

Dong F Wang

List of Publications by Year in descending order

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120
papers

988
citations

361413

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552781

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docs citations

120
times ranked

371
citing authors

#	ARTICLE	IF	CITATIONS
1	A Passive Field Conversion" Amplification Scheme: Demonstrated by Integrating a Magnetic Cantilever With a TMR for Current Monitoring. IEEE Transactions on Industrial Electronics, 2022, 69, 5295-5303.	7.9	6
2	Synchronous identification and successive detection of multiple traces with tunable coupling oscillators. Mechanical Systems and Signal Processing, 2022, 166, 108395.	8.0	15
3	A Low 1/f Noise Tunnel Magnetoresistance Accelerometer. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	6
4	Autoparametric Internal Resonance in Coupled Oscillator: An Excitation Amplitude Insensitive Mass Sensing Scheme With a Roof Tilting. IEEE Sensors Journal, 2022, 22, 1998-2005.	4.7	7
5	Displacement Visualization at Flexible Interface: A Coordinate Correction Scheme Applicable to High-Accuracy Pressure Distribution Mapping. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	0
6	Coupling element effect on anchor-limited Q in a synchronized oscillator with a I-shaped cantilever design. Microsystem Technologies, 2022, 28, 985-993.	2.0	1
7	A mosquito-inspired self-adaptive energy harvester for multi-directional vibrations. Applied Energy, 2022, 315, 119040.	10.1	13
8	Coupling element effect on support loss of coupled oscillators for mass and analyte sensing applications. Microsystem Technologies, 2022, 28, 1663-1671.	2.0	0
9	Widening frequency bandwidth with parametric coupling in a wings-inspired low frequency MEMS energy harvester. Energy Conversion and Management, 2022, 267, 115924.	9.2	2
10	A Spider-Web Design for Decreasing Eigen-Frequency With Increasing Amplitude in a PE/ME Composite Energy Convertor. IEEE Transactions on Industrial Electronics, 2021, 68, 5396-5404.	7.9	4
11	An adjustable pre-stress based sensitivity enhancement scheme for cantilever-based resonant sensors. Mechanical Systems and Signal Processing, 2021, 146, 107002.	8.0	12
12	A Virtual-Movement Scheme for Eliminating Spot-Positioning Errors Applicable to Quadrant Detectors. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	4.7	4
13	A high-frequency narrow-band filtering mechanism based on auto-parametric internal resonance. , 2021, , .		0
14	Internal Resonant Oscillation in Coupled Resonators for High-resolution Mass Sensing with A Wider Coupling Range. , 2021, , .		0
15	Internal resonance in coupled oscillators " Part I: A double amplification mass sensing scheme without Duffing nonlinearity. Mechanical Systems and Signal Processing, 2021, 159, 107886.	8.0	23
16	Internal resonance in coupled oscillators " Part II: A synchronous sensing scheme for both mass perturbation and driving force with duffing nonlinearity. Mechanical Systems and Signal Processing, 2021, 160, 107887.	8.0	16
17	Noninvasive Passive Measurement of Multiphase Currents in IoT. IEEE Transactions on Industrial Electronics, 2021, 68, 12860-12870.	7.9	7
18	Developing MEMS Electric Current Sensors for End-use Monitoring of Power Supply: Part X " An IEEE802.11g Protocol Compliant Integratable Dual-frequency Coaxial Microstrip Antenna. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
19	Developing MEMS Electric Current Sensors for End-use Monitoring of Power Supply: Part XI - A Nonlinear Error Correction Scheme. , 2021, , .		0
20	THE STUDY ON THE O2 PLASMA TREATMENT FOR BONDING OF SU-8 LAYERS. Surface Review and Letters, 2020, 27, 1950119.	1.1	0
21	A black gauze cap-shaped bistable energy harvester with a movable design for broadening frequency bandwidth. Smart Materials and Structures, 2020, 29, 025015.	3.5	9
22	Developing Self-powered High Performance Sensors: Part II - Preliminary Study On PE-ME Coupling In A Vibration Energy Convertor. , 2020, , .		2
23	Amplitude Difference Changes-Based Metrological Scheme for Force Detection in a Mode-Localized 5-Beam Array. IEEE Sensors Journal, 2020, 20, 2877-2884.	4.7	4
24	A mass multi-warning scheme based on one-to-three internal resonance. Mechanical Systems and Signal Processing, 2020, 142, 106784.	8.0	31
25	Manufacture of microfluidic chips using a gap-control method based on traditional 3D printing technique. Microsystem Technologies, 2019, 25, 1043-1050.	2.0	1
26	Localized trio cantilevers for identifying different mass perturbations. Microsystem Technologies, 2019, 25, 2993-3003.	2.0	5
27	A Design Deviation Decreasing Methodology: Verified With a Piezoelectric Current Sensor. IEEE Sensors Journal, 2019, 19, 11120-11128.	4.7	4
28	Oscillation in Coupled Resonator Systems: Part V â€“ Exploratory Study on Separate Detection of Two Kinds of Perturbations. , 2019, , .		0
29	Internal Resonance Phenomena in Coupled Ductile Cantilevers With Triple Frequency Ratio-Part II: A Mass Sensitivity Amplification Schemes. IEEE Sensors Journal, 2019, 19, 5484-5492.	4.7	18
30	An economic and concise method to solve nozzle clogging issue during electro hydrodynamic printing. International Journal of Modern Physics B, 2019, 33, 1950260.	2.0	1
31	Developing MEMS Electric Current Sensors for End-use Monitoring of Power Supply: Part IX â€“ Threshold-Triggered Current Sensing. , 2019, , .		0
32	A Detection Error Correction Scheme Aiming at Gradient Nonlinear Problem in Cantilever-Based Sensors. IEEE Sensors Journal, 2019, 19, 11797-11804.	4.7	5
33	Internal Resonance Phenomena in Coupled Ductile Cantilevers With Triple Frequency Ratioâ€“Part I: Experimental Observations. IEEE Sensors Journal, 2019, 19, 5475-5483.	4.7	20
34	Integrated piezoelectric direct current sensor with actuating and sensing elements applicable to two-wire dc appliances: theoretical considerations. Measurement Science and Technology, 2019, 30, 025101.	2.6	5
35	Bistable Current Sensing Scheme Applicable to Two-Wire DC Appliances. IEEE Sensors Journal, 2019, 19, 2039-2046.	4.7	5
36	A passive AC/DC current sensing methodology for diverse multiline cables. Applied Physics Letters, 2019, 115, .	3.3	7

