Pin Lu

List of Publications by Year
in descending order

108 papers	3,429 citations	185998 28 h-index	149479 56 g-index
109 all docs	109 docs citations	109 times ranked	2565 citing authors

#	Article	IF	Citations
1	Dynamic properties of flexural beams using a nonlocal elasticity model. Journal of Applied Physics, 2006, 99, 073510.	1.1	376
2	Thin plate theory including surface effects. International Journal of Solids and Structures, 2006, 43, 4631-4647.	1.3	370
3	Application of nonlocal beam models for carbon nanotubes. International Journal of Solids and Structures, 2007, 44, 5289-5300.	1.3	328
4	Non-local elastic plate theories. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 3225-3240.	1.0	231
5	Electrically and Sunlightâ€Driven Actuator with Versatile Biomimetic Motions Based on Rolled Carbon Nanotube Bilayer Composite. Advanced Functional Materials, 2017, 27, 1704388.	7.8	211
6	Surface stress effects on the resonance properties of cantilever sensors. Physical Review B, 2005, 72, .	1.1	133
7	An Autonomous Soft Actuator with Lightâ€Driven Selfâ€Sustained Wavelike Oscillation for Phototactic Selfâ€Locomotion and Power Generation. Advanced Functional Materials, 2020, 30, 1908842.	7.8	100
8	Dynamic analysis of axially prestressed micro/nanobeam structures based on nonlocal beam theory. Journal of Applied Physics, 2007, 101, 073504.	1.1	97
9	Effective moduli of nanoparticle reinforced composites considering interphase effect by extended double-inclusion model â€“ Theory and explicit expressions. International Journal of Engineering Science, 2013, 73, 33-55.	2.7	72
10	Exact solutions for simply supported functionally graded piezoelectric laminates by Stroh-like formalism. Composite Structures, 2006, 72, 352-363.	3.1	59
11	Thermal effects on coated resonant microcantilevers. Sensors and Actuators A: Physical, 2001, 95, 17-23.	2.0	56
12	Creep behaviour of eutectic SnBi alloy and its constituent phases using nanoindentation technique. Journal of Alloys and Compounds, 2013, 574, 98-103.	2.8	48
13	An exact solution for functionally graded piezoelectric laminates in cylindrical bending. International Journal of Mechanical Sciences, 2005, 47, 437-458.	3.6	47
14	A powerful dual-responsive soft actuator and photo-to-electric generator based on graphene micro-gasbags for bioinspired applications. Journal of Materials Chemistry B, 2018, 6, 5031-5038.	2.9	42
15	A bioinspired multi-functional wearable sensor with an integrated light-induced actuator based on an asymmetric graphene composite film. Journal of Materials Chemistry C, 2019, 7, 6879-6888.	2.7	42
16	Ionic Electroactive Polymers Used in Bionic Robots: A Review. Journal of Bionic Engineering, 2018, 15, 765-782.	2.7	41
17	Finite element analysis of interference for the laterally coupled quartz crystal microbalances. Sensors and Actuators A: Physical, 2005, 119, 90-99.	2.0	38
18	Green functions of piezoelectric material with an elliptic hole or inclusion. International Journal of Solids and Structures, 1998, 35, 651-664.	1.3	37

