

Yanling Tian

List of Publications by Year in descending order

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126
papers

2,846
citations

201674

27
h-index

189892

50
g-index

128
all docs

128
docs citations

128
times ranked

1920
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Direct Inverse Modeling Approach for Hysteresis Compensation of Piezoelectric Actuator in Feedforward Applications. IEEE/ASME Transactions on Mechatronics, 2013, 18, 981-989.	5.8	213
2	Insights into the wettability transition of nanosecond laser ablated surface under ambient air exposure. Journal of Colloid and Interface Science, 2019, 533, 268-277.	9.4	193
3	Design of a Piezoelectric-Actuated Microgripper With a Three-Stage Flexure-Based Amplification. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2205-2213.	5.8	140
4	Design and Control of a Compliant Microgripper With a Large Amplification Ratio for High-Speed Micro Manipulation. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1262-1271.	5.8	140
5	Multi-morphology transition hybridization CAD design of minimal surface porous structures for use in tissue engineering. CAD Computer Aided Design, 2014, 56, 11-21.	2.7	133
6	Design and Computational Optimization of a Decoupled 2-DOF Monolithic Mechanism. IEEE/ASME Transactions on Mechatronics, 2014, 19, 872-881.	5.8	126
7	Fabrication of super-hydrophobic nickel film on copper substrate with improved corrosion inhibition by electrodeposition process. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 560, 205-212.	4.7	106
8	A Novel Actuator-Internal Micro/Nano Positioning Stage With an Arch-Shape Bridge-Type Amplifier. IEEE Transactions on Industrial Electronics, 2019, 66, 9161-9172.	7.9	82
9	Design and Kinematics Modeling of a Novel 3-DOF Monolithic Manipulator Featuring Improved Scott-Russell Mechanisms. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, .	2.9	77
10	Novel real function based method to construct heterogeneous porous scaffolds and additive manufacturing for use in medical engineering. Medical Engineering and Physics, 2015, 37, 1037-1046.	1.7	70
11	A novel voice coil motor-driven compliant micropositioning stage based on flexure mechanism. Review of Scientific Instruments, 2015, 86, 095001.	1.3	66
12	Experimental Investigation of Robust Motion Tracking Control for a 2-DOF Flexure-Based Mechanism. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1737-1745.	5.8	65
13	Design of a Novel Dual-Axis Micromanipulator With an Asymmetric Compliant Structure. IEEE/ASME Transactions on Mechatronics, 2019, 24, 656-665.	5.8	64
14	Hybrid Laser Ablation and Chemical Modification for Fast Fabrication of Bio-inspired Super-hydrophobic Surface with Excellent Self-cleaning, Stability and Corrosion Resistance. Journal of Bionic Engineering, 2019, 16, 13-26.	5.0	62
15	A novel piezo-driven microgripper with a large jaw displacement. Microsystem Technologies, 2015, 21, 931-942.	2.0	57
16	A novel monolithic piezoelectric actuated flexure-mechanism based wire clamp for microelectronic device packaging. Review of Scientific Instruments, 2015, 86, 045106.	1.3	55
17	A 2-DOF Monolithic Compliant Rotation Platform Driven by Piezoelectric Actuators. IEEE Transactions on Industrial Electronics, 2020, 67, 6963-6974.	7.9	54
18	Experimental Analysis of Laser Interferometry-Based Robust Motion Tracking Control of a Flexure-Based Mechanism. IEEE Transactions on Automation Science and Engineering, 2013, 10, 267-275.	5.2	48

