

Rui Li

List of Publications by Year in descending order

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131
papers

6,379
citations

101543

36
h-index

71685

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132
all docs

132
docs citations

132
times ranked

7281
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	First-Person Hand Action Recognition Using Multimodal Data. IEEE Transactions on Cognitive and Developmental Systems, 2022, 14, 1449-1464.	3.8	3
3	Eye-Friendly Reflective Structural Colors with Shortwave Infrared Shielding. Advanced Optical Materials, 2022, 10, 2101342.	7.3	7
4	Buckling of Bulk Structures With Finite Prebuckling Deformation. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	2
5	Valence Band of Rutile TiO ₂ (110) Investigated by Polarized-Light-Based Angle-Resolved Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 2299-2305.	4.6	6
6	Stretchable Electronic Facial Masks for Sonophoresis. ACS Nano, 2022, 16, 5961-5974.	14.6	12
7	Contact-Resistance-Free Stretchable Strain Sensors with High Repeatability and Linearity. ACS Nano, 2022, 16, 541-553.	14.6	43
8	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
9	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
10	New analytic thermal buckling solutions of non-Λvy-type functionally graded rectangular plates by the symplectic superposition method. Acta Mechanica, 2022, 233, 2955-2968.	2.1	9
11	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
12	Exploring the structure-capacitance relation of graphene film-based supercapacitor. Journal of Materials Science, 2021, 56, 2506-2516.	3.7	4
13	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
14	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
15	Photolithography-assisted precise patterning of nanocracks for ultrasensitive strain sensors. Journal of Materials Chemistry A, 2021, 9, 4262-4272.	10.3	17
16	New analytic bending, buckling, and free vibration solutions of rectangular nanoplates by the symplectic superposition method. Scientific Reports, 2021, 11, 2939.	3.3	7
17	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
18	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

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19	Study on Node Localization of Underwater Sensor Networks Based on Node Dynamic Selection and Movement Prediction. , 2021, , .		1
20	Bioinspired Oil-Infused Slippery Surfaces with Water and Ion Barrier Properties. ACS Applied Materials & Interfaces, 2021, 13, 33464-33476.	8.0	10
21	New benchmark free vibration solutions of non-LÃ©vy-type thick rectangular plates based on third-order shear deformation theory. Composite Structures, 2021, 268, 113955.	5.8	17
22	Bitter Flavored, Soft Composites for Wearables Designed to Reduce Risks of Choking in Infants. Advanced Materials, 2021, 33, e2103857.	21.0	17
23	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
24	New analytic buckling solutions of non-LÃ©vy-type cylindrical panels within the symplectic framework. Applied Mathematical Modelling, 2021, 98, 398-415.	4.2	16
25	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
26	Wafer-scale integration of stretchable semiconducting polymer microstructures via capillary gradient. Nature Communications, 2021, 12, 7038.	12.8	23
27	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
28	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
29	Accelerated Koiter method for post-buckling analysis of thin-walled shells under axial compression. Thin-Walled Structures, 2020, 155, 106962.	5.3	13
30	Sacrificial layer-assisted nanoscale transfer printing. Microsystems and Nanoengineering, 2020, 6, 80.	7.0	13
31	Overlarge Gauge Factor Yields a Large Measuring Error for Resistiveâ€Type Stretchable Strain Sensors. Advanced Electronic Materials, 2020, 6, 2000618.	5.1	12
32	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
33	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
34	Winding-Locked Carbon Nanotubes/Polymer Nanofibers Helical Yarn for Ultrastretchable Conductor and Strain Sensor. ACS Nano, 2020, 14, 3442-3450.	14.6	164
35	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
36	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

