## Rui Li

## List of Publications by Year in descending order

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101543 71685 6,379 131 36 76 citations h-index g-index papers 132 132 132 7281 citing authors docs citations times ranked all docs

#	Article	IF	CITATIONS
1	A Physically Transient Form of Silicon Electronics. Science, 2012, 337, 1640-1644.	12.6	1,085
2	Digital cameras with designs inspired by the arthropod eye. Nature, 2013, 497, 95-99.	27.8	926
3	Dissolvable Metals for Transient Electronics. Advanced Functional Materials, 2014, 24, 645-658.	14.9	379
4	Multifunctional Skinâ€Like Electronics for Quantitative, Clinical Monitoring of Cutaneous Wound Healing. Advanced Healthcare Materials, 2014, 3, 1597-1607.	7.6	226
5	Moisture Sensitive Smart Yarns and Textiles from Selfâ€Balanced Silk Fiber Muscles. Advanced Functional Materials, 2019, 29, 1808241.	14.9	200
6	Silicon nanomembranes for fingertip electronics. Nanotechnology, 2012, 23, 344004.	2.6	196
7	Winding-Locked Carbon Nanotubes/Polymer Nanofibers Helical Yarn for Ultrastretchable Conductor and Strain Sensor. ACS Nano, 2020, 14, 3442-3450.	14.6	164
8	Passive sweat collection and colorimetric analysis of biomarkers relevant to kidney disorders using a soft microfluidic system. Lab on A Chip, 2019, 19, 1545-1555.	6.0	157
9	Inâ€Plane Deformation Mechanics for Highly Stretchable Electronics. Advanced Materials, 2017, 29, 1604989.	21.0	141
10	Battery-free, lightweight, injectable microsystem for in vivo wireless pharmacology and optogenetics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21427-21437.	7.1	110
11	Laser-Driven Micro Transfer Placement of Prefabricated Microstructures. Journal of Microelectromechanical Systems, 2012, 21, 1049-1058.	2.5	95
12	An analytical mechanics model for the island-bridge structure of stretchable electronics. Soft Matter, 2013, 9, 8476.	2.7	82
13	An Analytical Model of Reactive Diffusion for Transient Electronics. Advanced Functional Materials, 2013, 23, 3106-3114.	14.9	74
14	On the finite integral transform method for exact bending solutions of fully clamped orthotropic rectangular thin plates. Applied Mathematics Letters, 2009, 22, 1821-1827.	2.7	66
15	Flexible electronic/optoelectronic microsystems with scalable designs for chronic biointegration. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15398-15406.	7.1	66
16	Thermo-mechanical modeling of laser-driven non-contact transfer printing: two-dimensional analysis. Soft Matter, 2012, 8, 7122.	2.7	64
17	A survey on 3D hand pose estimation: Cameras, methods, and datasets. Pattern Recognition, 2019, 93, 251-272.	8.1	64
18	Symplectic superposition method for new analytic buckling solutions of rectangular thin plates. International Journal of Mechanical Sciences, 2016, 119, 432-441.	6.7	63

