

Zhonggang Wang

List of Publications by Year in descending order

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57
papers

2,404
citations

186209

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206029

48
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58
all docs

58
docs citations

58
times ranked

850
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in novel metallic honeycomb structure. Composites Part B: Engineering, 2019, 166, 731-741.	5.9	256
2	High-speed axial impact of aluminum honeycomb “ Experiments and simulations. Composites Part B: Engineering, 2014, 56, 1-8.	5.9	120
3	Mechanical performance of vertex-based hierarchical vs square thin-walled multi-cell structure. Thin-Walled Structures, 2019, 134, 102-110.	2.7	86
4	On folding mechanics of multi-cell thin-walled square tubes. Composites Part B: Engineering, 2018, 132, 17-27.	5.9	84
5	Matching effect of honeycomb-filled thin-walled square tube“Experiment and simulation. Composite Structures, 2016, 157, 494-505.	3.1	81
6	Blast resistance and parametric study of sandwich structure consisting of honeycomb core filled with circular metallic tubes. Composites Part B: Engineering, 2018, 145, 261-269.	5.9	81
7	Experimental investigation on bending behavior of honeycomb sandwich panel with ceramic tile face-sheet. Composites Part B: Engineering, 2019, 164, 280-286.	5.9	80
8	Numerical and theoretical analysis of honeycomb structure filled with circular aluminum tubes subjected to axial compression. Composites Part B: Engineering, 2019, 165, 626-635.	5.9	79
9	Negative Poisson's ratio and effective Young's modulus of a vertex-based hierarchical re-entrant honeycomb structure. International Journal of Mechanical Sciences, 2021, 206, 106611.	3.6	73
10	Numerical study of low-speed impact response of sandwich panel with tube filled honeycomb core. Composite Structures, 2019, 220, 736-748.	3.1	72
11	On the crashworthiness of bio-inspired hexagonal prismatic tubes under axial compression. International Journal of Mechanical Sciences, 2020, 186, 105893.	3.6	70
12	Experimentally program large magnitude of Poisson's ratio in additively manufactured mechanical metamaterials. International Journal of Mechanical Sciences, 2020, 173, 105466.	3.6	68
13	On the influence of structural defects for honeycomb structure. Composites Part B: Engineering, 2018, 142, 183-192.	5.9	67
14	Mechanical behavior of composited structure filled with tandem honeycombs. Composites Part B: Engineering, 2017, 114, 128-138.	5.9	65
15	Numerical study on three-point bending behavior of honeycomb sandwich with ceramic tile. Composites Part B: Engineering, 2019, 167, 63-70.	5.9	62
16	Mechanical behaviors of inclined cell honeycomb structure subjected to compression. Composites Part B: Engineering, 2017, 110, 307-314.	5.9	58
17	Mechanical performance of honeycomb filled with circular CFRP tubes. Composites Part B: Engineering, 2018, 135, 232-241.	5.9	58
18	Theoretical assessment methodology on axial compressed hexagonal honeycomb's energy absorption capability. Mechanics of Advanced Materials and Structures, 2016, 23, 503-512.	1.5	51

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19	Additively manufactured bi-material metamaterial to program a wide range of thermal expansion. <i>Materials and Design</i> , 2021, 198, 109343.	3.3	51
20	Bending behavior of sandwich beam with tailored hierarchical honeycomb cores. <i>Thin-Walled Structures</i> , 2020, 157, 107001.	2.7	49
21	Additively manufactured dual-functional metamaterials with customisable mechanical and sound-absorbing properties. <i>Virtual and Physical Prototyping</i> , 2022, 17, 864-880.	5.3	48
22	In-plane crushing behaviors of hexagonal honeycombs with different Poisson's ratio induced by topological diversity. <i>Thin-Walled Structures</i> , 2021, 159, 107223.	2.7	47
23	Compressive behaviors of fractal-like honeycombs with different array configurations under low velocity impact loading. <i>Thin-Walled Structures</i> , 2021, 163, 107759.	2.7	47
24	Deformation mode evolutionary mechanism of honeycomb structure when undergoing a shallow inclined load. <i>Composite Structures</i> , 2016, 147, 211-219.	3.1	45
25	Crashworthiness index of honeycomb sandwich structures under low-speed oblique impact. <i>International Journal of Mechanical Sciences</i> , 2021, 208, 106683.	3.6	40
26	Mechanical behavior and deformation mechanism of triply periodic minimal surface sheet under compressive loading. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 2057-2069.	1.5	33
27	Ultra-broadband sound absorption of a hierarchical acoustic metamaterial at high temperatures. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	32
28	Compression behavior of strut-reinforced hierarchical lattice—Experiment and simulation. <i>International Journal of Mechanical Sciences</i> , 2021, 210, 106749.	3.6	32
29	Theoretical and numerical analysis of the folding mechanism of vertex-based hierarchical honeycomb structure. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 789-799.	1.5	30
30	Elastic properties of an additive manufactured three-dimensional vertex-based hierarchical re-entrant structure. <i>Materials and Design</i> , 2022, 216, 110527.	3.3	30
31	A damage threshold prediction model of CFRP panel by hail impact based on delamination mechanism. <i>Engineering Fracture Mechanics</i> , 2020, 239, 107282.	2.0	29
32	Out-of-plane dynamic crushing behavior of joint-based hierarchical honeycombs. <i>Journal of Sandwich Structures and Materials</i> , 2021, 23, 2832-2855.	2.0	29
33	Hybrid hierarchical square honeycomb with widely tailorable effective in-plane elastic modulus. <i>Thin-Walled Structures</i> , 2022, 171, 108816.	2.7	28
34	A modified Johnson—Cook model for 7N01 aluminum alloy under dynamic condition. <i>Journal of Central South University</i> , 2017, 24, 2550-2555.	1.2	27
35	Mechanical reinforcement mechanism of a hierarchical Kagome honeycomb. <i>Thin-Walled Structures</i> , 2021, 167, 108235.	2.7	27
36	Branch point algorithm for structural irregularity determination of honeycomb. <i>Composites Part B: Engineering</i> , 2019, 162, 323-330.	5.9	26