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19	A Spatial Deployable Three-DOF Compliant Nano-Positioner With a Three-Stage Motion Amplification Mechanism. IEEE/ASME Transactions on Mechatronics, 2020, 25, 1322-1334.	5.8	47
20	Modelling the cutting forces in micro-end-milling using a hybrid approach. International Journal of Advanced Manufacturing Technology, 2014, 73, 1647-1656.	3.0	38
21	Development of a Passive Compliant Mechanism for Measurement of Micro/Nanoscale Planar 3-DOF Motions. IEEE/ASME Transactions on Mechatronics, 2016, 21, 1222-1232.	5.8	38
22	Study on the Fabrication of Super-Hydrophobic Surface on Inconel Alloy via Nanosecond Laser Ablation. Materials, 2019, 12, 278.	2.9	38
23	A runout measuring method using modeling and simulation cutting force in micro end-milling. International Journal of Advanced Manufacturing Technology, 2017, 91, 4191-4201.	3.0	34
24	Investigation of Effects of Acid, Alkali, and Salt Solutions on Fluorinated Superhydrophobic Surfaces. Langmuir, 2019, 35, 17027-17036.	3.5	33
25	Modeling and Analysis of Soft Pneumatic Network Bending Actuators. IEEE/ASME Transactions on Mechatronics, 2021, 26, 2195-2203.	5.8	33
26	A contrastive investigation on anticorrosive performance of laser-induced super-hydrophobic and oil-infused slippery coatings. Progress in Organic Coatings, 2020, 138, 105313.	3.9	30
27	A Contrastive Investigation on the Anticorrosive Performance of Stearic Acid and Fluoroalkylsilane-Modified Superhydrophobic Surface in Salt, Alkali, and Acid Solution. Langmuir, 2020, 36, 10279-10292.	3.5	29
28	A Two-Finger Soft-Robotic Gripper with Enveloping and Pinching Grasping Modes. IEEE/ASME Transactions on Mechatronics, 2020, , 1-1.	5.8	29
29	A novel instantaneous uncut chip thickness model for mechanistic cutting force model in micro-end-milling. International Journal of Advanced Manufacturing Technology, 2017, 93, 2305-2319.	3.0	27
30	Novel metal-organic super-hydrophobic surface fabricated by nanosecond laser irradiation in solution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 587, 124343.	4.7	27
31	A hybrid contact state analysis methodology for robotic-based adjustment of cylindrical pair. International Journal of Advanced Manufacturing Technology, 2011, 52, 329-342.	3.0	25
32	Machining forces prediction for peripheral milling of low-rigidity component with curved geometry. International Journal of Advanced Manufacturing Technology, 2013, 64, 1599-1610.	3.0	25
33	Droplet Impact on the Super-Hydrophobic Surface with Micro-Pillar Arrays Fabricated by Hybrid Laser Ablation and Silanization Process. Materials, 2019, 12, 765.	2.9	24
34	Improving environmental noise suppression for micronewton force sensing based on electrostatic by injecting air damping. Review of Scientific Instruments, 2014, 85, 055002.	1.3	23
35	Design of a novel 3D ultrasonic vibration platform with tunable characteristics. International Journal of Mechanical Sciences, 2020, 186, 105895.	6.7	23
36	Fabrication of controllable wettability of crystalline silicon surfaces by laser surface texturing and silanization. Applied Surface Science, 2019, 497, 143805.	6.1	22