#	Article	IF	CITATIONS
19	New analytic buckling solutions of rectangular thin plates with all edges free. International Journal of Mechanical Sciences, 2018, 144, 67-73.	6.7	59
20	Ultrathin Trilayer Assemblies as Long-Lived Barriers against Water and Ion Penetration in Flexible Bioelectronic Systems. ACS Nano, 2018, 12, 10317-10326.	14.6	57
21	Measured Output Voltages of Piezoelectric Devices Depend on the Resistance of Voltmeter. Advanced Functional Materials, 2015, 25, 5320-5325.	14.9	56
22	Analytic bending solutions of free rectangular thin plates resting on elastic foundations by a new symplectic superposition method. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120681.	2.1	54
23	New analytic free vibration solutions of rectangular thin plates resting on multiple point supports. International Journal of Mechanical Sciences, 2016, 110, 53-61.	6.7	49
24	Transferred, Ultrathin Oxide Bilayers as Biofluid Barriers for Flexible Electronic Implants. Advanced Functional Materials, 2018, 28, 1702284.	14.9	49
25	Stretchable, Healable, and Degradable Soft Ionic Microdevices Based on Multifunctional Soaking-Toughened Dual-Dynamic-Network Organohydrogel Electrolytes. ACS Applied Materials & Interfaces, 2020, 12, 56393-56402.	8.0	47
26	Splitting of neutral mechanical plane of conformal, multilayer piezoelectric mechanical energy harvester. Applied Physics Letters, 2015, 107, .	3.3	45
27	Accurate bending analysis of rectangular plates with two adjacent edges free and the others clamped or simply supported based on new symplectic approach. Applied Mathematical Modelling, 2010, 34, 856-865.	4.2	44
28	A General Strategy for Stretchable Microwave Antenna Systems using Serpentine Mesh Layouts. Advanced Functional Materials, 2017, 27, 1703059.	14.9	43
29	Contact-Resistance-Free Stretchable Strain Sensors with High Repeatability and Linearity. ACS Nano, 2022, 16, 541-553.	14.6	43
30	Adhesionâ€Free Thinâ€Filmâ€Like Curvature Sensors Integrated on Flexible and Wearable Electronics for Monitoring Bending of Joints and Various Body Gestures. Advanced Materials Technologies, 2019, 4, 1800327.	5.8	41
31	Integral transform solutions to the bending problems of moderately thick rectangular plates with all edges free resting on elastic foundations. Applied Mathematical Modelling, 2015, 39, 128-136.	4.2	40
32	On new symplectic approach for exact bending solutions of moderately thick rectangular plates with two opposite edges simply supported. International Journal of Solids and Structures, 2009, 46, 2506-2513.	2.7	39
33	Hamiltonian system-based analytic modeling of the free rectangular thin plates' free vibration. Applied Mathematical Modelling, 2016, 40, 984-992.	4.2	39
34	Kirigami pattern design of mechanically driven formation of complex 3D structures through topology optimization. Extreme Mechanics Letters, 2017, 15, 139-144.	4.1	39
35	Nano-confined crystallization of organic ultrathin nanostructure arrays with programmable geometries. Nature Communications, 2019, 10, 3912.	12.8	39
36	Hamiltonian system-based benchmark bending solutions of rectangular thin plates with a corner pointâ€supported. International Journal of Mechanical Sciences, 2014, 85, 212-218.	6.7	38

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37	Axisymmetric thermo-mechanical analysis of laser-driven non-contact transfer printing. International Journal of Fracture, 2012, 176, 189-194.	2.2	37
38	A unified analytic solution approach to static bending and free vibration problems of rectangular thin plates. Scientific Reports, 2015, 5, 17054.	3.3	37
39	New analytic buckling solutions of rectangular thin plates with two free adjacent edges by the symplectic superposition method. European Journal of Mechanics, A/Solids, 2019, 76, 247-262.	3.7	37
40	Splitting of the neutral mechanical plane depends on the length of the multi-layer structure of flexible electronics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160087.	2.1	34
41	Shear deformation dominates in the soft adhesive layers of the laminated structure of flexible electronics. International Journal of Solids and Structures, 2017, 110-111, 305-314.	2.7	33
42	New analytic solutions for free vibration of rectangular thick plates with an edge free. International Journal of Mechanical Sciences, 2017, 131-132, 179-190.	6.7	33
43	On new analytic free vibration solutions of rectangular thin cantilever plates in the symplectic space. Applied Mathematical Modelling, 2018, 53, 310-318.	4.2	33
44	Growth model for large branched three-dimensional hydraulic crack system in gas or oil shale. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150418.	3.4	31
45	Symplectic superposition method-based new analytic bending solutions of cylindrical shell panels. International Journal of Mechanical Sciences, 2019, 152, 432-442.	6.7	31
46	Hamiltonian system-based new analytic free vibration solutions of cylindrical shell panels. Applied Mathematical Modelling, 2019, 76, 900-917.	4.2	30
47	Ultrathin, Transferred Layers of Metal Silicide as Faradaic Electrical Interfaces and Biofluid Barriers for Flexible Bioelectronic Implants. ACS Nano, 2019, 13, 660-670.	14.6	30
48	New analytic buckling solutions of side-cracked rectangular thin plates by the symplectic superposition method. International Journal of Mechanical Sciences, 2021, 191, 106051.	6.7	30
49	On new symplectic superposition method for exact bending solutions of rectangular cantilever thin plates. Mechanics Research Communications, 2011, 38, 111-116.	1.8	29
50	Graphene-Based Bioinspired Compound Eyes for Programmable Focusing and Remote Actuation. ACS Applied Materials & Samp; Interfaces, 2015, 7, 21416-21422.	8.0	29
51	On the symplectic superposition method for new analytic free vibration solutions of side-cracked rectangular thin plates. Journal of Sound and Vibration, 2020, 489, 115695.	3.9	26
52	Analytic free vibration solutions of rectangular thin plates point-supported at a corner. International Journal of Mechanical Sciences, 2015, 96-97, 199-205.	6.7	25
53	An Accurate Thermomechanical Model for Laser-Driven Microtransfer Printing. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	2.2	25
54	Symplectic Superposition Method for Benchmark Flexure Solutions for Rectangular Thick Plates. Journal of Engineering Mechanics - ASCE, 2015, 141, .	2.9	24

