Lifeng Wang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3386060/publications.pdf

Version: 2024-02-01

59 papers	4,317 citations	101543 36 h-index	138484 58 g-index
59 all docs	59 docs citations	59 times ranked	3828 citing authors

#	Article	IF	Citations
1	Ultrawide bandgap in metamaterials via coupling of locally resonant and Bragg bandgaps. Acta Mechanica, 2022, 233, 477-493.	2.1	17
2	Elastic anisotropy and wave propagation properties of multifunctional hollow sphere foams. Composite Structures, 2022, , 115540.	5.8	2
3	Theoretical prediction of effective stiffness of nonwoven fibrous networks with straight and curved nanofibers. Composites Part A: Applied Science and Manufacturing, 2021, 143, 106311.	7.6	10
4	Combination of stiffness, strength, and toughness in 3D printed interlocking nacre-like composites. Extreme Mechanics Letters, 2020, 35, 100621.	4.1	50
5	The effect of material mixing on interfacial stiffness and strength of multi-material additive manufacturing. Additive Manufacturing, 2020, 36, 101502.	3.0	13
6	Ultrawide coupled bandgap in hybrid periodic system with multiple resonators. Journal of Applied Physics, 2020, 127, .	2.5	25
7	Enhancing indentation and impact resistance in auxetic composite materials. Composites Part B: Engineering, 2020, 198, 108229.	12.0	135
8	Engineering lattice metamaterials for extreme property, programmability, and multifunctionality. Journal of Applied Physics, 2020, 127, .	2.5	77
9	Effect of Nanosecond Laser Beam Shaping on Cu(In,Ga)Se₂ Thin Film Solar Cell Scribing. ACS Applied Energy Materials, 2019, 2, 5057-5065.	5.1	6
10	Instability-Triggered Triply Negative Mechanical Metamaterial. Physical Review Applied, 2019, 12, .	3.8	19
11	3D printed architected hollow sphere foams with low-frequency phononic band gaps. Additive Manufacturing, 2019, 30, 100842.	3.0	29
12	3D printing of biomimetic composites with improved fracture toughness. Acta Materialia, 2019, 173, 61-73.	7.9	113
13	Learning from nature: Use material architecture to break the performance tradeoffs. Materials and Design, 2019, 168, 107650.	7.0	55
14	Biomimetic architected materials with improved dynamic performance. Journal of the Mechanics and Physics of Solids, 2019, 125, 178-197.	4.8	108
15	Modeling the Large Deformation and Microstructure Evolution of Nonwoven Polymer Fiber Networks. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	2.2	21
16	Prediction of the Effective Thermal Conductivity of Hollow Sphere Foams. ACS Applied Energy Materials, 2018, 1, 1146-1157.	5.1	45
17	Designing Phononic Crystals with Wide and Robust Band Gaps. Physical Review Applied, 2018, 9, .	3.8	66
18	Hoberman-sphere-inspired lattice metamaterials with tunable negative thermal expansion. Composite Structures, 2018, 189, 586-597.	5.8	88

#	Article	IF	Citations
19	Exploiting negative Poisson's ratio to design 3D-printed composites with enhanced mechanical properties. Materials and Design, 2018, 142, 247-258.	7.0	234
20	3D printed hierarchical honeycombs with shape integrity under large compressive deformations. Materials and Design, 2018, 137, 226-234.	7.0	189
21	An experimental investigation of the temperature effect on the mechanics of carbon fiber reinforced polymer composites. Composites Science and Technology, 2018, 154, 53-63.	7.8	133
22	Mechanical properties of sandwich composites with 3d-printed auxetic and non-auxetic lattice cores under low velocity impact. Materials and Design, 2018, 160, 1305-1321.	7.0	145
23	Harnessing 3D printed residual stress to design heat-shrinkable metamaterials. Results in Physics, 2018, 11, 85-95.	4.1	12
24	Enhanced fracture toughness in architected interpenetrating phase composites by 3D printing. Composites Science and Technology, 2018, 167, 251-259.	7.8	67
25	Lattice Metamaterials with Mechanically Tunable Poissonâ€™s Ratio for Vibration Control. Physical Review Applied, 2017, 7, .	3.8	250
26	Bending behavior of sandwich composite structures with tunable 3D-printed core materials. Composite Structures, 2017, 175, 46-57.	5.8	272
27	Broadband and multiband vibration mitigation in lattice metamaterials with sinusoidally-shaped ligaments. Extreme Mechanics Letters, 2017, 17, 24-32.	4.1	77
28	Harnessing out-of-plane deformation to design 3D architected lattice metamaterials with tunable Poissonâ€™s ratio. Scientific Reports, 2017, 7, 8949.	3.3	50
29	Topology optimization of multi-material negative Poissonâ€™s ratio metamaterials using a reconciled level set method. CAD Computer Aided Design, 2017, 83, 15-32.	2.7	177
30	Hierarchical honeycomb lattice metamaterials with improved thermal resistance and mechanical properties. Composite Structures, 2016, 152, 395-402.	5.8	131
31	Bio-inspired heterogeneous composites for broadband vibration mitigation. Scientific Reports, 2016, 5, 17865.	3.3	59
32	Harnessing structural hierarchy to design stiff and lightweight phononic crystals. Extreme Mechanics Letters, 2016, 9, 91-96.	4.1	45
33	Anomalous elastic buckling of layered crystalline materials in the absence of structure slenderness. Journal of the Mechanics and Physics of Solids, 2016, 88, 83-99.	4.8	24
34	Enhanced stiffness, strength and energy absorption for co-continuous composites with liquid filler. Composite Structures, 2015, 128, 274-283.	5.8	35
35	Multiband wave filtering and waveguiding in bio-inspired hierarchical composites. Extreme Mechanics Letters, 2015, 5, 18-24.	4.1	57
36	Tunable band gaps in bio-inspired periodic composites with nacre-like microstructure. Journal of Applied Physics, 2014, 116, .	2.5	37