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37	Design of a rhombus-type stick-slip actuator with two driving modes for micropositioning. Mechanical Systems and Signal Processing, 2022, 166, 108421.	8.0	22
38	Design and Control of a Spatial Micromanipulator Inspired by Deployable Structure. IEEE Transactions on Industrial Electronics, 2022, 69, 971-979.	7.9	22
39	Grasping force hysteresis compensation of a piezoelectric-actuated wire clamp with a modified inverse Prandtl-Ishlinskii model. Review of Scientific Instruments, 2017, 88, 115101.	1.3	21
40	Dynamic modeling and control of a novel XYZ positioning stage for semiconductor packaging. Transactions of the Institute of Measurement and Control, 2015, 37, 177-189.	1.7	20
41	Modeling and analyses of helical milling process. International Journal of Advanced Manufacturing Technology, 2017, 90, 1003-1022.	3.0	20
42	The investigation of mechanical and thermal properties of super-hydrophobic nitinol surfaces fabricated by hybrid methods of laser irradiation and carbon ion implantation. Applied Surface Science, 2020, 527, 146889.	6.1	19
43	An XYZ micromanipulator for precise positioning applications. Journal of Micro-Bio Robotics, 2020, 16, 53-63.	2.1	19
44	A Dual-Driven High Precision Rotary Platform Based on Stick-Slip Principle. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3053-3064.	5.8	17
45	Design of a novel 3D tip-based nanofabrication system with high precision depth control capability. International Journal of Mechanical Sciences, 2020, 169, 105328.	6.7	16
46	Low-cost and fast fabrication of the ultrasonic embossing on polyethylene terephthalate (PET) films using laser processed molds. Microsystem Technologies, 2017, 23, 5653-5668.	2.0	15
47	Design, modelling and characterization of a 2-DOF precision positioning platform. Transactions of the Institute of Measurement and Control, 2015, 37, 396-405.	1.7	14
48	Design of a flexure-based mechanism possessing low stiffness and constant force. Review of Scientific Instruments, 2019, 90, .	1.3	14
49	Design of a XYZ scanner for home-made high-speed atomic force microscopy. Microsystem Technologies, 2018, 24, 3123-3132.	2.0	13
50	Insights into the stability of fluorinated super-hydrophobic coating in different corrosive solutions. Progress in Organic Coatings, 2021, 151, 106043.	3.9	13
51	Thermal simulation modeling of a hydrostatic machine feed platform. International Journal of Advanced Manufacturing Technology, 2015, 79, 1581-1595.	3.0	12
52	Modeling and tracking control of a novel XYZ stage. Microsystem Technologies, 2017, 23, 3575-3588.	2.0	11
53	Surface topography modeling and roughness extraction in helical milling operation. International Journal of Advanced Manufacturing Technology, 2018, 95, 4561-4571.	3.0	11
54	Influence of external heat sources on volumetric thermal errors of precision machine tools. International Journal of Advanced Manufacturing Technology, 2018, 99, 475-495.	3.0	11

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55	An experimental study on the rotational accuracy of variable preload spindle-bearing system. <i>Advances in Mechanical Engineering</i> , 2018, 10, 168781401877617.	1.6	11
56	Dynamic analysis of tapping mode atomic force microscope (AFM) for critical dimension measurement. <i>Precision Engineering</i> , 2020, 64, 269-279.	3.4	10
57	The Study on the Anti-corrosion Performance of NiTi Alloy in Human Body Solution with the Fabricating Processes of Laser Irradiation and PDMS Modification. <i>Journal of Bionic Engineering</i> , 2021, 18, 77-91.	5.0	10
58	Probe system design for three dimensional micro/nano scratching machine. <i>Microsystem Technologies</i> , 2017, 23, 2285-2295.	2.0	9
59	Dynamic Optimization of Constrained Layer Damping Structure for the Headstock of Machine Tools with Modal Strain Energy Method. <i>Shock and Vibration</i> , 2017, 2017, 1-13.	0.6	9
60	Design and characteristic analysis of an aerostatic decoupling table for microelectronic packaging. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018, 232, 1079-1090.	2.1	9
61	Investigation on Modeling and Formation Mechanism of Dynamic Rotational Error for Spindle-Rolling Bearing System. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 5753.	2.5	9
62	Experimental investigation of the effects of vibration parameters on ultrasonic vibration-assisted tip-based nanofabrication. <i>International Journal of Mechanical Sciences</i> , 2021, 198, 106387.	6.7	9
63	Investigation of the mechanical effects of targeted drugs on cancerous cells based on atomic force microscopy. <i>Analytical Methods</i> , 2021, 13, 3136-3146.	2.7	9
64	Antlion Optimized Robust Control Approach for Micropositioning Trajectory Tracking Tasks. <i>IEEE Access</i> , 2020, 8, 220889-220907.	4.2	8
65	Stability Mechanism of Laser-induced Fluorinated Super-hydrophobic Coating in Alkaline Solution. <i>Journal of Bionic Engineering</i> , 2022, 19, 113-125.	5.0	8
66	Laser-induced changes in titanium by femtosecond, picosecond and millisecond laser ablation. <i>Radiation Effects and Defects in Solids</i> , 2015, 170, 528-540.	1.2	7
67	Development of a novel 3-DOF suspension mechanism for multi-function stylus profiling systems. <i>International Journal of Precision Engineering and Manufacturing</i> , 2016, 17, 1415-1423.	2.2	7
68	Dodecyl Mercaptan Functionalized Copper Mesh for Water Repellence and Oil-water Separation. <i>Journal of Bionic Engineering</i> , 2021, 18, 887-899.	5.0	7
69	Insights into cell classification based on combination of multiple cellular mechanical phenotypes by using machine learning algorithm. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 128, 105097.	3.1	7
70	Structure design and experimental investigation of a multi-function stylus profiling system for characterization of engineering surfaces at micro/nano scales. <i>Microsystem Technologies</i> , 2018, 24, 2177-2187.	2.0	6
71	Modeling and control methodology for an XYZ micro manipulator. <i>Review of Scientific Instruments</i> , 2019, 90, .	1.3	6
72	Design of a novel parallel monolithic 3-DOF compliant micromanipulator. , 2019, , .		6