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55	On new buckling solutions of moderately thick rectangular plates by the symplectic superposition method within the Hamiltonian-system framework. Applied Mathematical Modelling, 2021, 94, 226-241.	4.2	24
56	Analytical bending solutions of free orthotropic rectangular thin plates under arbitrary loading. Meccanica, 2013, 48, 2497-2510.	2.0	23
57	Survey on Mapping Human Hand Motion to Robotic Hands for Teleoperation. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 2647-2665.	8.3	23
58	Wafer-scale integration of stretchable semiconducting polymer microstructures via capillary gradient. Nature Communications, 2021, 12, 7038.	12.8	23
59	New analytic bending solutions of rectangular thin plates with a corner point-supported and its adjacent corner free. European Journal of Mechanics, A/Solids, 2017, 66, 103-113.	3.7	22
60	New exact series solutions for transverse vibration of rotationally-restrained orthotropic plates. Applied Mathematical Modelling, 2019, 65, 348-360.	4.2	22
61	Exact bending analysis of fully clamped rectangular thin plates subjected to arbitrary loads by new symplectic approach. Mechanics Research Communications, 2009, 36, 707-714.	1.8	21
62	Two-dimensional generalized finite integral transform method for new analytic bending solutions of orthotropic rectangular thin foundation plates. Applied Mathematics Letters, 2019, 92, 8-14.	2.7	21
63	Mechanics of finger-tip electronics. Journal of Applied Physics, 2013, 114, 164511.	2.5	19
64	Infrared Skinâ€Like Active Stretchable Electronics Based on Organic–Inorganic Composite Structures for Promotion of Cutaneous Wound Healing. Advanced Materials Technologies, 2019, 4, 1900150.	5.8	19
65	Strain-Limiting Substrates Based on Nonbuckling, Prestrain-Free Mechanics for Robust Stretchable Electronics. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	2.2	19
66	Finite integral transform method for analytical solutions of static problems of cylindrical shell panels. European Journal of Mechanics, A/Solids, 2020, 83, 104033.	3.7	18
67	Design of two-dimensional horseshoe layout for stretchable electronic systems. Journal of Materials Science, 2013, 48, 8443-8448.	3.7	17
68	A hypoplastic model for gas hydrateâ€bearing sandy sediments. International Journal for Numerical and Analytical Methods in Geomechanics, 2018, 42, 931-942.	3.3	17
69	Ultrathin, High Capacitance Capping Layers for Silicon Electronics with Conductive Interconnects in Flexible, Longâ€Lived Bioimplants. Advanced Materials Technologies, 2020, 5, 1900800.	5.8	17
70	Photolithography-assisted precise patterning of nanocracks for ultrasensitive strain sensors. Journal of Materials Chemistry A, 2021, 9, 4262-4272.	10.3	17
71	Advanced Materials in Wireless, Implantable Electrical Stimulators that Offer Rapid Rates of Bioresorption for Peripheral Axon Regeneration. Advanced Functional Materials, 2021, 31, 2102724.	14.9	17
72	New benchmark free vibration solutions of non-LÃOvy-type thick rectangular plates based on third-order shear deformation theory. Composite Structures, 2021, 268, 113955.	5.8	17

