

Mingxiang Ling

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

841
citations

567281

15
h-index

610901

24
g-index

29
all docs

29
docs citations

29
times ranked

348
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced mathematical modeling of the displacement amplification ratio for piezoelectric compliant mechanisms. <i>Smart Materials and Structures</i> , 2016, 25, 075022.	3.5	132
2	Kinetostatic and Dynamic Modeling of Flexure-Based Compliant Mechanisms: A Survey. <i>Applied Mechanics Reviews</i> , 2020, 72, .	10.1	127
3	Optimal design of a piezo-actuated 2-DOF millimeter-range monolithic flexure mechanism with a pseudo-static model. <i>Mechanical Systems and Signal Processing</i> , 2019, 115, 120-131.	8.0	68
4	Theoretical modeling of attenuated displacement amplification for multistage compliant mechanism and its application. <i>Sensors and Actuators A: Physical</i> , 2016, 249, 15-22.	4.1	58
5	Modular kinematics and statics modeling for precision positioning stage. <i>Mechanism and Machine Theory</i> , 2017, 107, 274-282.	4.5	53
6	Kinetostatic modeling of complex compliant mechanisms with serial-parallel substructures: A semi-analytical matrix displacement method. <i>Mechanism and Machine Theory</i> , 2018, 125, 169-184.	4.5	47
7	Design, Pseudostatic Model, and PVDF-Based Motion Sensing of a Piezo-Actuated <i>XYZ</i> Flexure Manipulator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018, 23, 2837-2848.	5.8	40
8	A semi-analytical modeling method for the static and dynamic analysis of complex compliant mechanism. <i>Precision Engineering</i> , 2018, 52, 64-72.	3.4	39
9	Kinetostatic and dynamic analyses of planar compliant mechanisms via a two-port dynamic stiffness model. <i>Precision Engineering</i> , 2019, 57, 149-161.	3.4	36
10	A Pseudo-Static Model for Dynamic Analysis on Frequency Domain of Distributed Compliant Mechanisms. <i>Journal of Mechanisms and Robotics</i> , 2018, 10, .	2.2	33
11	A general two-port dynamic stiffness model and static/dynamic comparison for three bridge-type flexure displacement amplifiers. <i>Mechanical Systems and Signal Processing</i> , 2019, 119, 486-500.	8.0	30
12	Development of a multistage compliant mechanism with new boundary constraint. <i>Review of Scientific Instruments</i> , 2018, 89, 015009.	1.3	28
13	Coupled dynamic modeling of piezo-actuated compliant mechanisms subjected to external loads. <i>Mechanism and Machine Theory</i> , 2021, 160, 104283.	4.5	27
14	Design and experiment of a millimeter-range and high-frequency compliant mechanism with two output ports. <i>Mechanism and Machine Theory</i> , 2018, 126, 201-209.	4.5	22
15	Design and modeling of an improved bridge-type compliant mechanism with its application for hydraulic piezo-valves. <i>Sensors and Actuators A: Physical</i> , 2021, 324, 112687.	4.1	20
16	Extended Dynamic Stiffness Model for Analyzing Flexure-Hinge Mechanisms With Lumped Compliance. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2022, 144, .	2.9	15
17	Design and modeling of a compact compliant stroke amplification mechanism with completely distributed compliance for ground-mounted actuators. <i>Mechanism and Machine Theory</i> , 2022, 167, 104566.	4.5	14
18	Optimized design of a compact multi-stage displacement amplification mechanism with enhanced efficiency. <i>Precision Engineering</i> , 2022, 77, 77-89.	3.4	14

#	ARTICLE	IF	CITATIONS
19	Analysis and design of spatial compliant mechanisms using a 3-D dynamic stiffness model. Mechanism and Machine Theory, 2022, 168, 104581.	4.5	12
20	Enhancing Dynamic Bandwidth of Amplified Piezoelectric Actuators by a Hybrid Lever and Bridge-Type Compliant Mechanism. Actuators, 2022, 11, 134.	2.3	10
21	Dynamic Design of a Novel High-Speed Piezoelectric Flow Control Valve Based on Compliant Mechanism. IEEE/ASME Transactions on Mechatronics, 2022, 27, 4942-4950.	5.8	9
22	Design and integrated stroke sensing of a high-response piezoelectric direct-drive valve enhanced by push&pull compliant mechanisms. Review of Scientific Instruments, 2022, 93, 035008.	1.3	5
23	A Flexure-Based XY Precision Positioning Stage with Integrated Displacement PVDF Sensor. Lecture Notes in Computer Science, 2019, , 285-295.	1.3	1
24	Building Dynamic Stiffness Matrix Library of Flexure Members for Use in a Dynamic Stiffness Model of Compliant Mechanisms. Mechanisms and Machine Science, 2019, , 469-478.	0.5	1
25	A new hybrid piezo-actuated compliant mechanism with self-tuned flexure arm. Proceedings of SPIE, 2017, , .	0.8	0
26	Study on the online test of spindle's dynamic radial error of machine tool. , 2017, , .		0
27	Design and Simulation of a Piezoelectric Micro-QCM with High Resonance Frequency and Quality Factor. , 2021, , .		0
28	A Block Matrix Based Precise Integration Algorithm for Solving Non-Homogeneous Dynamic Response. Journal of Computational and Nonlinear Dynamics, 2021, , .	1.2	0
29	A Recursive Integral-Based Dynamic Stiffness Matrix for Notch Flexure Hinges Used in Compliant Mechanisms. Mechanisms and Machine Science, 2020, , 385-394.	0.5	0