

# Dessi A Koleva

## List of Publications by Year in descending order

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65  
papers

1,187  
citations

279487

23  
h-index

395343

33  
g-index

66  
all docs

66  
docs citations

66  
times ranked

920  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating the stray current corrosion of steel rebar in different layouts. Measurement: Journal of the International Measurement Confederation, 2022, 196, 111217.	2.5	6
2	Corrosion Behavior of Reinforcing Steel Undergoing Stray Current and Anodic Polarization. Materials, 2021, 14, 261.	1.3	7
3	Bond of steel-mortar interface interfered by stray current. Cement and Concrete Research, 2021, 150, 106591.	4.6	7
4	Microstructure, surface chemistry and electrochemical response of Ag   AgCl sensors in alkaline media. Journal of Materials Science, 2018, 53, 7527-7550.	1.7	37
5	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
6	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
7	Potentiometric Response of Ag/AgCl Chloride Sensors in Model Alkaline Medium. Advances in Materials Science and Engineering, 2018, 2018, 1-12.	1.0	11
8	An Innovative Approach to Control Steel Reinforcement Corrosion by Self-Healing. Materials, 2018, 11, 309.	1.3	16
9	Nanocarriers for Corrosion Control in Reinforced Concrete: The Concept, Justified Performance and Future Challenges. ECS Meeting Abstracts, 2018, , .	0.0	0
10	The Onset of Chloride-Induced Corrosion in Reinforced Cement-Based Materials as Verified by Embeddable Chloride Sensors. , 2017, , 23-55.		2
11	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
12	Development of Smart Corrosion Inhibitors for Reinforced Concrete Structures Exposed to a Microbial Environment. Industrial & Engineering Chemistry Research, 2017, 56, 5778-5794.	1.8	17
13	The Influence of Stray Current on the Maturity Level of Cement-Based Materials. , 2017, , 57-82.		1
14	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
15	Understanding the adhesion mechanisms between C S H and fillers. Cement and Concrete Research, 2017, 100, 275-283.	4.6	90
16	A review on stray current-induced steel corrosion in infrastructure. Corrosion Reviews, 2017, 35, 397-423.	1.0	70
17	Determination of Chloride Content in Cementitious Materials: From Fundamental Aspects to Application of Ag/AgCl Chloride Sensors. Sensors, 2017, 17, 2482.	2.1	40
18	The Effect of Water-to-Cement Ratio and Curing on Material Properties of Mortar Specimens in Stray Current Conditions. Journal of Advanced Concrete Technology, 2017, 15, 627-643.	0.8	7

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19	Stray Current-Induced Development of Cement-Based Microstructure in Water-Submerged, Ca(OH) <sub>2</sub> -Submerged and Sealed Conditions. Journal of Advanced Concrete Technology, 2017, 15, 244-268.	0.8	7
20	Electrochemical Tests in Reinforced Mortar Undergoing Stray Current-Induced Corrosion. , 2017, , 83-108.		2
21	Monitoring carbon steel behavior under biotic and abiotic conditions. Materials Research Society Symposia Proceedings, 2015, 1768, 15.	0.1	0
22	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
23	Monitoring the Electrochemical Response of Chloride Sensors Embedded in Cement Paste. Materials Research Society Symposia Proceedings, 2015, 1768, 38.	0.1	0
24	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
25	Electrochemical performance of steel in cement extract and bulk matrix properties of cement paste in the presence of Pluronic 123 micelles. Journal of Materials Science, 2013, 48, 2490-2503.	1.7	8
26	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
27	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
28	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
29	Self-healing of steel corrosion in a model alkaline medium: electrochemical response and surface analysis. , 2013, , .		0
30	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
31	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
32	Corrosion performance of reinforced mortar in the presence of polymeric nano-aggregates: electrochemical behavior, surface analysis, and properties of the steel/cement paste interface. Journal of Materials Science, 2012, 47, 4981-4995.	1.7	15
33	The influence of admixed micelles on the microstructural properties and global performance of cement-based materials. Cement and Concrete Research, 2012, 42, 1122-1133.	4.6	14
34	Corrosion Performance of Carbon Steel in Simulated Pore Solution in the Presence of Micelles. Journal of the Electrochemical Society, 2011, 158, C76.	1.3	25
35	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
36	Steel corrosion resistance in model solutions, containing waste materials. Electrochimica Acta, 2011, 58, 628-646.	2.6	28