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19	Multifunctional Soft Actuators Based on Anisotropic Paper/Polymer Bilayer Toward Bioinspired Applications. Advanced Materials Technologies, 2019, 4, 1800674.	3.0	37
20	An effective method for finding values on and near boundaries in the elastic BEM. Computers and Structures, 1998, 69, 421-431.	2.4	36
21	Thermoelastic damping in cylindrical shells with application to tubular oscillator structures. International Journal of Mechanical Sciences, 2008, 50, 501-512.	3.6	36
22	The microstructure and formation mechanism of face-centered cubic Ti in commercial pure Ti foils during tensile deformation at room temperature. Materials Characterization, 2018, 136, 257-263.	1.9	34
23	Size effects on the tensile properties and deformation mechanism of commercial pure titanium foils. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 730, 244-261.	2.6	33
24	Extension of the Stroh formalism to the analysis of bending of anisotropic elastic plates. Journal of the Mechanics and Physics of Solids, 1994, 42, 1725-1741.	2.3	32
25	A modified ultrasonic linear motor. Sensors and Actuators A: Physical, 2000, 86, 154-158.	2.0	32
26	Further studies on Moriâ€“Tanaka models for thermal expansion coefficients of composites. Polymer, 2013, 54, 1691-1699.	1.8	32
27	Frequency interference between two quartz crystal microbalances. IEEE Sensors Journal, 2003, 3, 274-281.	2.4	31
28	Free vibration analysis for micro-structures used in MEMS considering surface effects. Journal of Sound and Vibration, 2010, 329, 236-246.	2.1	31
29	A theoretical model for the bending of a laminated beam with SMA fiber embedded layer. Composite Structures, 2009, 90, 458-464.	3.1	30
30	Regularized algorithms for the calculation of values on and near boundaries in 2D elastic BEM. Engineering Analysis With Boundary Elements, 2001, 25, 851-876.	2.0	29
31	An alternative derivation of dynamic admittance matrix of piezoelectric cantilever bimorph. Journal of Sound and Vibration, 2003, 266, 723-735.	2.1	29
32	Piezothermoelastic analysis of a piezoelectric material with an elliptic cavity under uniform heat flow. Archive of Applied Mechanics, 1998, 68, 719-733.	1.2	28
33	Mechanical behavior and deformation mechanism of commercial pure titanium foils. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 435-442.	2.6	28
34	Mesoporous g-C3N4/Î²-CD nanocomposites modified glassy carbon electrode for electrochemical determination of 2,4,6-trinitrotoluene. Talanta, 2020, 208, 120410.	2.9	26
35	A variational boundary element formulation for piezoelectricity. Mechanics Research Communications, 1994, 21, 605-611.	1.0	23
36	Grapheneâ€Based Bimorph Actuators with Dualâ€Response and Largeâ€Deformation by a Simple Method. Macromolecular Materials and Engineering, 2019, 304, 1800688.	1.7	22

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37	Frequency Response of a Quartz Crystal Microbalance Loaded by Liquid Drops. Langmuir, 2007, 23, 7392-7397.	1.6	21
38	A kinematic analysis of cylindrical ultrasonic micromotors. Sensors and Actuators A: Physical, 2001, 87, 194-197.	2.0	20
39	An easily fabricated high performance ionic polymer based sensor network. Applied Physics Letters, 2016, 109, .	1.5	20
40	A further investigation of Green's functions for a piezoelectric material with a cavity or a crack. International Journal of Solids and Structures, 2000, 37, 1065-1078.	1.3	19
41	AN APPROXIMATE FREQUENCY FORMULA FOR PIEZOELECTRIC CIRCULAR CYLINDRICAL SHELLS. Journal of Sound and Vibration, 2001, 242, 309-320.	2.1	19
42	Frequency interference between two mesa-shaped quartz crystal microbalances. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 668-675.	1.7	18
43	Effects of Interface Slip and Viscoelasticity on the Dynamic Response of Droplet Quartz Crystal Microbalances. Analytical Chemistry, 2008, 80, 7347-7353.	3.2	18
44	Study of the Evaporation of Colloidal Suspension Droplets with the Quartz Crystal Microbalance. Langmuir, 2008, 24, 8373-8378.	1.6	17
45	Out-of-plane electrostatic actuation of microcantilevers. Nanotechnology, 2005, 16, 602-608.	1.3	16
46	Stroh type formalism for unsymmetric laminated plate. Mechanics Research Communications, 1994, 21, 249-254.	1.0	15
47	Application-oriented simplification of actuation mechanism and physical model for ionic polymer-metal composites. Journal of Applied Physics, 2016, 120, .	1.1	15
48	Boundary element analysis of shallow shells involving shear deformation. International Journal of Solids and Structures, 1992, 29, 1273-1282.	1.3	14
49	Research of Natural Frequency of Single-walled Carbon Nanotube. Chinese Journal of Chemical Physics, 2007, 20, 525-530.	0.6	14
50	Ligand coverage dependence of structural stability and interparticle spacing of gold supracrystals. Journal of Applied Physics, 2018, 123, .	1.1	14
51	Frequency coupling and energy trapping in mesa-shaped multichannel quartz crystal microbalances. Sensors and Actuators A: Physical, 2004, 111, 180-187.	2.0	13
52	Ionic polymer with single-layered electrodes: a novel strategy for ionic actuator design. Smart Materials and Structures, 2018, 27, 105046.	1.8	13
53	High-performance ionic polymerâ€“metal composite actuators fabricated with microneedle roughening. Smart Materials and Structures, 2019, 28, 015007.	1.8	13
54	A Modified Molecular Structural Mechanics Method for Analysis of Carbon Nanotubes. Chinese Journal of Chemical Physics, 2006, 19, 286-290.	0.6	12