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73	Bitter Flavored, Soft Composites for Wearables Designed to Reduce Risks of Choking in Infants. Advanced Materials, 2021, 33, e2103857.	21.0	17
74	Capillary number encouraged the construction of smart biomimetic eyes. Journal of Materials Chemistry C, 2015, 3, 5896-5902.	5.5	16
75	New analytic buckling solutions of non-L $ ilde{A}$ ©vy-type cylindrical panels within the symplectic framework. Applied Mathematical Modelling, 2021, 98, 398-415.	4.2	16
76	Analytical bending solutions of clamped rectangular thin plates resting on elastic foundations by the symplectic superposition method. Applied Mathematics Letters, 2013, 26, 355-361.	2.7	15
77	The universal and easy-to-use standard of voltage measurement for quantifying the performance of piezoelectric devices. Extreme Mechanics Letters, 2017, 15, 10-16.	4.1	15
78	Scaling Effects in the Mechanical System of the Flexible Epidermal Electronics and the Human Skin. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	15
79	On New Analytic Free Vibration Solutions of Doubly Curved Shallow Shells by the Symplectic Superposition Method Within the Hamiltonian-System Framework. Journal of Vibration and Acoustics, Transactions of the ASME, 2021, 143, .	1.6	15
80	Exact bending solutions of orthotropic rectangular cantilever thin plates subjected to arbitrary loads. International Applied Mechanics, 2011, 47, 107-119.	0.6	13
81	A molecular dynamics study on tensile strength and failure modes of carbon nanotube junctions. Journal Physics D: Applied Physics, 2013, 46, 495301.	2.8	13
82	An Universal and Easyâ€toâ€Use Model for the Pressure of Arbitraryâ€Shape 3D Multifunctional Integumentary Cardiac Membranes. Advanced Healthcare Materials, 2016, 5, 889-892.	7.6	13
83	New analytic buckling solutions of moderately thick clamped rectangular plates by a straightforward finite integral transform method. Archive of Applied Mechanics, 2019, 89, 1885-1897.	2.2	13
84	A Traction-Free Model for the Tensile Stiffness and Bending Stiffness of Laminated Ribbons of Flexible Electronics. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	2.2	13
85	Accelerated Koiter method for post-buckling analysis of thin-walled shells under axial compression. Thin-Walled Structures, 2020, 155, 106962.	5.3	13
86	Sacrificial layer-assisted nanoscale transfer printing. Microsystems and Nanoengineering, 2020, 6, 80.	7.0	13
87	On a new symplectic geometry method for exact bending solutions of orthotropic rectangular plates with two opposite sides clamped. Acta Mechanica, 2011, 216, 333-343.	2.1	12
88	Benchmark bending solutions of rectangular thin plates point-supported at two adjacent corners. Applied Mathematics Letters, 2015, 40, 53-58.	2.7	12
89	New analytic free vibration solutions of orthotropic rectangular plates by a novel symplectic approach. Acta Mechanica, 2019, 230, 3087-3101.	2.1	12
90	Overlarge Gauge Factor Yields a Large Measuring Error for Resistiveâ€√ype Stretchable Strain Sensors. Advanced Electronic Materials, 2020, 6, 2000618.	5.1	12

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91	Stretchable Electronic Facial Masks for Sonophoresis. ACS Nano, 2022, 16, 5961-5974.	14.6	12
92	Free Vibration Analysis of Rectangular Cantilever Plates by Finite Integral Transform Method. International Journal for Computational Methods in Engineering Science and Mechanics, 2013, 14, 221-226.	2.1	11
93	An analytic model for accurate spring constant calibration of rectangular atomic force microscope cantilevers. Scientific Reports, 2015, 5, 15828.	3.3	11
94	An overview of healthcare monitoring by flexible electronics. Science China: Physics, Mechanics and Astronomy, 2018, 61, 1.	5.1	11
95	Accurate bending analysis of rectangular thin plates with corner supports by a unified finite integral transform method. Acta Mechanica, 2019, 230, 3807-3821.	2.1	11
96	Bioinspired Oil-Infused Slippery Surfaces with Water and Ion Barrier Properties. ACS Applied Materials & Lamp; Interfaces, 2021, 13, 33464-33476.	8.0	10
97	Impact Comminution of Solids Due to Progressive Crack Growth Driven by Kinetic Energy of High-Rate Shear. Journal of Applied Mechanics, Transactions ASME, 2015, 82, .	2.2	9
98	New Analytic Free Vibration Solutions of Rectangular Thick Plates With a Free Corner by the Symplectic Superposition Method. Journal of Vibration and Acoustics, Transactions of the ASME, 2018, 140, .	1.6	9
99	New benchmark solutions for free vibration of clamped rectangular thick plates and their variants. Applied Mathematics Letters, 2018, 78, 88-94.	2.7	9
100	New Analytic Shear Buckling Solution of Clamped Rectangular Plates by a Two-Dimensional Generalized Finite Integral Transform Method. International Journal of Structural Stability and Dynamics, 2020, 20, 2071002.	2.4	9
101	On the symplectic superposition method for analytic free vibration solutions of right triangular plates. Archive of Applied Mechanics, 2021, 91, 187-203.	2.2	9
102	New analytic thermal buckling solutions of non-L $\tilde{A}$ ©vy-type functionally graded rectangular plates by the symplectic superposition method. Acta Mechanica, 2022, 233, 2955-2968.	2.1	9
103	On the symplectic superposition method for new analytic bending, buckling, and free vibration solutions of rectangular nanoplates with all edges free. Acta Mechanica, 2021, 232, 495-513.	2.1	8
104	On the symplectic superposition method for free vibration of rectangular thin plates with mixed boundary constraints on an edge. Theoretical and Applied Mechanics Letters, 2021, 11, 100293.	2.8	8
105	Symplectic Framework-Based New Analytic Solutions for Thermal Buckling of Temperature-Dependent Moderately Thick Functionally Graded Rectangular Plates. International Journal of Structural Stability and Dynamics, 2022, 22, .	2.4	8
106	Analytic solutions for the free vibration of rectangular thin plates with two adjacent corners point-supported. Archive of Applied Mechanics, 2015, 85, 1815-1824.	2.2	7
107	Systematic study on the mechanical and electric behaviors of the nonbuckling interconnect design of stretchable electronics. Science China: Physics, Mechanics and Astronomy, 2018, 61, 1.	5.1	7
108	New analytic bending, buckling, and free vibration solutions of rectangular nanoplates by the symplectic superposition method. Scientific Reports, 2021, 11, 2939.	3.3	7

