Wangyu Liu

List of Publications by Year
in descending order

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48 papers	870 citations	471509 17 h-index	501196 28 g-index
48 all docs	48 docs citations	48 times ranked	776 citing authors

#	Article	IF	Citations
1	Structural design and mechanical analysis of a new equipment for tire vulcanization. Mechanics Based Design of Structures and Machines, 2023, 51, 2844-2860.	4.7	2
2	A design of composite spar/shear web with ZPR honeycombs and graded structures for wind turbine blades. Mechanics of Advanced Materials and Structures, 2022, 29, 3633-3645.	2.6	2
3	Multi-scale modeling study on fibrous network of cellulose separator for lithium-ion battery. Mechanics of Advanced Materials and Structures, 2022, 29, 4557-4568.	2.6	3
4	Bionic design of bend-twist coupled thin-walled beam based on the structure of rice stem. Mechanics of Advanced Materials and Structures, 2022, 29, 5177-5190.	2.6	5
5	Interfacially stable and high-safety lithium batteries enabled by porosity engineering toward cellulose separators. Journal of Membrane Science, 2022, 659, 120807.	8.2	10
6	Multi-objective crashworthiness optimisation of tapered star-shaped tubes under oblique impact. International Journal of Crashworthiness, 2021, 26, 328-342.	1.9	12
7	Modelling electrolyte-immersed tensile property of polypropylene separator for lithium-ion battery. Mechanics of Materials, 2021, 152, 103667.	3.2	13
8	Nanocellulose/PEGDA Aerogels with Tunable Poissonâ€™s Ratio Fabricated by Stereolithography for Mouse Bone Marrow Mesenchymal Stem Cell Culture. Nanomaterials, 2021, 11, 603.	4.1	21
9	Mask image grayscale regulation for projection stereolithography in tissue engineering. International Journal of Advanced Manufacturing Technology, 2021, 113, 3011-3026.	3.0	3
10	Investigation of transient mass transport induced deformation of PEGDA hydrogel in photocurable solution. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 055003.	2.0	3
11	Multifunctional flexible polyvinyl alcohol nanocomposite hydrogel for stress and strain sensor. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	12
12	Image Reconstruction Modeling, Simulation and Experimental Study on Wood Fibrous Paper. Journal of Natural Fibers, 2020, 17, 1605-1618.	3.1	0
13	Experimental and molecular simulating study on promoting electrolyte-immersed mechanical properties of cellulose/lignin separator for lithium-ion battery. Polymer Testing, 2020, 90, 106773.	4.8	9
14	Optimizing material and manufacturing process for PEGDA/CNF aerogel scaffold. Journal of Porous Materials, 2020, 27, 1623-1637.	2.6	8
15	Regulating the pore structure of 2,2,6,6â€tetramethylpiperidineâ€1â€oxyl (TEMPO) oxidized cellulose membranes: impact of drying method and organic solvent processing. Polymer International, 2020, 69, 964-973.	3.1	2
16	Unveiling the effect of homogenization degree on electrochemical performance of TEMPO-mediated oxidized cellulose separators for lithium-ion batteries. European Polymer Journal, 2020, 127, 109587.	5.4	9
17	A renewable and biodegradable nanocellulose-based gel polymer electrolyte for lithium-ion battery. Journal of Materials Science, 2020, 55, 10699-10711.	3.7	22
18	Multiscale Simulation of a Novel Leaf-vein-inspired Gradient Porous Wick Structure. Journal of Bionic Engineering, 2019, 16, 828-841.	5.0	16

