

Dessi A Koleva

List of Publications by Year in descending order

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65
papers

1,187
citations

279701

23
h-index

395590

33
g-index

66
all docs

66
docs citations

66
times ranked

920
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding the adhesion mechanisms between C S H and fillers. Cement and Concrete Research, 2017, 100, 275-283.	4.6	90
2	Insights into the mechanisms of nucleation and growth of C-S-H on fillers. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	76
3	Quantitative characterisation of steel/cement paste interface microstructure and corrosion phenomena in mortars suffering from chloride attack. Corrosion Science, 2006, 48, 4001-4019.	3.0	72
4	A review on stray current-induced steel corrosion in infrastructure. Corrosion Reviews, 2017, 35, 397-423.	1.0	70
5	Electrical resistivity and microstructural properties of concrete materials in conditions of current flow. Cement and Concrete Composites, 2008, 30, 731-744.	4.6	60
6	Correlation of microstructure, electrical properties and electrochemical phenomena in reinforced mortar. Breakdown to multi-phase interface structures. Part II: Pore network, electrical properties and electrochemical response. Materials Characterization, 2008, 59, 801-815.	1.9	52
7	Corrosion behavior and protective ability of Zn and Zn-Co electrodeposits with embedded polymeric nanoparticles. Applied Surface Science, 2008, 254, 5618-5625.	3.1	40
8	Determination of Chloride Content in Cementitious Materials: From Fundamental Aspects to Application of Ag/AgCl Chloride Sensors. Sensors, 2017, 17, 2482.	2.1	40
9	Mechanical, Electrical and Microstructural Properties of Cement-Based Materials in Conditions of Stray Current Flow. Journal of Advanced Concrete Technology, 2013, 11, 119-134.	0.8	38
10	Investigation of Corrosion and Cathodic Protection in Reinforced Concrete. Journal of the Electrochemical Society, 2007, 154, P52.	1.3	37
11	Microstructural analysis of plain and reinforced mortars under chloride-induced deterioration. Cement and Concrete Research, 2007, 37, 604-617.	4.6	37
12	Concrete porosimetry: Aspects of feasibility, reliability and economy. Cement and Concrete Composites, 2010, 32, 291-299.	4.6	37
13	Microstructure, surface chemistry and electrochemical response of Ag AgCl sensors in alkaline media. Journal of Materials Science, 2018, 53, 7527-7550.	1.7	37
14	Polymeric vesicles for corrosion control in reinforced mortar: Electrochemical behavior, steel surface analysis and bulk matrix properties. Corrosion Science, 2012, 65, 414-430.	3.0	32
15	Correlation of microstructure, electrical properties and electrochemical phenomena in reinforced mortar. Breakdown to multi-phase interface structures. Part I: Microstructural observations and electrical properties. Materials Characterization, 2008, 59, 290-300.	1.9	31
16	Electrochemical Behavior, Microstructural Analysis, and Morphological Observations in Reinforced Mortar Subjected to Chloride Ingress. Journal of the Electrochemical Society, 2007, 154, E45.	1.3	29
17	Application of PEO113-b-PS218 nano-aggregates for improved protective characteristics of composite zinc coatings in chloride-containing environment. Surface and Coatings Technology, 2010, 204, 3760-3772.	2.2	29
18	Non-destructive measurement of chloride ions concentration in concrete - A comparative analysis of limitations and prospects. Construction and Building Materials, 2018, 174, 376-387.	3.2	29