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37	A high accuracy fluxgate DC current sensor applicable to two-wire electric appliances. <i>Microsystem Technologies</i> , 2019, 25, 877-885.	2.0	1
38	Quantitative Identification Scheme for Multiple Analytes With a Mode-Localized Cantilever Array. <i>IEEE Sensors Journal</i> , 2019, 19, 484-491.	4.7	17
39	A printable trapezoid-structured UWB micro-strip antenna applicable to MEMS wireless sensor networks. <i>Microsystem Technologies</i> , 2018, 24, 2499-2506.	2.0	7
40	Passive MEMS DC Electric Current Sensors. <i>Toxinology</i> , 2018, , 1-31.	0.2	0
41	A spring-assisted adaptive bistable energy harvester for high output in low-excitation. <i>Microsystem Technologies</i> , 2018, 24, 3579-3588.	2.0	27
42	A Shuttle Roller Coaster Design for Three-Dimensional Imaging With High Spatial Resolution Applicable to Vein Recognition. <i>IEEE Sensors Journal</i> , 2018, 18, 4286-4292.	4.7	0
43	Analytical study of coupling element effect on anchor-limited quality factor in double beam array based sensing devices. <i>Microsystem Technologies</i> , 2018, 24, 1615-1622.	2.0	8
44	Excitation Circuit Design and Theoretical Model for Self-Oscillating Fluxgate Current Sensors Considering Mutual Inductance Effect. , 2018, , .		1
45	A Bistable Piezoelectric Energy Harvester for Broadening Frequency Bandwidth. , 2018, , .		1
46	A Ball-Impact Piezoelectric Converter Wrapped by Copper Coils. <i>IEEE Nanotechnology Magazine</i> , 2018, 17, 723-726.	2.0	9
47	Passive MEMS DC Electric Current Sensors. <i>Micro/Nano Technologies</i> , 2018, , 625-655.	0.1	0
48	Synchronized Cu-Cantilever Structure for Kinetic Friction Characterization. <i>IEEE Sensors Journal</i> , 2018, 18, 7375-7382.	4.7	9
49	Electrical and mechanical performance difference on piezoelectric segmentation in a passive MEMS DC current sensor applicable to two-wire DC appliances. <i>Measurement Science and Technology</i> , 2017, 28, 015101.	2.6	10
50	Passive MEMS DC Electric Current Sensor: Part II—Experimental Verifications. <i>IEEE Sensors Journal</i> , 2017, 17, 1238-1245.	4.7	24
51	Position and orientation correction scheme for current sensing based on magnetic piezoelectric cantilevers. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	20
52	Passive MEMS DC Electric Current Sensor: Part I—Theoretical Considerations. <i>IEEE Sensors Journal</i> , 2017, 17, 1230-1237.	4.7	27
53	A hybrid converter for scavenging low-frequency vibration energy. , 2017, , .		1
54	A temperature compensation methodology for piezoelectric based sensor devices. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	14