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73	Vacuum conditions for tunable wettability transition on laser ablated Ti-6Al-4V alloy surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 647, 129023.	4.7	6
74	Dynamic analysis of an XY positioning table. , 2013, , .		5
75	Laser-induced hydrophobicity on Ti-6Al-4V surface. , 2015, , .		5
76	Active and intelligent control onto thermal behaviors of a motorized spindle unit. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 98, 3133-3146.	3.0	5
77	Rapid fabrication of super-hydrophobic surfaces of silicon wafers with excellent anisotropic wetting. <i>Microsystem Technologies</i> , 2019, 25, 237-243.	2.0	5
78	Design and Modeling of a Decoupled 2-DOF Stick-slip Positioning Stage. , 2019, , .		5
79	Lithography-induced hydrophobic surfaces of silicon wafers with excellent anisotropic wetting properties. <i>Microsystem Technologies</i> , 2019, 25, 735-745.	2.0	5
80	Theoretical analysis of detection sensitivity in nano-resonator-based sensors for elasticity and density measurement. <i>International Journal of Mechanical Sciences</i> , 2021, 197, 106309.	6.7	5
81	Experimental System Identification, Feed-Forward Control, and Hysteresis Compensation of a 2-DOF Mechanism. <i>International Journal of Intelligent Mechatronics and Robotics</i> , 2013, 3, 1-21.	0.4	5
82	Fabrication of polymer optical diffusers by buffer-assisted ultrasonic embossing. , 2015, , .		4
83	A novel method and system for calibrating the spring constant of atomic force microscope cantilever based on electromagnetic actuation. <i>Review of Scientific Instruments</i> , 2018, 89, 125119.	1.3	4
84	Design and Characteristics of a Novel Compliant Symmetric Microgripper Mechanism. , 2018, , .		4
85	Enhancing multiple harmonics in tapping mode atomic force microscopy by added mass with finite size. <i>Applied Physics Express</i> , 2019, 12, 126505.	2.4	4
86	A unified element stiffness matrix model for variable cross-section flexure hinges in compliant mechanisms for micro/nano positioning. <i>Microsystem Technologies</i> , 2019, 25, 4257-4268.	2.0	4
87	A Novel Soft-Robotic Gripper with Vertically Plane Contact of the Object. , 2019, , .		4
88	Adhesion performance study of a novel microstructured stamp for micro-transfer printing. <i>Soft Matter</i> , 2021, 17, 4989-4997.	2.7	4
89	The effects of measurement parameters on the cancerous cell nucleus characterisation by atomic force microscopy in vitro. <i>Journal of Microscopy</i> , 2022, 287, 3-18.	1.8	4
90	Prediction of Dynamic Milling Stability considering Time Variation of Deflection and Dynamic Characteristics in Thin-Walled Component Milling Process. <i>Shock and Vibration</i> , 2016, 2016, 1-14.	0.6	3

