

# Xiaoqin Zhou

## List of Publications by Year in descending order

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104  
papers

1,891  
citations

361413

20  
h-index

302126

39  
g-index

105  
all docs

105  
docs citations

105  
times ranked

1448  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the processing accuracy of two-photon polymerization. <i>AIP Advances</i> , 2015, 5, .	1.3	258
2	Development of a Novel Parasitic-Type Piezoelectric Actuator. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017, 22, 541-550.	5.8	133
3	Development of a piezoelectrically actuated two-degree-of-freedom fast tool servo with decoupled motions for micro-/nanomachining. <i>Precision Engineering</i> , 2014, 38, 809-820.	3.4	111
4	Design and experimental performances of a piezoelectric linear actuator by means of lateral motion. <i>Smart Materials and Structures</i> , 2015, 24, 065007.	3.5	94
5	Cutting forces in fast-/slow tool servo diamond turning of micro-structured surfaces. <i>International Journal of Machine Tools and Manufacture</i> , 2019, 136, 62-75.	13.4	74
6	Adaptive variational mode decomposition and its application to multi-fault detection using mechanical vibration signals. <i>ISA Transactions</i> , 2021, 111, 360-375.	5.7	70
7	On the Suppression of the Backward Motion of a Piezo-Driven Precision Positioning Platform Designed by the Parasitic Motion Principle. <i>IEEE Transactions on Industrial Electronics</i> , 2020, 67, 3870-3878.	7.9	66
8	Design, Analysis, and Realization of a Novel Piezoelectrically Actuated Rotary Spatial Vibration System for Micro-/Nanomachining. <i>IEEE/ASME Transactions on Mechatronics</i> , 2017, 22, 1227-1237.	5.8	54
9	Surface generation of freeform surfaces in diamond turning by applying double-frequency elliptical vibration cutting. <i>International Journal of Machine Tools and Manufacture</i> , 2016, 104, 45-57.	13.4	50
10	A simple compliance modeling method for flexure hinges. <i>Science China Technological Sciences</i> , 2015, 58, 56-63.	4.0	46
11	Development of a novel sort of exponent-sine-shaped flexure hinges. <i>Review of Scientific Instruments</i> , 2013, 84, 095008.	1.3	43
12	Development of pseudo-random diamond turning method for fabricating freeform optics with scattering homogenization. <i>Optics Express</i> , 2013, 21, 28469.	3.4	43
13	Design and experimental tests of a dual-servo piezoelectric nanopositioning stage for rotary motion. <i>Review of Scientific Instruments</i> , 2015, 86, 045002.	1.3	43
14	A flexure-based long-stroke fast tool servo for diamond turning. <i>International Journal of Advanced Manufacturing Technology</i> , 2012, 59, 859-867.	3.0	39
15	Multi-objective optimum design of fast tool servo based on improved differential evolution algorithm. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 3141-3149.	1.5	34
16	Hyperuricemia and the Prognosis of Hypertensive Patients: A Systematic Review and Meta-Analysis. <i>Journal of Clinical Hypertension</i> , 2016, 18, 1268-1278.	2.0	31
17	Design and experiment performances of an inchworm type rotary actuator. <i>Review of Scientific Instruments</i> , 2014, 85, 085004.	1.3	28
18	Development of a double-frequency elliptical vibration cutting apparatus for freeform surface diamond machining. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 87, 2099-2111.	3.0	26

