

Ahmad Baroutaji

List of Publications by Year in descending order

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94
papers

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212478

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96
docs citations

96
times ranked

3210
citing authors

#	ARTICLE	IF	CITATIONS
1	Crashworthiness analysis of bio-inspired thin-walled tubes based on Morpho wings microstructures. Mechanics Based Design of Structures and Machines, 2022, 50, 3683-3700.	3.4	8
2	Advances in Solid Oxide Fuel Cell Materials. , 2022, , 334-340.		3
3	Investigation on the Use of Phase Change Materials in Geothermal Energy Applications. , 2022, , 352-361.		8
4	Piezoelectric Sensors. , 2022, , 65-71.		1
5	Future Directions and Requirements for Tissue Engineering Biomaterials. , 2022, , 195-218.		8
6	Smart Tribological Coating. , 2022, , 414-425.		5
7	Metallic Meta-Biomaterial as Biomedical Implants. , 2022, , 70-80.		4
8	Characteristics of Acoustic Metamaterials. , 2022, , 35-45.		5
9	Advances in Acoustic Metamaterials. , 2022, , 1-10.		2
10	Advances in Shape-Stabilized Phase Change Materials. , 2022, , 326-333.		6
11	Developments of Foam Materials for Fuel Cell Technology. , 2022, , 279-294.		1
12	Metamaterials for Energy Harvesting. , 2022, , 522-534.		3
13	Coatings for Dental Applications. , 2022, , 426-435.		2
14	Nanomaterials Theory and Applications. , 2022, , 302-314.		9
15	Metamaterial for Crashworthiness Applications. , 2022, , 57-69.		10
16	Classification of Biomaterial Functionality. , 2022, , 86-102.		15
17	Materials for Fuel Cell Membranes. , 2022, , 267-272.		5
18	Heat pipe-based waste heat recovery systems: Background and applications. Thermal Science and Engineering Progress, 2022, 29, 101221.	1.3	31

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19	Effect of Bipolar Plate Material on Proton Exchange Membrane Fuel Cell Performance. <i>Energies</i> , 2022, 15, 1886.	1.6	9
20	Crushing and energy absorption properties of additively manufactured concave thin-walled tubes. <i>Results in Engineering</i> , 2022, 14, 100424.	2.2	13
21	Large-scale hydrogen production and storage technologies: Current status and future directions. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 23498-23528.	3.8	226
22	Deformation and energy absorption of additively manufactured functionally graded thickness thin-walled circular tubes under lateral crushing. <i>Engineering Structures</i> , 2021, 226, 111324.	2.6	72
23	3D printed auxetic nasopharyngeal swabs for COVID-19 sample collection. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 114, 104175.	1.5	51
24	Materials for a New Generation of Batteries. , 2021, , 59-59.		0
25	Antibacterial Biomaterials in Orthopedics. , 2021, , 46-46.		1
26	Graphene Based Materials for Supercapacitors and Fuel Cells. , 2021, , 399-399.		1
27	Characteristics of Electrochemical Energy Storage Materials in Light of Advanced Characterization Techniques. , 2021, , .		0
28	Advances in Electrolytes for Sodium-Sulfur Batteries. , 2021, , .		1
29	Metal Organic Framework in Batteries. , 2021, , 125-125.		0
30	Advancements and prospects of thermal management and waste heat recovery of PEMFC. <i>International Journal of Thermofluids</i> , 2021, 9, 100064.	4.0	118
31	Thermophysical properties of graphene-based nanofluids. <i>International Journal of Thermofluids</i> , 2021, 10, 100073.	4.0	81
32	A Review on Failure Modes of Wind Turbine Components. <i>Energies</i> , 2021, 14, 5241.	1.6	36
33	Sound pressure level of a Formula 3 car and the influence of detachable muffler-tip. <i>Results in Engineering</i> , 2021, 11, 100261.	2.2	1
34	Acoustic behaviour of 3D printed titanium perforated panels. <i>Results in Engineering</i> , 2021, 11, 100252.	2.2	21
35	Augmenting performance of fuel cells using nanofluids. <i>Thermal Science and Engineering Progress</i> , 2021, 25, 101012.	1.3	17
36	Additive manufacturing of anti-SARS-CoV-2 Copper-Tungsten-Silver alloy. <i>Rapid Prototyping Journal</i> , 2021, 27, 1831-1849.	1.6	26

