

Manuel Morcillo

List of Publications by Year in descending order

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131
papers

5,660
citations

61984

43
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88630

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docs citations

131
times ranked

2803
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of inorganic anions from atmospheric depositions on weathering steel corrosion and metal release. <i>Construction and Building Materials</i> , 2020, 236, 117515.	7.2	14
2	Atmospheric corrosion of weathering steels. Overview for engineers. Part II: Testing, inspection, maintenance. <i>Construction and Building Materials</i> , 2019, 222, 750-765.	7.2	66
3	Atmospheric corrosion of zinc in coastal atmospheres. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 1005-1015.	1.5	14
4	Atmospheric corrosion of weathering steels. Overview for engineers. Part I: Basic concepts. <i>Construction and Building Materials</i> , 2019, 213, 723-737.	7.2	99
5	Corrosi3n del aluminio 1050 en atm3sferas costeras. <i>Revista De Metalurgia</i> , 2019, 55, 153.	0.5	0
6	pH-dependent release of environmentally friendly corrosion inhibitor from mesoporous silica nanoreservoirs. <i>Microporous and Mesoporous Materials</i> , 2018, 255, 166-173.	4.4	40
7	Effect of Cu, Cr and Ni alloying elements on mechanical properties and atmospheric corrosion resistance of weathering steels in marine atmospheres of different aggressivities. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2018, 69, 8-19.	1.5	53
8	Corrosion of Copper in Unpolluted Chloride-Rich Atmospheres. <i>Metals</i> , 2018, 8, 866.	2.3	22
9	Five-year atmospheric corrosion of Cu, Cr and Ni weathering steels in a wide range of environments. <i>Corrosion Science</i> , 2018, 141, 146-157.	6.6	93
10	Atmospheric corrosion of ASTM A-242 and ASTM A-588 weathering steels in different types of atmosphere. <i>Corrosion Engineering Science and Technology</i> , 2018, 53, 449-459.	1.4	11
11	Synthesis and Characterization of Hollow Mesoporous Silica Nanoparticles for Smart Corrosion Protection. <i>Nanomaterials</i> , 2018, 8, 478.	4.1	36
12	Wet/dry accelerated laboratory test to simulate the formation of multilayered rust on carbon steel in marine atmospheres. <i>Corrosion Engineering Science and Technology</i> , 2017, 52, 178-187.	1.4	24
13	On the Mechanism of Rust Exfoliation in Marine Environments. <i>Journal of the Electrochemical Society</i> , 2017, 164, C8-C16.	2.9	34
14	Characterisation of a centuries-old patinated copper roof tile from Queen Anne's Summer Palace in Prague. <i>Materials Characterization</i> , 2017, 133, 146-155.	4.4	15
15	Exploring the corrosion inhibition of aluminium by coatings formulated with calcium exchange bentonite. <i>Progress in Organic Coatings</i> , 2017, 111, 273-282.	3.9	11
16	Analysis of Historic Copper Patinas. Influence of Inclusions on Patina Uniformity. <i>Materials</i> , 2017, 10, 298.	2.9	15
17	Marine Atmospheric Corrosion of Carbon Steel: A Review. <i>Materials</i> , 2017, 10, 406.	2.9	199
18	Annual Atmospheric Corrosion of Carbon Steel Worldwide. An Integration of ISOCORRAG, ICP/UNECE and MICAT Databases. <i>Materials</i> , 2017, 10, 601.	2.9	49

