

# Zhili Hao

## List of Publications by Year in descending order

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46  
papers

1,237  
citations

567281

15  
h-index

477307

29  
g-index

47  
all docs

47  
docs citations

47  
times ranked

819  
citing authors

#	ARTICLE	IF	CITATIONS
1	An analytical model for support loss in micromachined beam resonators with in-plane flexural vibrations. <i>Sensors and Actuators A: Physical</i> , 2003, 109, 156-164.	4.1	328
2	A Mode-Matched Silicon-Yaw Tuning-Fork Gyroscope With Subdegree-Per-Hour Allan Deviation Bias Instability. <i>Journal of Microelectromechanical Systems</i> , 2008, 17, 1526-1536.	2.5	148
3	VHF Single Crystal Silicon Capacitive Elliptic Bulk-Mode Disk Resonators—Part II: Implementation and Characterization. <i>Journal of Microelectromechanical Systems</i> , 2004, 13, 1054-1062.	2.5	103
4	VHF Single-Crystal Silicon Elliptic Bulk-Mode Capacitive Disk Resonators—Part I: Design and Modeling. <i>Journal of Microelectromechanical Systems</i> , 2004, 13, 1043-1053.	2.5	90
5	Thermoelastic damping in the contour-mode vibrations of micro- and nano-electromechanical circular thin-plate resonators. <i>Journal of Sound and Vibration</i> , 2008, 313, 77-96.	3.9	69
6	Support loss in the radial bulk-mode vibrations of center-supported micromechanical disk resonators. <i>Sensors and Actuators A: Physical</i> , 2007, 134, 582-593.	4.1	64
7	A thermal-energy method for calculating thermoelastic damping in micromechanical resonators. <i>Journal of Sound and Vibration</i> , 2009, 322, 870-882.	3.9	50
8	An analytical study on interfacial dissipation in piezoelectric rectangular block resonators with in-plane longitudinal-mode vibrations. <i>Sensors and Actuators A: Physical</i> , 2010, 163, 401-409.	4.1	47
9	A design methodology for a bulk-micromachined two-dimensional electrostatic torsion micromirror. <i>Journal of Microelectromechanical Systems</i> , 2003, 12, 692-701.	2.5	45
10	Modeling air-damping effect in a bulk micromachined 2D tilt mirror. <i>Sensors and Actuators A: Physical</i> , 2002, 102, 42-48.	4.1	35
11	Numerical models and experimental investigation of energy loss mechanisms in SOI-based tuning-fork gyroscopes. <i>Sensors and Actuators A: Physical</i> , 2009, 152, 63-74.	4.1	29
12	A multiple-beam tuning-fork gyroscope with high quality factors. <i>Sensors and Actuators A: Physical</i> , 2011, 166, 22-33.	4.1	27
13	Vibration displacement on substrate due to time-harmonic stress sources from a micromechanical resonator. <i>Journal of Sound and Vibration</i> , 2009, 322, 196-215.	3.9	26
14	Support loss in micromechanical disk resonators. , 0, , .		24
15	Thermoelastic Damping in Flexural-Mode Ring Gyroscopes. , 2005, , 335.		19
16	Detection of distributed static and dynamic loads with electrolyte-enabled distributed transducers in a polymer-based microfluidic device. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 035015.	2.6	18
17	Performance Investigation of a Wearable Distributed-Deflection Sensor in Arterial Pulse Waveform Measurement. <i>IEEE Sensors Journal</i> , 2017, 17, 3994-4004.	4.7	15
18	Effect of polarization voltage on the measured quality factor of a multiple-beam tuning-fork gyroscope. <i>Sensors and Actuators A: Physical</i> , 2012, 187, 118-126.	4.1	13