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37	Nanocrystalline Mg ₂ Ni for Hydrogen Storage. , 2021, , 366-366.		3
38	Tissue Engineering Concept. , 2021, , .		3
39	Materials in PEM Fuel Cells. , 2021, , 256-256.		1
40	Crashworthiness analysis and optimization of standard and windowed multi-cell hexagonal tubes. Structural and Multidisciplinary Optimization, 2021, 63, 2191-2209.	1.7	28
41	Technical and Commercial Challenges of Proton-Exchange Membrane (PEM) Fuel Cells. Energies, 2021, 14, 144.	1.6	71
42	PEMFC Poly-Generation Systems: Developments, Merits, and Challenges. Sustainability, 2021, 13, 11696.	1.6	16
43	3D Printed Cobalt-Chromium-Molybdenum Porous Superalloy with Superior Antiviral Activity. International Journal of Molecular Sciences, 2021, 22, 12721.	1.8	15
44	Perforated Steel Stud to Improve the Acoustic Insulation of Drywall Partitions. Acoustics, 2021, 3, 679-695.	0.8	5
45	Simulation and Modeling of Vehicle Emissions “ A Review. , 2020, , 783-788.		0
46	Mechanical performance of highly permeable laser melted Ti6Al4V bone scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103517.	1.5	106
47	Mechanical performance of additively manufactured pure silver antibacterial bone scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104090.	1.5	41
48	Recent advances in district energy systems: A review. Thermal Science and Engineering Progress, 2020, 20, 100678.	1.3	21
49	Microstructure, isothermal and thermomechanical fatigue behaviour of leaded and lead-free solder joints. Engineering Failure Analysis, 2020, 117, 104846.	1.8	15
50	Environmental impact of desalination processes: Mitigation and control strategies. Science of the Total Environment, 2020, 740, 140125.	3.9	126
51	Evaluation of crushing and energy absorption characteristics of bio-inspired nested structures. Thin-Walled Structures, 2020, 148, 106615.	2.7	50
52	Additively manufactured AlSi10Mg inherently stable thin and thick-walled lattice with negative Poisson’s ratio. Composite Structures, 2020, 247, 112469.	3.1	51
53	A comprehensive study of the effect of bipolar plate (BP) geometry design on the performance of proton exchange membrane (PEM) fuel cells. Renewable and Sustainable Energy Reviews, 2019, 111, 236-260.	8.2	156
54	Crashworthiness design and optimisation of windowed tubes under axial impact loading. Thin-Walled Structures, 2019, 142, 132-148.	2.7	51

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55	Application of Cellular Material in Crashworthiness Applications: An Overview. , 2019, , .		13
56	Acoustic Performance of Metallic Foams. , 2019, , .		10
57	Compaction analysis and optimisation of convex-faced pharmaceutical tablets using numerical techniques. Particuology, 2019, 47, 10-21.	2.0	7
58	Comprehensive investigation on hydrogen and fuel cell technology in the aviation and aerospace sectors. Renewable and Sustainable Energy Reviews, 2019, 106, 31-40.	8.2	325
59	Outlook of carbon capture technology and challenges. Science of the Total Environment, 2019, 657, 56-72.	3.9	281
60	Theoretical and numerical crush analysis of multi-stage nested aluminium alloy tubular structures under axial impact loading. Engineering Structures, 2019, 182, 39-50.	2.6	25
61	Prospects and challenges of concentrated solar photovoltaics and enhanced geothermal energy technologies. Science of the Total Environment, 2019, 659, 851-861.	3.9	101
62	Crashworthiness optimal design of multi-cell triangular tubes under axial and oblique impact loading. Engineering Failure Analysis, 2018, 93, 241-256.	1.8	51
63	Computational Fluid Dynamic simulation and modelling (CFX) of flow plate in PEM fuel cell using aluminum open cellular foam material. , 2017, , .		9
64	Application of Open Pore Cellular Foam for air breathing PEM fuel cell. International Journal of Hydrogen Energy, 2017, 42, 25630-25638.	3.8	47
65	On the crashworthiness performance of thin-walled energy absorbers: Recent advances and future developments. Thin-Walled Structures, 2017, 118, 137-163.	2.7	452
66	Ex-situ evaluation of PTFE coated metals in a proton exchange membrane fuel cell environment. Surface and Coatings Technology, 2017, 323, 10-17.	2.2	21
67	Developments of electric cars and fuel cell hydrogen electric cars. International Journal of Hydrogen Energy, 2017, 42, 25695-25734.	3.8	337
68	Combination of finite element method and Druckerâ€Prager Cap material model for simulation of pharmaceutical tableting process. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1133-1145.	0.5	8
69	Modelling and simulation of Proton Exchange Membrane fuel cell with serpentine bipolar plate using MATLAB. International Journal of Hydrogen Energy, 2017, 42, 25639-25662.	3.8	76
70	The Introduction of Cobalt Ferrite Nanoparticles as a Solution for Magnetostrictive Applications. , 2017, , .		2
71	Transparent Conductive Oxides Thin Films for Radio Frequency Attenuation. , 2017, , .		0
72	Metallic Thin-Walled Tubes for Crashworthiness Applications: A Reference Guide. , 2017, , .		1

