

Jie Deng

List of Publications by Year in descending order

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papers

1,836
citations

318942

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74
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616
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of an Antihydropressure Miniature Underwater Robot With Multilocomotion Mode Using Piezoelectric Pulsed-Jet Actuator. IEEE Transactions on Industrial Electronics, 2023, 70, 5044-5054.	5.2	11
2	A Linear Piezoelectric Actuator Based on Working Principle of Three-Petal Mouth of a Rabbit. IEEE Transactions on Industrial Electronics, 2022, 69, 5091-5099.	5.2	25
3	Displacement Linearity Improving Method of Stepping Piezoelectric Platform Based on Leg Wagging Mechanism. IEEE Transactions on Industrial Electronics, 2022, 69, 6429-6432.	5.2	37
4	A Compact 2-DOF Micro/Nano Manipulator Using Single Miniature Piezoelectric Tube Actuator. IEEE Transactions on Industrial Electronics, 2022, 69, 3928-3937.	5.2	39
5	Design of a precise linear-rotary positioning stage for optical focusing based on the stick-slip mechanism. Mechanical Systems and Signal Processing, 2022, 165, 108398.	4.4	28
6	Development of a High-Pressure Self-Priming Valve-Based Piezoelectric Pump Using Bending Transducers. IEEE Transactions on Industrial Electronics, 2022, 69, 2759-2768.	5.2	17
7	Waveform Optimization of Piezoelectric Micro-Jet for the Control of Metal Micro-Droplet Ejection. IEEE Transactions on Industrial Electronics, 2022, 69, 3967-3976.	5.2	11
8	A 2-DOF Needle Insertion Device Using Inertial Piezoelectric Actuator. IEEE Transactions on Industrial Electronics, 2022, 69, 3918-3927.	5.2	61
9	A Compact Ultrasonic Burnishing System for High Precision Planar Burnishing: Design and Performance Evaluation. IEEE Transactions on Industrial Electronics, 2022, 69, 8201-8211.	5.2	10
10	Bioinspired Multilegged Piezoelectric Robot: The Design Philosophy Aiming at High-Performance Micromanipulation. Advanced Intelligent Systems, 2022, 4, .	3.3	16
11	Study on improving the resolution of an H-shaped piezoelectric ultrasonic actuator by stick-slip principle. Smart Materials and Structures, 2022, 31, 015001.	1.8	8
12	A walker-pusher inchworm actuator driven by two piezoelectric stacks. Mechanical Systems and Signal Processing, 2022, 169, 108636.	4.4	18
13	A Lightweight and Multimotion Crawling Tensegrity Robot Driven by Twisted Artificial Muscles. IEEE Transactions on Industrial Electronics, 2022, 69, 11447-11457.	5.2	7
14	A collaborative excitation method for piezoelectric stick-slip actuator to eliminate rollback and generate precise smooth motion. Mechanical Systems and Signal Processing, 2022, 170, 108815.	4.4	11
15	Development of a Novel Flexure-Based XY Platform Using Single Bending Hybrid Piezoelectric Actuator. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3977-3987.	3.7	22
16	Force Enhanced Multi-Twisted and Coiled Actuator and Its Application in Temperature Self-Adaptive Tensegrity Mechanisms. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3964-3976.	3.7	11
17	Development of a Planar Tripodal Piezoelectric Robot With a Compact Ring Structure. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3908-3919.	3.7	11
18	Development of a Linear Piezoelectric Microactuator Inspired by the Hollowing Art. IEEE Transactions on Industrial Electronics, 2022, 69, 10407-10416.	5.2	22

