.3	46
80	Nanoscale studies of cement chemistry with 15N resonance reaction analysis. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 441-445.	0.6	9
81	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.	1.1	5
82	Potentiostatic determination of chloride threshold values for rebar depassivation. Electrochimica Acta, 2004, 49, 2731-2739.	2.6	105
83	Composition and microstructural changes of cement pastes upon heating, as studied by neutron diffraction. Cement and Concrete Research, 2004, 34, 1633-1644.	4.6	189
84	A neutronâ€“diffraction study of changes induced in aluminous cement paste by the application of external electric fields. Physica B: Condensed Matter, 2004, 350, E561-E564.	1.3	2
85	Radioactively Contaminated Electric Arc Furnace Dust as an Addition to the Immobilization Mortar in Low- and Medium-Activity Repositories. Environmental Science & Technology, 2004, 38, 2946-2952.	4.6	13
86	Efecto de la aplicaciÃ³n de campos elÃ©ctricos sobre las interacciones entre los iones cloruro y la matriz de cemento. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2004, 43, 565-568.	0.9	0
87	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.	1.3	8
88	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.	1.3	3
89	Influencia del electrolito externo en el flujo electroosmÃ³tico inducido por realcalinizaciÃ³n. Materiales De Construccion, 2003, 53, 101-112.	0.2	11
90	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.	0.7	9

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91	Nondestructive Decontamination of Mortar and Concrete by Electro-Kinetic Methods:â€‰ Application to the Extraction of Radioactive Heavy Metals. Environmental Science & Technology, 2002, 36, 2256-2261.	4.6	16
92	Accelerated simultaneous determination of the chloride depassivation threshold and of the non-stationary diffusion coefficient values. Corrosion Science, 2002, 44, 2409-2424.	3.0	54
93	In situ hydration of Portland cement monitored by neutron diffraction. Applied Physics A: Materials Science and Processing, 2002, 74, s1224-s1226.	1.1	4
94	Chloride threshold dependence of pitting potential of reinforcements. Electrochimica Acta, 2002, 47, 3469-3481.	2.6	194
95	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, 2002, 85, 631-635.	1.9	8
96	DeterminaciÃ³n del contenido de OH⁻ en la fase acuosa de los poros de matrices cementantes por un mÃ©todo empÃrico de lixiviaciÃ³n. Materiales De Construccion, 2002, 52, 39-56.	0.2	12
97	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.	0.7	0
98	Round-robin test on chloride analysis in concrete â€" Part II: Analysis of water soluble chloride content. Materials and Structures/Materiaux Et Constructions, 2001, 34, 589-596.	1.3	27
99	Round-Robin test on chloride analysis in concreteâ€"Part I: Analysis of total chloride content. Materials and Structures/Materiaux Et Constructions, 2001, 34, 532-549.	1.3	34
100	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.	1.3	9
101	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.	4.6	30
102	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.	4.6	46
103	Reply to the discussion of the paper â€œChloride threshold values to depassivate reinforcing bars embedded in a standardized OPC mortarâ€•by T.U. Mohammed and H. Hamada. Cement and Concrete Research, 2001, 31, 839-840.	4.6	6
104	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.	4.6	134
105	Electrochemical removal of chlorides. Cement and Concrete Research, 2000, 30, 615-621.	4.6	57
106	Chloride threshold values to depassivate reinforcing bars embedded in a standardized OPC mortar. Cement and Concrete Research, 2000, 30, 1047-1055.	4.6	425
107	Phenomenological mass-balance-based model of migration tests in stationary conditions. Cement and Concrete Research, 2000, 30, 1885-1893.	4.6	15
108	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.	1.3	49

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109	Chloride transference numbers in steady-state migration tests. Magazine of Concrete Research, 2000, 52, 93-100.	0.9	6
110	Chloride-binding isotherms in concrete submitted to non-steady-state migration experiments. Cement and Concrete Research, 1999, 29, 1799-1806.	4.6	71
111	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.	4.6	45
112	Modelling of the processes during steady-state migration tests: Quantification of transference numbers. Materials and Structures/Materiaux Et Constructions, 1999, 32, 180-186.	1.3	29
113	Evolution of pore solution chemistry, electro-osmosis and rebar corrosion rate induced by realkalisation. Materials and Structures/Materiaux Et Constructions, 1999, 32, 427-436.	1.3	45
114	Electrochemical chloride extraction: influence of testing conditions and mathematical modelling. Advances in Cement Research, 1999, 11, 63-80.	0.7	14
115	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.	0.7	10