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19	Corrosion mechanisms of mild steel in chloride-rich atmospheres. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2016, 67, 227-238.	1.5	54
20	SEM/Micro-Raman Characterization of the Morphologies of Marine Atmospheric Corrosion Products Formed on Mild Steel. <i>Journal of the Electrochemical Society</i> , 2016, 163, C426-C439.	2.9	71
21	Characterisation of rust surfaces formed on mild steel exposed to marine atmospheres using XRD and SEM/Micro-Raman techniques. <i>Corrosion Science</i> , 2016, 110, 253-264.	6.6	163
22	An attempt to classify the morphologies presented by different rust phases formed during the exposure of carbon steel to marine atmospheres. <i>Materials Characterization</i> , 2016, 118, 65-78.	4.4	120
23	Smart Mesoporous Silica Nanocapsules as Environmentally Friendly Anticorrosive Pigments. <i>International Journal of Corrosion</i> , 2015, 2015, 1-8.	1.1	18
24	Airborne chloride deposit and its effect on marine atmospheric corrosion of mild steel. <i>Corrosion Science</i> , 2015, 97, 74-88.	6.6	179
25	Environmental Conditions for Akaganeite Formation in Marine Atmosphere Mild Steel Corrosion Products and Its Characterization. <i>Corrosion</i> , 2015, 71, 872-886.	1.1	46
26	Rust exfoliation on carbon steels in chloride-rich atmospheres. <i>Corrosion Reviews</i> , 2015, 33, 263-282.	2.0	31
27	Atmospheric corrosion of mild steel in chloride-rich environments. Questions to be answered. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2015, 66, 882-892.	1.5	46
28	Marine atmospheric corrosion of carbon steels. <i>Revista De Metalurgia</i> , 2015, 51, e045.	0.5	28
29	Weathering steels: From empirical development to scientific design. A review. <i>Corrosion Science</i> , 2014, 83, 6-31.	6.6	186
30	Characterization of corrosion products formed on Ni 2.4 wt% Cu 0.5 wt% Cr 0.5 wt% weathering steel exposed in marine atmospheres. <i>Corrosion Science</i> , 2014, 87, 438-451.	6.6	115
31	An study on accelerated corrosion testing of weathering steel. <i>Materials Chemistry and Physics</i> , 2013, 142, 220-228.	4.0	50
32	Atmospheric corrosion of Ni-advanced weathering steels in marine atmospheres of moderate salinity. <i>Corrosion Science</i> , 2013, 76, 348-360.	6.6	153
33	Atmospheric corrosion data of weathering steels. A review. <i>Corrosion Science</i> , 2013, 77, 6-24.	6.6	276
34	Corrosion inhibition of aluminum by organic coatings formulated with calcium exchange silica pigment. <i>Journal of Coatings Technology Research</i> , 2013, 10, 209-217.	2.5	12
35	Anticorrosive behaviour of Cr(VI)-free surface pretreatments applied on magnesium alloys. <i>Progress in Organic Coatings</i> , 2013, 76, 1833-1840.	3.9	11
36	Ion-exchange pigments in primer paints for anticorrosive protection of steel in atmospheric service: Anion-exchange pigments. <i>Progress in Organic Coatings</i> , 2013, 76, 411-424.	3.9	26

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37	Mapping air pollution effects on atmospheric degradation of cultural heritage. <i>Journal of Cultural Heritage</i> , 2013, 14, 138-145.	3.3	44
38	Ion-exchange pigments in primer paints for anticorrosive protection of steel in atmospheric service: Cation-exchange pigments. <i>Progress in Organic Coatings</i> , 2012, 75, 147-161.	3.9	28
39	Some Clarifications Regarding Literature on Atmospheric Corrosion of Weathering Steels. <i>International Journal of Corrosion</i> , 2012, 2012, 1-9.	1.1	33
40	Looking Back on Contributions in the Field of Atmospheric Corrosion Offered by the MICAT Ibero-American Testing Network. <i>International Journal of Corrosion</i> , 2012, 2012, 1-24.	1.1	26
41	Corrosion resistance of steel treated with different silane/paint systems. <i>Journal of Coatings Technology Research</i> , 2012, 9, 3-13.	2.5	41
42	Long-term atmospheric corrosion of mild steel. <i>Corrosion Science</i> , 2011, 53, 604-617.	6.6	430
43	Corrosion inhibition of aluminum by coatings formulated with Al-Zn-vanadate hydrotalcite. <i>Progress in Organic Coatings</i> , 2011, 70, 213-219.	3.9	59
44	Paint systems formulated with ion-exchange pigments applied on carbon steel: Effect of surface preparation. <i>Progress in Organic Coatings</i> , 2011, 70, 394-400.	3.9	19
45	City scale assessment model for air pollution effects on the cultural heritage. <i>Atmospheric Environment</i> , 2011, 45, 1242-1250.	4.1	54
46	Atmospheric corrosion of mild steel. <i>Revista De Metalurgia</i> , 2011, 47, 426-444.	0.5	77
47	Corrosion resistance of new epoxy-siloxane hybrid coatings. A laboratory study. <i>Progress in Organic Coatings</i> , 2010, 69, 278-286.	3.9	71
48	Mapas de España de corrosividad del zinc en atmósferas rurales. <i>Revista De Metalurgia</i> , 2010, 46, 485-492.	0.5	13
49	Interaction of copper and NO ₂ : Effect of joint presence of SO ₂ , relative humidity and temperature. <i>Journal of Physics and Chemistry of Solids</i> , 2008, 69, 895-904.	4.0	9
50	Anticorrosive behaviour of alkyd paints formulated with ion-exchange pigments. <i>Progress in Organic Coatings</i> , 2008, 61, 283-290.	3.9	65
51	Morphological study of 16-year patinas formed on copper in a wide range of atmospheric exposures. <i>Corrosion Science</i> , 2008, 50, 268-285.	6.6	73
52	Effect of silane solution concentration on the anticorrosive protection of pretreatments applied on steel. , 2007, , 148-157.		1
53	Long-term atmospheric corrosion of zinc. <i>Corrosion Science</i> , 2007, 49, 1420-1436.	6.6	132
54	Studies of long-term weathering of aluminium in the atmosphere. <i>Corrosion Science</i> , 2007, 49, 3134-3148.	6.6	98