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37	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
38	Electrochemical and Microstructural Studies in Reinforced Mortar, Modified with Core-Shell Micelles. <i>ECS Transactions</i> , 2010, 25, 79-85.	0.3	4
39	Application of PEO113â€“b-PS218 nano-aggregates for improved protective characteristics of composite zinc coatings in chloride-containing environment. <i>Surface and Coatings Technology</i> , 2010, 204, 3760-3772.	2.2	29
40	Microstructural properties of the bulk matrix and the steel/cement paste interface in reinforced concrete, maintained in conditions of corrosion and cathodic protection. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2010, 61, 561-567.	0.8	6
41	Concrete porosimetry: Aspects of feasibility, reliability and economy. <i>Cement and Concrete Composites</i> , 2010, 32, 291-299.	4.6	37
42	Electrochemical Performance of Low-Carbon Steel in Alkaline Model Solutions Containing Hybrid Aggregates. <i>ECS Transactions</i> , 2010, 28, 105-112.	0.3	6
43	Microstructural Characterization of Reinforced Mortar after Corrosion and Cathodic Prevention in the Presence of Core-Shell Micelles. <i>ECS Transactions</i> , 2010, 28, 95-104.	0.3	2
44	Corrosion Performance of Composite Galvanic Coatings with Variable Concentration of Polymeric Nanoaggregates and/or Cr(III) Conversion Layers. <i>ECS Transactions</i> , 2010, 33, 85-92.	0.3	4
45	Corrosion Performance of Carbon Steel in Micelle-Containing Cement Extract. <i>ECS Transactions</i> , 2010, 28, 113-121.	0.3	2
46	A Preliminary Study on Cathodic Prevention in Reinforced Mortar. <i>ECS Transactions</i> , 2009, 25, 93-100.	0.3	1
47	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
48	The beneficial secondary effects of conventional and pulse cathodic protection for reinforced concrete, evidenced by Xâ€“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
49	Zinc Composite Layers, Incorporating Polymeric Nano-aggregates: Surface Analysis and Electrochemical Behavior.. <i>ECS Transactions</i> , 2008, 11, 27-35.	0.3	3
50	Corrosion behavior and protective ability of Zn and Znâ€“Co electrodeposits with embedded polymeric nanoparticles. <i>Applied Surface Science</i> , 2008, 254, 5618-5625.	3.1	40
51	Electrical resistivity and microstructural properties of concrete materials in conditions of current flow. <i>Cement and Concrete Composites</i> , 2008, 30, 731-744.	4.6	60
52	Correlation of microstructure, electrical properties and electrochemical phenomena in reinforced mortar. Breakdown to multi-phase interface structures. Part I: Microstructural observations and electrical properties. <i>Materials Characterization</i> , 2008, 59, 290-300.	1.9	31
53	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. <i>Materials Characterization</i> , 2008, 59, 801-815.	1.9	52
54	Electrochemical Measurements in Cement Extract Solutions on Reinforcing Steel, Previously Conditioned in Concrete. <i>ECS Transactions</i> , 2007, 3, 37-49.	0.3	0

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55	Electrochemical Behavior, Microstructural Analysis, and Morphological Observations in Reinforced Mortar Subjected to Chloride Ingress. <i>Journal of the Electrochemical Society</i> , 2007, 154, E45.	1.3	29
56	Investigation of Corrosion and Cathodic Protection in Reinforced Concrete. <i>Journal of the Electrochemical Society</i> , 2007, 154, C261.	1.3	25
57	Investigation of Corrosion and Cathodic Protection in Reinforced Concrete. <i>Journal of the Electrochemical Society</i> , 2007, 154, P52.	1.3	37
58	Microstructural analysis of plain and reinforced mortars under chloride-induced deterioration. <i>Cement and Concrete Research</i> , 2007, 37, 604-617.	4.6	37
59	Quantitative characterisation of steel/cement paste interface microstructure and corrosion phenomena in mortars suffering from chloride attack. <i>Corrosion Science</i> , 2006, 48, 4001-4019.	3.0	72
60	Microstructure Alterations Underlying Electrochemical Process of Chloride-Induced Corrosion. , 2006, , 571-580.		0
61	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
62	Composition and Morphology of Product Layers in the Steel/Cement Paste Interface in Conditions of Corrosion and Cathodic Protection in Reinforced Concrete. <i>ECS Transactions</i> , 2006, 2, 127-139.	0.3	4
63	Conventional and Pulse Cathodic Protection of Reinforced Concrete: Electrochemical Approach and Microstructural Investigations. <i>ECS Transactions</i> , 2006, 1, 287-298.	0.3	7
64	Application of Electrochemical Impedance Spectroscopy in the Evaluation of Corrosion and Cathodic Protection in Reinforced Concrete. <i>ECS Transactions</i> , 2006, 2, 51-62.	0.3	1
65	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