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37	A Theoretical and Experimental Study on Extreme Stress Concentration-Free Designs of Circumferentially Notched Thin Cylindrical Shells. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020, 87, .	2.2	2
38	Accurate bending analysis of rectangular thin plates with corner supports by a unified finite integral transform method. <i>Acta Mechanica</i> , 2019, 230, 3807-3821.	2.1	11
39	Flexible electronic/optoelectronic microsystems with scalable designs for chronic biointegration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15398-15406.	7.1	66
40	Hamiltonian system-based new analytic free vibration solutions of cylindrical shell panels. <i>Applied Mathematical Modelling</i> , 2019, 76, 900-917.	4.2	30
41	New analytic free vibration solutions of orthotropic rectangular plates by a novel symplectic approach. <i>Acta Mechanica</i> , 2019, 230, 3087-3101.	2.1	12
42	Battery-free, lightweight, injectable microsystem for in vivo wireless pharmacology and optogenetics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21427-21437.	7.1	110
43	Nano-confined crystallization of organic ultrathin nanostructure arrays with programmable geometries. <i>Nature Communications</i> , 2019, 10, 3912.	12.8	39
44	Symplectic superposition method-based new analytic bending solutions of cylindrical shell panels. <i>International Journal of Mechanical Sciences</i> , 2019, 152, 432-442.	6.7	31
45	Buckling of beams with finite prebuckling deformation. <i>International Journal of Solids and Structures</i> , 2019, 165, 148-159.	2.7	5
46	Infrared Skin-Like Active Stretchable Electronics Based on Organic-Inorganic Composite Structures for Promotion of Cutaneous Wound Healing. <i>Advanced Materials Technologies</i> , 2019, 4, 1900150.	5.8	19
47	New analytic buckling solutions of rectangular thin plates with two free adjacent edges by the symplectic superposition method. <i>European Journal of Mechanics, A/Solids</i> , 2019, 76, 247-262.	3.7	37
48	New analytic buckling solutions of moderately thick clamped rectangular plates by a straightforward finite integral transform method. <i>Archive of Applied Mechanics</i> , 2019, 89, 1885-1897.	2.2	13
49	A survey on 3D hand pose estimation: Cameras, methods, and datasets. <i>Pattern Recognition</i> , 2019, 93, 251-272.	8.1	64
50	A Traction-Free Model for the Tensile Stiffness and Bending Stiffness of Laminated Ribbons of Flexible Electronics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019, 86, .	2.2	13
51	Moisture Sensitive Smart Yarns and Textiles from Self-Balanced Silk Fiber Muscles. <i>Advanced Functional Materials</i> , 2019, 29, 1808241.	14.9	200
52	Passive sweat collection and colorimetric analysis of biomarkers relevant to kidney disorders using a soft microfluidic system. <i>Lab on A Chip</i> , 2019, 19, 1545-1555.	6.0	157
53	New exact series solutions for transverse vibration of rotationally-restrained orthotropic plates. <i>Applied Mathematical Modelling</i> , 2019, 65, 348-360.	4.2	22
54	Adhesion-Free Thin-Film-Like Curvature Sensors Integrated on Flexible and Wearable Electronics for Monitoring Bending of Joints and Various Body Gestures. <i>Advanced Materials Technologies</i> , 2019, 4, 1800327.	5.8	41