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55	Methods for salt contamination of steel corrosion products: A characterization study. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2007, 58, 781-788.	1.5	6
56	A laboratory study of the effect of NO ₂ on the atmospheric corrosion of zinc. <i>Atmospheric Environment</i> , 2007, 41, 8681-8696.	4.1	26
57	The settling of critical levels of soluble salts for painting. <i>Progress in Organic Coatings</i> , 2007, 58, 23-32.	3.9	18
58	Electrochemical impedance spectroscopy study of the effect of curing time on the early barrier properties of silane systems applied on steel substrates. <i>Progress in Organic Coatings</i> , 2007, 60, 45-53.	3.9	81
59	Characterization of atmospheric corrosion products of zinc exposed to SO ₂ and NO ₂ using XPS and GIXD. <i>Journal of Materials Science</i> , 2007, 42, 9654-9662.	3.7	23
60	Water-borne versus solvent-borne paints for protection of steel to atmospheric exposure. <i>Surface Coatings International Part B: Coatings Transactions</i> , 2006, 89, 237-244.	0.3	5
61	A SEM/XPS/SKP study on the distribution of chlorides in contaminated rusty steel. <i>Corrosion Science</i> , 2006, 48, 2304-2316.	6.6	18
62	Anticorrosive painting for a wide spectrum of marine atmospheres: Environmental-friendly versus traditional paint systems. <i>Progress in Organic Coatings</i> , 2006, 57, 11-22.	3.9	19
63	Laboratory simulation of formation of steel corrosion products with soluble salt contents. <i>Corrosion Engineering Science and Technology</i> , 2006, 41, 130-134.	1.4	4
64	Corrosion behaviour of powder metallurgical stainless steels after two years of exposure in atmosphere. <i>Corrosion Engineering Science and Technology</i> , 2006, 41, 284-290.	1.4	2
65	X-Ray Photoelectron Spectroscopy Study of the Effect of Nitrogen Dioxide and Sulfur Dioxide on the Atmospheric Corrosion of Copper at Low Relative Humidity Values. <i>Corrosion</i> , 2005, 61, 627-638.	1.1	11
66	Lap-joint corrosion of precoated materials for building applications. <i>Surface and Coatings Technology</i> , 2005, 190, 65-74.	4.8	1
67	Steel cathodic protection afforded by zinc, aluminium and zinc/aluminium alloy coatings in the atmosphere. <i>Surface and Coatings Technology</i> , 2005, 190, 244-248.	4.8	104
68	Painting over soluble salts: Field extraction of soluble salts from corrosion products of steel. <i>Progress in Organic Coatings</i> , 2005, 54, 240-247.	3.9	2
69	Caracterización superficial de nuevos pre-tratamientos a base de silanos aplicados sobre aluminio. <i>Revista De Metalurgia</i> , 2005, 41, 428-432.	0.5	3
70	Atmospheric corrosion of reference metals in Antarctic sites. <i>Cold Regions Science and Technology</i> , 2004, 40, 165-178.	3.5	28
71	Lap-joint corrosion testing of precoated steel sheets. <i>Journal of Coatings Technology</i> , 2003, 75, 43-54.	0.7	4
72	Effect of variable amounts of rust at the steel/paint interface on the behaviour of anticorrosive paint systems. <i>Progress in Organic Coatings</i> , 2003, 46, 241-249.	3.9	11