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19	Design and experimental research of an improved stick-slip type piezo-driven linear actuator. <i>Advances in Mechanical Engineering</i> , 2015, 7, 168781401559501.	1.6	25
20	Redundantly piezo-actuated compliant mechanism for nano-positioning featuring simple kinematics, bi-directional motion and enlarged workspace. <i>Smart Materials and Structures</i> , 2016, 25, 125002.	3.5	23
21	A new tool path for optical freeform surface fast tool servo diamond turning. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2014, 228, 1721-1726.	2.4	20
22	3D cellular models with negative compressibility through the wine-crack-type mechanism. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1977-1993.	1.5	18
23	Effects of relevant parameters on the bandgaps of acoustic metamaterials with multi-resonators. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	17
24	Utilization of the evidence from studies with no events in meta-analyses of adverse events: an empirical investigation. <i>BMC Medicine</i> , 2021, 19, 141.	5.5	17
25	Fabrication of Micro-Structured Surfaces on Bulk Metallic Glasses Based on Fast Tool Servo Assisted Diamond Turning. <i>Science of Advanced Materials</i> , 2012, 4, 906-911.	0.7	17
26	Effects of gear eccentricity on time-varying mesh stiffness and dynamic behavior of a two-stage gear system. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 1019-1032.	1.5	16
27	Validity of data extraction in evidence synthesis practice of adverse events: reproducibility study. <i>BMJ, The</i> , 2022, 377, e069155.	6.0	16
28	A Novel Fractional Order Model for the Dynamic Hysteresis of Piezoelectrically Actuated Fast Tool Servo. <i>Materials</i> , 2012, 5, 2465-2485.	2.9	15
29	Novel <i>in situ</i> device for investigating the tensile and fatigue behaviors of bulk materials. <i>Review of Scientific Instruments</i> , 2013, 84, 045104.	1.3	15
30	Development of a novel type of hybrid non-symmetric flexure hinges. <i>Review of Scientific Instruments</i> , 2015, 86, 085003.	1.3	15
31	Efficacy and safety of eptifibatide versus tirofiban in acute coronary syndrome patients: A systematic review and meta-analysis. <i>Journal of Evidence-Based Medicine</i> , 2017, 10, 136-144.	2.4	15
32	Design and analysis of a novel piezoelectrically actuated vibration assisted rotation cutting system. <i>Smart Materials and Structures</i> , 2018, 27, 095020.	3.5	15
33	The performance comparison of typical notched flexure hinges. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 1859-1867.	2.1	15
34	Remote sensing image denoising based on improved semi-soft threshold. <i>Signal, Image and Video Processing</i> , 2021, 15, 73-81.	2.7	15
35	Material removal profile for large mould polishing with coated abrasives. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 80, 625-635.	3.0	14
36	In situ measurement and error compensation of optical freeform surfaces based on a two DOF fast tool servo. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 86, 793-798.	3.0	13

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37	Compliant linear-rotation motion transduction element based on novel spatial helical flexure hinge. <i>Mechanism and Machine Theory</i> , 2015, 92, 330-337.	4.5	12
38	The grinding surface characteristics and evaluation of particle-reinforced aluminum silicon carbide. <i>Science and Engineering of Composite Materials</i> , 2016, 23, 671-676.	1.4	12
39	Analysis and design of symmetric notch flexure hinges. <i>Advances in Mechanical Engineering</i> , 2017, 9, 168781401773451.	1.6	12
40	Long-stroke fast tool servo and a tool setting method for freeform optics fabrication. <i>Optical Engineering</i> , 2014, 53, 092005.	1.0	11
41	Development of a novel two-dimensional ultrasonically actuated polishing process. <i>AIP Advances</i> , 2016, 6, .	1.3	11
42	A new motion mode of a parasitic motion principle (PMP) piezoelectric actuator by preloading the flexible hinge mechanism. <i>Sensors and Actuators A: Physical</i> , 2019, 295, 396-404.	4.1	11
43	Effects of Machining Errors on Optical Performance of Optical Aspheric Components in Ultra-Precision Diamond Turning. <i>Micromachines</i> , 2020, 11, 331.	2.9	11
44	Investigation and simulation based on mesoscopic model of SiCp/Al composites during precision machining: deformation mechanism and surface quality. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 2173-2186.	3.0	11
45	Modeling surface roughness for polishing process based on abrasive cutting and probability theory. <i>Machining Science and Technology</i> , 2018, 22, 86-98.	2.5	10
46	Efficacy and safety of anti-EGFR monoclonal antibodies combined with different chemotherapy regimens in patients with RAS wild-type metastatic colorectal cancer: A meta-analysis. <i>Journal of Evidence-Based Medicine</i> , 2019, 12, 300-312.	1.8	10
47	Achieving smooth motion of stick-slip piezoelectric actuator by means of alternate stepping. <i>Mechanical Systems and Signal Processing</i> , 2022, 181, 109494.	8.0	10
48	High-Throughput Generation of Hierarchical Micro/Nanostructures by Spatial Vibration-Assisted Diamond Cutting. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500477.	3.7	9
49	Design and testing of a novel XYZ nanopositioning stage with hybrid structure. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2016, 230, 1765-1770.	2.4	9
50	An adaptive direct slicing method based on tilted voxel of two-photon polymerization. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 96, 521-530.	3.0	9
51	A New Vibration Device Applied for Two-Dimensional Ultrasonic Polishing of Biomaterials. <i>IEEE Access</i> , 2019, 7, 92838-92849.	4.2	9
52	Development of a 2-degree-of-freedom decoupled flexural mechanism for micro/nanomachining. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2015, 229, 1900-1911.	2.4	8
53	A novel vibration assisted polishing device based on the flexural mechanism driven by the piezoelectric actuators. <i>AIP Advances</i> , 2018, 8, 015012.	1.3	8
54	Analytical Topography Simulation of Micro/Nano Textures Generated on Freeform Surfaces in Double-Frequency Elliptical Vibration Cutting Based Diamond Turning. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018, 140, .	2.2	8

