

Hongshuai Lei

List of Publications by Year in descending order

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52
papers

2,305
citations

172457

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52
docs citations

52
times ranked

1802
citing authors

#	ARTICLE	IF	CITATIONS
1	Heteroatom-Doped Mesoporous Hollow Carbon Spheres for Fast Sodium Storage with an Ultralong Cycle Life. <i>Advanced Energy Materials</i> , 2019, 9, 1900036.	19.5	212
2	Evaluation of compressive properties of SLM-fabricated multi-layer lattice structures by experimental test and 1/4-CT-based finite element analysis. <i>Materials and Design</i> , 2019, 169, 107685.	7.0	203
3	Crushing behavior of multi-layer metal lattice panel fabricated by selective laser melting. <i>International Journal of Mechanical Sciences</i> , 2018, 145, 389-399.	6.7	129
4	Mechanical properties and energy absorption capability of AuxHex structure under in-plane compression: Theoretical and experimental studies. <i>International Journal of Mechanical Sciences</i> , 2019, 159, 43-57.	6.7	87
5	Energy absorption and failure pattern of hybrid composite tubes under quasi-static axial compression. <i>Composites Part B: Engineering</i> , 2020, 198, 108217.	12.0	85
6	Study of Size Effect on Microstructure and Mechanical Properties of AlSi10Mg Samples Made by Selective Laser Melting. <i>Materials</i> , 2018, 11, 2463.	2.9	82
7	Radar stealth and mechanical properties of a broadband radar absorbing structure. <i>Composites Part B: Engineering</i> , 2017, 123, 19-27.	12.0	79
8	Macroscopic mechanical response of chiral-type cylindrical metastructures under axial compression loading. <i>Materials and Design</i> , 2018, 158, 198-212.	7.0	79
9	An experimental and numerical investigation of compressive response of designed Schwarz Primitive triply periodic minimal surface with non-uniform shell thickness. <i>Extreme Mechanics Letters</i> , 2020, 37, 100671.	4.1	72
10	Out-of-plane compressive performance and energy absorption of multi-layer graded sinusoidal corrugated sandwich panels. <i>Materials and Design</i> , 2019, 178, 107858.	7.0	70
11	Experimental and simulation investigation of the reversible bi-directional twisting response of tetra-chiral cylindrical shells. <i>Composite Structures</i> , 2018, 203, 142-152.	5.8	69
12	Enhanced out-of-plane compressive strength and energy absorption of 3D printed square and hexagonal honeycombs with variable-thickness cell edges. <i>Extreme Mechanics Letters</i> , 2018, 18, 9-18.	4.1	68
13	Recent progress in the design and fabrication of multifunctional structures based on metamaterials. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100883.	11.5	65
14	Crashworthiness of circular fiber reinforced plastic tubes filled with composite skeletons/aluminum foam under drop-weight impact loading. <i>Thin-Walled Structures</i> , 2021, 160, 107380.	5.3	60
15	Influence of manufacturing geometric defects on the mechanical properties of AlSi10Mg alloy fabricated by selective laser melting. <i>Journal of Alloys and Compounds</i> , 2019, 789, 852-859.	5.5	56
16	Mechanical properties and internal microdefects evolution of carbon fiber reinforced polymer composites: Cryogenic temperature and thermocycling effects. <i>Composites Science and Technology</i> , 2020, 191, 108083.	7.8	52
17	In-plane compression behavior of hybrid honeycomb metastructures: Theoretical and experimental studies. <i>Aerospace Science and Technology</i> , 2020, 106, 106081.	4.8	51
18	In Plane Mechanical Properties of Tetrachiral and Antitetrachiral Hybrid Metastructures. <i>Journal of Applied Mechanics</i> , <i>Transactions ASME</i> , 2017, 84, .	2.2	49

