Wen Dong Zhang

List of Publications by Year
in descending order

92	1,731	331670 21	330143 37
papers	citations	h-index	g-index

92	92	92	1416
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design and implementation of a jellyfish otolith-inspired MEMS vector hydrophone for low-frequency detection. Microsystems and Nanoengineering, 2021, 7, 1.	7.0	121
2	Design, fabrication, and preliminary characterization of a novel MEMS bionic vector hydrophone. Microelectronics Journal, 2007, 38, 1021-1026.	2.0	119
3	Fano Resonance Based on Metal-Insulator-Metal Waveguide-Coupled Double Rectangular Cavities for Plasmonic Nanosensors. Sensors, 2016, 16, 642.	3.8	117
4	Refractive Index Sensor Based on Fano Resonances in Metal-Insulator-Metal Waveguides Coupled with Resonators. Sensors, 2017, 17, 784.	3.8	95
5	A Harsh Environment-Oriented Wireless Passive Temperature Sensor Realized by LTCC Technology. Sensors, 2014, 14, 4154-4166.	3.8	90
6	Continuous artificial synthesis of glucose precursor using enzyme-immobilized microfluidic reactors. Nature Communications, 2019, 10, 4049.	12.8	60
7	A Novel Arch-Shape Nanogenerator Based on Piezoelectric and Triboelectric Mechanism for Mechanical Energy Harvesting. Nanomaterials, 2015, 5, 36-46.	4.1	49
8	Research of DOA Estimation Based on Single MEMS Vector Hydrophone. Sensors, 2009, 9, 6823-6834.	3.8	48
9	A Novel Vector Hydrophone Based on the Piezoresistive Effect of Resonant Tunneling Diode. IEEE Sensors Journal, 2008, 8, 401-402.	4.7	44
10	Unknown input observer-based appointed-time funnel control for quadrotors. Aerospace Science and Technology, 2022, 126, 107351.	4.8	43
11	A Wireless Passive Pressure Microsensor Fabricated in HTCC MEMS Technology for Harsh Environments. Sensors, 2013, 13, 9896-9908.	3.8	40
12	Review of Research Status and Development Trends of Wireless Passive LC Resonant Sensors for Harsh Environments. Sensors, 2015, 15, 13097-13109.	3.8	40
13	Input-and-Measurement Event-Triggered Output-Feedback Chattering Reduction Control for MEMS Gyroscopes. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 5579-5590.	9.3	37
14	A High Temperature Capacitive Pressure Sensor Based on Alumina Ceramic for in Situ Measurement at 600 Â°C. Sensors, 2014, 14, 2417-2430.	3.8	35
15	â€œLollipop-shapedâ€•high-sensitivity Microelectromechanical Systems vector hydrophone based on Parylene encapsulation. Journal of Applied Physics, 2015, 118, .	2.5	30
16	Design and implementation of two-component cilia cylinder MEMS vector hydrophone. Sensors and Actuators A: Physical, 2018, 277, 142-149.	4.1	30
17	Neurodynamic Approximation-Based Quantized Control With Improved Transient Performances for Microelectromechanical System Gyroscopes: Theory and Experimental Results. IEEE Transactions on Industrial Electronics, 2021, 68, 9972-9983.	7.9	30
18	Quantized Control Capable of Appointed-Time Performances for Quadrotor Attitude Tracking: Experimental Validation. IEEE Transactions on Industrial Electronics, 2022, 69, 5100-5110.	7.9	27

