

# Wei-Hsin Liao

## List of Publications by Year in descending order

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316  
papers

10,953  
citations

28190

55  
h-index

40881

93  
g-index

318  
all docs

318  
docs citations

318  
times ranked

7553  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetorheological fluid dampers: a review of parametric modelling. <i>Smart Materials and Structures</i> , 2011, 20, 023001.	1.8	326
2	Anticorrosive, Ultralight, and Flexible Carbonâ€Wrapped Metallic Nanowire Hybrid Sponges for Highly Efficient Electromagnetic Interference Shielding. <i>Small</i> , 2018, 14, e1800534.	5.2	310
3	Recent developments and challenges of lower extremity exoskeletons. <i>Journal of Orthopaedic Translation</i> , 2016, 5, 26-37.	1.9	308
4	Sensitivity Analysis and Energy Harvesting for a Self-Powered Piezoelectric Sensor. <i>Journal of Intelligent Material Systems and Structures</i> , 2005, 16, 785-797.	1.4	271
5	Construction of a 3D-BaTiO <sub>3</sub> network leading to significantly enhanced dielectric permittivity and energy storage density of polymer composites. <i>Energy and Environmental Science</i> , 2017, 10, 137-144.	15.6	265
6	Improved Design and Analysis of Self-Powered Synchronized Switch Interface Circuit for Piezoelectric Energy Harvesting Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2012, 59, 1950-1960.	5.2	252
7	Significantly Enhanced Electrostatic Energy Storage Performance of Flexible Polymer Composites by Introducing Highly Insulatingâ€Ferroelectric Microhybrids as Fillers. <i>Advanced Energy Materials</i> , 2019, 9, 1803204.	10.2	250
8	Ultralight, super-elastic and volume-preserving cellulose fiber/graphene aerogel for high-performance electromagnetic interference shielding. <i>Carbon</i> , 2017, 115, 629-639.	5.4	228
9	Magnetic-spring based energy harvesting from human motions: Design, modeling and experiments. <i>Energy Conversion and Management</i> , 2017, 132, 189-197.	4.4	226
10	Adaptive metamaterials by functionally graded 4D printing. <i>Materials and Design</i> , 2017, 135, 26-36.	3.3	209
11	Graphene paper for exceptional EMI shielding performance using large-sized graphene oxide sheets and doping strategy. <i>Carbon</i> , 2017, 122, 74-81.	5.4	195
12	Impedance Modeling and Analysis for Piezoelectric Energy Harvesting Systems. <i>IEEE/ASME Transactions on Mechatronics</i> , 2012, 17, 1145-1157.	3.7	189
13	Vibration Control of a Suspension System via a Magnetorheological Fluid Damper. <i>JVC/Journal of Vibration and Control</i> , 2002, 8, 527-547.	1.5	184
14	Design and analysis of a piezoelectric energy harvester for rotational motion system. <i>Energy Conversion and Management</i> , 2016, 111, 239-244.	4.4	183
15	Modeling and control of magnetorheological fluid dampers using neural networks. <i>Smart Materials and Structures</i> , 2005, 14, 111-126.	1.8	181
16	Covalent polymer functionalization of graphene for improved dielectric properties and thermal stability of epoxy composites. <i>Composites Science and Technology</i> , 2016, 122, 27-35.	3.8	171
17	On the efficiencies of piezoelectric energy harvesting circuits towards storage device voltages. <i>Smart Materials and Structures</i> , 2007, 16, 498-505.	1.8	158
18	Self-expanding/shrinking structures by 4D printing. <i>Smart Materials and Structures</i> , 2016, 25, 105034.	1.8	147

