

# Mohammad Azadi

## List of Publications by Year in descending order

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99  
papers

1,493  
citations

331642

21  
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414395

32  
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110  
all docs

110  
docs citations

110  
times ranked

885  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermo-mechanical stress analysis of thermal barrier coating system considering thickness and roughness effects. <i>Surface and Coatings Technology</i> , 2014, 243, 91-99.	4.8	82
2	High-cycle bending fatigue properties of additive-manufactured ABS and PLA polymers fabricated by fused deposition modeling 3D-printing. <i>Forces in Mechanics</i> , 2021, 3, 100016.	2.8	74
3	Heat treatment effect on thermo-mechanical fatigue and low cycle fatigue behaviors of A356.0 aluminum alloy. <i>Materials &amp; Design</i> , 2013, 45, 279-285.	5.1	65
4	Tensile loading rate effect on mechanical properties and failure mechanisms in open-hole carbon fiber reinforced polymer composites by acoustic emission approach. <i>Composites Part B: Engineering</i> , 2019, 158, 448-458.	12.0	60
5	Mechanical behavior of TiN/TiC multilayer coatings fabricated by plasma assisted chemical vapor deposition on AISI H13 hot work tool steel. <i>Surface and Coatings Technology</i> , 2014, 245, 156-166.	4.8	59
6	Evaluation of high-cycle bending fatigue and fracture behaviors in EN-GJS700-2 ductile cast iron of crankshafts. <i>Engineering Failure Analysis</i> , 2018, 85, 189-200.	4.0	50
7	Effects of SiO <sub>2</sub> nano-particles on tribological and mechanical properties of aluminum matrix composites by different dispersion methods. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	47
8	Free and forced vibration analysis of FG beam considering temperature dependency of material properties. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 69-80.	1.5	43
9	Clustering effect on damage mechanisms in open-hole laminated carbon/epoxy composite under constant tensile loading rate, using acoustic emission. <i>Composite Structures</i> , 2018, 204, 1-11.	5.8	41
10	Effects of preheating temperature and cooling rate on two-step residual stress in thermal barrier coatings considering real roughness and porosity effect. <i>Ceramics International</i> , 2014, 40, 15925-15940.	4.8	37
11	Effects of strain rate and mean strain on cyclic behavior of aluminum alloys under isothermal and thermo-mechanical fatigue loadings. <i>International Journal of Fatigue</i> , 2013, 47, 148-153.	5.7	35
12	NVH analysis and improvement of a vehicle body structure using DOE method. <i>Journal of Mechanical Science and Technology</i> , 2009, 23, 2980-2989.	1.5	34
13	Evaluation of high-temperature creep behavior in Inconel-713C nickel-based superalloy considering effects of stress levels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 298-305.	5.6	33
14	A new energy-based isothermal and thermo-mechanical fatigue lifetime prediction model for aluminium-silicon-magnesium alloy. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2013, 36, 1323-1335.	3.4	31
15	Effects of solutioning and ageing treatments on properties of Inconel-713C nickel-based superalloy under creep loading. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 711, 195-204.	5.6	28
16	Evaluation of tensile and low-cycle fatigue properties at elevated temperatures in piston aluminum-silicon alloys with and without nano-clay-particles and heat treatment. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 788, 139497.	5.6	28
17	Fatigue lifetime of AZ91 magnesium alloy subjected to cyclic thermal and mechanical loadings. <i>Materials &amp; Design</i> , 2014, 53, 639-644.	5.1	27
18	Stress analysis of thermal barrier coating system subjected to out-of-phase thermo-mechanical loadings considering roughness and porosity effect. <i>Surface and Coatings Technology</i> , 2015, 262, 77-86.	4.8	25

