

# Mohammad Azadi

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

86  
papers

883  
citations

17  
h-index

25  
g-index

110  
ext. papers

1,162  
ext. citations

2.4  
avg, IF

5.08  
L-index

#	Paper	IF	Citations
86	Experimental fatigue dataset for additive-manufactured 3D-printed Polylactic acid biomaterials under fully-reversed rotating-bending loadings.. <i>Data in Brief</i> , <b>2022</b> , 41, 107846	1.2	0
85	Scanning and transmission electron microscopy analysis for surface-modified AM60 magnesium alloy by pulsed electron beam irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2022</b> , 513, 9-13	1.2	1
84	Effect of Heat-Treating on Microstructure and High Cycle Bending Fatigue Behavior of AZ91 and AZE911 Magnesium Alloys. <i>Advances in Materials Science and Engineering</i> , <b>2022</b> , 2022, 1-11	1.5	0
83	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> , <b>2022</b> , 41, 107984	1.2	0
82	Micromechanical constitutive modeling of tensile and cyclic behaviors of nano-clay reinforced metal matrix nanocomposites. <i>Mechanics of Materials</i> , <b>2022</b> , 168, 104280	3.3	0
81	Development of a duty cycle with K-means clustering technique for hydraulic steering in an instrumented TIBA vehicle. <i>Transportation Engineering</i> , <b>2022</b> , 8, 100114	3	0
80	Effects of plasma nitriding process on the corrosion behavior of GJS700 nodular cast iron. <i>Surface Topography: Metrology and Properties</i> , <b>2022</b> , 10, 025008	1.5	0
79	Data analysis for investigating the tribological behaviors of aluminum-silicon alloys. <i>Data in Brief</i> , <b>2022</b> , 108260	1.2	0
78	Topology optimization of additive-manufactured metamaterial structures: A review focused on multi-material types. <i>Forces in Mechanics</i> , <b>2022</b> , 7, 100100	1.5	1
77	Sensitivity analysis of stress, pre-corrosion, nano-particles and heat treatment on fatigue lifetime of aluminum alloy. <i>Procedia Structural Integrity</i> , <b>2021</b> , 33, 181-188	1	
76	Sensitivity analysis of mechanical properties and ductile/brittle behaviors in aluminum-silicon alloy to loading rate and nano-particles, considering interaction effects. <i>Engineering Reports</i> , <b>2021</b> , 3, e12341	1.2	1
75	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> , <b>2021</b> , 44, 2070-2086	3	5
74	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> , <b>2021</b> , 264, 124475	4.4	7
73	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> , <b>2021</b> , 8, 1036-1036	3.9	3
72	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. <i>Frattura Ed Integrita Strutturale</i> , <b>2021</b> , 15, 373-397	0.9	1
71	Characterization of High-Cycle Bending Fatigue Behaviors for Piston Aluminum Matrix SiO2 Nano-composites in Comparison with Aluminum Silicon Alloys. <i>International Journal of Metalcasting</i> , <b>2021</b> , 15, 152-168	1.4	9
70	Linking fatigue response of asphalt binders, mastics, and asphalt concrete mixture modified by nano-silica and synthesized polyurethane. <i>International Journal of Damage Mechanics</i> , <b>2021</b> , 30, 103-122	3	3

69	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> , <b>2021</b> , 27, 860-870	2.4	10
68	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. <i>Journal of Failure Analysis and Prevention</i> , <b>2021</b> , 21, 1466-1475	0.9	0
67	Crack initiation detection in crankshaft ductile cast iron based on information entropy of acoustic emission signals under tensile loading. <i>Engineering Failure Analysis</i> , <b>2021</b> , 127, 105547	3.2	1
66	Bending cyclic behavior and scatter-band analysis of aluminum alloys under beneficial and detrimental conditions through high-cycle fatigue regime. <i>Frattura Ed Integrita Strutturale</i> , <b>2021</b> , 15, 272-281	0.9	
65	High-cycle bending fatigue properties of additive-manufactured ABS and PLA polymers fabricated by fused deposition modeling 3D-printing. <i>Forces in Mechanics</i> , <b>2021</b> , 3, 100016	1.5	11
64	Study of coating effects on the performance of Stirling engine by non-ideal adiabatic thermodynamics modeling. <i>Energy Reports</i> , <b>2021</b> , 7, 3688-3702	4.6	2
63	Sensitivity analysis for effects of heat treatment, stress, and temperature on AlSi12CuNiMg aluminum alloy behavior under force-controlled creep loading. <i>Applied Physics A: Materials Science and Processing</i> , <b>2021</b> , 127, 1	2.6	1
62	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> , <b>2020</b> , 788, 139497	5.3	15
61	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> , <b>2020</b> , 32, 04020218	2.18	7
60	Influences of reinforcement and displacement rate on microstructure, mechanical properties and fracture behaviors of cylinder-head aluminum alloy. <i>Materials Chemistry and Physics</i> , <b>2020</b> , 255, 123441	4.4	8
59	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> , <b>2020</b> , 45, 1	1	2
58	Numerical simulations of carbon/epoxy laminated composites under various loading rates, comparing extended finite element method and cohesive zone modeling. <i>Material Design and Processing Communications</i> , <b>2020</b> , e198	0.9	0
57	Fabrication of heat-treated nano-clay-composite for improving high-cycle fatigue properties of AlSiCu aluminum alloy under stress-controlled fully-reversed bending loads. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , <b>2020</b> , 095440622096973	1.3	2
56	Creep properties and failure mechanisms of aluminum alloy and aluminum matrix silicon oxide nano-composite under working conditions in engine pistons. <i>Materials Research Express</i> , <b>2019</b> , 6, 115020 <sup>1-7</sup>	1.7	2
55	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> , <b>2019</b> , 175, 107161	10	8
54	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> , <b>2019</b> , 38, 1	2.1	5
53	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> , <b>2019</b> , 158, 448-458	10	36
52	Microstructural and thermal properties of piston aluminum alloy reinforced by nano-particles <b>2018</b> ,		6

