Nikolaos D Alexopoulos

List of Publications by Year
in descending order

80	1,876	257450 24	289244 40
papers	citations	h-index	g-index

80	80	80	1507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural health monitoring of glass fiber reinforced composites using embedded carbon nanotube (CNT) fibers. Composites Science and Technology, 2010, 70, 260-271.	7.8	192
2	Fatigue behavior of the aeronautical Alâ€“Li (2198) aluminum alloy under constant amplitude loading. International Journal of Fatigue, 2013, 56, 95-105.	5.7	96
3	Quality evaluation of A357 cast aluminum alloy specimens subjected to different artificial aging treatment. Materials & Design, 2004, 25, 419-430.	5.1	84
4	Quality Indices for Aluminum Alloy Castings: A Critical Review. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2009, 40, 802-811.	2.1	75
5	On the Ductility of Cast Al-7ÂPct Si-Mg Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1000-1007.	2.2	65
6	Fracture related mechanical properties of low and high graphene reinforcement of epoxy nanocomposites. Composites Science and Technology, 2017, 150, 194-204.	7.8	65
7	Effect of ageing on precipitation kinetics, tensile and work hardening behavior of Al-Cu-Mg (2024) alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 457-467.	5.6	63
8	Experimental and theoretical studies of corrosion-induced mechanical properties degradation of aircraft 2024 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 498, 248-257.	5.6	59
9	Damage detection of glass fiber reinforced composites using embedded PVAâ€“carbon nanotube (CNT) fibers. Composites Science and Technology, 2010, 70, 1733-1741.	7.8	56
10	The effect of artificial ageing heat treatments on the corrosion-induced hydrogen embrittlement of 2024 (Alâ€“Cu) aluminium alloy. Corrosion Science, 2016, 102, 413-424.	6.6	50
11	Beyond the Hype: On Using Blockchains in Trust Management for Authentication. , 2017, , .		50
12	Accelerated corrosion exposure in ultra thin sheets of 2024 aircraft aluminium alloy for GLARE applications. Corrosion Science, 2012, 55, 289-300.	6.6	47
13	Assessment of the strain monitoring reliability of fiber Bragg grating sensor (FBGs) in advanced composite structures. Composite Structures, 2011, 93, 2163-2172.	5.8	44
14	Improved strain sensing performance of glass fiber polymer composites with embedded pre-stretched polyvinyl alcoholâ€“carbon nanotube fibers. Carbon, 2013, 59, 65-75.	10.3	44
15	Assessment of the ability of conventional and advanced wrought aluminum alloys for mechanical performance in light-weight applications. Materials & Design, 2008, 29, 80-91.	5.1	43
16	A new quality index for characterizing aluminum cast alloys with regard to aircraft structure design requirements. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 301-308.	2.2	38
17	Effect of salt spray corrosion exposure on the mechanical performance of different technical class reinforcing steel bars. Materials & Design, 2007, 28, 2318-2328.	5.1	37
18	Generation of quality maps to support material selection by exploiting the quality indices concept of cast aluminum alloys. Materials & Design, 2007, 28, 534-543.	5.1	35

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19	On the ductility potential of cast Alâ€“Cuâ€“Mg (206) alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 506, 23-26.	5.6	35
20	Relationship between Fracture Toughness and Tensile Properties of A357 Cast Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 702-716.	2.2	35
21	Impact mechanical behaviour of Alâ€“7Siâ€“Mg (A357) cast aluminum alloy. The effect of artificial aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 6303-6312.	5.6	35
22	Synergy of corrosion-induced micro-cracking and hydrogen embrittlement on the structural integrity of aluminium alloy (Al-Cu-Mg) 2024. Corrosion Science, 2017, 121, 32-42.	6.6	34
23	Quality assessment of artificially aged A357 aluminum alloy cast ingots by introducing approximate expressions of the quality index Q D. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 3079-3089.	2.2	30
24	Laser beam welded structures for a regional aircraft: weight, cost and carbon footprint savings. Journal of Manufacturing Systems, 2016, 39, 38-52.	13.9	28
25	Dispersion of Multi-Walled Carbon Nanotubes into White Cement Mortars: The Effect of Concentration and Surfactants. Nanomaterials, 2022, 12, 1031.	4.1	27
26	On the corrosion-induced mechanical degradation for different artificial aging conditions of 2024 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 520, 40-48.	5.6	26
27	Mechanical Performance Evaluation of Cast Magnesium Alloys for Automotive and Aeronautical Applications. Journal of Engineering Materials and Technology, Transactions of the ASME, 2007, 129, 422-430.	1.4	24
28	Definition of Quality in Cast Aluminum Alloys and Its Characterization with Appropriate Indices. Journal of Materials Engineering and Performance, 2006, 15, 59-66.	2.5	23
29	The Effect of Artificial Aging on Tensile Work Hardening Characteristics of a Cast Al-7ÂPct Si-0.55ÂPct Mg (A357) Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 2772-2780.	2.2	23
30	Investigating the impact of sustainability in the production of aeronautical subscale components. Journal of Cleaner Production, 2018, 176, 785-799.	9.3	23
31	Dynamic fracture toughness of Alâ€“7Siâ€“Mg (A357) aluminum alloy. Mechanics of Materials, 2013, 58, 55-68.	3.2	21
32	The effect of Cu, Ag, Sm and Sr additions on the statistical distributions of Si particles and tensile properties in A357â€“T6 alloy castings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 604, 40-45.	5.6	21
33	Evaluation of the Effects of Variations in Chemical Composition on the Quality of Al-Si-Mg, Al-Cu, and Al-Zn-Mg Cast Aluminum Alloys. Journal of Materials Engineering and Performance, 2003, 12, 196-205.	2.5	20
34	On the uniform elongation of cast Alâ€“7%Siâ€“0.6%Mg (A357) alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 507, 236-240.	5.6	20
35	Mechanical properties degradation of (Al-Cu-Li) 2198 alloy due to corrosion exposure. Procedia Structural Integrity, 2016, 2, 597-603.	0.8	19
36	Anisotropy and size effect in tensile mechanical properties of Al-Cu-Li 2198 alloy. Procedia Structural Integrity, 2017, 5, 13-18.	0.8	18

