

Ashwin A Seshia

List of Publications by Year in descending order

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256
papers

4,686
citations

87888

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docs citations

261
times ranked

2901
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on coupled MEMS resonators for sensing applications utilizing mode localization. <i>Sensors and Actuators A: Physical</i> , 2016, 249, 93-111.	4.1	176
2	Enhancing Parametric Sensitivity in Electrically Coupled MEMS Resonators. <i>Journal of Microelectromechanical Systems</i> , 2009, 18, 1077-1086.	2.5	116
3	An Inductorless Bias-Flip Rectifier for Piezoelectric Energy Harvesting. <i>IEEE Journal of Solid-State Circuits</i> , 2017, 52, 2746-2757.	5.4	111
4	A Seismic-Grade Resonant MEMS Accelerometer. <i>Journal of Microelectromechanical Systems</i> , 2014, 23, 768-770.	2.5	107
5	Phononic Frequency Comb via Intrinsic Three-Wave Mixing. <i>Physical Review Letters</i> , 2017, 118, 033903.	7.8	105
6	Ultrasensitive mode-localized mass sensor with electrically tunable parametric sensitivity. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	95
7	Power Optimization by Mass Tuning for MEMS Piezoelectric Cantilever Vibration Energy Harvesting. <i>Journal of Microelectromechanical Systems</i> , 2016, 25, 108-117.	2.5	90
8	A vibrating beam MEMS accelerometer for gravity and seismic measurements. <i>Scientific Reports</i> , 2020, 10, 10415.	3.3	89
9	Observation of Locked Phase Dynamics and Enhanced Frequency Stability in Synchronized Micromechanical Oscillators. <i>Physical Review Letters</i> , 2013, 111, 084101.	7.8	82
10	Single cell studies of mouse embryonic stem cell (mESC) differentiation by electrical impedance measurements in a microfluidic device. <i>Biosensors and Bioelectronics</i> , 2016, 81, 249-258.	10.1	80
11	Acoustic biosensors. <i>Essays in Biochemistry</i> , 2016, 60, 101-110.	4.7	76
12	Study of lateral mode SOI-MEMS resonators for reduced anchor loss. <i>Journal of Micromechanics and Microengineering</i> , 2011, 21, 045010.	2.6	72
13	A bulk acoustic mode single-crystal silicon microresonator with a high-quality factor. <i>Journal of Micromechanics and Microengineering</i> , 2008, 18, 064001.	2.6	71
14	Limits to mode-localized sensing using micro- and nanomechanical resonator arrays. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	71
15	An axial strain modulated double-ended tuning fork electrometer. <i>Sensors and Actuators A: Physical</i> , 2008, 148, 395-400.	4.1	64
16	Investigation of biotin-streptavidin binding interactions using microcantilever sensors. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2003-2009.	10.1	59
17	An Efficient SSHI Interface With Increased Input Range for Piezoelectric Energy Harvesting Under Variable Conditions. <i>IEEE Journal of Solid-State Circuits</i> , 2016, 51, 2729-2742.	5.4	59
18	Dynamic modulation of modal coupling in microelectromechanical gyroscopic ring resonators. <i>Nature Communications</i> , 2019, 10, 4980.	12.8	57