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19	Temperature and thickness effects on thermal and mechanical stresses of rotating FG-disks. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 827-836.	1.5	23
20	Damage prediction for un-coated and coated aluminum alloys under thermal and mechanical fatigue loadings based on a modified plastic strain energy approach. <i>Materials &amp; Design</i> , 2015, 66, 587-595.	5.1	23
21	Improvement of high temperature fatigue lifetime in AZ91 magnesium alloy by heat treatment. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 588, 357-365.	5.6	22
22	Nonlinear transient heat transfer and thermoelastic analysis of thick-walled FGM cylinder with temperature-dependent material properties using Hermitian transfinite element. <i>Journal of Mechanical Science and Technology</i> , 2009, 23, 2635-2644.	1.5	20
23	Optimization of Air Plasma Sprayed Thermal Barrier Coating Parameters in Diesel Engine Applications. <i>Journal of Materials Engineering and Performance</i> , 2013, 22, 3530-3538.	2.5	20
24	Effect of plasma nitriding on high-cycle fatigue properties and fracture behaviors of GJS700 nodular cast iron under cyclic bending loading. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 2070-2086.	3.4	20
25	Topology optimization of additive-manufactured metamaterial structures: A review focused on multi-material types. <i>Forces in Mechanics</i> , 2022, 7, 100100.	2.8	20
26	Effect of rare earth elements on high cycle fatigue behavior of AZ91 alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 587, 179-184.	5.6	18
27	A parametric study on mechanical properties of aluminum-silicon/SiO <sub>2</sub> nano-composites by a solid-liquid phase processing. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	18
28	Influence of Heat Treatment on High-Cycle Fatigue and Fracture Behaviors of Piston Aluminum Alloy Under Fully-Reversed Cyclic Bending. <i>Metals and Materials International</i> , 2021, 27, 860-870.	3.4	18
29	Experimental fatigue lifetime of coated and uncoated aluminum alloy under isothermal and thermo-mechanical loadings. <i>Ceramics International</i> , 2013, 39, 9099-9107.	4.8	17
30	Numerical simulations of cyclic behaviors in light alloys under isothermal and thermo-mechanical fatigue loadings. <i>Materials &amp; Design</i> , 2014, 56, 245-253.	5.1	17
31	Cyclic thermo-mechanical stress, strain and continuum damage behaviors in light alloys during fatigue lifetime considering heat treatment effect. <i>International Journal of Fatigue</i> , 2017, 99, 303-314.	5.7	17
32	Evaluating Fatigue-Damage of Asphalt Binder and Mastic Modified with Nano-Silica and Synthesized Polyurethane Using VECD Method. <i>Journal of Materials in Civil Engineering</i> , 2020, 32, .	2.9	17
33	Failure Analysis of a Cracked Gasoline Engine Cylinder Head. <i>Journal of Failure Analysis and Prevention</i> , 2012, 12, 286-294.	0.9	16
34	Stress-strain time-dependent behavior of A356.0 aluminum alloy subjected to cyclic thermal and mechanical loadings. <i>Mechanics of Time-Dependent Materials</i> , 2014, 18, 475-491.	4.4	16
35	Influences of reinforcement and displacement rate on microstructure, mechanical properties and fracture behaviors of cylinder-head aluminum alloy. <i>Materials Chemistry and Physics</i> , 2020, 255, 123441.	4.0	16
36	Bending fatigue behavior of fused filament fabrication 3D-printed ABS and PLA joints with rotary friction welding. <i>Progress in Additive Manufacturing</i> , 2022, 7, 1345-1361.	4.8	16