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55	Precise current sensing using a piezoelectric cantilever based current sensor. , 2017, , .		2
56	Analytical study on effect of piezoelectric patterns on frequency shift and support loss in ring-shaped resonators for biomedical applications. <i>Microsystem Technologies</i> , 2017, 23, 2899-2909.	2.0	10
57	Mode-localized cantilever array for picogram order mass sensing. , 2017, , .		3
58	Mode-localized trio cantilever array for picogram order mass sensing. , 2017, , .		2
59	Localization in coupled systems: Part II “ Consideration on damping issue in a mode-localized cantilever array. , 2017, , .		3
60	A passive position- and pose-free current sensor. , 2017, , .		1
61	Developing biometric passive recognition sensor applicable to wearable devices: Part II “ Preliminary verification with a shuttle roller coaster structure. , 2017, , .		1
62	Wireless electric current sensing via integrating a magnetic“piezoelectric cantilever with a microstrip antenna. <i>Micro and Nano Letters</i> , 2017, 12, 871-874.	1.3	5
63	Developing MEMS DC electric current sensor for end-use monitoring of DC power supply: Part VI “ Corresponding relationship between sensitivity and magnetic induction. , 2017, , .		1
64	Improving picogram mass sensitivity via frequency doubling in coupled silicon micro-cantilevers. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 015006.	2.6	21
65	Developing Biometric Passive Recognition Sensor Applicable to Wearable Devices: Part I - A Novel Structural Design for Achieving Three Dimensional Images. <i>Procedia Engineering</i> , 2016, 168, 1747-1750.	1.2	3
66	Synchronized oscillation in micro-mechanically coupled oscillator system: Part III - optimization of polymer-based structures applicable to gas molecule sensing. , 2016, , .		4
67	Developing passive MEMS DC/AC current sensor applicable to two-wire appliances with high measurement accuracy. <i>Journal of Applied Physics</i> , 2016, 120, 164506.	2.5	15
68	A passive DC current sensing methodology. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	21
69	Resonating Characterization of Piezoelectric Fibers Applicable to Flexible Self-powered Fabric. <i>Procedia Engineering</i> , 2015, 120, 1028-1031.	1.2	2
70	Optimization of Piezoelectric Pattern Design in Ring-shaped Resonators for Health-care and Environmental Applications. <i>Procedia Engineering</i> , 2015, 120, 528-531.	1.2	3
71	Enhancing amplitude changes by mode localization in trio cantilevers with mass perturbation. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 095017.	2.6	26
72	Multiplication in Frequencies by Synchronized and Superharmonic Oscillations: Sensing Verification With Picogram Order Microspheres. <i>IEEE Sensors Journal</i> , 2015, 15, 4464-4471.	4.7	19