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19	Lightweight, flexible MXene/polymer film with simultaneously excellent mechanical property and high-performance electromagnetic interference shielding. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 130, 105764.	3.8	145
20	Multistability phenomenon in signal processing, energy harvesting, composite structures, and metamaterials: A review. <i>Mechanical Systems and Signal Processing</i> , 2022, 166, 108419.	4.4	136
21	Triple shape memory polymers by 4D printing. <i>Smart Materials and Structures</i> , 2018, 27, 065010.	1.8	121
22	Design, testing and control of a magnetorheological actuator for assistive knee braces. <i>Smart Materials and Structures</i> , 2010, 19, 035029.	1.8	114
23	A self-sensing magnetorheological damper with power generation. <i>Smart Materials and Structures</i> , 2012, 21, 025014.	1.8	109
24	Energy flow in piezoelectric energy harvesting systems. <i>Smart Materials and Structures</i> , 2011, 20, 015005.	1.8	104
25	Semi-active control of automotive suspension systems with magneto-rheological dampers. <i>International Journal of Vehicle Design</i> , 2003, 33, 50.	0.1	103
26	Semi-active suspension systems for railway vehicles using magnetorheological dampers. Part I: system integration and modelling. <i>Vehicle System Dynamics</i> , 2009, 47, 1305-1325.	2.2	103
27	Dynamic and energetic characteristics of a bistable piezoelectric vibration energy harvester with an elastic magnifier. <i>Mechanical Systems and Signal Processing</i> , 2018, 105, 427-446.	4.4	102
28	Knee exoskeletons for gait rehabilitation and human performance augmentation: A state-of-the-art. <i>Mechanism and Machine Theory</i> , 2019, 134, 499-511.	2.7	101
29	Energy absorption of thin walled tube filled with gradient auxetic structures-theory and simulation. <i>International Journal of Mechanical Sciences</i> , 2021, 201, 106475.	3.6	99
30	Design and experimental investigation of a low-voltage thermoelectric energy harvesting system for wireless sensor nodes. <i>Energy Conversion and Management</i> , 2017, 138, 30-37.	4.4	93
31	4D printed tunable mechanical metamaterials with shape memory operations. <i>Smart Materials and Structures</i> , 2019, 28, 045019.	1.8	93
32	Piezoelectric Energy Harvesting and Dissipation on Structural Damping. <i>Journal of Intelligent Material Systems and Structures</i> , 2009, 20, 515-527.	1.4	92
33	Large deformations of soft metamaterials fabricated by 3D printing. <i>Materials and Design</i> , 2017, 131, 81-91.	3.3	90
34	Barium titanate coated and thermally reduced graphene oxide towards high dielectric constant and low loss of polymeric composites. <i>Composites Science and Technology</i> , 2017, 141, 48-55.	3.8	87
35	A music-box-like extended rotational plucking energy harvester with multiple piezoelectric cantilevers. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	84
36	Increasing dimension of structures by 4D printing shape memory polymers via fused deposition modeling. <i>Smart Materials and Structures</i> , 2017, 26, 125023.	1.8	82