#	ARTICLE	IF	CITATIONS
19	Steel corrosion resistance in model solutions, containing waste materials. <i>Electrochimica Acta</i> , 2011, 58, 628-646.	2.6	28
20	Investigation of Corrosion and Cathodic Protection in Reinforced Concrete. <i>Journal of the Electrochemical Society</i> , 2007, 154, C261.	1.3	25
21	Conventional and pulse cathodic protection of reinforced concrete: Electrochemical behavior of the steel reinforcement after corrosion and protection. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2009, 60, 344-354.	0.8	25
22	Corrosion Performance of Carbon Steel in Simulated Pore Solution in the Presence of Micelles. <i>Journal of the Electrochemical Society</i> , 2011, 158, C76.	1.3	25
23	Electrochemical corrosion behaviour and surface morphology of electrodeposited zinc, zinc-cobalt and their composite coatings. <i>Transactions of the Institute of Metal Finishing</i> , 2005, 83, 188-193.	0.6	24
24	Cathodic protection revisited: Impact on structural morphology sheds new light on its efficiency. <i>Cement and Concrete Composites</i> , 2006, 28, 696-706.	4.6	19
25	Electrochemical behavior of corroded and protected construction steel in cement extract. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2011, 62, 240-251.	0.8	18
26	Development of Smart Corrosion Inhibitors for Reinforced Concrete Structures Exposed to a Microbial Environment. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 5778-5794.	1.8	17
27	An Innovative Approach to Control Steel Reinforcement Corrosion by Self-Healing. <i>Materials</i> , 2018, 11, 309.	1.3	16
28	Corrosion performance of reinforced mortar in the presence of polymeric nano-aggregates: electrochemical behavior, surface analysis, and properties of the steel/cement paste interface. <i>Journal of Materials Science</i> , 2012, 47, 4981-4995.	1.7	15
29	The influence of admixed micelles on the microstructural properties and global performance of cement-based materials. <i>Cement and Concrete Research</i> , 2012, 42, 1122-1133.	4.6	14
30	Potentiometric Response of Ag/AgCl Chloride Sensors in Model Alkaline Medium. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-12.	1.0	11
31	The beneficial secondary effects of conventional and pulse cathodic protection for reinforced concrete, evidenced by X-ray and microscopic analysis of the steel surface and the steel/cement paste interface. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2009, 60, 704-715.	0.8	10
32	Electrochemical performance of steel in cement extract and bulk matrix properties of cement paste in the presence of Pluronic 123 micelles. <i>Journal of Materials Science</i> , 2013, 48, 2490-2503.	1.7	8
33	Conventional and Pulse Cathodic Protection of Reinforced Concrete: Electrochemical Approach and Microstructural Investigations. <i>ECS Transactions</i> , 2006, 1, 287-298.	0.3	7
34	The Effect of Water-to-Cement Ratio and Curing on Material Properties of Mortar Specimens in Stray Current Conditions. <i>Journal of Advanced Concrete Technology</i> , 2017, 15, 627-643.	0.8	7
35	Stray Current-Induced Development of Cement-Based Microstructure in Water-Submerged, Ca(OH) ₂ -Submerged and Sealed Conditions. <i>Journal of Advanced Concrete Technology</i> , 2017, 15, 244-268.	0.8	7
36	Corrosion Behavior of Reinforcing Steel Undergoing Stray Current and Anodic Polarization. <i>Materials</i> , 2021, 14, 261.	1.3	7

