

# Boming Zhang

## List of Publications by Year in descending order

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89  
papers

1,321  
citations

304743

22  
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414414

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89  
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89  
docs citations

89  
times ranked

1382  
citing authors

#	ARTICLE	IF	CITATIONS
1	Temperature field of thick thermoset composite laminates during cure process. <i>Composites Science and Technology</i> , 2005, 65, 517-523.	7.8	86
2	Multifunctional structural lithium ion batteries based on carbon fiber reinforced plastic composites. <i>Composites Science and Technology</i> , 2017, 147, 62-70.	7.8	83
3	A virtual experimental approach to estimate composite mechanical properties: Modeling with an explicit finite element method. <i>Computational Materials Science</i> , 2010, 49, 645-651.	3.0	59
4	Cure kinetics of epoxy resin used for advanced composites. <i>Polymer International</i> , 2004, 53, 1343-1347.	3.1	53
5	Effects of thermal histories on interfacial properties of carbon fiber/polyamide 6 composites: Thickness, modulus, adhesion and shear strength. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 85, 31-39.	7.6	51
6	Evaluation of carbon fiber/epoxy interfacial strength in transverse fiber bundle composite: Experiment and multiscale failure modeling. <i>Composites Science and Technology</i> , 2014, 105, 1-8.	7.8	44
7	Co-continuous structural electrolytes based on ionic liquid, epoxy resin and organoclay: Effects of organoclay content. <i>Materials and Design</i> , 2016, 104, 126-133.	7.0	44
8	MOF-derived ZnCo <sub>2</sub> O <sub>4</sub> /C wrapped on carbon fiber as anode materials for structural lithium-ion batteries. <i>Chinese Chemical Letters</i> , 2019, 30, 529-532.	9.0	39
9	Effect of polyurethane sizing on carbon fibers surface and interfacial adhesion of fiber/polyamide 6 composites. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46111.	2.6	38
10	Estimation of aramid fiber/epoxy interfacial properties by fiber bundle tests and multiscale modeling considering the fiber skin/core structure. <i>Composite Structures</i> , 2017, 167, 1-10.	5.8	32
11	Long-fiber reinforced thermoplastic composite lattice structures: Fabrication and compressive properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017, 97, 41-50.	7.6	32
12	Carboxyl functionalized carbon fibers with preserved tensile strength and electrochemical performance used as anodes of structural lithium-ion batteries. <i>Applied Surface Science</i> , 2017, 392, 27-35.	6.1	30
13	A new method for the determination of damping in cocured composite laminates with embedded viscoelastic layer. <i>Journal of Sound and Vibration</i> , 2009, 319, 822-831.	3.9	29
14	A new viscoelastic model based on generalized method of cells for fiber-reinforced composites. <i>International Journal of Plasticity</i> , 2015, 65, 22-32.	8.8	29
15	Numerical simulation of the fiber fragmentation process in single-fiber composites. <i>Materials &amp; Design</i> , 2010, 31, 2464-2470.	5.1	26
16	A phenomenological fatigue life prediction model of glass fiber reinforced polymer composites. <i>Materials &amp; Design</i> , 2015, 66, 77-81.	5.1	25
17	A load reconstruction model for advanced grid-stiffened composite plates. <i>Composite Structures</i> , 2008, 82, 600-608.	5.8	24
18	Prediction of biaxial failure envelopes for composite laminates based on Generalized Method of Cells. <i>Composites Part B: Engineering</i> , 2012, 43, 914-925.	12.0	24

