Dabiao Liu

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64 papers	1,727 citations	22 h-index	40 g-index
67 ext. papers	2,017 ext. citations	4 avg, IF	5 L-index

#	Paper	IF	Citations
64	Size effects in the torsion of microscale copper wires: Experiment and analysis. *Scripta Materialia*, **2012**, 66, 406-409	5.6	137
63	Toward a further understanding of size effects in the torsion of thin metal wires: An experimental and theoretical assessment. *International Journal of Plasticity*, **2013**, 41, 30-52	7.6	133
62	Size-dependent vibration of nickel cantilever microbeams: Experiment and gradient elasticity. *AIP Advances*, **2016**, 6, 105202	1.5	116
61	A standard experimental method for determining the material length scale based on modified couple stress theory. *International Journal of Mechanical Sciences*, **2018**, 141, 198-205	5.5	90
60	Anomalous plasticity in the cyclic torsion of micron scale metallic wires. *Physical Review Letters*, **2013**, 110, 244301	7.4	81
59	A novel size-dependent functionally graded curved mircobeam model based on the strain gradient elasticity theory. *Composite Structures*, **2013**, 106, 374-392	5.3	75
58	Non-classical Timoshenko beam element based on the strain gradient elasticity theory. *Finite Elements in Analysis and Design*, **2014**, 79, 22-39	2.2	74
57	A size-dependent third-order shear deformable plate model incorporating strain gradient effects for mechanical analysis of functionally graded circular/annular microplates. *Composites Part B: Engineering*, **2015**, 79, 553-580	10	72
56	A non-classical Mindlin plate finite element based on a modified couple stress theory. *European Journal of Mechanics, A/Solids*, **2013**, 42, 63-80	3.7	69
55	Spider dragline silk as torsional actuator driven by humidity. *Science Advances*, **2019**, 5, eaau9183	14.3	68
54	An efficient size-dependent plate theory for bending, buckling and free vibration analyses of functionally graded microplates resting on elastic foundation. *Applied Mathematical Modelling*, **2015**, 39, 3814-3845	4.5	67
53	Free vibration analysis of four-unknown shear deformable functionally graded cylindrical microshells based on the strain gradient elasticity theory. *Composite Structures*, **2015**, 119, 578-597	5.3	66
52	Size-dependent functionally graded beam model based on an improved third-order shear deformation theory. *European Journal of Mechanics, A/Solids*, **2014**, 47, 211-230	3.7	59
51	A size-dependent FG micro-plate model incorporating higher-order shear and normal deformation effects based on a modified couple stress theory. *International Journal of Mechanical Sciences*, **2015** , 104, 8-23	5.5	55
50	Material length scale of strain gradient plasticity: A physical interpretation. *International Journal of Plasticity*, **2017**, 98, 156-174	7.6	42
49	Torsional vibration of carbon nanotube with axial velocity and velocity gradient effect. *International Journal of Mechanical Sciences*, **2016**, 119, 88-96	5.5	39
48	A continuum theory of stress gradient plasticity based on the dislocation pile-up model. *Acta Materialia*, **2014**, 80, 350-364	8.4	35

47	Individual strain gradient effect on torsional strength of electropolished microscale copper wires. *Scripta Materialia*, **2017**, 130, 124-127	5.6	34
46	HallPetch effect and strain gradient effect in the torsion of thin gold wires. *Scripta Materialia*, **2014**, 87, 41-44	5.6	28
45	Postbuckling analysis of bi-directional functionally graded imperfect beams based on a novel third-order shear deformation theory. *Composite Structures*, **2019**, 209, 811-829	5.3	27
44	Accounting for the recoverable plasticity and size effect in the cyclic torsion of thin metallic wires using strain gradient plasticity. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 647, 84-90	5.3	25
43	Experimental investigation on size-dependent higher-mode vibration of cantilever microbeams. *Microsystem Technologies*, **2019**, 25, 3005-3015	1.7	23
42	Thermal buckling and vibration of functionally graded sinusoidal microbeams incorporating nonlinear temperature distribution using DQM. *Journal of Thermal Stresses*, **2017**, 40, 665-689	2.2	22
41	A novel method for determining surface residual stress components and their directions in spherical indentation. *Journal of Materials Research*, **2015**, 30, 1078-1089	2.5	21
40	Tunable wavelength conversion between picosecond pulses using cascaded second-order nonlinearity in LiNbO3 waveguides. *Applied Physics B: Lasers and Optics*, **2005**, 80, 681-685	1.9	19
39	Enhanced Secure Strategy for OFDM-PON System by Using Hyperchaotic System and Fractional Fourier Transformation. *IEEE Photonics Journal*, **2014**, 6, 1-9	1.8	17
38	Dynamic transverse vibration characteristics and vibro-buckling analyses of axially moving and rotating nanobeams based on nonlocal strain gradient theory. *Microsystem Technologies*, **2018**, 24, 963-977	1.7	16
37	Experimental investigation and theoretical modelling on nonlinear dynamics of cantilevered microbeams. *European Journal of Mechanics, A/Solids*, **2019**, 78, 103834	3.7	16
36	Solitary filamentary structures and nanosecond dynamics in atmospheric-pressure plasmas driven by tailored dc pulses. *Applied Physics Letters*, **2011**, 99, 161503	3.4	16
35	A novel chaotic system with suppressed time-delay signature based on multiple electro-optic nonlinear loops. *Nonlinear Dynamics*, **2015**, 82, 611-617	5	13
34	Size and stress dependences in the tensile stress relaxation of thin copper wires at room temperature. *International Journal of Plasticity*, **2019**, 112, 278-296	7.6	12
33	Torsional stress relaxation behavior of microscale copper wire. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 698, 277-281	5.3	10
32	Effect of nonlocal thermoelasticity on buckling of axially functionally graded nanobeams. *Journal of Thermal Stresses*, **2019**, 42, 526-539	2.2	10
31	Towards a further understanding of dislocation pileups in the presence of stress gradients. *Philosophical Magazine*, **2013**, 93, 2340-2362	1.6	10
30	Peculiar torsion dynamical response of spider dragline silk. *Applied Physics Letters*, **2017**, 111, 013701	3.4	10

