

Wangyu Liu

List of Publications by Year in descending order

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Version: 2024-02-01

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 | Dynamic performances of thin-walled tubes with star-shaped cross section under axial impact. <i>Thin-Walled Structures</i> , 2016, 100, 25-37. | 5.3 | 81 |
| 2 | Crushing behavior and multi-objective optimization on the crashworthiness of sandwich structure with star-shaped tube in the center. <i>Thin-Walled Structures</i> , 2016, 108, 205-214. | 5.3 | 63 |
| 3 | On the crashworthiness analysis and design of a lateral corrugated tube with a sinusoidal cross-section. <i>International Journal of Mechanical Sciences</i> , 2018, 141, 330-340. | 6.7 | 56 |
| 4 | A new photoelectric ink based on nanocellulose/CdS quantum dots for screen-printing. <i>Carbohydrate Polymers</i> , 2016, 148, 29-35. | 10.2 | 52 |
| 5 | Nanocellulose/PEGDA aerogel scaffolds with tunable modulus prepared by stereolithography for three-dimensional cell culture. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2019, 30, 797-814. | 3.5 | 46 |
| 6 | An Innovative Fabrication Process of Porous Metal Fiber Sintered Felts with Three-Dimensional Reticulated Structure. <i>Materials and Manufacturing Processes</i> , 2010, 25, 565-571. | 4.7 | 44 |
| 7 | Multi-objective optimization of thin-walled sandwich tubes with lateral corrugated tubes in the middle for energy absorption. <i>Thin-Walled Structures</i> , 2019, 137, 303-317. | 5.3 | 40 |
| 8 | Experimental and numerical investigation of a novel sandwich sinusoidal lateral corrugated tubular structure under axial compression. <i>International Journal of Mechanical Sciences</i> , 2019, 151, 274-287. | 6.7 | 35 |
| 9 | Investigation on electrolyte-immersed properties of lithium-ion battery cellulose separator through multi-scale method. <i>Journal of Power Sources</i> , 2019, 417, 150-158. | 7.8 | 33 |
| 10 | Mechanical properties of maize fibre bundles and their contribution to lodging resistance. <i>Biosystems Engineering</i> , 2016, 151, 298-307. | 4.3 | 30 |
| 11 | The structure–mechanical relationship of palm vascular tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 36, 1-11. | 3.1 | 25 |
| 12 | Effect of multiscale structural parameters on the mechanical properties of rice stems. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 82, 239-247. | 3.1 | 22 |
| 13 | A renewable and biodegradable nanocellulose-based gel polymer electrolyte for lithium-ion battery. <i>Journal of Materials Science</i> , 2020, 55, 10699-10711. | 3.7 | 22 |
| 14 | A new PEGDA/CNF aerogel-wet hydrogel scaffold fabricated by a two-step method. <i>Soft Matter</i> , 2019, 15, 8092-8101. | 2.7 | 21 |
| 15 | Nanocellulose/PEGDA Aerogels with Tunable Poisson's Ratio Fabricated by Stereolithography for Mouse Bone Marrow Mesenchymal Stem Cell Culture. <i>Nanomaterials</i> , 2021, 11, 603. | 4.1 | 21 |
| 16 | Strain isolation: A simple mechanism for understanding and detecting structures of zero Poisson's ratio. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 2239-2246. | 1.5 | 20 |
| 17 | Multiscale simulation of elastic modulus of rice stem. <i>Biosystems Engineering</i> , 2019, 187, 96-113. | 4.3 | 20 |
| 18 | Fabrication of nanocellulose/PEGDA hydrogel by 3D printing. <i>Rapid Prototyping Journal</i> , 2018, 24, 1265-1271. | 3.2 | 19 |