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37	Nanomechanical Properties of TiN/TiC Multilayer Coatings. <i>Strength of Materials</i> , 2014, 46, 121-131.	0.5	15
38	Characterization of High-Cycle Bending Fatigue Behaviors for Piston Aluminum Matrix SiO <sub>2</sub> Nano-composites in Comparison with Aluminum-Silicon Alloys. <i>International Journal of Metalcasting</i> , 2021, 15, 152-168.	1.9	15
39	The Effect of New Double Solution Heat Treatment on the High Manganese Hadfield Steel Properties. <i>Metallography, Microstructure, and Analysis</i> , 2018, 7, 618-626.	1.0	14
40	Influences of roughness and heat treatment on high-cycle bending fatigue properties of A380 aluminum alloy under stress-controlled cyclic loading. <i>Materials Chemistry and Physics</i> , 2021, 264, 124475.	4.0	14
41	Evaluation of fatigue and rutting properties of asphalt binder and mastic modified by synthesized polyurethane. <i>Journal of Traffic and Transportation Engineering (English Edition)</i> , 2021, 8, 1036-1048.	4.2	14
42	Nonlinear transient transfinite element thermal analysis of thick-walled FGM cylinders with temperature-dependent material properties. <i>Meccanica</i> , 2010, 45, 305-318.	2.0	13
43	Effects of loading rate on crack growth behavior in carbon fiber reinforced polymer composites using digital image correlation technique. <i>Composites Part B: Engineering</i> , 2019, 175, 107161.	12.0	13
44	Fatigue testing on rotary friction-welded joints between solid ABS and 3D-printed PLA and ABS. <i>European Journal of Mechanics, A/Solids</i> , 2022, 96, 104713.	3.7	13
45	Multidisciplinary optimization of a stiffened shell by genetic algorithm. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 517-530.	1.5	11
46	Data analysis of high-cycle fatigue testing on piston aluminum-silicon alloys under various conditions: Wear, lubrication, corrosion, nano-particles, heat-treating, and stress. <i>Data in Brief</i> , 2022, 41, 107984.	1.0	11
47	Optimal experiment design for plasma thermal spray parameters at bending loads. <i>International Journal of Surface Science and Engineering</i> , 2012, 6, 3.	0.4	10
48	Crack initiation detection in crankshaft ductile cast iron based on information entropy of acoustic emission signals under tensile loading. <i>Engineering Failure Analysis</i> , 2021, 127, 105547.	4.0	9
49	Detection of Crack Initiation and Propagation in Aluminum Alloy Under Tensile Loading, Comparing Signals Acquired by Acoustic Emission and Vibration Sensors. <i>Journal of Nondestructive Evaluation</i> , 2019, 38, 1.	2.4	8
50	Investigation of tribological and compressive behaviors of Al/SiO <sub>2</sub> nanocomposites after T6 heat treatment. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2020, 45, 1.	1.3	8
51	Study of coating effects on the performance of Stirling engine by non-ideal adiabatic thermodynamics modeling. <i>Energy Reports</i> , 2021, 7, 3688-3702.	5.1	8
52	Experimental fatigue dataset for additive-manufactured 3D-printed Polylactic acid biomaterials under fully-reversed rotating-bending loadings. <i>Data in Brief</i> , 2022, 41, 107846.	1.0	8
53	Microstructural and thermal properties of piston aluminum alloy reinforced by nano-particles. <i>AIP Conference Proceedings</i> , 2018, . .	0.4	7
54	Characterization of creep damage and lifetime in Inconel-713C nickel-based superalloy by stress-based, strain/strain rate-based and continuum damage mechanics models. <i>Materials Research Express</i> , 2018, 5, 026509.	1.6	7