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37	Exploiting the advantages of the centrifugal softening effect in rotational impact energy harvesting. Applied Physics Letters, 2020, 116, .	1.5	82
38	Modeling of Granular Particle Damping Using Multiphase Flow Theory of Gas-Particle. Journal of Vibration and Acoustics, Transactions of the ASME, 2004, 126, 196-201.	1.0	76
39	Design and Modeling of a Magnetorheological Valve with Both Annular and Radial Flow Paths. Journal of Intelligent Material Systems and Structures, 2006, 17, 327-334.	1.4	75
40	A device capable of customizing nonlinear forces for vibration energy harvesting, vibration isolation, and nonlinear energy sink. Mechanical Systems and Signal Processing, 2021, 147, 107101.	4.4	74
41	On the low-velocity impact responses of auxetic double arrowed honeycomb. Aerospace Science and Technology, 2020, 98, 105698.	2.5	73
42	ON THE ANALYSIS OF VISCOELASTIC MATERIALS FOR ACTIVE CONSTRAINED LAYER DAMPING TREATMENTS. Journal of Sound and Vibration, 1997, 207, 319-334.	2.1	71
43	Optimal design of a magnetorheological damper used in smart prosthetic knees. Smart Materials and Structures, 2017, 26, 035034.	1.8	69
44	Comprehensive theoretical and experimental investigation of the rotational impact energy harvester with the centrifugal softening effect. Nonlinear Dynamics, 2020, 101, 123-152.	2.7	68
45	A wearable exoskeleton suit for motion assistance to paralysed patients. Journal of Orthopaedic Translation, 2017, 11, 7-18.	1.9	67
46	Harmonic analysis of a magnetorheological damper for vibration control. Smart Materials and Structures, 2002, 11, 288-296.	1.8	66
47	Characteristics of Energy Storage Devices in Piezoelectric Energy Harvesting Systems. Journal of Intelligent Material Systems and Structures, 2008, 19, 671-680.	1.4	66
48	An auxetic nonlinear piezoelectric energy harvester for enhancing efficiency and bandwidth. Applied Energy, 2021, 298, 117274.	5.1	65
49	Semiactive Controllers for Magnetorheological Fluid Dampers. Journal of Intelligent Material Systems and Structures, 2005, 16, 983-993.	1.4	63
50	A magnetorheological valve with both annular and radial fluid flow resistance gaps. Smart Materials and Structures, 2009, 18, 115001.	1.8	63
51	Semi-active suspension systems for railway vehicles using magnetorheological dampers. Part II: simulation and analysis. Vehicle System Dynamics, 2009, 47, 1439-1471.	2.2	63
52	Nonlinear magnetic force and dynamic characteristics of a tri-stable piezoelectric energy harvester. Nonlinear Dynamics, 2019, 97, 2371-2397.	2.7	63
53	Tuned bistable nonlinear energy sink for simultaneously improved vibration suppression and energy harvesting. International Journal of Mechanical Sciences, 2021, 212, 106838.	3.6	62
54	Recent Advances in Human Motion Excited Energy Harvesting Systems for Wearables. Energy Technology, 2020, 8, 2000533.	1.8	61

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55	Theoretical predictions of dynamic responses of cylindrical sandwich filled with auxetic structures under impact loading. <i>Aerospace Science and Technology</i> , 2020, 107, 106270.	2.5	59
56	Design and Analysis of Magnetorheological Dampers for Train Suspension. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2005, 219, 261-276.	1.3	58
57	Analytical and experimental investigation of the centrifugal softening and stiffening effects in rotational energy harvesting. <i>Journal of Sound and Vibration</i> , 2020, 488, 115643.	2.1	57
58	Tuneable cellular-structured 3D graphene aerogel and its effect on electromagnetic interference shielding performance and mechanical properties of epoxy composites. <i>RSC Advances</i> , 2016, 6, 56589-56598.	1.7	56
59	Metamaterial and Helmholtz coupled resonator for high-density acoustic energy harvesting. <i>Nano Energy</i> , 2021, 82, 105693.	8.2	56
60	On the Active-Passive Hybrid Control Actions of Structures With Active Constrained Layer Treatments. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1997, 119, 563-572.	1.0	55
61	Self-powered smart watch and wristband enabled by embedded generator. <i>Applied Energy</i> , 2020, 263, 114682.	5.1	55
62	A new active constrained layer configuration with enhanced boundary actions. <i>Smart Materials and Structures</i> , 1996, 5, 638-648.	1.8	51
63	Macro fiber composite-based energy harvester for human knee. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	51
64	Toward high-performance all-solid-state supercapacitors using facilely fabricated graphite nanosheet-supported CoMoS <sub>4</sub> as electrode material. <i>Chemical Engineering Journal</i> , 2019, 355, 891-900.	6.6	50
65	Exploiting bi-stable magneto-piezoelectric absorber for simultaneous energy harvesting and vibration mitigation. <i>International Journal of Mechanical Sciences</i> , 2021, 207, 106618.	3.6	50
66	Vibration control of structures with self-sensing piezoelectric actuators incorporating adaptive mechanisms. <i>Smart Materials and Structures</i> , 2003, 12, 720-730.	1.8	49
67	Vibration analysis of simply supported beams with enhanced self-sensing active constrained layer damping treatments. <i>Journal of Sound and Vibration</i> , 2005, 280, 329-357.	2.1	49
68	Asymmetric plucking bistable energy harvester: Modeling and experimental validation. <i>Journal of Sound and Vibration</i> , 2019, 459, 114852.	2.1	49
69	An Empirical Method for Particle Damping Design. <i>Shock and Vibration</i> , 2004, 11, 647-664.	0.3	48
70	Enhanced breakdown strength of polymer composites by low filler loading and its mechanisms. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	47
71	Human Gait Modeling and Analysis Using a Semi-Markov Process With Ground Reaction Forces. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 597-607.	2.7	45
72	Effective elastic properties of irregular auxetic structures. <i>Composite Structures</i> , 2022, 287, 115269.	3.1	45

