

Chao Zhang

List of Publications by Year in descending order

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80
papers

2,652
citations

218677

26
h-index

197818

49
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80
all docs

80
docs citations

80
times ranked

1747
citing authors

#	ARTICLE	IF	CITATIONS
1	Fatigue failure simulation of a double-lap composites-metal bolted joint structure. <i>Mechanics of Advanced Materials and Structures</i> , 2023, 30, 99-113.	2.6	3
2	A three-dimensional stochastic progressive damage simulation model for polymer matrix-based laminate composites. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 633-650.	2.6	4
3	Understanding the critical role of boundary conditions in meso-scale finite element simulation of braided composites. <i>Advanced Composites and Hybrid Materials</i> , 2022, 5, 39-49.	21.1	17
4	Visualization and interpretation of the impact failure behavior of textile composites using a highly efficient Meso-FE model. <i>Composites Communications</i> , 2022, 29, 101004.	6.3	5
5	Characterization and prediction of the nonlinear creep behavior of 3D-printed polyurethane acrylate. <i>Additive Manufacturing</i> , 2022, 50, 102583.	3.0	1
6	Annealing free tin oxide electron transport layers for flexible perovskite solar cells. <i>Nano Energy</i> , 2022, 94, 106919.	16.0	29
7	Dynamic shear failure behavior of the interfaces in carbon fiber/ZnO nanowire/epoxy resin hierarchical composites. <i>Composites Science and Technology</i> , 2022, 221, 109284.	7.8	7
8	Time-dependent high-temperature compressive failure behavior of high-silica/boron-phenolic composites modified with boron carbide and talc. <i>Composites Science and Technology</i> , 2022, 221, 109226.	7.8	9
9	A nonlinear analytical model for tensile failure prediction of pseudo-ductile composite laminates. <i>Thin-Walled Structures</i> , 2022, 179, 109711.	5.3	1
10	Design optimization of a novel bio-inspired 3D porous structure for crashworthiness. <i>Composite Structures</i> , 2021, 255, 112897.	5.8	56
11	Tensile behavior of bio-inspired hierarchical suture joint with uniform fractal interlocking design. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 113, 104137.	3.1	9
12	Crashworthiness optimization of bio-inspired hierarchical honeycomb under axial loading. <i>International Journal of Crashworthiness</i> , 2021, 26, 26-37.	1.9	13
13	A multi-level and multi-site mesh refinement method for the 2D problems with microstructures. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 1462-1479.	2.6	6
14	Rate-Dependent Cohesive Models for Dynamic Mode I Interfacial Propagation and Failure of Unidirectional Composite Laminates. <i>Coatings</i> , 2021, 11, 191.	2.6	4
15	Modeling strategy for progressive failure prediction in lithium-ion batteries under mechanical abuse. <i>ETransportation</i> , 2021, 7, 100098.	14.8	49
16	Computational continua method and multilevel-multisite mesh refinement method for multiscale analysis of woven composites laminates. <i>Composite Structures</i> , 2021, 259, 113441.	5.8	7
17	Characterization and Constitutive Model for Temperature and Strain-Rate Dependent Tensile Behavior of Short Carbon Fiber Reinforced PEEK Composites. , 2021, , .		0
18	Size-dependency of the transverse-tensile failure behavior for triaxially braided composites. <i>Composites Science and Technology</i> , 2021, 206, 108672.	7.8	15