#	Article	IF	Citations
37	Periodic co-continuous acoustic metamaterials with overlapping locally resonant and Bragg band gaps. Applied Physics Letters, 2014, 105, .	3.3	88
38	Mechanics of network materials with responsive crosslinks. Comptes Rendus - Mecanique, 2014, 342, 264-272.	2.1	16
39	Thermally Tunable, Selfâ€Healing Composites for Soft Robotic Applications. Macromolecular Materials and Engineering, 2014, 299, 1279-1284.	3.6	135
40	Enhanced mechanical properties of carbon nanotube networks by mobile and discrete binders. Carbon, 2013, 64, 237-244.	10.3	44
41	Acoustic band gaps of three-dimensional periodic polymer cellular solids with cubic symmetry. Journal of Applied Physics, 2013, 114, .	2.5	28
42	Mechanically tunable phononic band gaps in three-dimensional periodic elastomeric structures. International Journal of Solids and Structures, 2012, 49, 2881-2885.	2.7	85
43	Tunable stimulus-responsive friction mechanisms of polyelectrolyte films and tube forests. Soft Matter, 2012, 8, 8642.	2.7	19
44	Periodic Bicontinuous Composites for High Specific Energy Absorption. Nano Letters, 2012, 12, 4392-4396.	9.1	95
45	Growth strain-induced wrinkled membrane morphology of white blood cells. Soft Matter, 2011, 7, 11319.	2.7	30
46	Elucidation of the Reinforcing Mechanism in Carbon Nanotube/Rubber Nanocomposites. ACS Nano, 2011, 5, 3858-3866.	14.6	117
47	Direct Quantification of the Mechanical Anisotropy and Fracture of an Individual Exoskeleton Layer via Uniaxial Compression of Micropillars. Nano Letters, 2011, 11, 3868-3874.	9.1	49
48	Coâ€Continuous Composite Materials for Stiffness, Strength, and Energy Dissipation. Advanced Materials, 2011, 23, 1524-1529.	21.0	218
49	Geometrically Controlled Mechanically Responsive Polyelectrolyte Tube Arrays. Advanced Materials, 2011, 23, 4667-4673.	21.0	14
50	Mechanics of Indentation into Micro- and Nanoscale Forests of Tubes, Rods, or Pillars. Journal of Engineering Materials and Technology, Transactions of the ASME, 2011, 133, .	1.4	24
51	Bioinspired Structural Material Exhibiting Postâ€Yield Lateral Expansion and Volumetric Energy Dissipation During Tension. Advanced Functional Materials, 2010, 20, 3025-3030.	14.9	46
52	Reversible high-pressure carbon nanotube vessel. Physical Review B, 2010, 81, .	3.2	7
53	Enhanced Energy Dissipation in Periodic Epoxy Nanoframes. Nano Letters, 2010, 10, 2592-2597.	9.1	68
54	Anisotropic design of a multilayered biological exoskeleton. Journal of Materials Research, 2009, 24, 3477-3494.	2.6	48

#	Article	IF	Citations
55	Plastic Dissipation Mechanisms in Periodic Microframeâ€Structured Polymers. Advanced Functional Materials, 2009, 19, 1343-1350.	14.9	36
56	Wrinkled surface topographies of electrospun polymer fibers. Applied Physics Letters, 2009, 94, .	3.3	87
57	Enhanced Mechanical Properties of Prestressed Multiâ€Walled Carbon Nanotubes. Small, 2008, 4, 733-737.	10.0	30
58	Size Dependence of the Thin-Shell Model for Carbon Nanotubes. Physical Review Letters, 2005, 95, 105501.	7.8	157
59	3D Printing of Biomimetic Composites with Improved Fracture Toughness. SSRN Electronic Journal, 0, , .	0.4	3