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73	A systematic study on electrical properties of the BaTiO <sub>3</sub> epoxy composite with different sized BaTiO <sub>3</sub> as fillers. <i>Journal of Alloys and Compounds</i> , 2015, 620, 315-323.	2.8	44
74	Characteristics of Enhanced Active Constrained Layer Damping Treatments With Edge Elements, Part 1: Finite Element Model Development and Validation. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1998, 120, 886-893.	1.0	43
75	Wireless Monitoring of Cable Tension of Cable-Stayed Bridges Using PVDF Piezoelectric Films. <i>Journal of Intelligent Material Systems and Structures</i> , 2001, 12, 331-339.	1.4	43
76	Design and testing of a regenerative magnetorheological actuator for assistive knee braces. <i>Smart Materials and Structures</i> , 2017, 26, 035013.	1.8	41
77	A smart harvester for capturing energy from human ankle dorsiflexion with reduced user effort. <i>Smart Materials and Structures</i> , 2019, 28, 015026.	1.8	41
78	An analytical model of cylindrical double-arrowed honeycomb with negative Poisson's ratio. <i>International Journal of Mechanical Sciences</i> , 2020, 173, 105400.	3.6	41
79	Acoustic energy harvesting enhanced by locally resonant metamaterials. <i>Smart Materials and Structures</i> , 2020, 29, 075025.	1.8	39
80	A knee-mounted biomechanical energy harvester with enhanced efficiency and safety. <i>Smart Materials and Structures</i> , 2017, 26, 065027.	1.8	38
81	Enhanced electromagnetic wrist-worn energy harvester using repulsive magnetic spring. <i>Mechanical Systems and Signal Processing</i> , 2021, 150, 107251.	4.4	38
82	Precision Positioning of Hard Disk Drives Using Piezoelectric Actuators With Passive Damping. <i>IEEE/ASME Transactions on Mechatronics</i> , 2008, 13, 147-151.	3.7	37
83	On the Influence of Transducer Internal Loss in Piezoelectric Energy Harvesting with SSHI Interface. <i>Journal of Intelligent Material Systems and Structures</i> , 2011, 22, 503-512.	1.4	37
84	Attaining the high-energy orbit of nonlinear energy harvesters by load perturbation. <i>Energy Conversion and Management</i> , 2019, 192, 30-36.	4.4	36
85	IMU-Based Locomotion Mode Identification for Transtibial Prostheses, Orthoses, and Exoskeletons. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 1334-1343.	2.7	36
86	Characteristics of a tri-stable piezoelectric vibration energy harvester by considering geometric nonlinearity and gravitation effects. <i>Mechanical Systems and Signal Processing</i> , 2020, 138, 106571.	4.4	35
87	A novel multifunctional rotary actuator with magnetorheological fluid. <i>Smart Materials and Structures</i> , 2012, 21, 065012.	1.8	34
88	Ankle-foot orthoses for rehabilitation and reducing metabolic cost of walking: Possibilities and challenges. <i>Mechatronics</i> , 2018, 53, 241-250.	2.0	34
89	Modeling and experimental validation on the interference of mechanical plucking energy harvesting. <i>Mechanical Systems and Signal Processing</i> , 2019, 134, 106317.	4.4	34
90	Modulated ultrasonic elliptical vibration cutting for ductile-regime texturing of brittle materials with 2-D combined resonant and non-resonant vibrations. <i>International Journal of Mechanical Sciences</i> , 2020, 170, 105347.	3.6	34