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19	An auto-parametrically excited vibration energy harvester. <i>Sensors and Actuators A: Physical</i> , 2014, 220, 69-75.	4.1	56
20	A Fully Integrated Split-Electrode SSHC Rectifier for Piezoelectric Energy Harvesting. <i>IEEE Journal of Solid-State Circuits</i> , 2019, 54, 1733-1743.	5.4	55
21	A Single-Crystal-Silicon Bulk-Acoustic-Mode Microresonator Oscillator. <i>IEEE Electron Device Letters</i> , 2008, 29, 701-703.	3.9	54
22	A parametrically excited vibration energy harvester. <i>Journal of Intelligent Material Systems and Structures</i> , 2014, 25, 278-289.	2.5	54
23	A microfluidic platform for trapping, releasing and super-resolution imaging of single cells. <i>Sensors and Actuators B: Chemical</i> , 2016, 232, 680-691.	7.8	54
24	Ultrasensitive mass balance based on a bulk acoustic mode single-crystal silicon resonator. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	53
25	Mode-Localized Displacement Sensing. <i>Journal of Microelectromechanical Systems</i> , 2012, 21, 1016-1018.	2.5	50
26	Low loss HF band SOI wine glass bulk mode capacitive square-plate resonator. <i>Journal of Micromechanics and Microengineering</i> , 2009, 19, 074003.	2.6	49
27	Methods for enhanced electrical transduction and characterization of micromechanical resonators. <i>Sensors and Actuators A: Physical</i> , 2010, 158, 263-272.	4.1	49
28	A Resonant MEMS Accelerometer With 56ng Bias Stability and $98\text{ng}/\text{Hz}^{1/2}$ Noise Floor. <i>Journal of Microelectromechanical Systems</i> , 2019, 28, 324-326.	2.5	49
29	Highly specific label-free protein detection from lysed cells using internally referenced microcantilever sensors. <i>Biosensors and Bioelectronics</i> , 2008, 24, 233-237.	10.1	48
30	A high-resolution micro-electro-mechanical resonant tilt sensor. <i>Sensors and Actuators A: Physical</i> , 2014, 220, 168-177.	4.1	48
31	Direct parameter extraction in feedthrough-embedded capacitive MEMS resonators. <i>Sensors and Actuators A: Physical</i> , 2011, 167, 237-244.	4.1	47
32	On the optimization of compliant force amplifier mechanisms for surface micromachined resonant accelerometers. <i>Journal of Micromechanics and Microengineering</i> , 2004, 14, 1281-1293.	2.6	45
33	Modeling nonlinearities in MEMS oscillators. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1646-1659.	3.0	45
34	Parametric resonance for vibration energy harvesting with design techniques to passively reduce the initiation threshold amplitude. <i>Smart Materials and Structures</i> , 2014, 23, 065011.	3.5	45
35	A high-resolution resonant MEMS accelerometer. , 2015, , .		44
36	A Nail-Size Piezoelectric Energy Harvesting System Integrating a MEMS Transducer and a CMOS SSHI Circuit. <i>IEEE Sensors Journal</i> , 2020, 20, 277-285.	4.7	43

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37	Differential amplification of structural perturbations in weakly coupled MEMS resonators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 690-697.	3.0	42
38	Parametrically excited MEMS vibration energy harvesters with design approaches to overcome the initiation threshold amplitude. Journal of Micromechanics and Microengineering, 2013, 23, 114007.	2.6	42
39	Five topologies of cantilever-based MEMS piezoelectric vibration energy harvesters: a numerical and experimental comparison. Microsystem Technologies, 2016, 22, 2841-2852.	2.0	40
40	Twenty-Eight Orders of Parametric Resonance in a Microelectromechanical Device for Multi-band Vibration Energy Harvesting. Scientific Reports, 2016, 6, 30167.	3.3	39
41	Experimental Observation of Noise Reduction in Weakly Coupled Nonlinear MEMS Resonators. Journal of Microelectromechanical Systems, 2017, 26, 1196-1203.	2.5	39
42	A Cold-Startup SSHI Rectifier for Piezoelectric Energy Harvesters With Increased Open-Circuit Voltage. IEEE Transactions on Power Electronics, 2019, 34, 263-274.	7.9	39
43	Room temperature electrometry with SUB-10 electron charge resolution. Journal of Micromechanics and Microengineering, 2008, 18, 025033.	2.6	36
44	A new electrode design method in piezoelectric vibration energy harvesters to maximize output power. Sensors and Actuators A: Physical, 2017, 263, 693-701.	4.1	36
45	An Efficient Inductorless Dynamically Configured Interface Circuit for Piezoelectric Vibration Energy Harvesting. IEEE Transactions on Power Electronics, 2017, 32, 3595-3609.	7.9	36
46	A Closed-Loop Readout Configuration for Mode-Localized Resonant MEMS Sensors. Journal of Microelectromechanical Systems, 2017, 26, 501-503.	2.5	35
47	Parametric Noise Reduction in a High-Order Nonlinear MEMS Resonator Utilizing Its Bifurcation Points. Journal of Microelectromechanical Systems, 2017, 26, 1189-1195.	2.5	35
48	A microfluidic device for the hydrodynamic immobilisation of living fission yeast cells for super-resolution imaging. Sensors and Actuators B: Chemical, 2014, 192, 36-41.	7.8	34
49	A Passive Design Scheme to Increase the Rectified Power of Piezoelectric Energy Harvesters. IEEE Transactions on Industrial Electronics, 2018, 65, 7095-7105.	7.9	34
50	A High Resolution Differential Mode-Localized MEMS Accelerometer. Journal of Microelectromechanical Systems, 2019, 28, 782-789.	2.5	34
51	Manipulating Vibration Energy Confinement in Electrically Coupled Microelectromechanical Resonator Arrays. Journal of Microelectromechanical Systems, 2011, 20, 157-164.	2.5	33
52	Phononic frequency comb via three-mode parametric resonance. Applied Physics Letters, 2018, 112, .	3.3	33
53	An analytical formulation for phase noise in MEMS oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1938-1952.	3.0	32
54	Common mode rejection in electrically coupled MEMS resonators utilizing mode localization for sensor applications. , 2009, , .		30