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19	Research on carbon fiber/epoxy interfacial bonding characterization of transverse fiber bundle composites fabricated by different preparation processes: Effect of fiber volume fraction. <i>Polymer Testing</i> , 2016, 52, 150-156.	4.8	24
20	Core-shell rGO/SnO <sub>2</sub> @CF with wrinkled surface used as structural anode material: high tensile strength and electrochemical stability. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18524-18531.	10.3	24
21	The ionic conductivity, mechanical performance and morphology of two-phase structural electrolytes based on polyethylene glycol, epoxy resin and nano-silica. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2017, 219, 37-44.	3.5	24
22	Effects of active cooling on the metal thermal protection systems. <i>Aerospace Science and Technology</i> , 2011, 15, 526-533.	4.8	23
23	Stress transfer analysis of unidirectional composites with randomly distributed fibers using finite element method. <i>Composites Part B: Engineering</i> , 2015, 69, 278-285.	12.0	23
24	A new approach to assessing carbon fiber/epoxy interfacial shear strength by tensile test of 45° fiber bundle composites: Experiment, modeling and applicability. <i>Composites Science and Technology</i> , 2016, 129, 214-221.	7.8	21
25	High-Performance Multifunctional Structural Supercapacitors Based on <i>In Situ</i> and <i>Ex Situ</i> Activated-Carbon-Coated Carbon Fiber Electrodes. <i>Energy &amp; Fuels</i> , 2022, 36, 2171-2178.	5.1	21
26	Microstructures and toughening mechanisms of organoclay/polyethersulphone/epoxy hybrid nanocomposites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7999-8005.	5.6	20
27	Hierarchical multiscale modeling of failure in unidirectional fiber-reinforced plastic matrix composite. <i>Materials &amp; Design</i> , 2010, 31, 2312-2318.	5.1	19
28	Preparation and multifunctional performance of carbon fiber-reinforced plastic composites for laminated structural batteries. <i>Polymer Composites</i> , 2020, 41, 3023-3033.	4.6	18
29	Effects of constructing different unit cells on predicting composite viscoelastic properties. <i>Composite Structures</i> , 2015, 125, 459-466.	5.8	17
30	Cost estimates to guide manufacturing of composite waved beam. <i>Materials &amp; Design</i> , 2009, 30, 452-458.	5.1	16
31	A mesoscale ultrasonic attenuation finite element model of composites with random-distributed voids. <i>Composites Science and Technology</i> , 2013, 89, 44-51.	7.8	15
32	Self-assembly and performances of wrinkled rGO@carbon fiber with embedded SnO <sub>2</sub> nanoparticles as anode materials for structural lithium-ion battery. <i>Journal of Materials Science</i> , 2018, 53, 11607-11619.	3.7	15
33	Temperature distribution of thick thermoset composites. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2004, 12, 443-452.	2.0	13
34	Cure Characterization of a New Bismaleimide Resin using Differential Scanning Calorimetry. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2006, 43, 1687-1693.	2.2	13
35	Rapid prediction and inverse design of distortion behaviors of composite materials using artificial neural networks. <i>Polymers for Advanced Technologies</i> , 2021, 32, 1049-1060.	3.2	13
36	Methodology for Evaluating Manufacturability of Composite Materials. <i>Applied Composite Materials</i> , 2012, 19, 189-201.	2.5	11