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19	Multiscale simulation of elastic modulus of rice stem. Biosystems Engineering, 2019, 187, 96-113.	4.3	20
20	Multi-objective optimization of thin-walled sandwich tubes with lateral corrugated tubes in the middle for energy absorption. Thin-Walled Structures, 2019, 137, 303-317.	5.3	40
21	A study of mask planning in projection-based stereolithography using digital image correlation. International Journal of Advanced Manufacturing Technology, 2019, 104, 451-461.	3.0	2
22	Multiâ€scale modelling of the tensile behavior of lithium ion battery cellulose separator. Polymer International, 2019, 68, 1341-1350.	3.1	7
23	Nanocellulose/PEGDA aerogel scaffolds with tunable modulus prepared by stereolithography for three-dimensional cell culture. Journal of Biomaterials Science, Polymer Edition, 2019, 30, 797-814.	3.5	46
24	Weakening of mechanical properties of cellulose separator caused by electrolyte immersion and elevated temperature. Polymer Composites, 2019, 40, 3857-3865.	4.6	6
25	Crushing analysis and multi-objective crashworthiness optimization of multi-cell conical tube subjected to oblique loading. Advances in Mechanical Engineering, 2019, 11, 168781401882446.	1.6	10
26	Investigation on electrolyte-immersed properties of lithium-ion battery cellulose separator through multi-scale method. Journal of Power Sources, 2019, 417, 150-158.	7.8	33
27	Reconstruction of plant microstructure using distance weighted tessellation algorithm optimized by virtual segmentation. Journal of Structural Biology, 2019, 208, 115-126.	2.8	1
28	A new PEGDA/CNF aerogel-wet hydrogel scaffold fabricated by a two-step method. Soft Matter, 2019, 15, 8092-8101.	2.7	21
29	Experimental and numerical investigation of a novel sandwich sinusoidal lateral corrugated tubular structure under axial compression. International Journal of Mechanical Sciences, 2019, 151, 274-287.	6.7	35
30	On the crashworthiness analysis and design of a lateral corrugated tube with a sinusoidal cross-section. International Journal of Mechanical Sciences, 2018, 141, 330-340.	6.7	56
31	Effect of multiscale structural parameters on the mechanical properties of rice stems. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 239-247.	3.1	22
32	Fabrication of nanocellulose/PEGDA hydrogel by 3D printing. Rapid Prototyping Journal, 2018, 24, 1265-1271.	3.2	19
33	Research on the three-roll-push-bending forming rulesfor improving processing precision. International Journal of Advanced Manufacturing Technology, 2017, 90, 763-773.	3.0	7
34	Stiffness variability analysis of maize fiber bundles via multiscale simulation. Journal of Materials Science, 2017, 52, 7917-7928.	3.7	11
35	Buckling design of conical shells based on palm trunks: Survey of power-law distributed thin-walled conical. Journal of Shanghai Jiaotong University (Science), 2016, 21, 313-319.	0.9	2
36	A new photoelectric ink based on nanocellulose/CdS quantum dots for screen-printing. Carbohydrate Polymers, 2016, 148, 29-35.	10.2	52

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37	Water transport in leaf vein systems and the flow velocity measurement with a new method. Journal of Plant Physiology, 2016, 204, 74-84.	3.5	12
38	Crushing behavior and multi-objective optimization on the crashworthiness of sandwich structure with star-shaped tube in the center. Thin-Walled Structures, 2016, 108, 205-214.	5.3	63
39	Mechanical properties of maize fibre bundles and their contribution to lodging resistance. Biosystems Engineering, 2016, 151, 298-307.	4.3	30
40	Dynamic performances of thin-walled tubes with star-shaped cross section under axial impact. Thin-Walled Structures, 2016, 100, 25-37.	5.3	81
41	The mechanical influences of the graded distribution in the cross-sectional shape, the stiffness and Poisson×³s ratio of palm branches. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 60, 203-211.	3.1	2
42	The influence of moisture content on the interfacial properties of natural palm fiberâ€“matrix composite. Wood Science and Technology, 2015, 49, 371-387.	3.2	18
43	The structureâ€“mechanical relationship of palm vascular tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 36, 1-11.	3.1	25
44	An attempt to model the influence of gradual transition between cell wall layers on cell wall hygroelastic properties. Journal of Materials Science, 2014, 49, 1984-1993.	3.7	16
45	Strain isolation: A simple mechanism for understanding and detecting structures of zero Poisson's ratio. Physica Status Solidi (B): Basic Research, 2014, 251, 2239-2246.	1.5	20
46	Gradual transition zone between cell wall layers and its influence on wood elastic modulus. Journal of Materials Science, 2013, 48, 5071-5084.	3.7	17
47	An Innovative Fabrication Process of Porous Metal Fiber Sintered Felts with Three-Dimensional Reticulated Structure. Materials and Manufacturing Processes, 2010, 25, 565-571.	4.7	44
48	Diffusional and Thermal Resistances of Substomatal Cavity and Its Application on Wick. Heat Transfer Engineering, 0, , 1-16.	1.9	0