#	Article	IF	Citations
19	Design of the MEMS Piezoresistive Electronic Heart Sound Sensor. Sensors, 2016, 16, 1728.	3.8	24
20	Development of cup-shaped micro-electromechanical systems-based vector hydrophone. Journal of Applied Physics, 2016, 120, .	2.5	24
21	Wide-frequency-bandwidth whisker-inspired MEMS vector hydrophone encapsulated with parylene. Journal Physics D: Applied Physics, 2016, 49, 07LT02.	2.8	23
22	Capacitive Micromachined Ultrasonic Transducers (CMUTs) for Underwater Imaging Applications. Sensors, 2015, 15, 23205-23217.	3.8	21
23	Tunable electromagnetically induced reflection with a high Q factor in complementary Dirac semimetal metamaterials. Materials Research Express, 2018, 5, 125804.	1.6	20
24	Design and optimization of stress centralized MEMS vector hydrophone with high sensitivity at low frequency. Mechanical Systems and Signal Processing, 2018, 104, 607-618.	8.0	19
25	Mixed near field and far field sources localization algorithm based on MEMS vector hydrophone array. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107109.	5.0	19
26	Acetone Sensing Properties of a Gas Sensor Composed of Carbon Nanotubes Doped With Iron Oxide Nanopowder. Sensors, 2015, 15, 28502-28512.	3.8	18
27	Breast cancer histopathological images classification based on deep semantic features and gray level co-occurrence matrix. PLoS ONE, 2022, 17, e0267955.	2.5	18
28	Development of an Optical Gas Leak Sensor for Detecting Ethylene, Dimethyl Ether and Methane. Sensors, 2013, 13, 4157-4169.	3.8	17
29	Breast Cancer Histopathological Images Recognition Based on Low Dimensional Three-Channel Features. Frontiers in Oncology, 2021, 11, 657560.	2.8	17
30	A High-Performance LC Wireless Passive Pressure Sensor Fabricated Using Low-Temperature Co-Fired Ceramic (LTCC) Technology. Sensors, 2014, 14, 23337-23347.	3.8	16
31	New Research on MEMS Acoustic Vector Sensors Used in Pipeline Ground Markers. Sensors, 2015, 15, 274-284.	3.8	16
32	An Omnidirectional Polarization Detector Based on a Metamaterial Absorber. Sensors, 2016, 16, 1153.	3.8	16
33	Design and fabrication of a multipurpose cilia cluster MEMS vector hydrophone. Sensors and Actuators A: Physical, 2019, 296, 331-339.	4.1	16
34	USDE-Based Continuous Sliding Mode Control for Quadrotor Attitude Regulation: Method and Application. IEEE Access, 2021, 9, 64153-64164.	4.2	16
35	Design and optimization of MEMS heart sound sensor based on bionic structure. Sensors and Actuators A: Physical, 2022, 333, 113188.	4.1	16
36	Cross-supported planar MEMS vector hydrophone for high impact resistance. Sensors and Actuators A: Physical, 2017, 263, 563-570.	4.1	14

#	Article	IF	Citations
37	Tunable Plasmon-Induced Transparency with Ultra-Broadband in Dirac Semimetal Metamaterials. Plasmonics, 2019, 14, 1717-1723.	3.4	14
38	Microfluidic Reactors for Plasmonic Photocatalysis Using Gold Nanoparticles. Micromachines, 2019, 10, 869.	2.9	14
39	Optimization of the GaAs-on-Si Substrate for Microelectromechanical Systems (MEMS) Sensor Application. Materials, 2012, 5, 2917-2926.	2.9	13
40	Microfabrication of a Novel Ceramic Pressure Sensor with High Sensitivity Based on Low-Temperature Co-Fired Ceramic (LTCC) Technology. Micromachines, 2014, 5, 396-407.	2.9	13
41	Design of capacitive micromachined ultrasonic transducer (CMUT) linear array for underwater imaging. Sensor Review, 2016, 36, 77-85.	1.8	13
42	A â€˜fitness-wheel-shapedâ€™ MEMS vector hydrophone for 3D spatial acoustic orientation. Journal of Micromechanics and Microengineering, 2017, 27, 045015.	2.6	13
43	Microwave Backscatter-Based Wireless Temperature Sensor Fabricated by an Alumina-Backed Au Slot Radiation Patch. Sensors, 2018, 18, 242.	3.8	13
44	Design and implementation of hollow cilium cylinder MEMS vector hydrophone. Measurement: Journal of the International Measurement Confederation, 2021, 168, 108309.	5.0	13
45	A Mathematical Model of a Piezo-Resistive Eight-Beam Three-Axis Accelerometer with Simulation and Experimental Validation. Sensors, 2018, 18, 3641.	3.8	12
46	An Insertable Passive LC Pressure Sensor Based on an Alumina Ceramic for In Situ Pressure Sensing in High-Temperature Environments. Sensors, 2015, 15, 21844-21856.	3.8	11
47	Design and realization of dumbbell-shaped ciliary MEMS vector hydrophone. Sensors and Actuators A: Physical, 2020, 311, 112019.	4.1	11
48	Design and realization of cap-shaped cilia MEMS vector hydrophone. Measurement: Journal of the International Measurement Confederation, 2021, 183, 109818.	5.0	11
49	Plasmonic Nanohole Arrays with Enhanced Visible Light Photoelectrocatalytic Activity. ACS Photonics, 2022, 9, 652-663.	6.6	11
50	Optimisation Design of Coupling Region Based on SOI Micro-Ring Resonator. Micromachines, 2015, 6, 151-159.	2.9	10
51	Underwater Imaging Using a 1 Ã— 16 CMUT Linear Array. Sensors, 2016, 16, 312.	3.8	10
52	Design and performance analysis of capacitive micromachined ultrasonic transducer (CMUT) array for underwater imaging. Microsystem Technologies, 2016, 22, 2939-2947.	2.0	9
53	The Development of the Differential MEMS Vector Hydrophone. Sensors, 2017, 17, 1332.	3.8	9
54	Improved prescribed performance anti-disturbance control for quadrotors. Applied Mathematical Modelling, 2021, 97, 501-521.	4.2	9