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91	Design of Powered Ankle-Foot Prosthesis With Nonlinear Parallel Spring Mechanism. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	1.7	33
92	A nonlinear M-shaped tri-directional piezoelectric energy harvester. Smart Materials and Structures, 2021, 30, 045017.	1.8	33
93	Investigations on magnetic bistable PZT-based absorber for concurrent energy harvesting and vibration mitigation: Numerical and analytical approaches. Energy, 2022, 239, 122376.	4.5	33
94	Studies on the circuit models of piezoelectric ceramics. , 0, , .		32
95	On the Equivalent Circuit Models of Piezoelectric Ceramics. Ferroelectrics, 2009, 386, 77-87.	0.3	32
96	An integrated relative displacement self-sensing magnetorheological damper: prototyping and testing. Smart Materials and Structures, 2010, 19, 105008.	1.8	32
97	A bistable piezoelectric oscillator with an elastic magnifier for energy harvesting enhancement. Journal of Intelligent Material Systems and Structures, 2017, 28, 392-407.	1.4	32
98	Design and characterization of a magneto-rheological series elastic actuator for a lower extremity exoskeleton. Smart Materials and Structures, 2017, 26, 105008.	1.8	31
99	Reference Joint Trajectories Generation of CUHK-EXO Exoskeleton for System Balance in Walking Assistance. IEEE Access, 2019, 7, 33809-33821.	2.6	31
100	Enhanced modeling of nonlinear restoring force in multi-stable energy harvesters. Journal of Sound and Vibration, 2021, 494, 115890.	2.1	31
101	Modeling and Analysis of Piezoelectric Energy Harvesting With Dynamic Plucking Mechanism. Journal of Vibration and Acoustics, Transactions of the ASME, 2019, 141, .	1.0	30
102	Design of vibration energy harvesters with customized nonlinear forces. Mechanical Systems and Signal Processing, 2021, 153, 107526.	4.4	30
103	Bistable energy harvesting backpack: Design, modeling, and experiments. Energy Conversion and Management, 2022, 259, 115441.	4.4	30
104	Feasibility study of a self-powered piezoelectric sensor. , 2004, 5389, 377.		28
105	Steady-State Simulation and Optimization of Class-E Power Amplifiers With Extended Impedance Method. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 1433-1445.	3.5	28
106	Dielectric loss against piezoelectric power harvesting. Smart Materials and Structures, 2014, 23, 092001.	1.8	28
107	Wireless Transmission for Health Monitoring of Large Structures. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 972-981.	2.4	26
108	A Leg Exoskeleton Utilizing a Magnetorheological Actuator. , 2006, , .		25

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109	An enhanced nonlinear piezoelectric energy harvester with multiple rotating square unit cells. <i>Mechanical Systems and Signal Processing</i> , 2022, 173, 109065.	4.4	25
110	Analysis and design of a self-powered piezoelectric microaccelerometer. , 2005, 5763, 233.		24
111	Nondimensional model and parametric studies of impact piezoelectric energy harvesting with dissipation. <i>Journal of Sound and Vibration</i> , 2018, 429, 78-95.	2.1	24
112	Self-Powered Smart Insole for Monitoring Human Gait Signals. <i>Sensors</i> , 2019, 19, 5336.	2.1	24
113	A modified magnetic force model and experimental validation of a tri-stable piezoelectric energy harvester. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 967-979.	1.4	24
114	Piezoelectric autoparametric vibration energy harvesting with chaos control feature. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107989.	4.4	24
115	Design and control of a Magnetorheological actuator for leg exoskeleton. , 2007, , .		23
116	Molten pool characteristics of a nickel-titanium shape memory alloy for directed energy deposition. <i>Optics and Laser Technology</i> , 2021, 142, 107215.	2.2	23
117	Severity level diagnosis of Parkinson's disease by ensemble K-nearest neighbor under imbalanced data. <i>Expert Systems With Applications</i> , 2022, 189, 116113.	4.4	23
118	Medical applications of magnetorheological fluid: a systematic review. <i>Smart Materials and Structures</i> , 2022, 31, 043002.	1.8	23
119	Tuning dielectric properties and energy density of poly(vinylidene fluoride) nanocomposites by quasi core-shell structured BaTiO <sub>3</sub> @graphene oxide hybrids. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 1082-1092.	1.1	22
120	Design, Modeling, and Experiments of Electromagnetic Energy Harvester Embedded in Smart Watch and Wristband as Power Source. <i>IEEE/ASME Transactions on Mechatronics</i> , 2021, 26, 2104-2114.	3.7	22
121	A Snake Robot Using Shape Memory Alloys. , 0, , .		21
122	Identification of ankle sprain motion from common sporting activities by dorsal foot kinematics data. <i>Journal of Biomechanics</i> , 2010, 43, 1965-1969.	0.9	21
123	Design of a multi-stable piezoelectric energy harvester with programmable equilibrium point configurations. <i>Applied Energy</i> , 2021, 302, 117585.	5.1	21
124	An improved self-powered switching interface for piezoelectric energy harvesting. , 2009, , .		20
125	Vibration control and analysis of a rotating flexible FGM beam with a lumped mass in temperature field. <i>Composite Structures</i> , 2019, 208, 244-260.	3.1	20
126	High-Power Density Inertial Energy Harvester Without Additional Proof Mass for Wearables. <i>IEEE Internet of Things Journal</i> , 2021, 8, 297-308.	5.5	20