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19	Designing and Modeling of Tightly Wrapped Twisted Artificial Muscles With Large Stroke and Low Hysteresis. IEEE Transactions on Industrial Electronics, 2022, 69, 10374-10384.	5.2	4
20	Development and experiment evaluation of a compact inchworm piezoelectric actuator using three-jaw type clamping mechanism. Smart Materials and Structures, 2022, 31, 045020.	1.8	13
21	Development of a cross-scale 2-DOF piezoelectric rotary platform based on active friction switching. International Journal of Mechanical Sciences, 2022, 220, 107165.	3.6	20
22	Development of a high-precision piezoelectric ultrasonic milling tool using longitudinal-bending hybrid transducer. International Journal of Mechanical Sciences, 2022, 222, 107239.	3.6	16
23	Radial disturbance compensation device of cylindrical cantilever beam using embedded piezoelectric ceramics with bending mode. Mechanical Systems and Signal Processing, 2022, 172, 109009.	4.4	3
24	Development of a cross-scale 6-DOF piezoelectric stage and its application in assisted puncture. Mechanical Systems and Signal Processing, 2022, 174, 109072.	4.4	13
25	Design, modeling and experiment of a miniature biped piezoelectric robot. Smart Materials and Structures, 2022, 31, 075004.	1.8	11
26	Design of a linear-rotary ultrasonic motor for optical focusing inspired by the bionic motion principles of the earthworms. International Journal of Smart and Nano Materials, 2022, 13, 346-365.	2.0	13
27	A 3-DOF inertial impact locomotion robot constructed on four piezoelectric bimorph actuators. Smart Materials and Structures, 2022, 31, 095008.	1.8	13
28	A Compact Cantilever-Type Ultrasonic Motor With Nanometer Resolution: Design and Performance Evaluation. IEEE Transactions on Industrial Electronics, 2021, 68, 734-743.	5.2	23
29	A Quadruped Crawling Robot Operated by Elliptical Vibrations of Cantilever Legs. IEEE Transactions on Industrial Electronics, 2021, 68, 1466-1474.	5.2	16
30	A novel sensitive piezoelectric mass balance used for weightless environment. Science China Technological Sciences, 2021, 64, 745-754.	2.0	7
31	Development of a Nanopositioning Platform With Large Travel Range Based on Bionic Quadruped Piezoelectric Actuator. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2059-2070.	3.7	46
32	Development of a two-DOF inertial rotary motor using a piezoelectric actuator constructed on four bimorphs. Mechanical Systems and Signal Processing, 2021, 149, 107213.	4.4	35
33	Development of a Small Two-Dimensional Robotic Spherical Joint Using a Bonded-Type Piezoelectric Actuator. IEEE Transactions on Industrial Electronics, 2021, 68, 724-733.	5.2	32
34	Development of a low capacitance two-axis piezoelectric tilting mirror used for optical assisted micromanipulation. Mechanical Systems and Signal Processing, 2021, 154, 107602.	4.4	25
35	A multi-motion bionic soft hexapod robot driven by self-sensing controlled twisted artificial muscles. Bioinspiration and Biomimetics, 2021, 16, 045003.	1.5	24
36	Arthropod-Inspired Resonant Piezoelectric Millirobot. Advanced Intelligent Systems, 2021, 3, 2100015.	3.3	64

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37	Development of a two-DOF piezoelectric posture alignment mechanism with low coupling based on a cross-orthogonal-axis structure. <i>Smart Materials and Structures</i> , 2021, 30, 085042.	1.8	7
38	Fast and Precise Control for the Vibration Amplitude of an Ultrasonic Transducer Based on Fuzzy PID Control. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021, 68, 2766-2774.	1.7	20
39	A 3-DOF sandwich piezoelectric manipulator with low hysteresis effect: Design, modeling and experimental evaluation. <i>Mechanical Systems and Signal Processing</i> , 2021, 158, 107768.	4.4	5
40	Development of a novel two-DOF piezo-driven fast steering mirror with high stiffness and good decoupling characteristic. <i>Mechanical Systems and Signal Processing</i> , 2021, 159, 107851.	4.4	28
41	Design and experiment of a three-feet linear ultrasonic motor using third bending hybrid modes. <i>Sensors and Actuators A: Physical</i> , 2021, 331, 112990.	2.0	15
42	A resonant piezoelectric proportional valve for high-flowrate regulation operated by a bending sandwich actuator. <i>Sensors and Actuators A: Physical</i> , 2021, 331, 112971.	2.0	3
43	Design philosophy for ultrasonic motors using the bending hybrid modes. <i>Sensors and Actuators A: Physical</i> , 2021, 331, 113029.	2.0	3
44	Development of a High Differential Pressure Piezoelectric Active Proportional Regulation Valve Using a Bending Transducer. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 12513-12523.	5.2	13
45	A Bistable Jumping Robot with Pure Soft Body Actuated by Twisted Artificial Muscle. , 2021, , .		2
46	Step consistency active control method for inertial piezoelectric actuator using embedded strain gauges. <i>Review of Scientific Instruments</i> , 2021, 92, 125005.	0.6	6
47	Design, Modeling, and Experimental Evaluation of a Compact Piezoelectric <i>XY</i> Platform for Large Travel Range. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 863-872.	1.7	21
48	A non-resonant sandwich type bidirectional stepping piezoelectric actuator driven by oblique two-dimensional trajectory: Design, analysis and experiment evaluation. <i>Mechanical Systems and Signal Processing</i> , 2020, 135, 106424.	4.4	7
49	Modeling and experiments of a nano-positioning and high frequency scanning piezoelectric platform based on function module actuator. <i>Science China Technological Sciences</i> , 2020, 63, 2541-2552.	2.0	10
50	Effects of knurl tooth angle on mechanical and thermal behaviors of aluminum ultrasonic welding. <i>Ultrasonics</i> , 2020, 108, 106207.	2.1	10
51	A Rotary Traveling Wave Ultrasonic Motor With Four Groups of Nested PZT Ceramics: Design and Performance Evaluation. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 1462-1469.	1.7	25
52	A Novel Piezoelectric Stack for Rotary Motion by <i>d</i> ₁₅ Working Mode: Principle, Modeling, Simulation, and Experiments. <i>IEEE/ASME Transactions on Mechatronics</i> , 2020, 25, 491-501.	3.7	18
53	Single-phase drive bending-bending piezoelectric actuator operated under 8-shaped trajectory vibration: Concept, computation and experiment evaluation. <i>Mechanical Systems and Signal Processing</i> , 2020, 139, 106637.	4.4	13
54	A review on piezoelectric ultrasonic motors for the past decade: Classification, operating principle, performance, and future work perspectives. <i>Sensors and Actuators A: Physical</i> , 2020, 306, 111971.	2.0	113