51	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> , <b>2018</b> , 124, 1	2.6	32
50	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> , <b>2018</b> , 5, 026509	1.7	6
49	Evaluation of high-cycle bending fatigue and fracture behaviors in EN-GJS700-2 ductile cast iron of crankshafts. <i>Engineering Failure Analysis</i> , <b>2018</b> , 85, 189-200	3.2	31
48	Optimal Design Experiment of Ageing Time and Temperature in Inconel-713C Superalloy Based on Hardness Objective. <i>Transactions of the Indian Institute of Metals</i> , <b>2018</b> , 71, 1563-1572	1.2	4
47	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> , <b>2018</b> , 124, 1	2.6	13
46	Clustering effect on damage mechanisms in open-hole laminated carbon/epoxy composite under constant tensile loading rate, using acoustic emission. <i>Composite Structures</i> , <b>2018</b> , 204, 1-11	5.3	23
45	Sensitivity analysis for effects of displacement amplitude and loading frequency on low-cycle fatigue lifetime in carbon/epoxy laminated composites. <i>MATEC Web of Conferences</i> , <b>2018</b> , 165, 22021	0.3	3
44	The Effect of New Double Solution Heat Treatment on the High Manganese Hadfield Steel Properties. <i>Metallography, Microstructure, and Analysis</i> , <b>2018</b> , 7, 618-626	1.1	3
43	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> , <b>2018</b> , 711, 195-204	5.3	18
42	Evaluation of high-cycle fatigue behavior in compact bones at different loading frequencies. <i>Meccanica</i> , <b>2018</b> , 53, 3517-3526	2.1	3
41	Reliability prediction, scatter-band analysis and fatigue limit assessment of high-cycle fatigue properties in EN-GJS700-2 ductile cast iron. <i>MATEC Web of Conferences</i> , <b>2018</b> , 165, 10012	0.3	5
40	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> , <b>2017</b> , 689, 298-305	5.3	23
39	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> , <b>2017</b> , 99, 303-314	5	9
38	The effect of the chemical composition and the volume of coated carbonate calcium on epoxy paint properties. <i>Russian Journal of Applied Chemistry</i> , <b>2017</b> , 90, 1181-1187	0.8	2
37	Failure analysis and prevention in powertrain systems <b>2016</b> , 471-492		1
36	A Review on Titanium Nitride and Titanium Carbide Single and Multilayer Coatings Deposited by Plasma Assisted Chemical Vapor Deposition. <i>International Journal of Engineering, Transactions B: Applications</i> , <b>2016</b> , 29,	1.9	5
35	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> , <b>2015</b> , 66, 587-595		17
34	Comparison Between Isothermal and Non-Isothermal Fatigue Behavior in a Cast Aluminum-Silicon-Magnesium Alloy. <i>Strength of Materials</i> , <b>2015</b> , 47, 840-848	0.6	4