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73	Developing MEMS DC electric current sensor for end-use monitoring of DC power supply: Part V - corresponding relationship between polarization and output voltage. , 2015, , .		2
74	Analytical study on cantilever resonance type magnet-integrated sensor device for micro-magnetic field detection. Microsystem Technologies, 2015, 21, 1167-1172.	2.0	20
75	Self-alignment observation and conductivity evaluation in micro chips integration with square binding pattern. Microsystem Technologies, 2015, 21, 1203-1208.	2.0	0
76	Crescent shaped patterns for self-alignment of micro-parts: Part II — Self-alignment demonstration and conductivity evaluation. , 2014, , .		1
77	An analytical study of the effect of a support geometry on frequency shift and support loss of piezoelectric ring-shaped resonators for healthcare and environmental applications. Microsystem Technologies, 2013, 19, 503-508.	2.0	8
78	Integrated piezoelectric direct current sensor with actuating and sensing elements applicable to two-wire dc appliances. Measurement Science and Technology, 2013, 24, 125109.	2.6	27
79	Mode localization in coupled AlN/SCS cantilevers for highly sensitive resonating flow meter. , 2013, , .		1
80	Developing integrated piezoelectric direct current sensor with actuating and sensing elements. Micro and Nano Letters, 2013, 8, 858-860.	1.3	25
81	Passive piezoelectric single-side MEMS DC current sensor with five parallel PZT plates applicable to two-wire DC electric appliances without using cord separator. Microsystem Technologies, 2013, 19, 923-927.	2.0	29
82	Analytical studies on amplitude change enhancement in coupled aluminium nitride coated single crystal silicon oscillator pair applicable to ultra-sensitive resonating microfluidic flowmeters. Micro and Nano Letters, 2013, 8, 609-613.	1.3	9
83	Characterization of super-harmonic effect using piezoelectric film cantilever with a proof mass in the point. , 2012, , .		1
84	Effect of geometrical design of support on frequency shift and energy loss of piezoelectric ring resonator applicable to liquid circumstance. , 2012, , .		4
85	Study of crescent shaped alignment marks applicable to self-alignment of micro-parts with and without positive and negative poles. Microsystem Technologies, 2012, 18, 1843-1848.	2.0	2
86	Mode localization analysis and characterization in a 5-beam array of coupled nearly identical micromechanical resonators for ultra-sensitive mass detection and analyte identification. Microsystem Technologies, 2012, 18, 1923-1929.	2.0	39
87	Passive piezoelectric DC sensor applicable to one-wire or two-wire DC electric appliances for end-use monitoring of DC power supply. Microsystem Technologies, 2012, 18, 1897-1902.	2.0	37
88	Effect of nonlinear vibration on double region of synchronized frequency responses in mechanically coupled beam-shaped oscillator system. , 2012, , .		6
89	Vibration mode localization in coupled beam-shaped resonator array. , 2012, , .		10
90	Fabrication of nanogap electrode using electromigration method during metal deposition. , 2012, , .		1