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55	Rough interface in IPMC: modeling and its influence analysis. Smart Materials and Structures, 2018, 27, 075055.	1.8	12
56	DYNAMICAL ANALYSIS OF A CYLINDRICAL PIEZOELECTRIC TRANSDUCER. Journal of Sound and Vibration, 2003, 259, 427-443.	2.1	11
57	A Stroh-type formalism for anisotropic thin plates with bending-extension coupling. Archive of Applied Mechanics, 2004, 73, 690-710.	1.2	11
58	The orientation spreading in Î³-fiber of electron beam melted Ta-2.5W alloy during cold rolling. Journal of Alloys and Compounds, 2017, 699, 57-67.	2.8	11
59	The evolution of shear bands in Ta-2.5W alloy during cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 726, 259-273.	2.6	11
60	Influence of interchannel spacing on the dynamical properties of multichannel quartz crystal microbalance. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2004, 51, 249-253.	1.7	10
61	Further studies on edge waves in anisotropic elastic plates. International Journal of Solids and Structures, 2007, 44, 2192-2208.	1.3	9
62	A treatment for the study of dynamic instabilities of fluid-conveying pipes. Mechanics Research Communications, 2009, 36, 742-746.	1.0	9
63	Mechanical contact between rough surfaces at low load. Journal Physics D: Applied Physics, 2012, 45, 475303.	1.3	9
64	EXACT EIGEN-RELATIONS OF CLAMPED-CLAMPED AND SIMPLY SUPPORTED PIPES CONVEYING FLUIDS. International Journal of Applied Mechanics, 2012, 04, 1250035.	1.3	8
65	Computation of the fundamental solution for shallow shells involving shear deformation. International Journal of Solids and Structures, 1991, 28, 631-645.	1.3	7
66	Stress rate integral equations of elastoplasticity. Acta Mechanica Sinica/Lixue Xuebao, 1996, 12, 55-64.	1.5	7
67	Influence of cavity boundary conditions on the effective electroelastic moduli of piezoelectric ceramic with cavities. Mechanics Research Communications, 1999, 26, 229-238.	1.0	7
68	Friction measurement on free standing plates using atomic force microscopy. Review of Scientific Instruments, 2013, 84, 013702.	0.6	7
69	The evolution of dislocation microstructure in electron beam melted Ta-2.5W alloy during cold rolling. International Journal of Refractory Metals and Hard Materials, 2016, 61, 136-146.	1.7	7
70	A twin orientation relationship between {001}ãˆ210ã€‰ and {111}ãˆ110ã€‰ obtained in Ta-2.5W alloy during heavily cold rolling. Materials Characterization, 2017, 125, 108-113.	1.9	7
71	Molecular interaction between asymmetric ligand-capped gold nanocrystals. Journal of Chemical Physics, 2019, 150, 034702.	1.2	7
72	A Model Reduction Method for the Dynamic Analysis of Microelectromechanical Systems. International Journal of Nonlinear Sciences and Numerical Simulation, 2001, 2, .	0.4	6