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37	Simulation and Analysis of Process-Induced Distortions in Hemispherical Thermoforming for Unidirectional Thermoplastic Composites. <i>Polymer Composites</i> , 2019, 40, 1786-1800.	4.6	11
38	Identification of voids and interlaminar shear strengths of polymer-matrix composites by optical microscopy experiment and deep learning methodology. <i>Polymers for Advanced Technologies</i> , 2021, 32, 1853-1865.	3.2	11
39	Cure kinetics of T700/BMI prepreg used for advanced thermoset composite. <i>Journal of Applied Polymer Science</i> , 2005, 97, 2238-2241.	2.6	10
40	Organoclay-reinforced polyethersulfone-modified epoxy-based hybrid nanocomposites. <i>High Performance Polymers</i> , 2011, 23, 526-534.	1.8	10
41	Improved models of viscosity and relaxation modulus for epoxy resin during cure. <i>Polymer Engineering and Science</i> , 2016, 56, 617-621.	3.1	10
42	Experimental and finite element studies on hot sizing process for L-shaped composite beams. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 87, 161-169.	7.6	10
43	The H <sub>3</sub> PO <sub>4</sub> /H <sub>2</sub> SO <sub>4</sub> /HNO <sub>3</sub> Chemical Functionalization Optimized Performances of Functionalized Carbon Fibers via Preventing Fibers from Over-Oxidation. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2225-A2231.	2.9	10
44	Experimental characterization and analysis of fiber orientations in hemispherical thermoforming for unidirectional thermoplastic composites. <i>International Journal of Material Forming</i> , 2019, 12, 97-111.	2.0	10
45	Preparation and properties of organoclay/polyethersulphone/epoxy hybrid nanocomposites. <i>Polymer Composites</i> , 2015, 36, 767-774.	4.6	9
46	Influence of Layup and Curing on the Surface Accuracy in the Manufacturing of Carbon Fiber Reinforced Polymer (CFRP) Composite Space Mirrors. <i>Applied Composite Materials</i> , 2017, 24, 1447-1458.	2.5	9
47	Effects of thermal histories on carbon fiber/polyamide 6 microcomposite load transfer efficiency: Crystallization, modulus, and measurement. <i>Polymer Composites</i> , 2018, 39, 102-109.	4.6	9
48	Investigation of multifunctional fiber optic sensor in smart composite. <i>Optical Engineering</i> , 2001, 40, 612.	1.0	8
49	Analysis and determination for the parameters of cohesive element in the numerical model of single fiber composites: the elastic parameters. <i>Journal of Reinforced Plastics and Composites</i> , 2012, 31, 1127-1135.	3.1	8
50	Optimization of Resin Infusion Processing for Composite Pipe Key-Part and K/T Type Joints Using Vacuum-Assisted Resin Transfer Molding. <i>Applied Composite Materials</i> , 2016, 23, 1065-1078.	2.5	7
51	Finite element simulation and analysis of the dielectric properties of unidirectional aramid/epoxy composites. <i>Polymer Composites</i> , 2018, 39, E2226.	4.6	7
52	Modified Halpin-Tsai equation for predicting interfacial effect in water diffusion process. <i>Science and Engineering of Composite Materials</i> , 2021, 28, 180-189.	1.4	7
53	Influence of Mold and Heat Transfer Fluid Materials on the Temperature Distribution of Large Framed Molds in Autoclave Process. <i>Materials</i> , 2021, 14, 4311.	2.9	7
54	Compaction behavior and permeability property tests of preforms in vacuum-assisted resin transfer molding using a combined device. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016, 90, 357-364.	5.0	6

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55	The effect of the microstructure of porous alumina films on the mechanical properties of glass-fiber-reinforced aluminum laminates. <i>Composite Interfaces</i> , 2014, 21, 381-393.	2.3	5
56	Mechanical properties of the cured laminates on the hot-press tackified preforms in vacuum assisted resin transfer molding. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018, 33, 242-248.	1.0	5
57	Estimation of interfacial toughness using bilayer fiber bundle compact tension (BFBCT) specimens. <i>Composites Science and Technology</i> , 2018, 161, 1-7.	7.8	5
58	Fractal characterization of the dipole moments of dielectric particle chains. <i>Journal of Electrostatics</i> , 1998, 44, 47-51.	1.9	4
59	An investigation of a fiber optic sensor in the composite cure process. <i>Smart Materials and Structures</i> , 1999, 8, 515-518.	3.5	4
60	Analysis of Upper-and Lower-limits of Fill Time in Resin Transfer Mold Filling Simulation. <i>Journal of Composite Materials</i> , 2004, 38, 1115-1136.	2.4	4
61	Stress transfer around a broken fiber in unidirectional fiber-reinforced composites considering matrix damage evolution and interface slipping. <i>Science China: Physics, Mechanics and Astronomy</i> , 2011, 54, 296-302.	5.1	4
62	Study on the monofilament fracture damage pattern and stress field in fracture experiment. <i>Journal of Reinforced Plastics and Composites</i> , 2012, 31, 1377-1387.	3.1	4
63	Simulation and verification of machining deformation for composite materials. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2014, 29, 917-922.	1.0	4
64	Improved testing method for the compressive strength of single fiber. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016, 92, 193-199.	5.0	4
65	Multi-Objective Optimization of Resistance Welding Process of GF/PP Composites. <i>Polymers</i> , 2021, 13, 2560.	4.5	4
66	Multi-Objective Optimisation of Curing Cycle of Thick Aramid Fibre/Epoxy Composite Laminates. <i>Polymers</i> , 2021, 13, 4070.	4.5	4
67	A new method of characterizing material viscoelastic property by using vector fitting. <i>Polymer Composites</i> , 2016, 37, 1848-1853.	4.6	3
68	Effect of Lamina Thickness of Prepreg on the Surface Accuracy of Carbon Fiber Composite Space Mirrors. <i>Applied Composite Materials</i> , 2018, 25, 105-112.	2.5	3
69	A method based on the time-temperature superposition principle to predict pressurization time in compression molding. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46664.	2.6	3
70	Influence of Layup Sequence on the Surface Accuracy of Carbon Fiber Composite Space Mirrors. <i>Applied Composite Materials</i> , 2019, 26, 219-238.	2.5	3
71	Characterization of intra-ply shear behaviors of unidirectional prepregs during hot diaphragm forming process. <i>Polymer Composites</i> , 2021, 42, 1008-1020.	4.6	3
72	Characterization and simulation of the nonlinear thermal field of the aramid/bismaleimide composites caused by the dielectric heating effects of the microwave radiations. <i>Polymer Composites</i> , 2021, 42, 2565-2573.	4.6	3