#	Article	IF	Citations
55	Breast cancer histopathological images recognition based on two-stage nuclei segmentation strategy. PLoS ONE, 2022, 17, e0266973.	2.5	9
56	Multi-Perspective Ultrasound Imaging Technology of the Breast with Cylindrical Motion of Linear Arrays. Applied Sciences (Switzerland), 2019, 9, 419.	2.5	7
57	Applications of chip-scale semiconductor metamaterials based on plasmon-induced transparency in modulation and sensing. Journal of Applied Physics, 2021, 129, .	2.5	7
58	Breast Acoustic Parameter Reconstruction Method Based on Capacitive Micromachined Ultrasonic Transducer Array. Micromachines, 2021, 12, 963.	2.9	7
59	Research on Fano Resonance Sensing Characteristics Based on Racetrack Resonant Cavity. Micromachines, 2021, 12, 1359.	2.9	7
60	Research on acoustic sensing device based on microfiber knot resonator. Journal of Micromechanics and Microengineering, 2022, 32, 085003.	2.6	7
61	New insight into contradictive relationship between sensitivity and working bandwidth of cilium MEMS bionic vector hydrophone. Journal of Micromechanics and Microengineering, 2019, 29, 115016.	2.6	6
62	High-sensitivity lollipop-shaped cilia sensor for ocean turbulence measurement. Sensors and Actuators A: Physical, 2021, 332, 113109.	4.1	6
63	Breast Transmission Ultrasound Tomography Based on Capacitive Micromachined Ultrasonic Transducer Linear Arrays. IEEE Sensors Journal, 2022, 22, 1209-1217.	4.7	6
64	Design and Implementation of Bionic MEMS Electronic Heart Sound Stethoscope. IEEE Sensors Journal, 2022, 22, 1163-1172.	4.7	6
65	Fabrication of 2-D Capacitive Micromachined Ultrasonic Transducer (CMUT) Array through Silicon Wafer Bonding. Micromachines, 2022, 13, 99.	2.9	6
66	Research on Direction of Arrival Estimation Based on Self-Contained MEMS Vector Hydrophone. Micromachines, 2022, 13, 236.	2.9	6
67	Raman tensor and selection rules for a chemical vapor transport-grown chalcopyrite single crystal. Journal of Raman Spectroscopy, 2005, 36, 777-784.	2.5	5
68	Research on DOA Estimation Based on Acoustic Energy Flux Detection Using a Single MEMS Vector Hydrophone. Micromachines, 2021, 12, 168.	2.9	5
69	Enhanced solar water splitting using plasmon-induced resonance energy transfer and unidirectional charge carrier transport. Optics Express, 2021, 29, 34810.	3.4	5
70	Optical Analog to Electromagnetically Induced Transparency in Cascaded Ring-Resonator Systems. Sensors, 2016, 16, 1165.	3.8	4
71	Hybrid Cell Structure for Wideband CMUT: Design Method and Characteristic Analysis. Micromachines, 2021, 12, 1180.	2.9	4
72	Research on Characteristics of Broadband Acoustic Sensor Based on Silicon-Based Grooved Microring Resonator. Micromachines, 2021, 12, 1338.	2.9	4