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55	Two-dimensional generalized finite integral transform method for new analytic bending solutions of orthotropic rectangular thin foundation plates. <i>Applied Mathematics Letters</i> , 2019, 92, 8-14.	2.7	21
56	Ultrathin, Transferred Layers of Metal Silicide as Faradaic Electrical Interfaces and Biofluid Barriers for Flexible Bioelectronic Implants. <i>ACS Nano</i> , 2019, 13, 660-670.	14.6	30
57	A Simplified Indirect Measuring Method for the Notch Stress in a Thin Cylindrical Shell. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2018, 85, .	2.2	3
58	New Analytic Free Vibration Solutions of Rectangular Thick Plates With a Free Corner by the Symplectic Superposition Method. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2018, 140, .	1.6	9
59	A hypoplastic model for gas hydrate-bearing sandy sediments. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2018, 42, 931-942.	3.3	17
60	Transferred, Ultrathin Oxide Bilayers as Biofluid Barriers for Flexible Electronic Implants. <i>Advanced Functional Materials</i> , 2018, 28, 1702284.	14.9	49
61	On new analytic free vibration solutions of rectangular thin cantilever plates in the symplectic space. <i>Applied Mathematical Modelling</i> , 2018, 53, 310-318.	4.2	33
62	New benchmark solutions for free vibration of clamped rectangular thick plates and their variants. <i>Applied Mathematics Letters</i> , 2018, 78, 88-94.	2.7	9
63	An overview of healthcare monitoring by flexible electronics. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	5.1	11
64	Ultrathin Trilayer Assemblies as Long-Lived Barriers against Water and Ion Penetration in Flexible Bioelectronic Systems. <i>ACS Nano</i> , 2018, 12, 10317-10326.	14.6	57
65	Systematic study on the mechanical and electric behaviors of the nonbuckling interconnect design of stretchable electronics. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018, 61, 1.	5.1	7
66	New analytic buckling solutions of rectangular thin plates with all edges free. <i>International Journal of Mechanical Sciences</i> , 2018, 144, 67-73.	6.7	59
67	Stretchable Electronics: In-Plane Deformation Mechanics for Highly Stretchable Electronics (Adv.) <i>Tj ETQq1 1 0.784314 rgBJ /Overl</i> 21.0	21.0	141
68	An Accurate Thermomechanical Model for Laser-Driven Microtransfer Printing. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	2.2	25
69	Kirigami pattern design of mechanically driven formation of complex 3D structures through topology optimization. <i>Extreme Mechanics Letters</i> , 2017, 15, 139-144.	4.1	39
70	The universal and easy-to-use standard of voltage measurement for quantifying the performance of piezoelectric devices. <i>Extreme Mechanics Letters</i> , 2017, 15, 10-16.	4.1	15
71	In-Plane Deformation Mechanics for Highly Stretchable Electronics. <i>Advanced Materials</i> , 2017, 29, 1604989.	21.0	141
72	Shear deformation dominates in the soft adhesive layers of the laminated structure of flexible electronics. <i>International Journal of Solids and Structures</i> , 2017, 110-111, 305-314.	2.7	33

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73	A General Strategy for Stretchable Microwave Antenna Systems using Serpentine Mesh Layouts. <i>Advanced Functional Materials</i> , 2017, 27, 1703059.	14.9	43
74	New analytic solutions for free vibration of rectangular thick plates with an edge free. <i>International Journal of Mechanical Sciences</i> , 2017, 131-132, 179-190.	6.7	33
75	New analytic bending solutions of rectangular thin plates with a corner point-supported and its adjacent corner free. <i>European Journal of Mechanics, A/Solids</i> , 2017, 66, 103-113.	3.7	22
76	New analytic solutions for static problems of rectangular thin plates point-supported at three corners. <i>Meccanica</i> , 2017, 52, 1593-1600.	2.0	4
77	Strain-Limiting Substrates Based on Nonbuckling, Prestrain-Free Mechanics for Robust Stretchable Electronics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	2.2	19
78	An Universal and Easy-to-use Model for the Pressure of Arbitrary-Shape 3D Multifunctional Integumentary Cardiac Membranes. <i>Advanced Healthcare Materials</i> , 2016, 5, 889-892.	7.6	13
79	Growth model for large branched three-dimensional hydraulic crack system in gas or oil shale. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150418.	3.4	31
80	Numerical study on the mechanisms of the SERS of gold-coated pyramidal tip substrates. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 254004.	1.8	5
81	Organ-mounted Electronics: An Universal and Easy-to-use Model for the Pressure of Arbitrary-Shape 3D Multifunctional Integumentary Cardiac Membranes (Adv. Healthcare Mater. 8/2016). <i>Advanced Healthcare Materials</i> , 2016, 5, 866-866.	7.6	1
82	Symplectic superposition method for new analytic buckling solutions of rectangular thin plates. <i>International Journal of Mechanical Sciences</i> , 2016, 119, 432-441.	6.7	63
83	Splitting of the neutral mechanical plane depends on the length of the multi-layer structure of flexible electronics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160087.	2.1	34
84	New analytic free vibration solutions of rectangular thin plates resting on multiple point supports. <i>International Journal of Mechanical Sciences</i> , 2016, 110, 53-61.	6.7	49
85	Torsional failure of water-filled carbon nanotubes. <i>International Journal of Damage Mechanics</i> , 2016, 25, 87-97.	4.2	5
86	Hamiltonian system-based analytic modeling of the free rectangular thin plates' free vibration. <i>Applied Mathematical Modelling</i> , 2016, 40, 984-992.	4.2	39
87	A unified analytic solution approach to static bending and free vibration problems of rectangular thin plates. <i>Scientific Reports</i> , 2015, 5, 17054.	3.3	37
88	Splitting of neutral mechanical plane of conformal, multilayer piezoelectric mechanical energy harvester. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	45
89	An analytic model for accurate spring constant calibration of rectangular atomic force microscope cantilevers. <i>Scientific Reports</i> , 2015, 5, 15828.	3.3	11
90	Measured Output Voltages of Piezoelectric Devices Depend on the Resistance of Voltmeter. <i>Advanced Functional Materials</i> , 2015, 25, 5320-5325.	14.9	56