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55	Characterization of Spatial Parasitic Motions of Compliant Mechanisms Induced by Manufacturing Errors. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	2.2	7
56	Non-resonant 3D Elliptical Vibration Cutting Induced Submicron Grating Coloring. <i>International Journal of Precision Engineering and Manufacturing</i> , 2021, 22, 659-669.	2.2	7
57	Development of a novel flapping wing micro aerial vehicle with elliptical wingtip trajectory. <i>Mechanical Sciences</i> , 2019, 10, 355-362.	1.0	7
58	Determining issues in optimal turning of micro-structured functional surfaces. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 81, 387-396.	3.0	6
59	A method for positioning the focal spot location of two photon polymerization. <i>AIP Advances</i> , 2017, 7, 095318.	1.3	6
60	Band gaps in grid structure with periodic local resonator subsystems. <i>Modern Physics Letters B</i> , 2017, 31, 1750225.	1.9	6
61	Polishing process planning based on fuzzy theory and case-based reasoning. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 90, 907-915.	3.0	6
62	Quality assessment of systematic reviews on total hip or knee arthroplasty using mod-AMSTAR. <i>BMC Medical Research Methodology</i> , 2018, 18, 30.	3.1	6
63	Development of A New Type of 2-DOF Piezo-Actuated Pseudo-Decoupled Compliant Mechanism for Elliptical Vibration Machining. <i>Micromachines</i> , 2019, 10, 122.	2.9	6
64	Efficacy of interventions for amblyopia: a systematic review and network meta-analysis. <i>BMC Ophthalmology</i> , 2020, 20, 203.	1.4	6
65	Design and analysis of an innovative flapping wing micro aerial vehicle with a figure eight wingtip trajectory. <i>Mechanical Sciences</i> , 2021, 12, 603-613.	1.0	6
66	Two-dimensional vibration actuated polishing of small surfaces by generating random-like Lissajous trajectories. <i>Applied Optics</i> , 2021, 60, 851.	1.8	6
67	Improved memetic algorithm for nonlinear identification of a three-dimensional elliptical vibration cutting system. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2014, 228, 449-460.	1.0	5
68	Scaling laws of nanorods in two-photon polymerization nanofabrication using a continuous scanning method. <i>AIP Advances</i> , 2016, 6, 105014.	1.3	5
69	Negative Compressibility of 3D Cellular Models Constructed by Hinging Hexagonal Truss Mechanism. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800297.	1.5	5
70	Complete kinematic calibration of a 6-RRRPRR parallel kinematic machine based on the optimal measurement configurations. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 121-136.	2.1	5
71	Flow stress modeling, processing maps and microstructure evolution of 05Cr17Ni4Cu4Nb Martensitic stainless steel during hot plastic deformation. <i>Materials Research Express</i> , 2020, 7, 046518.	1.6	5
72	Piezoelectric Energy Harvesting for Flapping Wing Micro Air Vehicle and Flapping Wing Sensing Based on Flexible Polyvinylidene Fluoride. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1166.	2.5	5

