Li-Yuan Zhang

List of Publications by Year
in descending order

29 papers	481 citations	687363 13 h-index	677142 22 g-index
29 all docs	29 docs citations	29 times ranked	231 citing authors

#	ARTICLE	IF	CITATIONS
1	Directional snapping instability in a bistable tensegrity under uniaxial loads. Composite Structures, 2022, 283, 115153.	5.8	4
2	A tensegrity-based morphing module for assembling various deployable structures. Mechanism and Machine Theory, 2022, 173, 104870.	4.5	5
3	Why are isolated and collective cells greatly different in stiffness?. Journal of the Mechanics and Physics of Solids, 2021, 147, 104280.	4.8	13
4	Dynamics-based optimization of rolling schedule aiming at dual goals of chatter suppression and speed increase for a 5-stand cold tandem rolling mill. Journal of Iron and Steel Research International, 2021, 28, 168-180.	2.8	9
5	Multilevel structural defects-induced elastic wave tunability and localization of a tensegrity metamaterial. Composites Science and Technology, 2021, 207, 108740.	7.8	22
6	Self-equilibrium and super-stability of rhombic truncated regular tetrahedral and cubic tensegrities using symmetry-adapted force-density matrix method. International Journal of Solids and Structures, 2021, 233, 111215.	2.7	4
7	Truncated regular octahedral tensegrity-based mechanical metamaterial with tunable and programmable Poisson's ratio. International Journal of Mechanical Sciences, 2020, 167, 105285.	6.7	25
8	Constructing various simple polygonal tensegrities by directly or recursively adding bars. Composite Structures, 2020, 234, 111693.	5.8	8
9	Bandgap characteristics of a tensegrity metamaterial chain with defects. Extreme Mechanics Letters, 2020, 36, 100668.	4.1	14
10	Stress-driven cell extrusion can maintain homeostatic cell density in response to overcrowding. Soft Matter, 2019, 15, 8441-8449.	2.7	10
11	Enumeration–screening method for the design of simple polygonal tensegrities. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180812.	2.1	2
12	Analytical Form-Finding for Highly Symmetric and Super-Stable Configurations of Rhombic Truncated Regular Polyhedral Tensegrities. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	2.2	9
13	Analytical form-finding of tensegrities using determinant of force-density matrix. Composite Structures, 2018, 189, 87-98.	5.8	34
14	Automatically assembled large-scale tensegrities by truncated regular polyhedral and prismatic elementary cells. Composite Structures, 2018, 184, 30-40.	5.8	24
15	Study of a Bimetallic Interfacial Bonding Process Based on Ultrasonic Quantitative Evaluation. Metals, 2018, 8, 329.	2.3	7
16	How to Realize Volume Conservation During Finite Plastic Deformation. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	2.2	0
17	Bulge test method for measuring the hyperelastic parameters of soft membranes. Acta Mechanica, 2017, 228, 4187-4197.	2.1	13
18	Flatness evolution of cold-rolled high-strength steel strips during quenching process. Advances in Mechanical Engineering, 2017, 9, 168781401774823.	1.6	1

#	Article	IF	Citations
19	Magnetoelastic Effect-Based Transmissive Stress Detection for Steel Strips: Theory and Experiment. Sensors, 2016, 16, 1382.	3.8	8
20	Chirality Induced by Structural Transformation in a Tensegrity: Theory and Experiment. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	9
21	Micromechanics methods for evaluating the effective moduli of soft neo-Hookean composites. Archive of Applied Mechanics, 2016, 86, 219-234.	2.2	8
22	Snapping instability in prismatic tensegrities under torsion. Applied Mathematics and Mechanics (English Edition), 2016, 37, 275-288.	3.6	16
23	Relations between cubic equation, stress tensor decomposition, and von Mises yield criterion. Applied Mathematics and Mechanics (English Edition), 2015, 36, 1359-1370.	3.6	1
24	Constructing large-scale tensegrity structures with bar–bar connection using prismatic elementary cells. Archive of Applied Mechanics, 2015, 85, 383-394.	2.2	18
25	Negative stiffness behaviors emerging in elastic instabilities of prismatic tensegrities under torsional loading. International Journal of Mechanical Sciences, 2015, 103, 189-198.	6.7	26
26	Stiffness matrix based form-finding method of tensegrity structures. Engineering Structures, 2014, 58, 36-48.	5.3	96
27	A unified solution for self-equilibrium and super-stability of rhombic truncated regular polyhedral tensegrities. International Journal of Solids and Structures, 2013, 50, 234-245.	2.7	28
28	A Numerical Method for Simulating Nonlinear Mechanical Responses of Tensegrity Structures Under Large Deformations. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	2.2	27
29	Self-equilibrium and super-stability of truncated regular polyhedral tensegrity structures: a unified analytical solution. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3323-3347.	2.1	40