33	Constitutive modeling of elastic-visco-plastic behaviors in aluminum alloys subjected to cyclic loadings at various strain rates. <i>Journal of Strain Analysis for Engineering Design</i> , <b>2015</b> , 50, 103-124	1.3	0
32	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> , <b>2015</b> , 262, 77-86	4.4	16
31	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> , <b>2014</b> , 245, 156-166	4.4	47
30	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> , <b>2014</b> , 40, 15925-15940	5.1	30
29	Stress-strain time-dependent behavior of A356.0 aluminum alloy subjected to cyclic thermal and mechanical loadings. <i>Mechanics of Time-Dependent Materials</i> , <b>2014</b> , 18, 475-491	1.2	12
28	Nanomechanical Properties of TiN/TiC Multilayer Coatings. <i>Strength of Materials</i> , <b>2014</b> , 46, 121-131	0.6	11
27	Fatigue lifetime of AZ91 magnesium alloy subjected to cyclic thermal and mechanical loadings. <i>Materials &amp; Design</i> , <b>2014</b> , 53, 639-644		22
26	Experimental and numerical evaluations of stress relaxation in A356 aluminium alloy subjected to out-of-phase thermomechanical cyclic loadings. <i>Materials at High Temperatures</i> , <b>2014</b> , 31, 204-210	1.1	3
25	Thermo-mechanical behaviours of light alloys in comparison to high temperature isothermal behaviours. <i>Materials at High Temperatures</i> , <b>2014</b> , 31, 12-17	1.1	6
24	Thermo-mechanical stress analysis of thermal barrier coating system considering thickness and roughness effects. <i>Surface and Coatings Technology</i> , <b>2014</b> , 243, 91-99	4.4	61
23	Numerical simulations of cyclic behaviors in light alloys under isothermal and thermo-mechanical fatigue loadings. <i>Materials &amp; Design</i> , <b>2014</b> , 56, 245-253		16
22	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> , <b>2013</b> , 587, 179-184	5.3	14
21	Experimental fatigue lifetime of coated and uncoated aluminum alloy under isothermal and thermo-mechanical loadings. <i>Ceramics International</i> , <b>2013</b> , 39, 9099-9107	5.1	14
20	Optimization of Air Plasma Sprayed Thermal Barrier Coating Parameters in Diesel Engine Applications. <i>Journal of Materials Engineering and Performance</i> , <b>2013</b> , 22, 3530-3538	1.6	14
19	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> , <b>2013</b> , 588, 357-365	5.3	15
18	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> , <b>2013</b> , 47, 148-153	5	22
17	Heat treatment effect on thermo-mechanical fatigue and low cycle fatigue behaviors of A356.0 aluminum alloy. <i>Materials &amp; Design</i> , <b>2013</b> , 45, 279-285		49
16	A new energy-based isothermal and thermo-mechanical fatigue lifetime prediction model for aluminium-boron-magnesium alloy. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2013</b> , 36, 1323-1335	3	20

15	Mechanical Behavior and Properties of TiN/TiC Coating Using PACVD. <i>Advanced Materials Research</i> , <b>2013</b> , 829, 476-481	0.5	3
14	Failure Analysis of a Cracked Gasoline Engine Cylinder Head. <i>Journal of Failure Analysis and Prevention</i> , <b>2012</b> , 12, 286-294	0.9	14
13	Multidisciplinary optimization of a stiffened shell by genetic algorithm. <i>Journal of Mechanical Science and Technology</i> , <b>2012</b> , 26, 517-530	1.6	7
12	Optimal experiment design for plasma thermal spray parameters at bending loads. <i>International Journal of Surface Science and Engineering</i> , <b>2012</b> , 6, 3	1	8
11	Free and forced vibration analysis of FG beam considering temperature dependency of material properties. <i>Journal of Mechanical Science and Technology</i> , <b>2011</b> , 25, 69-80	1.6	33
10	Temperature and thickness effects on thermal and mechanical stresses of rotating FG-disks. <i>Journal of Mechanical Science and Technology</i> , <b>2011</b> , 25, 827-836	1.6	18
9	Nonlinear transient transfinite element thermal analysis of thick-walled FGM cylinders with temperature-dependent material properties. <i>Meccanica</i> , <b>2010</b> , 45, 305-318	2.1	12
8	Nonlinear Thermoelastic Stress Analysis of the Rotating FGM Disk With Variable Thickness and Temperature-Dependent Material Properties Using Finite Element Method <b>2009</b> ,		2
7	Multidisciplinary Optimization of a Car Component Under NVH and Weight Constraints Using RSM <b>2009</b> ,		1
6	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> , <b>2009</b> , 23, 2635-2644	1.6	16
5	NVH analysis and improvement of a vehicle body structure using DOE method. <i>Journal of Mechanical Science and Technology</i> , <b>2009</b> , 23, 2980-2989	1.6	25
4	Corrosion Effects on High-cycle Fatigue Lifetime and Fracture Behavior for Heat-treated Aluminum-matrix Nano-clay-composite Compared to Piston Aluminum Alloy. <i>Silicon</i> ,1	2.4	1
3	Cumulative acoustic emission energy for damage detection in composites reinforced by carbon fibers within low-cycle fatigue regime at various displacement amplitudes and rates. <i>Polymers and Polymer Composites</i> ,096739112098570	0.8	1
2	Effect of Nano-Clay Particles and Heat Treating on Pure and Fretting Fatigue Properties of Piston Aluminum Alloy under Stress-Controlled Cyclic Bending Loading. <i>Journal of Materials Engineering and Performance</i> ,1	1.6	0
1	Cyclic Deformation Behavior and Failure Mechanism of 316LN Stainless Steel under Creep-Fatigue Loading at 550°C. <i>Journal of Materials Engineering and Performance</i> ,1	1.6	0