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55	On the noise optimization of resonant MEMS sensors utilizing vibration mode localization. Applied Physics Letters, 2018, 112, .	3.3	30
56	Closed-Loop Characterization of Noise and Stability in a Mode-Localized Resonant MEMS Sensor. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 170-180.	3.0	30
57	Electrically Addressed Dual Resonator Sensing Platform for Biochemical Detection. Journal of Microelectromechanical Systems, 2012, 21, 34-43.	2.5	28
58	Synchronization in a coupled architecture of microelectromechanical oscillators. Journal of Applied Physics, 2014, 115, .	2.5	27
59	A Resonant Micromachined Electrostatic Charge Sensor. IEEE Sensors Journal, 2008, 8, 1499-1505.	4.7	26
60	Ultrasensitive mode-localized micromechanical electrometer. , 2010, , .		26
61	Vacuum Packaged Low-Power Resonant MEMS Strain Sensor. Journal of Microelectromechanical Systems, 2016, 25, 851-858.	2.5	26
62	Fabrication of high-resolution strain sensors based on wafer-level vacuum packaged MEMS resonators. Sensors and Actuators A: Physical, 2016, 239, 90-101.	4.1	25
63	Utilizing Energy Localization in Weakly Coupled Nonlinear Resonators for Sensing Applications. Journal of Microelectromechanical Systems, 2019, 28, 182-188.	2.5	25
64	Practical Limits to Common Mode Rejection in Mode Localized Weakly Coupled Resonators. IEEE Sensors Journal, 2020, 20, 6818-6825.	4.7	25
65	A High-Performance Mode-Localized Accelerometer Employing a Quasi-Rigid Coupler. IEEE Electron Device Letters, 2020, 41, 1560-1563.	3.9	25
66	System-level simulation of a micromachined electrometer using a time-domain variable capacitor circuit model. Journal of Micromechanics and Microengineering, 2007, 17, 1059-1065.	2.6	24
67	A fully integrated split-electrode synchronized-switch-harvesting-on-capacitors (SE-SSHC) rectifier for piezoelectric energy harvesting with between 358% and 821% power-extraction enhancement. , 2018, , .		24
68	Silicon depletion layer actuators. Applied Physics Letters, 2008, 92, .	3.3	22
69	Monitoring sessile droplet evaporation on a micromechanical device. Analyst, The, 2014, 139, 5538-5546.	3.5	22
70	Maximizing Output Power in a Cantilevered Piezoelectric Vibration Energy Harvester by Electrode Design. Journal of Physics: Conference Series, 2015, 660, 012114.	0.4	22
71	Non-Linear Frequency Noise Modulation in a Resonant MEMS Accelerometer. IEEE Sensors Journal, 2017, 17, 4122-4127.	4.7	22
72	Multi-frequency Operation of a MEMS Vibration Energy Harvester by Accessing Five Orders of Parametric Resonance. Journal of Physics: Conference Series, 2013, 476, 012126.	0.4	21