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73	Soluble salts and the durability of paint coatings: a new laboratory method for dosing chlorides and sulphates over steel surfaces. <i>Anti-Corrosion Methods and Materials</i> , 2003, 50, 208-216.	1.5	6
74	Effect of NO ₂ and/or SO ₂ ; atmospheric contaminants and relative humidity on copper corrosion. <i>Revista De Metalurgia</i> , 2003, 39, 278-288.	0.5	12
75	Use of zinc-rich primers co-pigmented with phosphates applied on rusty steel surfaces contaminated with soluble salts. <i>Revista De Metalurgia</i> , 2003, 39, 129-136.	0.5	4
76	Measure of the driving forces of underfilm differential contamination cells and differential aeration cells. <i>Progress in Organic Coatings</i> , 2002, 45, 441-447.	3.9	6
77	Direct measurement of corrosion inside iron crevices. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2002, 53, 807-812.	1.5	4
78	Atmospheric corrosion behavior of paint systems applied on weathered hot-dip galvanized steel. <i>Journal of Coatings Technology</i> , 2002, 74, 59-68.	0.7	2
79	Atmospheric corrosion of bare and anodized aluminium in a wide range of environmental conditions. Part I: Visual observations and gravimetric results. <i>Surface and Coatings Technology</i> , 2002, 153, 225-234.	4.8	48
80	Atmospheric corrosion of bare and anodised aluminium in a wide range of environmental conditions. Part II: Electrochemical responses. <i>Surface and Coatings Technology</i> , 2002, 153, 235-244.	4.8	51
81	Atmospheric Corrosion of Copper in Ibero-America. <i>Corrosion</i> , 2001, 57, 967-980.	1.1	43
82	Effect of state of sea on atmospheric corrosion in coastal zones. <i>Corrosion Engineering Science and Technology</i> , 2001, 36, 157-160.	0.3	19
83	Alternative environmentally friendly coatings for mild steel and electrogalvanized steel to be exposed to atmospheres. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2001, 52, 904-919.	1.5	9
84	Deterioration of paint systems applied on zinc substrates contaminated with soluble salts. <i>Progress in Organic Coatings</i> , 2001, 41, 183-190.	3.9	7
85	Atmospheric corrosivity map for steel in Canary Isles. <i>Corrosion Engineering Science and Technology</i> , 2001, 36, 266-271.	0.3	6
86	Atmospheric corrosion of mild steel. Part I - Rural and urban atmospheres. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2000, 51, 859-864.	1.5	25
87	Atmospheric corrosion of mild steel. Part II - Marine atmospheres. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2000, 51, 865-874.	1.5	35
88	Lap-joint corrosion of automotive coated materials in chloride media. Part 1 " Electrogalvanized steel. <i>Surface and Coatings Technology</i> , 2000, 124, 169-179.	4.8	12
89	Lap-joint corrosion of automotive coated materials in chloride media. Part 2 " Galvannealed steel. <i>Surface and Coatings Technology</i> , 2000, 124, 180-189.	4.8	23
90	Lap-joint corrosion of automotive coated materials in chloride media. Part 3 " Electrogalvanized steel/galvanneal interface. <i>Surface and Coatings Technology</i> , 2000, 124, 44-52.	4.8	6

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91	Atmospheric corrosion of zinc Part 1: Rural and urban atmospheres. Corrosion Engineering Science and Technology, 2000, 35, 284-288.	0.3	38
92	Atmospheric corrosion of zinc Part 2: Marine atmospheres. Corrosion Engineering Science and Technology, 2000, 35, 289-296.	0.3	44
93	Salinity in marine atmospheric corrosion: its dependence on the wind regime existing in the site. Corrosion Science, 2000, 42, 91-104.	6.6	124
94	Artificial neural network modeling of atmospheric corrosion in the MICAT project. Corrosion Science, 2000, 42, 35-52.	6.6	71
95	Corrosi3n atmosf3rica de metales en condiciones clim3ticas extremas. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2000, 39, 329-332.	1.9	6
96	Effect of Distance from Sea on Atmospheric Corrosion Rate. Corrosion, 1999, 55, 883-891.	1.1	81
97	Anticipated levels of soluble salts remaining on rusty steel prior to painting. Journal of Coatings Technology and Research, 1999, 82, 19-25.	0.2	14
98	Discrimination by EIS of degradation mechanisms in lap joints of coated metal sheet. Journal of Coatings Technology, 1999, 71, 61-68.	0.7	8
99	Soluble salts: their effect on premature degradation of anticorrosive paints. Progress in Organic Coatings, 1999, 36, 137-147.	3.9	50
100	Use of electrochemical impedance spectroscopy for studying corrosion at overlapped joints. Progress in Organic Coatings, 1998, 33, 61-67.	3.9	25
101	Mild steel corrosion in saline solutions. Comparison between bulk solutions and steel-coating interfacial solutions. Journal of Coatings Technology, 1998, 70, 61-66.	0.7	15
102	A new pigment to be used in combination with zinc dust in zinc-rich anti-corrosive paints. Pigment and Resin Technology, 1998, 27, 161-167.	0.9	2
103	Factores condicionantes de la durabilidad de los sistemas de pinturas anticorrosivas sobre acero en exposiciones atmosf3ricas. Revista De Metalurgia, 1998, 34, 132-136.	0.5	4
104	Study of the interfacial chemistry of poly(vinyl chloride) paint on steel exposed to the ultraviolet-water condensation test. Journal of Adhesion Science and Technology, 1997, 11, 591-611.	2.6	5
105	The influence of the interfacial conditions on rust conversion by phosphoric acid. Corrosion Science, 1997, 39, 1561-1570.	6.6	48
106	The influence of chlorides, sulphates and nitrates at the coating-steel interface on underfilm corrosion. Progress in Organic Coatings, 1997, 31, 245-253.	3.9	20
107	Differences between apparent polarization resistance values obtained in the time and frequency domains. Journal of Electroanalytical Chemistry, 1995, 381, 1-4.	3.8	10
108	The reproducibility of impedance parameters obtained for painted specimens. Progress in Organic Coatings, 1995, 25, 365-377.	3.9	11