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127	Broadband energy harvester for low-frequency rotations utilizing centrifugal softening piezoelectric beam array. <i>Energy</i> , 2022, 241, 122833.	4.5	20
128	Characteristics of Enhanced Active Constrained Layer Damping Treatments With Edge Elements, Part 2: System Analysis. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1998, 120, 894-900.	1.0	19
129	Impedance matching for improving piezoelectric energy harvesting systems. <i>Proceedings of SPIE</i> , 2010, , .	0.8	19
130	Self-powered magnetorheological dampers for motorcycle suspensions. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2018, 232, 921-935.	1.1	19
131	Contact/impact modeling and analysis of 4D printed shape memory polymer beams. <i>Smart Materials and Structures</i> , 2020, 29, 085016.	1.8	19
132	A finite-strain constitutive model for anisotropic shape memory alloys. <i>Mechanics of Materials</i> , 2017, 112, 129-142.	1.7	18
133	Multivariate Multiscale Symbolic Entropy Analysis of Human Gait Signals. <i>Entropy</i> , 2017, 19, 557.	1.1	18
134	Theoretical modeling and experimental verification of circular Halbach electromagnetic energy harvesters for performance enhancement. <i>Smart Materials and Structures</i> , 2018, 27, 095019.	1.8	18
135	Implementation and Testing of Ankle-Foot Prosthesis With a New Compensated Controller. <i>IEEE/ASME Transactions on Mechatronics</i> , 2019, 24, 1775-1784.	3.7	18
136	On ductile-regime elliptical vibration cutting of silicon with identifying the lower bound of practicable nominal cutting velocity. <i>Journal of Materials Processing Technology</i> , 2020, 283, 116720.	3.1	18
137	Experimental Studies for Particle Damping on a Bond Arm. <i>JVC/Journal of Vibration and Control</i> , 2006, 12, 297-312.	1.5	17
138	Magnetorheological damper with multi-grooves on piston for damping force enhancement. <i>Smart Materials and Structures</i> , 2021, 30, 025007.	1.8	17
139	A rotational hybrid energy harvester utilizing bistability for low-frequency applications: Modelling and experimental validation. <i>International Journal of Mechanical Sciences</i> , 2022, 222, 107235.	3.6	17
140	A Bidirectional Energy Conversion Circuit Toward Multifunctional Piezoelectric Energy Harvesting and Vibration Excitation Purposes. <i>IEEE Transactions on Power Electronics</i> , 2021, 36, 12889-12897.	5.4	16
141	A study of semi-rigid support on ankle supination sprain kinematics. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2010, 20, 822-826.	1.3	15
142	A self-powered, self-sensing magnetorheological damper. , 2010, , .		15
143	Sit-to-stand and stand-to-sit assistance for paraplegic patients with CUHK-EXO exoskeleton. <i>Robotica</i> , 2018, 36, 535-551.	1.3	15
144	Experimentally validated multi-scale modeling of 3D printed hyper-elastic lattices. <i>International Journal of Non-Linear Mechanics</i> , 2019, 108, 87-110.	1.4	15