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73	Electrical actuation and readout in a nanoelectromechanical resonator based on a laterally suspended zinc oxide nanowire. <i>Nanotechnology</i> , 2012, 23, 025501.	2.6	20
74	Excitation of coupled phononic frequency combs via two-mode parametric three-wave mixing. <i>Physical Review B</i> , 2018, 97, .	3.2	20
75	Numerical Study of the Impact of Vibration Localization on the Motional Resistance of Weakly Coupled MEMS Resonators. <i>Journal of Microelectromechanical Systems</i> , 2015, 24, 997-1005.	2.5	18
76	Simultaneous interrogation of high-Q modes in a piezoelectric-on-silicon micromechanical resonator. <i>Sensors and Actuators A: Physical</i> , 2016, 238, 207-214.	4.1	18
77	An Ultra-High Resolution Resonant MEMS Accelerometer. , 2019, , .		18
78	Toward High-Resolution Inertial Sensors Employing Parametric Modulation in Coupled Micromechanical Resonators. <i>Physical Review Applied</i> , 2019, 12, .	3.8	18
79	Weakly Coupled Piezoelectric MEMS Resonators for Aerosol Sensing. <i>Sensors</i> , 2020, 20, 3162.	3.8	18
80	Resonance tracking in a micromechanical device using phononic frequency combs. <i>Scientific Reports</i> , 2019, 9, 9452.	3.3	17
81	Differential piezoresistive sensing in a bulk-mode micromechanical resonator. <i>Micro and Nano Letters</i> , 2013, 8, 107-110.	1.3	16
82	Observation of three-mode parametric instability in a micromechanical resonator. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	16
83	Biomolecular and electrochemical charge detection by a micromechanical electrometer. <i>Sensors and Actuators B: Chemical</i> , 2011, 160, 301-305.	7.8	15
84	The Impact of Damping on the Frequency Stability of Nonlinear MEMS Oscillators. <i>Journal of Microelectromechanical Systems</i> , 2015, 24, 537-544.	2.5	15
85	Experimental Observation of Temperature and Pressure Induced Frequency Fluctuations in Silicon MEMS Resonators. <i>Journal of Microelectromechanical Systems</i> , 2021, 30, 500-505.	2.5	15
86	Characterization of mechanical properties of materials using ultrasound broadband spectroscopy. <i>Ultrasonics</i> , 2016, 64, 186-195.	3.9	14
87	Mode-localized accelerometer in the nonlinear Duffing regime with 75% bias instability and 95% / $\hat{\omega}$ noise floor. <i>Microsystems and Nanoengineering</i> , 2022, 8, 17.	7.0	14
88	A Depletion Layer Actuator. , 2007, , .		13
89	Square wine glass mode resonator with quality factor of 4 million. , 2008, , .		13
90	Internal electrical and mechanical phase inversion for coupled resonator-array MEMS filters. <i>Sensors and Actuators A: Physical</i> , 2010, 158, 18-29.	4.1	13