29	Characterizing Torsional Properties of Microwires Using an Automated Torsion Balance. *Experimental Mechanics*, **2017**, 57, 297-311	2.6	10
28	A Modified torsion pendulum for measuring the shear modulus of a single micro-sized filament. *Acta Mechanica Solida Sinica*, **2014**, 27, 221-233	2	9
27	Channel-switchable single-/dual-wavelength single-longitudinal-mode laser and THz beat frequency generation up to 3.6 THz. *Applied Physics B: Lasers and Optics*, **2012**, 106, 373-377	1.9	9
26	On the Internal Resonances of Size-Dependent Clamped–Hinged Microbeams: Continuum Modeling and Numerical Simulations. *International Journal of Applied Mechanics*, **2019**, 11, 1950022	2.4	8
25	Single- and Multiband OFDM Photonic Wireless Links in the 75–110 GHz Band Employing Optical Combs. *IEEE Photonics Journal*, **2012**, 4, 2027-2036	1.8	8
24	An improved torsion pendulum based on image processing for single fibers. *Measurement Science and Technology*, **2016**, 27, 075601	2	8
23	Effect of friction on the mechanical behavior of wire rope with hierarchical helical structures. *Mathematics and Mechanics of Solids*, **2019**, 24, 2154-2180	2.3	8
22	On dissipative gradient effect in higher-order strain gradient plasticity: the modelling of surface passivation. *Acta Mechanica Sinica/Lixue Xuebao*, **2020**, 36, 840-854	2	6
21	Geometrically necessary dislocations induced size effect in the torsional stress relaxation behavior of thin metallic wires. *Scripta Materialia*, **2019**, 173, 129-133	5.6	6
20	Direct measurement of torsional properties of single fibers. *Measurement Science and Technology*, **2016**, 27, 115017	2	6
19	Critical thickness phenomenon in single-crystalline wires under torsion. *Acta Materialia*, **2018**, 150, 213-223	7.4	5
18	Effect of lay direction on the mechanical behavior of multi-strand wire ropes. *International Journal of Solids and Structures*, **2020**, 185-186, 89-103	3.1	5
17	Formulation of Toupin–Mindlin strain gradient theory in prolate and oblate spheroidal coordinates. *European Journal of Mechanics, A/Solids*, **2015**, 49, 227-241	3.7	4
16	Size effect in cyclic torsion of micron-scale polycrystalline copper wires. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 792, 139671	5.3	4
15	Hydroxyapatite-reinforced alginate fibers with bioinspired dually aligned architectures. *Carbohydrate Polymers*, **2021**, 267, 118167	10.3	4
14	The influence of fiber migration on the mechanical properties of yarns with hierarchical helical structures. *Journal of Strain Analysis for Engineering Design*, **2018**, 53, 88-105	1.3	3
13	Modelling the effect of surface passivation within higher-order strain gradient plasticity: The case of wire torsion. *European Journal of Mechanics, A/Solids*, **2019**, 78, 103855	3.7	3
12	Experimental Investigation of Large Time–Bandwidth Product Photonic Hilbert Transformer Based on Compact Bragg Grating. *IEEE Photonics Journal*, **2016**, 8, 1-8	1.8	2

11	Prediction of residual stress components and their directions from pile-up morphology: An experimental study. *Journal of Materials Research*, **2016**, 31, 2392-2397	2.5	2
10	A finite element approach for flexoelectric nonuniform nanobeam energy harvesters. *Mechanics of Advanced Materials and Structures*,1-12	1.8	2
9	Digital image frequency spectrum method for analyzing speckle displacement in frequency domain. *Optics Letters*, **2015**, 40, 942-5	3	1
8	Nanostrain sensitivity in a wire torsion experiment. *Review of Scientific Instruments*, **2020**, 91, 013901	1.7	1
7	Multi-point abnormal-temperature warning sensor system with different thresholds. *Applied Physics B: Lasers and Optics*, **2009**, 96, 833-841	1.9	1
6	On energetic and dissipative gradient effects within higher-order strain gradient plasticity: Size effect, passivation effect, and Bauschinger effect. *International Journal of Plasticity*, **2021**, 141, 102994	7.6	1
5	A Brief Note on the Nix□ao Strain Gradient Plasticity Theory. *Metals*, **2018**, 8, 708	2.3	1
4	Optimal structural patterns of multi-strand wire ropes. *International Journal of Solids and Structures* , **2021**, 225, 111070	3.1	1
3	Modeling of Cyclic Bending of Thin Foils Using Higher-Order Strain Gradient Plasticity. *Acta Mechanica Solida Sinica*,1	2	0
2	A new torsion tester based on an electronic autocollimator for characterizing the torsional behaviors of microfibers. *Review of Scientific Instruments*, **2021**, 92, 103905	1.7	0
1	Experimental and analytical study on the superharmonic resonance of size-dependent cantilever microbeams. *JVC/Journal of Vibration and Control*, **2019**, 25, 2733-2748	2	