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109	Eyeâ€Friendly Reflective Structural Colors with Shortwave Infrared Shielding. Advanced Optical Materials, 2022, 10, 2101342.	7.3	7
110	Preparation of Flame-Retardant Asphalt for Tunnels. Advanced Materials Research, 0, 391-392, 189-194.	0.3	6
111	Valence Band of Rutile TiO <sub>2</sub> (110) Investigated by Polarized-Light-Based Angle-Resolved Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 2299-2305.	4.6	6
112	Bio-inspired hemispherical compound eye camera. , 2014, , .		5
113	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). Advanced Functional Materials, 2014, 24, 644-644.	14.9	5
114	Numerical study on the mechanisms of the SERS of gold-coated pyramidal tip substrates. Journal of Physics Condensed Matter, 2016, 28, 254004.	1.8	5
115	Torsional failure of water-filled carbon nanotubes. International Journal of Damage Mechanics, 2016, 25, 87-97.	4.2	5
116	Stretchable Electronics: Inâ€Plane Deformation Mechanics for Highly Stretchable Electronics (Adv.) Tj ETQq0 0 0	rgBT /Ov∈ 21.0	erlock 10 Tf 5
117	Buckling of beams with finite prebuckling deformation. International Journal of Solids and Structures, 2019, 165, 148-159.	2.7	5
118	Plasmonic Effect of a Nanoshell Dimer with Different Gain Materials. Plasmonics, 2014, 9, 1463-1469.	3.4	4
119	New analytic solutions for static problems of rectangular thin plates point-supported at three corners. Meccanica, 2017, 52, 1593-1600.	2.0	4
120	Exploring the structure–capacitance relation of graphene film-based supercapacitor. Journal of Materials Science, 2021, 56, 2506-2516.	3.7	4
121	Arthropod eye-inspired digital camera with unique imaging characteristics. , 2014, , .		3
122	A Simplified Indirect Measuring Method for the Notch Stress in a Thin Cylindrical Shell. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	2.2	3
123	First-Person Hand Action Recognition Using Multimodal Data. IEEE Transactions on Cognitive and Developmental Systems, 2022, 14, 1449-1464.	3.8	3
124	A Theoretical and Experimental Study on Extreme Stress Concentration-Free Designs of Circumferentially Notched Thin Cylindrical Shells. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	2
125	Buckling of Bulk Structures With Finite Prebuckling Deformation. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	2
126	Organâ€Mounted Electronics: An Universal and Easyâ€toâ€Use Model for the Pressure of Arbitraryâ€Shape 3D Multifunctional Integumentary Cardiac Membranes (Adv. Healthcare Mater. 8/2016). Advanced Healthcare Materials, 2016, 5, 866-866.	7.6	1

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127	Study on Node Localization of Underwater Sensor Networks Based on Node Dynamic Selection and Movement Prediction. , $2021, \ldots$		1
128	On new benchmark free vibration solutions of rectangular sandwich panels within the symplectic solution framework. Journal of Sandwich Structures and Materials, 2022, 24, 1883-1904.	3.5	1
129	On the Applicability of New Symplectic Approach for Exact Bending Solutions of Moderately Thick Rectangular Plate. Applied Mechanics and Materials, 0, 105-107, 611-614.	0.2	0
130	Energy Harvesting: Measured Output Voltages of Piezoelectric Devices Depend on the Resistance of Voltmeter (Adv. Funct. Mater. 33/2015). Advanced Functional Materials, 2015, 25, 5404-5404.	14.9	0
131	2D hierarchical lattices' imperfection sensitivity to missing bars defect. Theoretical and Applied Mechanics Letters, 2015, 5, 141-145.	2.8	0