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19	Temperature-dependent interlaminar behavior of unidirectional composite laminates: Property determination and mechanism analysis. <i>Polymer Composites</i> , 2021, 42, 3746-3757.	4.6	7
20	Buckling Sensitivity of Tow-Steered Plates Subjected to Multiscale Defects by High-Order Finite Elements and Polynomial Chaos Expansion. <i>Materials</i> , 2021, 14, 2706.	2.9	21
21	Loading rate effect of the interfacial tensile failure behavior in carbon fiber-epoxy composites toughened with ZnO nanowires. <i>Composites Part B: Engineering</i> , 2021, 212, 108676.	12.0	11
22	Theoretical prediction for effective properties and progressive failure of textile composites: a generalized multi-scale approach. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2021, 37, 1222-1244.	3.4	17
23	A comparison study on the impact failure behavior of laminate and woven composites with consideration of strain rate effect and impact attitude. <i>Thin-Walled Structures</i> , 2021, 164, 107843.	5.3	15
24	Theoretical predictions on temperature-dependent strength for MAX phases. <i>Journal of the American Ceramic Society</i> , 2021, 104, 5898-5907.	3.8	7
25	Enabling rapid fatigue life prediction of short carbon fiber reinforced polyether-ether-ketone using a novel energy dissipation-based model. <i>Composite Structures</i> , 2021, 272, 114227.	5.8	13
26	Effect of fiber architecture on the impact resistance of composite panels subjected to metallic projectile. <i>Composite Structures</i> , 2021, 273, 114273.	5.8	12
27	Effects of loading rate and loading direction on the compressive failure behavior of a 2D triaxially braided composite. <i>International Journal of Impact Engineering</i> , 2021, 156, 103928.	5.0	18
28	Strain rate dependent mechanical properties of 3D printed polymer materials using the DLP technique. <i>Additive Manufacturing</i> , 2021, 47, 102368.	3.0	9
29	Parametric Study on the Safety Behavior of Mechanically Induced Short Circuit for Lithium-Ion Pouch Batteries. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2021, 18, .	2.1	13
30	Crushing behavior and optimization of sheet-based 3D periodic cellular structures. <i>Composites Part B: Engineering</i> , 2020, 182, 107565.	12.0	109
31	Predicting the tensile and compressive failure behavior of angle-ply spread tow woven composites. <i>Composite Structures</i> , 2020, 234, 111701.	5.8	23
32	A new analytical method for progressive failure analysis of two-dimensional triaxially braided composites. <i>Composites Science and Technology</i> , 2020, 186, 107936.	7.8	23
33	Highly efficient computation method for hazard quantification of uncontained rotor failure. <i>Chinese Journal of Aeronautics</i> , 2020, 33, 1980-1990.	5.3	1
34	On the impact failure behavior of triaxially braided composites subjected to metallic plate projectile. <i>Composites Part B: Engineering</i> , 2020, 186, 107816.	12.0	15
35	Fragmentation of shells: an analogy with the crack formation in tree bark. <i>Philosophical Magazine Letters</i> , 2020, 100, 294-305.	1.2	2
36	Coupled Mechanical-Electrochemical-Thermal Study on the Short-Circuit Mechanism of Lithium-Ion Batteries under Mechanical Abuse. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120501.	2.9	39

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37	Numerical Study of the Damage Behavior of Carbon Fiber/Glass Fiber Hybrid Composite Laminates under Low-velocity Impact. <i>Fibers and Polymers</i> , 2020, 21, 2873-2887.	2.1	14
38	Finite Element Study on the Impact Resistance of Laminated and Textile Composites. <i>Polymers</i> , 2019, 11, 1798.	4.5	11
39	The dynamic crack propagation behavior of mode I interlaminar crack in unidirectional carbon/epoxy composites. <i>Engineering Fracture Mechanics</i> , 2019, 215, 65-82.	4.3	29
40	Progressive Failure Simulation of Notched Tensile Specimen for Triaxially-Braided Composites. <i>Materials</i> , 2019, 12, 833.	2.9	7
41	Effect of fiber reinforcement and fabrication process on the dynamic compressive behavior of PEEK composites. <i>International Journal of Mechanical Sciences</i> , 2019, 155, 170-177.	6.7	27
42	An experimental and numerical investigation on low-velocity impact damage and compression-after-impact behavior of composite laminates. <i>Composites Part B: Engineering</i> , 2019, 167, 329-341.	12.0	114
43	Damage and failure mechanism of thin composite laminates under low-velocity impact and compression-after-impact loading conditions. <i>Composites Part B: Engineering</i> , 2019, 163, 642-654.	12.0	144
44	Modeling the transverse tensile and compressive failure behavior of triaxially braided composites. <i>Composites Science and Technology</i> , 2019, 172, 96-107.	7.8	65
45	Experimental and numerical study on tensile failure behavior of bionic suture joints. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 92, 40-49.	3.1	15
46	Assessment of failure criteria and damage evolution methods for composite laminates under low-velocity impact. <i>Composite Structures</i> , 2019, 207, 727-739.	5.8	139
47	A multi-scale modeling framework for impact damage simulation of triaxially braided composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 110, 113-125.	7.6	84
48	Strain effect on the performance of amorphous silicon and perovskite solar cells. <i>Solar Energy</i> , 2018, 163, 243-250.	6.1	23
49	In-plane crashworthiness of bio-inspired hierarchical honeycombs. <i>Composite Structures</i> , 2018, 192, 516-527.	5.8	95
50	Rate-dependent tensile failure behavior of short fiber reinforced PEEK. <i>Composites Part B: Engineering</i> , 2018, 136, 187-196.	12.0	51
51	The electro-mechanical behavior of conductive filler reinforced polymer composite undergone large deformation: A combined numerical-analytical study. <i>Composites Part B: Engineering</i> , 2018, 133, 185-192.	12.0	21
52	Mesomechanical Simulation of Rate-Dependent Mechanical Behavior for Triaxially Braided Composites. , 2018, , .		0
53	Numerical and Experimental Study on Deformation and Failure of Trees under High-Velocity Impact Loads. , 2018, , .		2
54	Mechanical integrity of 18650 lithium-ion battery module: Packing density and packing mode. <i>Engineering Failure Analysis</i> , 2018, 91, 315-326.	4.0	62