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37	Mechanical performance of BStIV grade steel bars with regard to the long-term material degradation due to corrosion damage. Construction and Building Materials, 2007, 21, 1362-1369.	7.2	17
38	Carbon nanotube-based polymer composites: A trade-off between manufacturing cost and mechanical performance. Composites Science and Technology, 2012, 72, 774-787.	7.8	17
39	Low-alloy TRIP Steels: Evaluation of the Mechanical Performance with regard to Material Design Requirements in the Automotive Industry. Steel Research International, 2006, 77, 129-138.	1.8	15
40	Fatigue Behavior of Inconel 718 TIG Welds. Journal of Materials Engineering and Performance, 2014, 23, 2973-2983.	2.5	14
41	Influence of rotation speed on mechanical properties and corrosion sensitivity of friction stir welded AA2024â€T3 joints. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 1016-1024.	1.5	14
42	On the influence of laser beam welding parameters for autogenous AA2198 welded joints. International Journal of Advanced Manufacturing Technology, 2020, 110, 2079-2092.	3.0	14
43	Corrosion-induced mechanical properties degradation of Al-Cu-Li (2198-T351) aluminium alloy and the role of side-surface cracks. Corrosion Science, 2021, 183, 109330.	6.6	14
44	Effect of artificial aging on the mechanical performance of (Al-Cu) 2024 and (Al-Cu-Li) 2198 aluminum alloys. Procedia Structural Integrity, 2016, 2, 3782-3783.	0.8	11
45	Corrosion performance and mechanical properties of friction stir welded AA2024â€T3 joints under different corrosion solution exposure. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 970-976.	1.5	11
46	Mechanical behavior of MWCNTs based mixed-matrix polymeric and carbon hollow fiber membranes. Separation and Purification Technology, 2017, 183, 21-31.	7.9	11
47	Corrosion behaviour of AA2198â€“T8 and AA2024-T3 alloy in 3.5% aqueous solution. Procedia Structural Integrity, 2020, 28, 2297-2303.	0.8	11
48	Fracture mechanical behaviour of laser beam-welded AA2198 butt joints and integral structures. International Journal of Structural Integrity, 2015, 6, 787-798.	3.3	9
49	Effect of filler wire and post weld heat treatment on the mechanical properties of laser beam-welded AA2198. Materials Characterization, 2021, 178, 111257.	4.4	9
50	Effect of corrosion exposure on aluminum alloy 2024 for different artificial ageing conditions. Procedia Structural Integrity, 2018, 10, 79-84.	0.8	8
51	Effect of niobium oxide thin film on the long-term immersion corrosion of the 2198-T851 aluminium alloy. Materialia, 2022, 22, 101407.	2.7	7
52	Effect of corrosion-induced hydrogen embrittlement and its degradation impact on tensile properties and fracture toughness of (Al-Cu-Mg) 2024 alloy. Procedia Structural Integrity, 2016, 2, 573-580.	0.8	6
53	Effect of powder size on the longâ€term corrosion performance of pure aluminium coatings on mild steel by cold spraying. Materials and Corrosion - Werkstoffe Und Korrosion, 2017, 68, 546-551.	1.5	6
54	Fatigue and fracture toughness of electron beam welded joints of aluminum alloy 6156 (Alâ€“Mgâ€“Si) for aerospace applications. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 2610-2624.	3.4	6