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73	Measurement of Thermal Properties and Numerical Simulation of Temperature Distribution in Laser-assisted Machining of Glass-ceramic. <i>Silicon</i> , 2022, 14, 12155-12164.	3.3	5
74	Study on suppressing cutting force fluctuations based on chip loads for turning optical freeform surfaces. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 90, 2037-2046.	3.0	4
75	Fabrication of anti-reflective surfaces by 3-DOF fast tool servo diamond turning. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 95, 2875-2883.	3.0	4
76	Negative Compressibility in the Monoclinic Octahedron Model Constructed by Hinging Wineâ€Rack Mechanism. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000389.	1.5	4
77	Study on abrasive belt grinding process assisted by ultrasonic elliptic vibration. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 120, 4647-4661.	3.0	4
78	Modeling and Compensation for Hysteresis Nonlinearity of a Piezoelectrically Actuated Fast Tool Servo Based on a Novel Linear Model. <i>ISRN Mechanical Engineering</i> , 2012, 2012, 1-8.	0.9	3
79	A New Approach to Decoupled Non-Resonant Polishing. <i>Micromachines</i> , 2019, 10, 484.	2.9	3
80	Methodological quality for systematic reviews of adverse events with surgical interventions: a cross-sectional survey. <i>BMC Medical Research Methodology</i> , 2021, 21, 223.	3.1	3
81	A novel hybrid control strategy for trajectory tracking of fast tool servo. , 2010, , .		2
82	A Quasiphysics Intelligent Model for a Long Range Fast Tool Servo. <i>Scientific World Journal, The</i> , 2013, 2013, 1-12.	2.1	2
83	Research on the effect of the corrugated contact surface on an inchworm-type piezoelectric rotary actuator by finite element method. , 2015, , .		2
84	Study on the consistency of the voxel of two photon polymerization with inclined beam. <i>Optics Communications</i> , 2016, 381, 444-449.	2.1	2
85	Development of a new type of elliptical/non-elliptical vibration coining approaches for manufacturing functional microstructure surfaces. <i>Journal of Micromechanics and Microengineering</i> , 2019, 29, 025012.	2.6	2
86	Tribochemical machining of polycrystalline diamond using ferrous tool materials. <i>Machining Science and Technology</i> , 2020, 24, 1-25.	2.5	2
87	Physically Based Constitutive Model for Viscoplastic Deformation of Inconel718 at High Strain Rates and Temperatures. <i>Journal of Aerospace Engineering</i> , 2020, 33, 04020051.	1.4	2
88	A Comparison of Negative Compressibility between 3D Cellular Models Constructed by 2D Hinging Wineâ€Rack and Hexagonal Honeycomb Mechanisms. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900657.	1.5	2
89	Negative Compressibility in Hexagonal and Trigonal Models Constructed by Hinging Wineâ€Rack Mechanism. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000568.	1.5	2
90	Diamond turning of freeform surfaces using non-zero rake angle tools. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 118, 2265-2284.	3.0	2

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91	A practical methodology for enhancement and detection of transient faults in a gearbox without prior fault feature information. <i>Measurement Science and Technology</i> , 2021, 32, 035116.	2.6	2
92	An Ultra Facile Debonding Method to Develop a Superhydrophobic Surface Based on a Polymer Composite Film. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	3.6	2
93	A new hybrid macro- and micro-range fast tool servo. , 2010, , .		1
94	Notice of Retraction: A review on mathematical description and decomposition algorithms of freeform optical surfaces in diamond turning. , 2010, , .		1
95	Development of dissipative elastic metamaterials based on the layered cantilever-in-mass structure for attenuating the broad spectrum vibrations. <i>AIP Advances</i> , 2018, 8, 055222.	1.3	1
96	Study of ultrasonic-hydration compound polishing for sapphire optical channel. <i>AIP Advances</i> , 2019, 9, 105310.	1.3	1
97	Probabilistic robustness analysis on the planar parasitic motions of flexural mechanisms with uncertain manufacturing imperfectness. <i>Sensors and Actuators A: Physical</i> , 2019, 294, 154-163.	4.1	1
98	Development of a novel type of elliptical vibration cutting approaches with varying phase difference. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 101, 3107-3120.	3.0	1
99	Prediction and Verification of Cutting Force in Machining of SiCp/Al Composites Based on Dynamic Mechanical Characteristics of Cutting Deformation Zone. <i>Applied Composite Materials</i> , 0, , 1.	2.5	1
100	Influences of fluid flow effects on mechanical properties of the blood fuel cell via finite element method. , 2009, , .		0
101	The influence of process parameters on the surface topography in diamond turning of freeform optics. , 2010, , .		0
102	An improved adaptive feedforward cancellation for tool trajectory tracking in diamond turning of freeform optics. , 2010, , .		0
103	The analysis and measurement of motion errors of the linear slide in fast tool servo diamond turning machine. <i>Advances in Mechanical Engineering</i> , 2015, 7, 168781401557545.	1.6	0
104	The Noise-Reduction Characteristics of Microstructure of Dragonfly Wing Leading Vein. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2970.	2.5	0