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55	Mechanical characterization and modeling for anodes and cathodes in lithium-ion batteries. Journal of Power Sources, 2018, 392, 265-273.	7.8	85
56	Loading rate dependency of Mode I interlaminar fracture toughness for unidirectional composite laminates. Composites Science and Technology, 2018, 167, 215-223.	7.8	52
57	A constitutive model of aluminum foam for crash simulations. International Journal of Non-Linear Mechanics, 2017, 90, 124-136.	2.6	20
58	Constitutive behavior and progressive mechanical failure of electrodes in lithium-ion batteries. Journal of Power Sources, 2017, 357, 126-137.	7.8	133
59	An elasto-plastic solution for channel cracking of brittle coating on polymer substrate. International Journal of Solids and Structures, 2017, 120, 125-136.	2.7	25
60	Virtual Testing of Three-Dimensional Hollow/Porous Braided Composites. , 2017, , 85-107.		0
61	Advanced Materials and Designs for Hydraulic, Earth, and Aerospace Structures. , 2016, , .		1
62	Micromechanical Modeling of Fiber-Reinforced Composites with Statistically Equivalent Random Fiber Distribution. Materials, 2016, 9, 624.	2.9	54
63	Simultaneously Coupled Mechanical-Electrochemical-Thermal Simulation of Lithium-Ion Cells. ECS Transactions, 2016, 72, 9-19.	0.5	8
64	The effect of photodegradation on effective properties of polymeric thin films: A micromechanical homogenization approach. International Journal of Engineering Science, 2015, 94, 1-22.	5.0	11
65	Free-edge effect on the effective stiffness of single-layer triaxially braided composite. Composites Science and Technology, 2015, 107, 145-153.	7.8	35
66	Progressive damage simulation of triaxially braided composite using a 3D meso-scale finite element model. Composite Structures, 2015, 125, 104-116.	5.8	150
67	A numerical study of occupant responses and injuries in vehicular crashes into roadside barriers based on finite element simulations. Advances in Engineering Software, 2015, 90, 22-40.	3.8	21
68	Coupled mechanical-electrical-thermal modeling for short-circuit prediction in a lithium-ion cell under mechanical abuse. Journal of Power Sources, 2015, 290, 102-113.	7.8	184
69	A representative-sandwich model for simultaneously coupled mechanical-electrical-thermal simulation of a lithium-ion cell under quasi-static indentation tests. Journal of Power Sources, 2015, 298, 309-321.	7.8	106
70	Numerical Analysis of Free-Edge Effect on Size-Influenced Mechanical Properties of Single-Layer Triaxially Braided Composites. Applied Composite Materials, 2014, 21, 841-859.	2.5	13
71	Analytical Model and Numerical Analysis of the Elastic Behavior of Triaxial Braided Composites. Journal of Aerospace Engineering, 2014, 27, 473-483.	1.4	42
72	Meso-scale failure modeling of single layer triaxial braided composite using finite element method. Composites Part A: Applied Science and Manufacturing, 2014, 58, 36-46.	7.6	67

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73	A meso-scale finite element model for simulating free-edge effect in carbon/epoxy textile composite. Mechanics of Materials, 2014, 76, 1-19.	3.2	43
74	Experimental and FEM study of thermal cycling induced microcracking in carbon/epoxy triaxial braided composites. Composites Part A: Applied Science and Manufacturing, 2013, 46, 34-44.	7.6	54
75	Finite Element Modeling of Thermal Cycling Induced Microcracking in Carbon/Epoxy Triaxial Braided Composites. , 2012, , .		0
76	Kinetic study of the novolac resin curing process using model fitting and model-free methods. Thermochimica Acta, 2011, 523, 63-69.	2.7	53
77	Tensile and Compressive Failure Behaviors of Triaxially Braided Composite. , 0, , .		1
78	Experimental Investigation Into the Failure of CFRP T-joints Under Ice Impact and Quasi-static Loadings. , 0, , .		1
79	Experimental Study on High-velocity Impact Damage Behavior of Carbon Fiber Reinforced Composite Laminates. , 0, , .		0
80	Analytical Prediction of Tensile Strength Prediction for Two-Dimensional Triaxially Braided Composite. , 0, , .		0