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|----|--|-----|-----------|
| 19 | The influence of moisture content on the interfacial properties of natural palm fiber matrix composite. <i>Wood Science and Technology</i> , 2015, 49, 371-387. | 3.2 | 18 |
| 20 | Gradual transition zone between cell wall layers and its influence on wood elastic modulus. <i>Journal of Materials Science</i> , 2013, 48, 5071-5084. | 3.7 | 17 |
| 21 | An attempt to model the influence of gradual transition between cell wall layers on cell wall hydroelastic properties. <i>Journal of Materials Science</i> , 2014, 49, 1984-1993. | 3.7 | 16 |
| 22 | Multiscale Simulation of a Novel Leaf-vein-inspired Gradient Porous Wick Structure. <i>Journal of Bionic Engineering</i> , 2019, 16, 828-841. | 5.0 | 16 |
| 23 | Modelling electrolyte-immersed tensile property of polypropylene separator for lithium-ion battery. <i>Mechanics of Materials</i> , 2021, 152, 103667. | 3.2 | 13 |
| 24 | Water transport in leaf vein systems and the flow velocity measurement with a new method. <i>Journal of Plant Physiology</i> , 2016, 204, 74-84. | 3.5 | 12 |
| 25 | Multi-objective crashworthiness optimisation of tapered star-shaped tubes under oblique impact. <i>International Journal of Crashworthiness</i> , 2021, 26, 328-342. | 1.9 | 12 |
| 26 | Multifunctional flexible polyvinyl alcohol nanocomposite hydrogel for stress and strain sensor. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1. | 1.9 | 12 |
| 27 | Stiffness variability analysis of maize fiber bundles via multiscale simulation. <i>Journal of Materials Science</i> , 2017, 52, 7917-7928. | 3.7 | 11 |
| 28 | Crushing analysis and multi-objective crashworthiness optimization of multi-cell conical tube subjected to oblique loading. <i>Advances in Mechanical Engineering</i> , 2019, 11, 168781401882446. | 1.6 | 10 |
| 29 | Interfacially stable and high-safety lithium batteries enabled by porosity engineering toward cellulose separators. <i>Journal of Membrane Science</i> , 2022, 659, 120807. | 8.2 | 10 |
| 30 | Experimental and molecular simulating study on promoting electrolyte-immersed mechanical properties of cellulose/lignin separator for lithium-ion battery. <i>Polymer Testing</i> , 2020, 90, 106773. | 4.8 | 9 |
| 31 | Unveiling the effect of homogenization degree on electrochemical performance of TEMPO-mediated oxidized cellulose separators for lithium-ion batteries. <i>European Polymer Journal</i> , 2020, 127, 109587. | 5.4 | 9 |
| 32 | Optimizing material and manufacturing process for PEGDA/CNF aerogel scaffold. <i>Journal of Porous Materials</i> , 2020, 27, 1623-1637. | 2.6 | 8 |
| 33 | Research on the three-roll-push-bending forming rules for improving processing precision. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 90, 763-773. | 3.0 | 7 |
| 34 | Multi-scale modelling of the tensile behavior of lithium ion battery cellulose separator. <i>Polymer International</i> , 2019, 68, 1341-1350. | 3.1 | 7 |
| 35 | Weakening of mechanical properties of cellulose separator caused by electrolyte immersion and elevated temperature. <i>Polymer Composites</i> , 2019, 40, 3857-3865. | 4.6 | 6 |
| 36 | Bionic design of bend-twist coupled thin-walled beam based on the structure of rice stem. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 5177-5190. | 2.6 | 5 |

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|----|---|-----|-----------|
| 37 | Mask image grayscale regulation for projection stereolithography in tissue engineering. International Journal of Advanced Manufacturing Technology, 2021, 113, 3011-3026. | 3.0 | 3 |
| 38 | 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 |
| 39 | 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 |
| 40 | 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 |
| 41 | The mechanical influences of the graded distribution in the cross-sectional shape, the stiffness and Poisson's ratio of palm branches. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 60, 203-211. | 3.1 | 2 |
| 42 | 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 |
| 43 | Regulating the pore structure of 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO) oxidized cellulose membranes: impact of drying method and organic solvent processing. Polymer International, 2020, 69, 964-973. | 3.1 | 2 |
| 44 | 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 |
| 45 | 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 |
| 46 | Reconstruction of plant microstructure using distance weighted tessellation algorithm optimized by virtual segmentation. Journal of Structural Biology, 2019, 208, 115-126. | 2.8 | 1 |
| 47 | Image Reconstruction Modeling, Simulation and Experimental Study on Wood Fibrous Paper. Journal of Natural Fibers, 2020, 17, 1605-1618. | 3.1 | 0 |
| 48 | Diffusional and Thermal Resistances of Substomatal Cavity and Its Application on Wick. Heat Transfer Engineering, 0, , 1-16. | 1.9 | 0 |