Carolyn Hansson

List of Publications by Year
in descending order

47 papers	2,553 citations	293460 24 h-index	312153 41 g-index
47 all docs	47 docs citations	47 times ranked	1684 citing authors

#	Article	IF	Citations
1	Influence of chloride cations on pore solution chloride and critical chloride threshold of carbon steel rebar. Sustainable and Resilient Infrastructure, 2023, 8, 185-196.	1.7	1
2	M&S highlightâ€”Andrade et al. (1993), Cover cracking as a function of bar corrosion: Part Iâ€”experimental test. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	1.3	0
3	Beyond the chloride threshold concept for predicting corrosion of steel in concrete. Applied Physics Reviews, 2022, 9, .	5.5	25
4	Internal Corrosion of Warm Formed Aluminum Alloy Automotive Heat Exchangers. Journal of Materials Engineering and Performance, 2021, 30, 2876-2889.	1.2	3
5	The Critical Chloride Concentration of Austenitic and Duplex Stainless Steel Reinforcing Bars. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 4685-4694.	1.1	5
6	Corrosion behavior of austenitic 304L and 316LN stainless steel clad reinforcing bars in cracked concrete. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 1066-1080.	0.8	9
7	Reproducibility of the Corrosion Resistance of UNS S32205 and UNS S32304 Stainless Steel Reinforcing Bars. Corrosion, 2020, 76, 114-130.	0.5	7
8	The effect of the steelâ€“concrete interface on chloride-induced corrosion initiation in concrete: a critical review by RILEM TC 262-SCI. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	1.3	98
9	Influence of chloride and sulphate anions on the electronic and electrochemical properties of passive films formed on steel reinforcing bars. Materialia, 2019, 8, 100491.	1.3	22
10	The semiconductor properties of passive films and corrosion behavior of stainless steel reinforcing bars in simulated concrete pore solution. Materialia, 2019, 6, 100321.	1.3	49
11	The Influence of Coating Thickness and Composition on the Corrosion Propagation Rates of Galvanized Rebar in Cracked Concrete. Corrosion, 2018, 74, 134-143.	0.5	4
12	The steelâ€“concrete interface. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	170
13	The performance of austenitic and duplex stainless steels in cracked concrete exposed to concentrated chloride brine. Journal of Materials Science, 2016, 51, 362-374.	1.7	22
14	Corrosion of stainless steel inÂconcrete. , 2016, , 59-85.		5
15	An introduction to corrosion ofÂengineering materials. , 2016, , 3-18.		10
16	The Influence of the Cations in Anti-Icing Brines on the Corrosion of Reinforcing Steel in Synthetic Concrete Pore Solution. Corrosion, 2015, 71, 749-757.	0.5	5
17	Chloride concentration in the pore solution of Portland cement paste and Portland cement concrete. Cement and Concrete Research, 2014, 63, 35-37.	4.6	16
18	Chloride-Induced Corrosion Behavior of Stainless Steel and Carbon Steel Reinforcing Bars in Sound and Cracked Concrete. Corrosion, 2013, 69, 303-312.	0.5	24

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19	The Impact of Corrosion on Society. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2952-2962.	1.1	111
20	Curing time and behaviour of high-performance concrete. Proceedings of Institution of Civil Engineers: Construction Materials, 2010, 163, 223-230.	0.7	4
21	Chloride-induced corrosion products of steel in cracked-concrete subjected to different loading conditions. Cement and Concrete Research, 2009, 39, 116-125.	4.6	154
22	Potential pitfalls in assessing chloride-induced corrosion of steel in concrete. Cement and Concrete Research, 2009, 39, 391-400.	4.6	153
23	Effect of surface condition on the initial corrosion of galvanized reinforcing steel embedded in concrete. Corrosion Science, 2008, 50, 2512-2522.	3.0	83
24	Galvanostatic pulse technique with the current confinement guard ring: The laboratory and finite element analysis. Corrosion Science, 2008, 50, 2739-2746.	3.0	38
25	The influence of cracks on chloride-induced corrosion of steel in ordinary Portland cement and high performance concretes subjected to different loading conditions. Corrosion Science, 2008, 50, 3343-3355.	3.0	73
26	MRI: A complementary tool for imaging cement pastes. Cement and Concrete Research, 2007, 37, 369-377.	4.6	8
27	Reinforcing steel passivation in mortar and pore solution. Cement and Concrete Research, 2007, 37, 1127-1133.	4.6	219
28	Proton Spin?Spin Relaxation Study of the Effect of Temperature on White Cement Hydration. Journal of the American Ceramic Society, 2007, 90, 570-577.	1.9	49
29	Corrosion products that form on steel within cement paste. Materials and Structures/Materiaux Et Constructions, 2007, 40, 325-340.	1.3	79
30	Magnetic Resonance In Situ Study of Tricalcium Aluminate Hydration in the Presence of Gypsum. Journal of the American Ceramic Society, 2006, 89, 1022-1027.	1.9	24
31	Macrocell and microcell corrosion of steel in ordinary Portland cement and high performance concretes. Cement and Concrete Research, 2006, 36, 2098-2102.	4.6	119
32	A Comparative Evaluation of Three Commercial Instruments for Field Measurements of Reinforcing Steel Corrosion Rates. Journal of ASTM International, 2005, 2, 11789.	0.2	12
33	Title is missing!. Journal of Materials Science, 2003, 38, 4765-4776.	1.7	36
34	Monitoring of Hydration of White Cement Paste with Proton NMR Spinâ€“Spin Relaxation. Journal of the American Ceramic Society, 2000, 83, 623-627.	1.9	89
35	The effect of the electrochemical chloride extraction treatment on steel-reinforced mortar Part I. Cement and Concrete Research, 1999, 29, 1555-1560.	4.6	71
36	Corrosion inhibitors in concreteâ€"part I: the principles. Cement and Concrete Research, 1998, 28, 1775-1781.	4.6	105

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37	Pull-out and bond degradation of steel rebars in ECE concrete. Cement and Concrete Research, 1996, 26, 267-282.	4.6	78
38	The influence of surface finish of reinforcing steel and ph of the test solution on the chloride threshold concentration for corrosion initiation in synthetic pore solutions. Cement and Concrete Research, 1996, 26, 545-550.	4.6	102
39	Concrete:The advanced industrial material of the 21st century. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 1321-1341.	1.1	19
40	The influence of internal relative humidity on the rate of corrosion of steel embedded in concrete and mortar. Cement and Concrete Research, 1994, 24, 1373-1382.	4.6	57
41	The Threshold Concentration of Chloride in Concrete for the Initiation of Reinforcement Corrosion. , 1990, , 3-16.		34
42	Pore solution expression as a method to determine the influence of mineral additives on chloride binding. Cement and Concrete Research, 1986, 16, 760-770.	4.6	95
43	The effect of chloride cation type on the corposion of steel in concrete by chloride salts. Cement and Concrete Research, 1985, 15, 65-73.	4.6	76
44	Comments on electrochemical measurements of the rate of corrosion of steel in concrete. Cement and Concrete Research, 1984, 14, 574-584.	4.6	102
45	Electrical resistivity measurements of Portland cement based materials. Cement and Concrete Research, 1983, 13, 675-683.	4.6	61
46	Detection of the critical chloride threshold of carbon steel rebar in synthetic concrete pore solutions.. RILEM Technical Letters, 0, 3, 75-83.	0.0	11
47	Recommended practice for reporting experimental data produced from studies on corrosion of steel in cementitious systems. RILEM Technical Letters, 0, 4, 22-32.	0.0	16