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91	Design and stiffness analysis of a XYZ scanning stage. , 2016, , .		3
92	A Novel Decoupled Flexure Nanopositioner With Thermal Distortion Self-Elimination Function. IEEE/ASME Transactions on Mechatronics, 2022, 27, 2953-2962.	5.8	3
93	Design and kinematics analysis of a 3-DOF precision positioning stage. , 2009, , .		2
94	Parameters identification of a novel micro-positioning stage based on adaptive real-coded genetic algorithm. , 2015, , .		2
95	Fabrication of polymer electronic boards by ultrasonic embossing and welding. Microsystem Technologies, 2015, 21, 365-369.	2.0	2
96	Design of a novel asymmetrical piezoelectric actuated microgripper for micromanipulation. , 2016, , .		2
97	Lithography-induced wettability changes of silicon. , 2017, , .		2
98	Smooth Displacement/Force Switching Control of a Piezoelectric Actuated Microgripper for Micro Manipulation. , 2019, , .		2
99	Mechanobiology Analysis of Manifold Live Cells in Vitro with Atomic Force Acoustic Microscopy. ACS Applied Bio Materials, 2020, 3, 1210-1215.	4.6	2
100	Compressive and tensile behaviors of carbon and boron nitride nanotubes. , 2012, , .		1
101	Transverse vibration analyses of cantilevered boron nitride nanocones. Micro and Nano Letters, 2013, 8, 899-902.	1.3	1
102	Modified rate-dependent hysteresis modeling of piezoelectric actuator. , 2014, , .		1
103	A novel electromagnetic force method for micro/nano newton force measurement. , 2017, , .		1
104	Design and modeling of a 2-DOF decoupled rotation platform for micro-manipulation. , 2017, , .		1
105	Identification of incident parameters of interference beams using angular power spectral density. Applied Physics Letters, 2019, 114, 241902.	3.3	1
106	A Novel XY Nano Positioning Stage with a Three Stage Motion Amplification Mechanism. , 2019, , .		1
107	INFLUENCE OF FEMTOSECOND-LASER-INDUCED PERIODIC SURFACE STRUCTURES ON THE TRIBOLOGICAL PERFORMANCE OF CVD NANO-CRYSTALLINE DIAMOND FILMS. Surface Review and Letters, 2022, 29, .	1.1	1
108	Dynamic analysis of a flexure-based mechanism for precision machining operation. , 2010, , .		0

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109	Motion control of a 2-DOF decoupled compliant mechanism using H ∞ synthesis. , 2012, , .		0
110	Dynamic Performance Evaluation of a Parallel Manipulator with Non Axial Symmetrical Characteristics by Computing the Respective Actuating Joint Capability. International Journal of Intelligent Mechatronics and Robotics, 2012, 2, 1-14.	0.4	0
111	Mechanical design and optimization of a suspension of multi-function sensing probes. , 2013, , .		0
112	Design, analysis, and experimental investigations of a 2-DOF monolithic parallel mechanism. , 2013, , .		0
113	Development and Application of Molded Interconnect Devices. International Journal of Robotics Applications and Technologies, 2014, 2, 1-18.	0.4	0
114	Mathematical modelling of a droplet sitting on super hydrophobic surface with Hertz model. , 2014, , .		0
115	Probe suspension mechanism design for nano machining system. , 2015, , .		0
116	Design of a 6-DOF precision positioning stage: Kinematic analysis and dynamic modeling. , 2015, , .		0
117	Tip modeling of a probe for nanochannel fabrication. , 2016, , .		0
118	The investigation of equilibrium contact state of liquid droplet on determined rough surfaces. , 2017, , .		0
119	Characteristics of a Decoupled 2-Dof Nano-Positioning Stage. , 2018, , .		0
120	Effects of Carbon Ion Implantation on Surface Performance of Modified NiTi Shape Memory Alloy. , 2018, , .		0
121	A Symmetry Flexure Structure and its Application in Micro/Nano Newton Force Generation. , 2018, , .		0
122	A Novel Archimedes Planar Springs Flexure Structure for Microforce Actuator. , 2018, , .		0
123	A Parasitic Motionless Piezoelectric Actuated Microgripper for Micro/Nano Manipulation. , 2019, , .		0
124	Morphological and Mechanical Properties Characterization for Healthy and Cancerous Cells by Home-made Atomic Force Acoustic Microscopy (AFAM). , 2019, , .		0
125	Design, Modeling and Analysis of a Novel Piezoactuated XYZ Compliant Mechanism for Large Workspace Nano-positioning. , 2019, , .		0
126	A shear force assisted tiny object releasing method of a 2-DOF microgripper. , 2021, , .		0