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55	Development of a Two-Dimensional Linear Piezoelectric Stepping Platform Using Longitudinal-Bending Hybrid Actuators. IEEE Transactions on Industrial Electronics, 2019, 66, 3030-3040.	5.2	100
56	A review of recent studies on non-resonant piezoelectric actuators. Mechanical Systems and Signal Processing, 2019, 133, 106254.	4.4	129
57	A sandwich piezoelectric actuator with long stroke and nanometer resolution by the hybrid of two actuation modes. Sensors and Actuators A: Physical, 2019, 296, 121-131.	2.0	16
58	Modeling and experimental evaluations of a four-legged stepper rotary precision piezoelectric stage. Mechanical Systems and Signal Processing, 2019, 132, 153-167.	4.4	21
59	A piezoelectric-actuated robot operating at running and swinging hybrid modes. Smart Materials and Structures, 2019, 28, 115010.	1.8	8
60	Development of a Novel Two-DOF Pointing Mechanism Using a Bending-Bending Hybrid Piezoelectric Actuator. IEEE Transactions on Industrial Electronics, 2019, 66, 7861-7872.	5.2	50
61	A XY Transporting and Nanopositioning Piezoelectric Robot Operated by Leg Rowing Mechanism. IEEE/ASME Transactions on Mechatronics, 2019, 24, 207-217.	3.7	53
62	Development of a Planar Piezoelectric Actuator Using Bending-Bending Hybrid Transducers. IEEE Transactions on Industrial Electronics, 2019, 66, 6141-6149.	5.2	79
63	Developments of piezoelectric ultrasonic actuators operating under bending hybrid vibration modes. Mechanics of Advanced Materials and Structures, 2019, 26, 416-423.	1.5	3
64	Development and experiment evaluation of an inertial piezoelectric actuator using bending-bending hybrid modes. Sensors and Actuators A: Physical, 2018, 275, 11-18.	2.0	43
65	Design and Experiments of a Single-Foot Linear Piezoelectric Actuator Operated in a Stepping Mode. IEEE Transactions on Industrial Electronics, 2018, 65, 8063-8071.	5.2	114
66	Review on Multi-Degree-of-Freedom Piezoelectric Motion Stage. IEEE Access, 2018, 6, 59986-60004.	2.6	51
67	A Quadruped Micro-Robot Based on Piezoelectric Driving. Sensors, 2018, 18, 810.	2.1	23
68	A Four-Feet Walking-Type Rotary Piezoelectric Actuator with Minute Step Motion. Sensors, 2018, 18, 1471.	2.1	15
69	A novel planar piezoelectric actuator with nano-positioning ability operating in bending-bending hybrid modes. Ceramics International, 2018, 44, S164-S167.	2.3	13
70	A three-dimensional piezoelectric nanopositioner using a sandwich transducer. Ceramics International, 2018, 44, S108-S111.	2.3	7
71	Development and experiment evaluation of an H-shape linear piezoelectric actuator operated in stepping mode. Ceramics International, 2018, 44, S246-S249.	2.3	8
72	Research on a Novel Exciting Method for a Sandwich Transducer Operating in Longitudinal-Bending Hybrid Modes. Sensors, 2017, 17, 1510.	2.1	4

#	ARTICLE	IF	CITATIONS
73	A Piezoelectric Energy Harvester with Bending-Torsion Vibration in Low-Speed Water. Applied Sciences (Switzerland), 2017, 7, 116.	1.3	27
74	A novel method for improving the energy harvesting performance of piezoelectric flag in a uniform flow. Ferroelectrics, 2016, 500, 283-290.	0.3	10