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55	Sensitivity analysis for effects of displacement amplitude and loading frequency on low-cycle fatigue lifetime in carbon/epoxy laminated composites. MATEC Web of Conferences, 2018, 165, 22021.	0.2	7
56	A Review on Titanium Nitride and Titanium Carbide Single and Multilayer Coatings Deposited by Plasma Assisted Chemical Vapor Deposition. International Journal of Engineering, Transactions B: Applications, 2016, 29, .	0.7	7
57	Effect of Nano-Clay Particles and Heat Treating on Pure and Fretting Fatigue Properties of Piston Aluminum Alloy under Stress-Controlled Cyclic Bending Loading. Journal of Materials Engineering and Performance, 2022, 31, 5927-5942.	2.5	7
58	Mechanical Behavior and Properties of TiN/TiC Coating Using PACVD. Advanced Materials Research, 2013, 829, 476-481.	0.3	6
59	Thermo-mechanical behaviours of light alloys in comparison to high temperature isothermal behaviours. Materials at High Temperatures, 2014, 31, 12-17.	1.0	6
60	Comparison Between Isothermal and Non-Isothermal Fatigue Behavior in a Cast Aluminum-Silicon-Magnesium Alloy. Strength of Materials, 2015, 47, 840-848.	0.5	6
61	Evaluation of high-cycle fatigue behavior in compact bones at different loading frequencies. Meccanica, 2018, 53, 3517-3526.	2.0	6
62	Reliability prediction, scatter-band analysis and fatigue limit assessment of high-cycle fatigue properties in EN-GJS700-2 ductile cast iron. MATEC Web of Conferences, 2018, 165, 10012.	0.2	6
63	Fabrication of heat-treated nano-clay-composite for improving high-cycle fatigue properties of AlSiCu aluminum alloy under stress-controlled fully-reversed bending loads. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 4143-4160.	2.1	6
64	Linking fatigue response of asphalt binders, mastics, and asphalt concrete mixture modified by nano-silica and synthesized polyurethane. International Journal of Damage Mechanics, 2021, 30, 103-122.	4.2	6
65	Scanning and transmission electron microscopy analysis for surface-modified AM60 magnesium alloy by pulsed electron beam irradiation. Nuclear Instruments & Methods in Physics Research B, 2022, 513, 9-13.	1.4	6
66	Multidisciplinary Optimization of a Car Component Under NVH and Weight Constraints Using RSM. , 2009, , .		5
67	Optimal Design Experiment of Ageing Time and Temperature in Inconel-713C Superalloy Based on Hardness Objective. Transactions of the Indian Institute of Metals, 2018, 71, 1563-1572.	1.5	5
68	Effect of Heat-Treating on Microstructure and High Cycle Bending Fatigue Behavior of AZ91 and AZE911 Magnesium Alloys. Advances in Materials Science and Engineering, 2022, 2022, 1-11.	1.8	5
69	Constitutive modeling of elastic-visco-plastic behaviors in aluminum alloys subjected to cyclic loadings at various strain rates. Journal of Strain Analysis for Engineering Design, 2015, 50, 103-124.	1.8	4
70	Creep properties and failure mechanisms of aluminum alloy and aluminum matrix silicon oxide nano-composite under working conditions in engine pistons. Materials Research Express, 2019, 6, 115020.	1.6	4
71	Estimation of Low-Cycle Fatigue Lifetime in Aluminum-Silicon-Magnesium Alloy of Cylinder Heads based on Striation Marks as Failure Features of Fracture Surfaces and Paris Crack Growth Law. Journal of Failure Analysis and Prevention, 2021, 21, 1466-1475.	0.9	4
72	Development of a duty cycle with K-means clustering technique for hydraulic steering in an instrumented TIBA vehicle. Transportation Engineering, 2022, 8, 100114.	4.2	4