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91	Analytical study on effect of ring geometry on frequency shift of piezoelectric ring-shaped resonator. <i>Microsystem Technologies</i> , 2012, 18, 773-778.	2.0	9
92	1019 Development of Glass Micro-channel Reactor with Catalytic Packed-beds for On-site Chemical Process Using. <i>The Proceedings of Ibaraki District Conference</i> , 2012, 2012.20, 307-308.	0.0	0
93	1017 Deposition of Micro-scale SnO ₂ Particles Association of Nanoparticles by Electrospray Method. <i>The Proceedings of Ibaraki District Conference</i> , 2012, 2012.20, 303-304.	0.0	0
94	Analysis and design of magnetic mesa-structure array for ensemble detection applications of nuclear spins. , 2011, , .		0
95	Development of a MEMS DC electric current sensor applicable to two-wire electrical appliance cord. , 2011, , .		15
96	Ring-shaped PZT Film Resonator for Bio-sensing Applications in Liquid Environment. <i>Procedia Engineering</i> , 2011, 25, 443-446.	1.2	6
97	Synchronized oscillation in micro mechanically coupled opposite C-shaped cantilever-based oscillator system. , 2011, , .		9
98	805 Investigation of Vibration Mode Localization Using Micro-mechanically Coupled Beam-shaped Resonator Array. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 213-214.	0.0	0
99	808 Design and Fabrication of Prototype Polymeric-generator Applicable to Flexible Self-powered Fabric. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 219-220.	0.0	0
100	803 Development of Cantilever Resonance Type Magnetic Sensor with Micro Magnet. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 209-210.	0.0	0
101	802 Development of A Ring-shaped PZT Film Resonator for Health Care and Environmental Applications. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 207-208.	0.0	0
102	806 Investigation of Super-harmonic Effect Using Piezoelectric Film Cantilever. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 215-216.	0.0	0
103	804 Development of A MEMS DC Sensor for Electricity End-use Monitoring (Part II). <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 211-212.	0.0	0
104	807 Fabrication of Nanogap Electrode using Low-Current Electromigration Method. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 217-218.	0.0	0
105	801 Structural Design and Micro Fabrication of A Coupled Beam-shaped Synchronized Oscillator. <i>The Proceedings of Ibaraki District Conference</i> , 2011, 2011.19, 205-206.	0.0	0
106	716 Design and Theoretical Study of Piezoelectric Fabric Made up of Coil Fibers with Core-shell Structure. <i>The Proceedings of Ibaraki District Conference</i> , 2010, 2010.18, 207-208.	0.0	0
107	Micromechanically-coupled resonated system for synchronized oscillation with improved phase noise. , 2010, , .		15
108	712 A Novel Design of Two-dimensional Modified Patterns for Self-alignment Based on A Capillary Effect. <i>The Proceedings of Ibaraki District Conference</i> , 2010, 2010.18, 199-200.	0.0	1

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109	708 A Micromechanically-coupled Opposite C Type Synchronized Oscillator : Structural Design and Micro-fabrication. The Proceedings of Ibaraki District Conference, 2010, 2010.18, 189-190.	0.0	0
110	713 Gas Adsorption Influence on Nano-mechanical Properties of Ultra-thin Silicon Resonators for Ultimate Sensing. The Proceedings of Ibaraki District Conference, 2010, 2010.18, 201-202.	0.0	0
111	714 Development of A MEMS DC Sensor for Electricity Eng-use Monitoring. The Proceedings of Ibaraki District Conference, 2010, 2010.18, 203-204.	0.0	0
112	505 Fabrication of micro and nanostructures using self-assembly. The Proceedings of Ibaraki District Conference, 2009, 2009, 127-128.	0.0	1
113	504 Crystallographic orientations and thermal treatments influences on nanomechanics of ultra-thin single crystal silicon (SCS) resonators for ultimate sensing. The Proceedings of Ibaraki District Conference, 2009, 2009, 125-126.	0.0	0
114	503 Micro fabrication of magnetic materials by pattern transfer of hard Films. The Proceedings of Ibaraki District Conference, 2009, 2009, 123-124.	0.0	0
115	Magnetic mesa structures fabricated by reactive ion etching with CO/NH3/Xe plasma chemistry for an all-silicon quantum computer. Nanotechnology, 2005, 16, 990-994.	2.6	8
116	Thermal treatments and gas adsorption influences on nanomechanics of ultra-thin silicon resonators for ultimate sensing. Nanotechnology, 2004, 15, 1851-1854.	2.6	54
117	Time dependence of energy dissipation in resonating silicon cantilevers in ultrahigh vacuum. Applied Physics Letters, 2003, 83, 1950-1952.	3.3	32
118	Crystallographic influence on nanomechanics of (100)-oriented silicon resonators. Applied Physics Letters, 2003, 83, 3189-3191.	3.3	28
119	Effect of coating thickness on friction for carbon nitride films in repeated sliding against a spherical diamond with nano-scale asperities. Wear, 2002, 252, 210-219.	3.1	28
120	Tribological evaluation of carbon coatings with and without nitrogen incorporation applicable to MicroElectroMechanical systems. Sensors and Actuators A: Physical, 2001, 93, 251-257.	4.1	9