#	ARTICLE	IF	CITATIONS
19	Architecture design of periodic truss-lattice cells for additive manufacturing. <i>Additive Manufacturing</i> , 2020, 34, 101172.	3.0	48
20	Experimental and numerical investigation on the crushing behavior of sandwich composite under edgewise compression loading. <i>Composites Part B: Engineering</i> , 2016, 94, 34-44.	12.0	47
21	Design of self-supporting lattices for additive manufacturing. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 148, 104298.	4.8	39
22	Effect of Defect on the Compressive Response of Sandwich Structures with Carbon Fiber Pyramidal Truss Cores. <i>International Journal of Applied Mechanics</i> , 2015, 07, 1550004.	2.2	38
23	Multistable Cylindrical Mechanical Metastructures: Theoretical and Experimental Studies. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019, 86, .	2.2	37
24	Frequency-selective-surface based sandwich structure for both effective loadbearing and customizable microwave absorption. <i>Composite Structures</i> , 2020, 235, 111792.	5.8	36
25	Macroscopic response of carbon-fiber pyramidal truss core panel taking account of local defect. <i>Composites Part B: Engineering</i> , 2015, 79, 311-321.	12.0	35
26	Effects of stitch on mechanical and microwave absorption properties of radar absorbing structure. <i>Composite Structures</i> , 2018, 195, 297-307.	5.8	34
27	Effect of manufacturing defect on mechanical performance of plain weave carbon/epoxy composite based on 3D geometrical reconstruction. <i>Composite Structures</i> , 2018, 199, 38-52.	5.8	34
28	Gradient nanocomposite with metastructure design for broadband radar absorption. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 129, 105698.	7.6	34
29	Parameters analysis and optimization of a typical multistable mechanical metamaterial. <i>Extreme Mechanics Letters</i> , 2020, 35, 100640.	4.1	34
30	Broadband radar absorbing composites: Spatial scale effect and environmental adaptability. <i>Composites Science and Technology</i> , 2020, 197, 108262.	7.8	30
31	Optimal Design of Broadband Radar Absorbing Sandwich Structure with Circuit Analog Absorber Core. <i>International Journal of Applied Mechanics</i> , 2015, 07, 1550020.	2.2	28
32	Novel multifunctional lattice composite structures with superior load-bearing capacities and radar absorption characteristics. <i>Composites Science and Technology</i> , 2021, 216, 109064.	7.8	27
33	Energy absorption diagram characteristic of metallic self-supporting 3D lattices fabricated by additive manufacturing and design method of energy absorption structure. <i>International Journal of Solids and Structures</i> , 2021, 226-227, 111082.	2.7	23
34	In situ X-ray micro-computed tomography study of the damage evolution of prefabricated through-holes in SLM-Printed AlSi10Mg alloy under tension. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153576.	5.5	21
35	Segmentation of computed tomography images and high-precision reconstruction of rubber composite structure based on deep learning. <i>Composites Science and Technology</i> , 2021, 213, 108875.	7.8	20
36	Experimental and theoretical studies on inter-fiber failure of unidirectional polymer-matrix composites under different strain rates. <i>International Journal of Solids and Structures</i> , 2017, 113-114, 37-46.	2.7	19

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37	Load-bearing capacity and failure mechanism of integrated fluted-core composite sandwich cylinders. <i>Composites Science and Technology</i> , 2022, 221, 109344.	7.8	18
38	Deformation behavior of heterogeneous multi-morphology lattice core hybrid structures. <i>Additive Manufacturing</i> , 2021, 37, 101674.	3.0	17
39	Radar-stealth and load-bearing corrugated sandwich structures with superior environmental adaptability. <i>Composites Science and Technology</i> , 2022, 227, 109594.	7.8	17
40	In-Situ Monitoring of a Filament Wound Pressure Vessel by the MWCNT Sensor under Hydraulic Fatigue Cycling and Pressurization. <i>Sensors</i> , 2019, 19, 1396.	3.8	15
41	Damage Localization in Composite Laminates by Building in PZT Wafer Transducers: A Comparative Study with Surface-Bonded PZT Strategy. <i>Advanced Engineering Materials</i> , 2019, 21, 1801040.	3.5	14
42	Low-velocity impact performance of composite-aluminum tubes prepared by mesoscopic hybridization. <i>Composite Structures</i> , 2021, 274, 114348.	5.8	13
43	Influence of AlSi10Mg particles microstructure on heat conduction during additive manufacturing. <i>International Journal of Heat and Mass Transfer</i> , 2019, 144, 118632.	4.8	11
44	Mechanical performance of bio-inspired hierarchical honeycomb metamaterials. <i>International Journal of Solids and Structures</i> , 2022, 254-255, 111866.	2.7	9
45	Compressive local buckling of integrated fluted-core sandwich composite panels. <i>Mechanics of Materials</i> , 2021, 160, 103954.	3.2	8
46	Effect of nano-silica modification on the tensile property of SMA/GF/CF/epoxy super hybrid woven fabric composites. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2017, 32, 1293-1300.	1.0	7
47	Mechanical behaviors and the equivalent network model of self-similar multinet network elastomers. <i>International Journal of Solids and Structures</i> , 2021, 229, 111135.	2.7	6
48	Deep learning-based X-ray computed tomography image reconstruction and prediction of compression behavior of 3D printed lattice structures. <i>Additive Manufacturing</i> , 2022, 54, 102774.	3.0	6
49	A novel broadband waterborne acoustic absorber. <i>AIP Advances</i> , 2016, 6, .	1.3	5
50	A novel hybrid design method of lattice structure based on failure mode. <i>Science China: Physics, Mechanics and Astronomy</i> , 2022, 65, .	5.1	4
51	Bio-inspired 3D printing of self-growing multinet network elastomer composites. <i>Composite Structures</i> , 2022, 279, 114777.	5.8	2
52	Resonance frequency prediction approach of lattice structure fabricated by selective laser melting. <i>Advances in Astronautics Science and Technology</i> , 0, , .	0.8	1