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73	Effects of plasma nitriding process on the corrosion behavior of GJS700 nodular cast iron. Surface Topography: Metrology and Properties, 2022, 10, 025008.	1.6	4
74	Experimental and numerical evaluations of stress relaxation in A356 aluminium alloy subjected to out-of-phase thermomechanical cyclic loadings. Materials at High Temperatures, 2014, 31, 204-210.	1.0	3
75	Cumulative acoustic emission energy for damage detection in composites reinforced by carbon fibers within low-cycle fatigue regime at various displacement amplitudes and rates. Polymers and Polymer Composites, 2021, 29, S36-S48.	1.9	3
76	Corrosion Effects on High-cycle Fatigue Lifetime and Fracture Behavior for Heat-treated Aluminum-matrix Nano-clay composite Compared to Piston Aluminum Alloy. Silicon, 2022, 14, 3749-3763.	3.3	3
77	Effect of nano-clay addition and heat-treatment on tensile and stress-controlled low-cycle fatigue behaviors of aluminum-silicon alloy: Effect of nano-clay addition and heat-treatment. Frattura Ed Integrita Strutturale, 2021, 15, 373-397.	0.9	3
78	Cyclic Deformation Behavior and Failure Mechanism of 316LN Stainless Steel under Creep-Fatigue Loading at 550°C. Journal of Materials Engineering and Performance, 2022, 31, 8314-8326.	2.5	3
79	Micromechanical constitutive modeling of tensile and cyclic behaviors of nano-clay reinforced metal matrix nanocomposites. Mechanics of Materials, 2022, 168, 104280.	3.2	3
80	Nonlinear Thermoelastic Stress Analysis of the Rotating FGM Disk With Variable Thickness and Temperature-Dependent Material Properties Using Finite Element Method. , 2009, , .		2
81	The effect of the chemical composition and the volume of coated carbonate calcium on epoxy paint properties. Russian Journal of Applied Chemistry, 2017, 90, 1181-1187.	0.5	2
82	Numerical simulations of carbon/epoxy laminated composites under various loading rates, comparing extended finite element method and cohesive zone modeling. Material Design and Processing Communications, 2020, , e198.	0.9	2
83	Sensitivity analysis for effects of heat treatment, stress, and temperature on AlSi12CuNiMg aluminum alloy behavior under force-controlled creep loading. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	2
84	Data analysis for investigating the tribological behaviors of aluminum-silicon alloys. Data in Brief, 2022, 42, 108260.	1.0	2
85	Multidisciplinary optimisation of a car component under NVH and weight constraints using RSM. International Journal of Vehicle Noise and Vibration, 2009, 5, 261.	0.1	1
86	Failure analysis and prevention in powertrain systems. , 2016, , 471-492.		1
87	The Effect of Various Parameters on Out-of-phase Thermo-mechanical Fatigue Lifetime of A356.0 Cast Aluminum Alloy. International Journal of Engineering, Transactions B: Applications, 2012, 26, .	0.7	1
88	Effects of Ageing and Forging on Short-term Creep Behaviors of Inconel-713C Superalloy at 850 °C. International Journal of Engineering, Transactions A: Basics, 2020, 33, .	0.4	1
89	Investigation of the Heat Treatment Effect on Microstructures and Phases of Inconel 713C Superalloy. International Journal of Engineering, Transactions A: Basics, 2017, 30, .	0.4	1
90	Effects of Various Ageing Heat Treatments on Microstructural Features and Hardness of Piston Aluminum Alloy. International Journal of Engineering, Transactions A: Basics, 2019, 32, .	0.4	1

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91	Temperature Effect on Creep and Fracture Behaviors of Nano-SiO <sub>2</sub> -composite and AlSi <sub>12</sub> Cu <sub>3</sub> Ni <sub>2</sub> MgFe Aluminum Alloy. International Journal of Engineering Transactions B: Applications, 2020, 33, .	0.5	1
92	Sensitivity analysis of mechanical properties and ductile/brittle behaviors in aluminum-silicon alloy to loading rate and nano-particles, considering interaction effects. Engineering Reports, 2021, 3, e12341.	1.7	1
93	Fatigue Analysis of Antiroll Bar for Periodic and Random Inputs Using Various Theories and Introducing a New Method. , 2009, , .		0
94	Thermoelastic Stresses in FG-Cylinders. , 0, , .		0
95	Bending cyclic behavior and scatter-band analysis of aluminum alloys under beneficial and detrimental conditions through high-cycle fatigue regime. Frattura Ed Integrita Strutturale, 2021, 15, 272-281.	0.9	0
96	PREDICTION OF FIBER BREAKAGE AND MATRIX CRACKING IN POLYMERIC COMPOSITES UNDER LOW-CYCLE FATIGUE REGIMES BY FUZZY AND WAVELET CLUSTERING OF ACOUSTIC EMISSION SIGNALS. Composites: Mechanics, Computations, Applications, 2021, 12, 17-51.	0.3	0
97	Effect of Temperature and Gas Flux on the Mechanical Behavior of TiC Coating by Pulsed DC Plasma Enhanced Chemical Vapor Deposition. International Journal of Engineering, Transactions B: Applications, 2014, 27, .	0.7	0
98	Sensitivity analysis of stress, pre-corrosion, nano-particles and heat treatment on fatigue lifetime of aluminum alloy. Procedia Structural Integrity, 2021, 33, 181-188.	0.8	0
99	A Perspective on Metamaterials for the Biomechanics Application: Multi-Material Metamaterial (4M) Structures. Materials Science Forum, 0, 1064, 151-156.	0.3	0