#	Article	IF	Citations
73	Design and Simulation of Flexible Underwater Acoustic Sensor Based on 3D Buckling Structure. Micromachines, 2021, 12, 1536.	2.9	4
74	Investigation of the onset voltage for the design of a microfabricated colloid thruster. IEEE/ASME Transactions on Mechatronics, 2006, 11, 66-74.	5.8	3
75	Array MEMS Vector Hydrophone Oriented at Different Direction Angles. Sensors, 2019, 19, 4282.	3.8	3
76	A Study on Capacitive Micromachined Ultrasonic Transducer Periodic Sparse Array. Micromachines, 2021, 12, 684.	2.9	3
77	Batch Transfer Printing of Small-Size Silicon Nano-Films with Flat Stamp. Micromachines, 2021, 12, 1255.	2.9	3
78	Full-Differential Folded-Cascode Front-End Receiver Amplifier Integrated Circuit for Capacitive Micromachined Ultrasonic Transducers. Micromachines, 2019, 10, 88.	2.9	2
79	3D cone-beam breast ultrasonic tomography imaging for capacitive micromachined ultrasonic transducer cylindrical array. JASA Express Letters, 2021, 1, .	1.1	2
80	Wafer-Bonding Fabricated CMUT Device with Parylene Coating. Micromachines, 2021, 12, 516.	2.9	2
81	Measurement System for MEMS Dynamics Characterization with Environmental Control Facility. , 2006, , .		1
82	Piezoresistive properties of resonant tunneling diodes. Frontiers of Electrical and Electronic Engineering in China: Selected Publications From Chinese Universities, 2007, 2, 449-453.	0.6	1
83	Piezoresistivity in GaAs/In_xGa_{1â€“x}As/AlAs superlattice structures. Physica Status Solidi - Rapid Research Letters, 2008, 2, 43-45.	2.4	1
84	Infrared-light interferometry and a phase-stepping algorithm for measuring the three-dimensional topography of components covered with GaAs or Si. Optical Review, 2012, 19, 34-38.	2.0	1
85	Manufacture of Hemispherical Shell and Surrounding Eave-Shaped Electrodes. Micromachines, 2021, 12, 815.	2.9	1
86	The Influence of Ambient Temperature on the Sensitivity of MEMS Vector Hydrophone. IEEE Sensors Journal, 2021, 21, 17678-17685.	4.7	1
87	Research on Novel CMUTs for Detecting Micro-Pressure with Ultra-High Sensitivity and Linearity. Micromachines, 2021, 12, 1340.	2.9	1
88	Dimension Reduction Localization Algorithm of Mixed Sources Based on MEMS Vector Hydrophone Array. Micromachines, 2022, 13, 626.	2.9	1
89	Infrared-Light Interference System Based on Linnik-Type Interferometric Microscope for Three-Dimension Profile Measurement. , 2010, , .		0
90	Studies of the electromechanical coupling characteristics based on cantilever-mass. , 2011, , .		0

#	Article	IF	Citations
91	A Monolithic Three-Axis Accelerometer with Low Cross-Axis Sensitivity. Advanced Materials Research, 0, 403-408, 691-696.	0.3	0
92	Design and Realization of MEMS Heart Sound Sensor with Concave, Racket-Shaped Cilium. Biosensors, 2022, 12, 534.	4.7	0