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37	A stability maintenance method and experiments for multi-player tandem aluminium honeycomb array. <i>International Journal of Crashworthiness</i> , 2013, 18, 483-491.	1.1	23
38	Large programmable coefficient of thermal expansion in additively manufactured bi-material mechanical metamaterial. <i>Virtual and Physical Prototyping</i> , 2021, 16, S53-S65.	5.3	23
39	Influence of tunnel cross-sectional shape on surface pressure change induced by passing metro trains. <i>Tunnelling and Underground Space Technology</i> , 2020, 106, 103611.	3.0	22
40	Crashworthiness of innovative hexagonal honeycomb-like structures subjected to out-of-plane compression. <i>Journal of Central South University</i> , 2020, 27, 621-628.	1.2	22
41	Theoretical and numerical analyses on mechanical performance of octagonal honeycomb structures subjected to out-of-plane compression. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 1461-1472.	1.5	20
42	Initial densification strain point's determination of honeycomb structure subjected to out-of-plane compression. <i>Journal of Central South University</i> , 2017, 24, 1671-1675.	1.2	17
43	Dynamic fracture in CFRP laminates: Effect of projectile mass and dimension. <i>Engineering Fracture Mechanics</i> , 2021, 251, 107764.	2.0	17
44	An investigation on the perforation resistance of laminated CFRP beam and square plate. <i>International Journal of Impact Engineering</i> , 2021, 157, 103967.	2.4	15
45	Coupling and scaling effect for low-frequency broadband sound absorption via vertex-based hierarchy. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	14
46	Aerodynamic load spectrum and fatigue behaviour of high-speed train's equipment cabin. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 2579-2595.	1.7	12
47	Mechanical behaviors of square metallic tube reinforced with rivets' Experiment and simulation. <i>International Journal of Mechanical Sciences</i> , 2019, 163, 105118.	3.6	12
48	Effect of geometric configuration on compression behavior of 3D-printed polymeric triply periodic minimal surface sheets. <i>Mechanics of Advanced Materials and Structures</i> , 2023, 30, 2304-2314.	1.5	11
49	Statistical modeling of random hail impact. <i>Extreme Mechanics Letters</i> , 2021, 48, 101374.	2.0	10
50	Characteristics and Mechanism Analysis of Aerodynamic Noise Sources for High-Speed Train in Tunnel. <i>Complexity</i> , 2018, 2018, 1-19.	0.9	7
51	The in situ matrix cracking behavior in cross-ply laminates under out-of-plane shear loading. <i>Composite Structures</i> , 2022, 290, 115563.	3.1	7
52	Dynamic target template matching for railway catenary suspension motion detection in wind area. <i>International Journal of Distributed Sensor Networks</i> , 2018, 14, 155014771879795.	1.3	6
53	Comparison between five typical reinforced honeycomb structures. , 2015, , .		3
54	Theoretical analyses of mechanical performance of higher-order vertex-based hierarchical square cell structure subjected to compression. <i>Journal of Physics: Conference Series</i> , 2019, 1213, 052116.	0.3	1

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55	Geometric recognition methodology of honeycomb structure based on dynamic window. Journal of Sandwich Structures and Materials, 2021, 23, 2944-2967.	2.0	1
56	Research on the simplified vehicle window buffeting noise with a modified LRN CLES model using a transition-code based method. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 3169-3191.	1.6	0
57	Air Ejection of Honeycomb Cell Subjected to Axial Compression. DEStech Transactions on Engineering and Technology Research, 2017, , .	0.0	0