#	ARTICLE	IF	CITATIONS
19	Performance study of a PDMS-based microfluidic device for the detection of continuous distributed static and dynamic loads. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 085007.	2.6	12
20	A Temperature-Compensated ZnO-on-Diamond Resonant Mass Sensor. , 2006, , .		9
21	Radial and longitudinal motion of the arterial wall: Their relation to pulsatile pressure and flow in the artery. <i>Physical Review E</i> , 2018, 98, .	2.1	9
22	Model-based analysis of arterial pulse signals for tracking changes in arterial wall parameters: a pilot study. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 1629-1638.	2.8	8
23	Arterial Pulse Signal Amplification by Adding a Uniform PDMS Layer to a Pyrex-Based Microfluidic Tactile Sensor. <i>IEEE Sensors Journal</i> , 2020, 20, 2164-2172.	4.7	8
24	Stress relaxation measurement of viscoelastic materials using a polymer-based microfluidic device. <i>Sensors and Actuators A: Physical</i> , 2013, 203, 119-130.	4.1	6
25	Dynamic characterization of a polymer-based microfluidic device for distributed-load detection. <i>Sensors and Actuators A: Physical</i> , 2015, 222, 102-113.	4.1	6
26	Concurrent spatial mapping of the elasticity of heterogeneous soft materials via a polymer-based microfluidic device. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 105007.	2.6	5
27	A Two-Dimensional (2D) Distributed-Deflection Sensor for Tissue Palpation With Correction Mechanism for Its Performance Variation. <i>IEEE Sensors Journal</i> , 2016, 16, 4219-4229.	4.7	5
28	A High-Q Length-Extensional Bulk-Modemass Sensor with Annexed Sensing Platforms. , 0, , .		3
29	A Hypothesized Mechanistic Model of Longitudinal Wall Motion at the Common Carotid Artery. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2021, 4, .	0.5	3
30	Investigation of Energy Loss Mechanisms in Surface-Micromachined Resonators. , 2009, , .		2
31	Arterial Wall Motion and its Dynamic Modeling for Arterial Stiffness and Damping. , 2018, , .		2
32	Correlation between stress drop and applied strain as a biomarker for tumor detection. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 86, 450-462.	3.1	2
33	Post-exercise Response of Arterial Parameters for Arterial Health Assessment Using a Microfluidic Tactile Sensor and Vibration-Model-Based Analysis: A Proof-of-Concept Study. <i>Cardiovascular Engineering and Technology</i> , 2020, 11, 295-307.	1.6	2
34	A Flexible PET-based Wearable Sensor for Arterial Pulse Waveform Measurement. , 2016, , .		2
35	Mechanical Characterization of Mouse Mammary Tumors via a 2-D Distributed-Deflection Sensor. <i>IEEE Sensors Journal</i> , 2017, 17, 604-613.	4.7	1
36	A Distributed-Deflection Sensor With a Built-In Probe for Conformal Mechanical Measurements of Costal Cartilage at Its Exterior Surface. <i>IEEE Sensors Journal</i> , 2018, 18, 822-829.	4.7	1

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37	Radial and Axial Displacement of the Initially-Tensioned Orthotropic Arterial Wall Under the Influence of Harmonics and Wave Reflection. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2022, 5, .	0.5	1
38	A Numerical and Experimental Investigation of Energy Loss Mechanisms in Tuning-Fork Gyroscopes. , 2008, , .		0
39	Investigating energy loss mechanisms in an SOI-based tuning-fork gyroscope. , 2009, , .		0
40	An Analytical Investigation of Interfacial Dissipation in Piezoelectric Block Resonators. , 2010, , .		0
41	A novel piezoelectric device with dual functions of studying biological soft tissues. , 2011, , .		0
42	Design and Implementation of a Multiple-Beam Tuning-Fork Gyroscope. , 2011, , .		0
43	Investigation of the Measured Quality Factor Versus Polarization Voltage of a Multiple-Beam Tuning-Fork Gyroscope. , 2012, , .		0
44	Design and Analysis of a Distributed-Deflection Sensor With a Built-In Probe for Mechanical Measurement of Soft Tissues With Curved Surface. , 2017, , .		0
45	Measurement of Post-Exercise Response of Local Arterial Parameters Using an Adjustable Microfluidic Tactile Sensor*. , 2021, 2021, 1284-1287.		0
46	Radial and Axial Motion of the Initially Tensioned Orthotropic Arterial Wall in Arterial Pulse Wave Propagation. Journal of Engineering and Science in Medical Diagnostics and Therapy, 2022, 5, .	0.5	0