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91	Capillary number encouraged the construction of smart biomimetic eyes. <i>Journal of Materials Chemistry C</i> , 2015, 3, 5896-5902.	5.5	16
92	Analytic solutions for the free vibration of rectangular thin plates with two adjacent corners point-supported. <i>Archive of Applied Mechanics</i> , 2015, 85, 1815-1824.	2.2	7
93	Energy Harvesting: Measured Output Voltages of Piezoelectric Devices Depend on the Resistance of Voltmeter (Adv. Funct. Mater. 33/2015). <i>Advanced Functional Materials</i> , 2015, 25, 5404-5404.	14.9	0
94	2D hierarchical lattices'™ imperfection sensitivity to missing bars defect. <i>Theoretical and Applied Mechanics Letters</i> , 2015, 5, 141-145.	2.8	0
95	Analytic free vibration solutions of rectangular thin plates point-supported at a corner. <i>International Journal of Mechanical Sciences</i> , 2015, 96-97, 199-205.	6.7	25
96	Symplectic Superposition Method for Benchmark Flexure Solutions for Rectangular Thick Plates. <i>Journal of Engineering Mechanics - ASCE</i> , 2015, 141, .	2.9	24
97	Impact Comminution of Solids Due to Progressive Crack Growth Driven by Kinetic Energy of High-Rate Shear. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2015, 82, .	2.2	9
98	Graphene-Based Bioinspired Compound Eyes for Programmable Focusing and Remote Actuation. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 21416-21422.	8.0	29
99	Integral transform solutions to the bending problems of moderately thick rectangular plates with all edges free resting on elastic foundations. <i>Applied Mathematical Modelling</i> , 2015, 39, 128-136.	4.2	40
100	Benchmark bending solutions of rectangular thin plates point-supported at two adjacent corners. <i>Applied Mathematics Letters</i> , 2015, 40, 53-58.	2.7	12
101	Plasmonic Effect of a Nanoshell Dimer with Different Gain Materials. <i>Plasmonics</i> , 2014, 9, 1463-1469.	3.4	4
102	Multifunctional Skin-Like Electronics for Quantitative, Clinical Monitoring of Cutaneous Wound Healing. <i>Advanced Healthcare Materials</i> , 2014, 3, 1597-1607.	7.6	226
103	Bio-inspired hemispherical compound eye camera. , 2014, , .		5
104	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). <i>Advanced Functional Materials</i> , 2014, 24, 644-644.	14.9	5
105	Dissolvable Metals for Transient Electronics. <i>Advanced Functional Materials</i> , 2014, 24, 645-658.	14.9	379
106	Hamiltonian system-based benchmark bending solutions of rectangular thin plates with a corner point-supported. <i>International Journal of Mechanical Sciences</i> , 2014, 85, 212-218.	6.7	38
107	Arthropod eye-inspired digital camera with unique imaging characteristics. , 2014, , .		3
108	Analytical bending solutions of free orthotropic rectangular thin plates under arbitrary loading. <i>Meccanica</i> , 2013, 48, 2497-2510.	2.0	23