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73	Energy trapping in mesa-shaped quartz crystal microbalance. , 0, , .		6
74	Frequency interference between two quartz crystal microbalances. , 0, , .		6
75	Dynamic analysis of AT-cut quartz resonators with ANSYS. , 0, , .		6
76	A Note on the Two-Spring Tomlinson Model. Tribology Letters, 2011, 43, 73-76.	1.2	6
77	Studies of Low-loading Micro-slip Contacts on Rough Surfaces with GW Model. International Journal of Applied Mechanics, 2017, 09, 1750049.	1.3	6
78	Evaluation of vibration mode shape using a mechanoluminescent sensor. Applied Physics Letters, 2021, 119, .	1.5	6
79	A design of an ultrasonic linear motor based on theoretical analysis. Smart Materials and Structures, 2000, 9, 774-779.	1.8	5
80	Temperature-dependent surface density of alkylthiol monolayers on gold nanocrystals. Materials Research Express, 2018, 5, 035001.	0.8	5
81	The microstructure and property of W/Ti multilayer composites prepared by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2019, 79, 138-144.	1.7	5
82	The effect of bonding temperature on the bending behaviors and toughening mechanism of W/(Ti/Ta/Ti) multilayer composites prepared by field activated sintering technique. Materials Characterization, 2021, 172, 110875.	1.9	5
83	A general relation for contact stiffness including adhesion in indentation analysis. Journal of Materials Research, 2011, 26, 1406-1413.	1.2	4
84	A modified hybrid displacement variational formulation of BEM for elasticity. Mechanics Research Communications, 1993, 20, 425-429.	1.0	3
85	The fundamental solution for the theory of orthotropic shallow shells involving shear deformation. International Journal of Solids and Structures, 1994, 31, 913-923.	1.3	3
86	A mathematical model of elastic fin micromotors. Smart Materials and Structures, 2000, 9, 511-522.	1.8	3
87	A modified model for the prediction of effective elastic moduli of composite materials. International Journal of Solids and Structures, 2002, 39, 649-657.	1.3	3
88	A theoretical analysis of mechanical dissipation of an electroded quartz resonator. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 1069-1072.	1.7	3
89	Experimentally fitting the attraction strength of an interface by the response of the thickness shear-mode acoustic wave sensor. Journal Physics D: Applied Physics, 2005, 38, 1599-1607.	1.3	3
90	A Study of Particles Adhesion to Compliant Substrates with a Modified Sphere Contact Model. Tribology Letters, 2015, 58, 1.	1.2	2

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91	The evolution of deformation microstructure in electron beam melted Ta-2.5W alloy during cold rolling. Fusion Engineering and Design, 2017, 125, 510-514.	1.0	2
92	Molecular insights into the thermal stability of gold superlattices. Nanotechnology, 2020, 31, 085704.	1.3	2
93	An improvement on variational boundary element formulation for elasticity with body forces. Mechanics Research Communications, 1997, 24, 569-574.	1.0	1
94	An effective method for calculating values on and near boundaries in the hybrid displacement BEM. Mechanics Research Communications, 2001, 28, 199-206.	1.0	1
95	A Coupled Model for Active Vibration Control of Beam System with Piezoelectric Actuators. Japanese Journal of Applied Physics, 2001, 40, 430-433.	0.8	1
96	Further studies on Stroh-type formalisms for anisotropic plates with bending-extension coupling. Acta Mechanica Solida Sinica, 2007, 20, 324-332.	1.0	1
97	Three-Dimensional Modeling for Thin Plate-Like Structures Including Surface Effects by Using State Space Method. Acta Mechanica Solida Sinica, 2010, 23, 260-270.	1.0	1
98	Electroplated CoPt magnets for actuation of stiff cantilevers. Review of Scientific Instruments, 2011, 82, 115002.	0.6	1
99	A modified beam model based on Gurtinâ€“Murdoch surface elasticity theory. Meccanica, 2021, 56, 1147-1164.	1.2	1
100	A Method for Establishing Hybrid Piezoelectric Composite Plate Theories with Continuous Interlaminar Stresses. Journal of Intelligent Material Systems and Structures, 2000, 11, 821-827.	1.4	0
101	Reply to the â€œComment on: A Note on the Two-Spring Tomlinson Modelâ€• Tribology Letters, 2012, 45, 227-228.	1.2	0
102	MODIFIED MODELS FOR SMALL CONTACTS. , 2015, , 67-68.		0
103	Flexural wave and vibration properties of nanotubes conveying fluid. Mathematical Methods in the Applied Sciences, 0, , .	1.2	0
104	10.1063/5.0063514.1. , 2021, , .		0
105	Adsorption-Induced Surface Stress Effect on the Resonance Behavior of a Quartz Crystal Microbalance. , 2006, , .		0
106	An Improved Boundary Element Analysis for the Bending of a Thin Plate with a Crack. Solid Mechanics and Its Applications, 1995, , 463-472.	0.1	0
107	Research on hand-eye calibration method based on stereo vision for harvesting robot. , 2019, , .		0
108	Atomistic simulations of mechanical response of a heterogeneous fcc/bcc nanolayered composite. Journal of Physics Condensed Matter, 0, , .	0.7	0