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109	The effect of nitrogen oxides in atmospheric corrosion of metals. <i>Corrosion Science</i> , 1995, 37, 293-305.	6.6	59
110	Atmospheric galvanic protection, of 55% Al-Zn precoated steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 1994, 45, 550-553.	1.5	9
111	Electrochemical determination of rusted steel surface stability. <i>Journal of Applied Electrochemistry</i> , 1993, 23, 157-161.	2.9	13
112	The prediction of atmospheric corrosion from meteorological and pollution parametersâ€”I. Annual corrosion. <i>Corrosion Science</i> , 1993, 34, 403-414.	6.6	146
113	The prediction of atmospheric corrosion from meteorological and pollution parametersâ€”II. Long-term forecasts. <i>Corrosion Science</i> , 1993, 34, 415-422.	6.6	121
114	An electrochemical impedance study of the behaviour of some pretreatments applied to rusted steel surfaces. <i>Corrosion Science</i> , 1993, 35, 1351-1358.	6.6	31
115	Accelerated degradation of a chlorinated rubber paint system applied over rusted steel. <i>Progress in Organic Coatings</i> , 1993, 21, 315-325.	3.9	14
116	Surface treatment of rusted steel with phosphoric acid solutions: a study using physico-chemical methods. <i>Progress in Organic Coatings</i> , 1993, 21, 327-338.	3.9	6
117	An extremely low corrosion rate of steel in the atmosphere of Cuzco (Peru). <i>Atmospheric Environment Part A General Topics</i> , 1993, 27, 1959-1962.	1.3	4
118	Deviation from bilogarithmic law for atmospheric corrosion of steel. <i>Corrosion Engineering Science and Technology</i> , 1993, 28, 50-52.	0.3	33
119	Effect of treatment with tannic, gallic and phosphoric acids on the electrochemical behaviour of rusted steel. <i>Electrochimica Acta</i> , 1992, 37, 1983-1985.	5.2	31
120	A SEM study on the galvanic protection of zinc-rich paints. <i>Journal of Materials Science</i> , 1990, 25, 2441-2446.	3.7	46
121	Study of the electrochemical noise generated by the mild steel/zinc-rich paint/NaCl solution system. <i>Progress in Organic Coatings</i> , 1990, 18, 265-273.	3.9	6
122	The charge transfer reaction in Nyquist diagrams of painted steel. <i>Corrosion Science</i> , 1990, 30, 989-998.	6.6	84
123	MÃ¶ssbauer study of some rust converters. <i>Hyperfine Interactions</i> , 1989, 46, 461-465.	0.5	8
124	Environmental factors responsible for the unusual corrosion of galvanized steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 1989, 40, 668-673.	1.5	1
125	Reproducibility of electrical impedance data for a metal/paint system. <i>Progress in Organic Coatings</i> , 1989, 17, 135-142.	3.9	27
126	An interpretation of electrical impedance diagrams for painted galvanized steel. <i>Progress in Organic Coatings</i> , 1989, 17, 143-153.	3.9	55

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127	The behaviour of lamellar second phases in a lead matrix under anodic action. <i>Electrochimica Acta</i> , 1976, 21, 1035-1039.	5.2	4
128	Prediction of the effect of second phases embedded in a lead matrix on anodic corrosion. <i>Corrosion Science</i> , 1975, 15, 593-602.	6.6	5
129	Scanning Kelvin Probe Study on the Stability of the Steel/Coating Interfaces Contaminated by Soluble Salts. <i>Defect and Diffusion Forum</i> , 0, 289-292, 253-260.	0.4	0
130	Long-Term Atmospheric Corrosion in Spain: Results after 13â€“16 Years of Exposure and Comparison with Worldwide Data. , 0, , 195-195-20.		18
131	Atmospheric Corrosion in Ibero-America: The MICAT Project. , 0, , 257-257-19.		26