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73	Mechanics and Computational Modeling of Pharmaceutical Tabletting Process. , 2017, , .		6
74	Optimisation of bipolar plate through computational fluid dynamic simulation and modelling using nickle open pore cellular foam material. Renewable Energy and Power Quality Journal, 2017, 1, 886-892.	0.2	5
75	Blood Vessels, Mechanical and Physical Properties of. , 2016, , .		0
76	Developments of Foam Materials for Fuel Cell Technology. , 2016, , .		2
77	Gas Micropumps. , 2016, , .		0
78	Thermal Actuation. , 2016, , .		0
79	Magnetostrictive Cobalt Ferrite, Nanoparticles Preparation and Magnetic Characterization. , 2016, , 366-366.		3
80	Construction Materials: Soil and Natural Materials. , 2016, , .		0
81	Developments in fuel cell technologies in the transport sector. International Journal of Hydrogen Energy, 2016, 41, 16499-16508.	3.8	246
82	Pressure Sensors. , 2016, , .		2
83	Materials in PEM Fuel Cells. , 2016, , .		19
84	Quasi-static, impact and energy absorption of internally nested tubes subjected to lateral loading. Thin-Walled Structures, 2016, 98, 337-350.	2.7	117
85	Sintering Behavior of Cobalt Ferrite Nanoparticles Prepared by the Solâ€“Gel Technique. , 2016, , .		0
86	Analysis and optimization of sandwich tubes energy absorbers under lateral loading. International Journal of Impact Engineering, 2015, 82, 74-88.	2.4	98
87	Crush analysis and multi-objective optimization design for circular tube under quasi-static lateral loading. Thin-Walled Structures, 2015, 86, 121-131.	2.7	148
88	Lateral collapse of shortâ€“length sandwich tubes compressed by different indenters and exposed to external constraints. Materialwissenschaft Und Werkstofftechnik, 2014, 45, .	0.5	13
89	Quasi-static response and multi-objective crashworthiness optimization of oblong tube under lateral loading. Thin-Walled Structures, 2014, 82, 262-277.	2.7	112
90	Analysis of the Effect of the Elliptical Ratio in Tubular Energy Absorbers Under Quasi-Static Conditions. Advanced Structured Materials, 2012, , 323-336.	0.3	1

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91	The effect of the elliptical ratio on the tubular energy absorber subjected to lateral loading under quasistatic conditions. EPJ Web of Conferences, 2010, 6, 09003.	0.1	0
92	Experimental Study of Operational Parameters on the Performance of PEMFCS in Dead end Mode. , 0, , .		4
93	Characterisation of Proton Exchange Membrane (PEMFC) Fuel Cell Through Design of Experiment (DOE). , 0, , .		4
94	Mechanical and thermal performance of additively manufactured copper, silver and copper-silver alloys. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 0, , 146442072110409.	0.7	4