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145	A dual-effect solution for broadband piezoelectric energy harvesting. Applied Physics Letters, 2020, 116, .	1.5	15
146	A hybrid piezoelectric device combining a tri-stable energy harvester with an elastic base for low-orbit vibration energy harvesting enhancement. Smart Materials and Structures, 2021, 30, 075028.	1.8	15
147	Crashworthiness optimization of cylindrical negative Poisson's ratio structures with inner liner tubes. Structural and Multidisciplinary Optimization, 2021, 64, 4271-4286.	1.7	15
148	Lightweight Piezoelectric Bending Beam-Based Energy Harvester for Capturing Energy From Human Knee Motion. IEEE/ASME Transactions on Mechatronics, 2022, 27, 1256-1266.	3.7	15
149	Enhancing power output of piezoelectric energy harvesting by gradient auxetic structures. Applied Physics Letters, 2022, 120, .	1.5	15
150	Neural network modeling and controllers for magnetorheological fluid dampers. , 0, , .		14
151	Precision Positioning of Hard Disk Drives Using Piezoelectric Actuators with Passive Damping. , 2006, , .		14
152	Fabrication of structurally colored basso-relievo with modulated elliptical vibration texturing. Precision Engineering, 2020, 64, 113-121.	1.8	14
153	Spatial characteristics of nickel-titanium shape memory alloy fabricated by continuous directed energy deposition. Journal of Manufacturing Processes, 2021, 71, 417-428.	2.8	14
154	A flexible and lead-free BCZT thin film nanogenerator for biocompatible energy harvesting. Materials Chemistry Frontiers, 2021, 5, 4682-4689.	3.2	14
155	Design and optimization of a magnetorheological damper based on B-spline curves. Mechanical Systems and Signal Processing, 2022, 178, 109279.	4.4	14
156	Snap buckling of NiTi tubes. International Journal of Solids and Structures, 2018, 146, 29-42.	1.3	13
157	Online Adaptive and LSTM-Based Trajectory Generation of Lower Limb Exoskeletons for Stroke Rehabilitation. , 2018, , .		13
158	Vibration suppression of a rotating functionally graded beam with enhanced active constrained layer damping treatment in temperature field. Thin-Walled Structures, 2021, 161, 107522.	2.7	13
159	Design of a lower extremity exoskeleton for motion assistance in paralyzed individuals. , 2015, , .		12
160	Insole plantar pressure systems in the gait analysis of post-stroke rehabilitation. , 2015, , .		12
161	Numerical/experimental assessment of 3D-printed shape-memory polymeric beams. Journal of Applied Polymer Science, 2019, 136, 47422.	1.3	12
162	Vibration analysis of a free moving thin plate with fully covered active constrained layer damping treatment. Composite Structures, 2020, 235, 111742.	3.1	12

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163	New insight into piezoelectric energy harvesting with mechanical and electrical nonlinearities. Smart Materials and Structures, 2020, 29, 04LT01.	1.8	12
164	Hybridizing piezoelectric and electromagnetic mechanisms with dynamic bistability for enhancing low-frequency rotational energy harvesting. Applied Physics Letters, 2021, 119, .	1.5	12
165	<title>Semi-active control of automotive suspension systems with magnetorheological dampers</title>. , 2001, 4327, 125.		11
166	Fabrication, Testing, and Modeling of Carbon Nanotube Composites for Vibration Damping. Journal of Vibration and Acoustics, Transactions of the ASME, 2009, 131, .	1.0	11
167	Optimization of a multifunctional actuator utilizing magnetorheological fluids. , 2011, , .		11
168	Design of powered ankle-foot prosthesis driven by parallel elastic actuator. , 2015, , .		11
169	User-Adaptive Assistance of Assistive Knee Braces for Gait Rehabilitation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1994-2005.	2.7	11
170	Dynamic modeling and analysis of rotating beams with partially covered enhanced active constrained layer damping treatment. Journal of Sound and Vibration, 2019, 455, 46-68.	2.1	11
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