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37	Bond of steel-mortar interface interfered by stray current. Cement and Concrete Research, 2021, 150, 106591.	4.6	7
38	Microstructural properties of the bulk matrix and the steel/cement paste interface in reinforced concrete, maintained in conditions of corrosion and cathodic protection. Materials and Corrosion - Werkstoffe Und Korrosion, 2010, 61, 561-567.	0.8	6
39	Electrochemical Performance of Low-Carbon Steel in Alkaline Model Solutions Containing Hybrid Aggregates. ECS Transactions, 2010, 28, 105-112.	0.3	6
40	Evaluating the stray current corrosion of steel rebar in different layouts. Measurement: Journal of the International Measurement Confederation, 2022, 196, 111217.	2.5	6
41	Composition and Morphology of Product Layers in the Steel/Cement Paste Interface in Conditions of Corrosion and Cathodic Protection in Reinforced Concrete. ECS Transactions, 2006, 2, 127-139.	0.3	4
42	Electrochemical and Microstructural Studies in Reinforced Mortar, Modified with Core-Shell Micelles. ECS Transactions, 2010, 25, 79-85.	0.3	4
43	Corrosion Performance of Composite Galvanic Coatings with Variable Concentration of Polymeric Nanoaggregates and/or Cr(III) Conversion Layers. ECS Transactions, 2010, 33, 85-92.	0.3	4
44	Zinc Composite Layers, Incorporating Polymeric Nano-aggregates: Surface Analysis and Electrochemical Behavior.. ECS Transactions, 2008, 11, 27-35.	0.3	3
45	Effect of Admixed Micelles on the Microstructure Alterations of Reinforced Mortar Subjected to Chloride Induced Corrosion. Procedia Engineering, 2011, 14, 344-352.	1.2	3
46	The Influence of PEO113-b-PS780 Vesicles on the Corrosion Performance of Carbon Steel in Simulated Pore Solution. ECS Transactions, 2012, 41, 1-9.	0.3	3
47	Hybrid nano/micro-particles for Increased Steel Corrosion Resistance: Particles' Alterations with pH Change and Steel Behavior in Cement Extract and Mortar. Materials Research Society Symposia Proceedings, 2013, 1612, 1.	0.1	3
48	Corrosion Resistance of Construction Steel in Conditions of Simultaneous Dynamic Loading and Chloride-Containing Corrosive Environment. Journal of Materials in Civil Engineering, 2018, 30, .	1.3	3
49	Microstructural Characterization of Reinforced Mortar after Corrosion and Cathodic Prevention in the Presence of Core-Shell Micelles. ECS Transactions, 2010, 28, 95-104.	0.3	2
50	Corrosion Performance of Carbon Steel in Micelle-Containing Cement Extract. ECS Transactions, 2010, 28, 113-121.	0.3	2
51	Stray Current Induced Corrosion Control in Reinforced Concrete by Addition of Carbon Fiber and Silica Fume. Materials Research Society Symposia Proceedings, 2015, 1768, 21.	0.1	2
52	The Onset of Chloride-Induced Corrosion in Reinforced Cement-Based Materials as Verified by Embeddable Chloride Sensors. , 2017, , 23-55.		2
53	Early Age Hydration, Microstructure and Micromechanical Properties of Cement Paste Modified with Polymeric Vesicles. Journal of Advanced Concrete Technology, 2013, 11, 291-300.	0.8	2
54	Electrochemical Tests in Reinforced Mortar Undergoing Stray Current-Induced Corrosion. , 2017, , 83-108.		2

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55	Application of Electrochemical Impedance Spectroscopy in the Evaluation of Corrosion and Cathodic Protection in Reinforced Concrete. ECS Transactions, 2006, 2, 51-62.	0.3	1
56	A Preliminary Study on Cathodic Prevention in Reinforced Mortar. ECS Transactions, 2009, 25, 93-100.	0.3	1
57	The Effect of Nitrogen-Doped Mesoporous Carbon Spheres (NMCSs) on the Electrochemical Behavior of Carbon Steel in Simulated Concrete Pore Water. , 2017, , 109-137.		1
58	The Influence of Stray Current on the Maturity Level of Cement-Based Materials. , 2017, , 57-82.		1
59	Microstructure Alterations Underlying Electrochemical Process of Chloride-Induced Corrosion. , 2006, , 571-580.		0
60	Electrochemical Measurements in Cement Extract Solutions on Reinforcing Steel, Previously Conditioned in Concrete. ECS Transactions, 2007, 3, 37-49.	0.3	0
61	Monitoring carbon steel behavior under biotic and abiotic conditions. Materials Research Society Symposia Proceedings, 2015, 1768, 15.	0.1	0
62	Monitoring the Electrochemical Response of Chloride Sensors Embedded in Cement Paste. Materials Research Society Symposia Proceedings, 2015, 1768, 38.	0.1	0
63	A Conceptual Model for Ionic Transport in Cement-based Materials in Conditions of Externally Applied Electric Field. Materials Research Society Symposia Proceedings, 2015, 1768, 49.	0.1	0
64	Self-healing of steel corrosion in a model alkaline medium: electrochemical response and surface analysis. , 2013, , .		0
65	Nanocarriers for Corrosion Control in Reinforced Concrete: The Concept, Justified Performance and Future Challenges. ECS Meeting Abstracts, 2018, , .	0.0	0