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73	Manufacturability analysis of composite component and its evaluation methodology. Journal of Reinforced Plastics and Composites, 2013, 32, 758-764.	3.1	2
74	Improved tensile properties of laminates by hot-press tackifying using vacuum-assisted resin transfer molding and autoclave. Journal of Reinforced Plastics and Composites, 2016, 35, 1712-1721.	3.1	2
75	Effects of precure cycle on tensile and dynamical mechanical properties of carbon/benzoxazine laminates. Science and Engineering of Composite Materials, 2017, 24, 531-539.	1.4	2
76	Characterizing viscoelastic properties of carbon fiber/epoxy composites using vector fitting method. Polymer Composites, 2018, 39, E2000.	4.6	2
77	Compressive properties of reversibly assembled lattice structures. Journal of Reinforced Plastics and Composites, 2021, 40, 422-436.	3.1	2
78	<title>Composite cure process optimization with the aid of fiber optic sensors</title>. , 2000, 4202, 15.		1
79	Condition health monitoring of composite wound pressure vessels using fiber Bragg gratings. , 2007, , .		1
80	Wrinkled rGO Sheets-Wrapped Carbon Fibers with High Tensile Strength and Excellent Electrochemical Stability as Anodes for Structural Li-Ion Battery. Nano, 2018, 13, 1850095.	1.0	1
81	Fabrication and Finite Element Analysis of Composite Elbows. Materials, 2019, 12, 3778.	2.9	1
82	Comparison of mixed mode fracture criteria in finite element analysis for matrix crack density estimation of laminated composites. Journal of Composite Materials, 2021, 55, 277-289.	2.4	1
83	<title>In-situ monitoring of composite cure process with fiber optic refractive index sensor</title>. , 2001, 4563, 84.		0
84	Monitoring and controlling manufacturing for composite using fiber Bragg grating. Proceedings of SPIE, 2007, , .	0.8	0
85	A new diagnostic method of bolt loosening detection for thermal protection systems. Proceedings of SPIE, 2009, , .	0.8	0
86	The effects of insulation thickness on heat transfer for thermal protection system. , 2010, , .		0
87	Information acquisition of truck on express highway by optical Fiber Bragg Grating. , 2010, , .		0
88	Prediction of the biaxial failure strength of composite laminates with unit cell analytic model. Journal Wuhan University of Technology, Materials Science Edition, 2014, 29, 923-927.	1.0	0
89	Application of electric resistance method in characterizing the ability of load transfer of interphase in single-fiber composite. Journal of Composite Materials, 2016, 50, 647-656.	2.4	0