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109	Mechanics of finger-tip electronics. <i>Journal of Applied Physics</i> , 2013, 114, 164511.	2.5	19
110	An analytical mechanics model for the island-bridge structure of stretchable electronics. <i>Soft Matter</i> , 2013, 9, 8476.	2.7	82
111	A molecular dynamics study on tensile strength and failure modes of carbon nanotube junctions. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 495301.	2.8	13
112	An Analytical Model of Reactive Diffusion for Transient Electronics. <i>Advanced Functional Materials</i> , 2013, 23, 3106-3114.	14.9	74
113	Analytic bending solutions of free rectangular thin plates resting on elastic foundations by a new symplectic superposition method. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20120681.	2.1	54
114	Digital cameras with designs inspired by the arthropod eye. <i>Nature</i> , 2013, 497, 95-99.	27.8	926
115	Free Vibration Analysis of Rectangular Cantilever Plates by Finite Integral Transform Method. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2013, 14, 221-226.	2.1	11
116	Analytical bending solutions of clamped rectangular thin plates resting on elastic foundations by the symplectic superposition method. <i>Applied Mathematics Letters</i> , 2013, 26, 355-361.	2.7	15
117	Design of two-dimensional horseshoe layout for stretchable electronic systems. <i>Journal of Materials Science</i> , 2013, 48, 8443-8448.	3.7	17
118	Laser-Driven Micro Transfer Placement of Prefabricated Microstructures. <i>Journal of Microelectromechanical Systems</i> , 2012, 21, 1049-1058.	2.5	95
119	Thermo-mechanical modeling of laser-driven non-contact transfer printing: two-dimensional analysis. <i>Soft Matter</i> , 2012, 8, 7122.	2.7	64
120	A Physically Transient Form of Silicon Electronics. <i>Science</i> , 2012, 337, 1640-1644.	12.6	1,085
121	Silicon nanomembranes for fingertip electronics. <i>Nanotechnology</i> , 2012, 23, 344004.	2.6	196
122	Axisymmetric thermo-mechanical analysis of laser-driven non-contact transfer printing. <i>International Journal of Fracture</i> , 2012, 176, 189-194.	2.2	37
123	Exact bending solutions of orthotropic rectangular cantilever thin plates subjected to arbitrary loads. <i>International Applied Mechanics</i> , 2011, 47, 107-119.	0.6	13
124	On a new symplectic geometry method for exact bending solutions of orthotropic rectangular plates with two opposite sides clamped. <i>Acta Mechanica</i> , 2011, 216, 333-343.	2.1	12
125	On new symplectic superposition method for exact bending solutions of rectangular cantilever thin plates. <i>Mechanics Research Communications</i> , 2011, 38, 111-116.	1.8	29
126	Accurate bending analysis of rectangular plates with two adjacent edges free and the others clamped or simply supported based on new symplectic approach. <i>Applied Mathematical Modelling</i> , 2010, 34, 856-865.	4.2	44

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127	Exact bending analysis of fully clamped rectangular thin plates subjected to arbitrary loads by new symplectic approach. <i>Mechanics Research Communications</i> , 2009, 36, 707-714.	1.8	21
128	On the finite integral transform method for exact bending solutions of fully clamped orthotropic rectangular thin plates. <i>Applied Mathematics Letters</i> , 2009, 22, 1821-1827.	2.7	66
129	On new symplectic approach for exact bending solutions of moderately thick rectangular plates with two opposite edges simply supported. <i>International Journal of Solids and Structures</i> , 2009, 46, 2506-2513.	2.7	39
130	On the Applicability of New Symplectic Approach for Exact Bending Solutions of Moderately Thick Rectangular Plate. <i>Applied Mechanics and Materials</i> , 0, 105-107, 611-614.	0.2	0
131	Preparation of Flame-Retardant Asphalt for Tunnels. <i>Advanced Materials Research</i> , 0, 391-392, 189-194.	0.3	6