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55	Mechanical and electrical properties of hydraulic lime pastes reinforced with carbon nanomaterials. Procedia Structural Integrity, 2020, 28, 1694-1701.	0.8	6
56	Simulation of the corrosion-induced damage on aluminum alloy 2024 specimens with equivalent surface notches. Frattura Ed Integrita Strutturale, 2019, 13, 342-353.	0.9	6
57	Tailoring the binder matrix of lime-based binders for restoration interventions with regard to mechanical compatibility. Construction and Building Materials, 2021, 315, 125717.	7.2	6
58	Self-diagnostic lime-pozzolan-cement restoration nanocomposites: Effect of graphene modification and cyclic loading level under compression. Developments in the Built Environment, 2022, 10, 100068.	4.0	6
59	In situ control of graphene oxide dispersions with a small impedance sensor. Nanotechnology, 2021, 33, .	2.6	5
60	Damage monitoring of different concentration carbon nanotube/epoxy glass fiber reinforced composites under quasi-static incremental loadings. Materials Today: Proceedings, 2019, 12, 262-270.	1.8	4
61	The effect of prior adhesive bonding on the corrosion behavior of AA2024 FSWed single lap joints. Mechanics of Materials, 2021, , 104122.	3.2	4
62	Impact properties of the aircraft cast aluminium alloy Al-7Si0.6Mg (A357). EPJ Web of Conferences, 2010, 6, 02002.	0.3	3
63	Tensile mechanical performance of electron-beam welded joints from aluminum alloy (Al-Mg-Si) 6156. Procedia Structural Integrity, 2016, 2, 3539-3545.	0.8	3
64	Effect of corrosion exposure on the mechanical performance of 2024 aluminum alloy electron beam welded joints. Procedia Structural Integrity, 2018, 10, 73-78.	0.8	3
65	Prediction of Aircraft Aluminum Alloys Tensile Mechanical Properties Degradation Using Support Vector Machines. Lecture Notes in Computer Science, 2010, , 9-18.	1.3	3
66	Study of Reduced Graphene Oxide Dispersions via Electrical Impedance Spectroscopy. Procedia Structural Integrity, 2020, 28, 1679-1685.	0.8	3
67	Assessing the potential of nano-reinforced blended lime-cement pastes as self-sensing materials for restoration applications. Materials Today: Proceedings, 2022, 62, 2482-2487.	1.8	3
68	Corrosion resistance of aluminum alloy 2198 for different ageing tempers. Procedia Structural Integrity, 2022, 37, 941-947.	0.8	3
69	Study of different binders for restoration applications. Procedia Structural Integrity, 2022, 41, 744-751.	0.8	3
70	Experimental and numerical investigation of laser beam-welded Alâ€“Cuâ€“Li joints using micro-mechanical characteristics. Journal of Materials Research and Technology, 2022, 19, 2431-2446.	5.8	3
71	Real time sensing of structural glass fiber reinforced composites by using embedded PVA - carbon nanotube fibers. EPJ Web of Conferences, 2010, 6, 20003.	0.3	2
72	Effect of Solution Aggressiveness on the Crack Growth Resistance and Cracking Mechanism of AA2024-T3. Corrosion, 2021, 77, 1029-1040.	1.1	2

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73	Calculation of a composite materialâ€™s modulus of elasticity: comparison of results using fixed angles orientation and RVE with those using random orientation tensor and multi-step homogenization. Procedia Structural Integrity, 2020, 28, 2132-2141.	0.8	2
74	Experimental analysis of constant-amplitude fatigue properties in 6156 (Al-Mg-Si) sheet aluminum alloy. Journal of Strain Analysis for Engineering Design, 2018, 53, 676-686.	1.8	1
75	Strain Sensing of Glass Fiber Reinforced Coupons by Using Carbon Nanotube Doped Resin. , 2013, , .		0
76	Fatigue Behavior of Aerospace Al-Cu, Al-Li and Al-Mg-Si Sheet Alloys. Advanced Materials Research, 2015, 1099, 1-8.	0.3	0
77	Simulation of the mechanical behavior of pre-corroded AA2024-T3 specimens with equivalent surface notches. Materials Today: Proceedings, 2020, 32, 254-259.	1.8	0
78	Monitoring of aeronautical composites with embedded FOBG sensor: Part Iâ€”Manufacturing and strain response under incremental fatigue loading spectrum. Material Design and Processing Communications, 2021, 3, e191.	0.9	0
79	Monitoring of aeronautical composites with embedded FOBG sensor: Part IIâ€”Strain response under fatigue and alternate bending loading spectrum. Material Design and Processing Communications, 2021, 3, e204.	0.9	0
80	Strain monitoring of cement-based materials with embedded polyvinyl alcohol - carbon nanotube (PVA-CNT) fibers. Frattura Ed Integrita Strutturale, 2017, 11, 61-73.	0.9	0