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91	High-resolution strain sensing on steel by Silicon-On-Insulator flexural resonators fabricated with chip-level vacuum packaging. , 2013, , .		13
92	Effects of spatial sensitivity on mass sensing with bulk acoustic mode resonators. Sensors and Actuators A: Physical, 2015, 236, 369-379.	4.1	13
93	Mode-localized sensing in micro- and nano-mechanical resonator arrays. , 2016, , .		13
94	Piezoelectric vibration energy harvesting: A connection configuration scheme to increase operational range and output power. Journal of Intelligent Material Systems and Structures, 2017, 28, 1905-1915.	2.5	13
95	On Weakly Coupled Resonant MEMS Transducers Operating in the Modal Overlap Regime. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1448-1457.	3.0	13
96	A Mems Vibrating Beam Accelerometer for High Resolution Seismometry and Gravimetry. , 2021, , .		13
97	A Low-Noise High-Order Mode-Localized MEMS Accelerometer. Journal of Microelectromechanical Systems, 2021, 30, 178-180.	2.5	13
98	Enhanced transduction methods for electrostatically driven MEMS resonators. , 2009, , .		12
99	Directly and parametrically excited bi-stable vibration energy harvester for broadband operation. , 2013, , .		12
100	Shock reliability enhancement for MEMS vibration energy harvesters with nonlinear air damping as a soft stopper. Journal of Micromechanics and Microengineering, 2017, 27, 104003.	2.6	12
101	Reducing dissipation in piezoelectric flexural microplate resonators in liquid environments. Sensors and Actuators A: Physical, 2017, 267, 464-473.	4.1	12
102	Frequency transitions in phononic four-wave mixing. Applied Physics Letters, 2017, 111, .	3.3	12
103	Real world assessment of an auto-parametric electromagnetic vibration energy harvester. Journal of Intelligent Material Systems and Structures, 2018, 29, 1481-1499.	2.5	12
104	Investigation on the Quality Factor Limit of the (111) Silicon Based Disk Resonator. Micromachines, 2018, 9, 25.	2.9	12
105	Fabrication and packaging techniques for the application of MEMS strain sensors to wireless crack monitoring in ageing civil infrastructures. Smart Structures and Systems, 2010, 6, 225-238.	1.9	12
106	Narrow Bandwidth Single-Resonator MEMS Tuning Fork Filter. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	11
107	Micro-electro-mechanical resonant tilt sensor with 250 nano-radian resolution. , 2013, , .		11
108	Analytical formulation of modal frequency split in the elliptical mode of SCS micromechanical disk resonators. Journal of Micromechanics and Microengineering, 2014, 24, 025011.	2.6	11

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109	Particulate mass sensing with piezoelectric bulk acoustic mode resonators. , 2016, , .		11
110	Dynamic monitoring of single cell lysis in an impedance-based microfluidic device. Biomedical Microdevices, 2016, 18, 56.	2.8	11
111	Real-world evaluation of a self-startup SSHI rectifier for piezoelectric vibration energy harvesting. Sensors and Actuators A: Physical, 2017, 264, 180-187.	4.1	11
112	Immunity to Temperature Fluctuations in Weakly Coupled MEMS Resonators. , 2018, , .		11
113	Amplitude-modulated resonant accelerometer employing parametric pump. Applied Physics Letters, 2020, 117, .	3.3	11
114	Ultrasensitive Resonant Electrometry Utilizing Micromechanical Oscillators. Physical Review Applied, 2020, 14, .	3.8	11
115	A Navigation-Grade Mems Vibrating Beam Accelerometer. , 2022, , .		11
116	Anharmonic Interaction Signals for Acoustic Detection of Analyte. Analytical Chemistry, 2010, 82, 3929-3935.	6.5	10
117	Anharmonic Surface Interactions for Biomolecular Screening and Characterization. Analytical Chemistry, 2011, 83, 549-554.	6.5	10
118	Impact of mode localization on the motional resistance of coupled MEMS resonators. , 2012, , .		10
119	Design and implementation of a low-power hybrid capacitive MEMS oscillator. Microelectronics Journal, 2016, 56, 1-9.	2.0	10
120	A Hybrid Vibration Powered Microelectromechanical Strain Gauge. IEEE Sensors Journal, 2016, 16, 235-241.	4.7	10
121	Bistability and simultaneous mode actuation in electrostatically actuated initially curved coupled micro beams. International Journal of Non-Linear Mechanics, 2020, 126, 103549.	2.6	10
122	Integration of holographic sensors into microfluidics for the real-time pH sensing of L. casei metabolism. Procedia Engineering, 2010, 5, 1352-1355.	1.2	9
123	Observations of modal interaction in lateral bulk acoustic resonators. Applied Physics Letters, 2014, 105, .	3.3	9
124	Coexistence of multiple multimode nonlinear mixing regimes in a microelectromechanical device. Applied Physics Letters, 2018, 112, .	3.3	9
125	Autoparametric resonance in a piezoelectric MEMS vibration energy harvester. , 2018, , .		9
126	An Ultra-High-Quality Factor Silicon Disk Resonator. , 2019, , .		9

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127	Anchor limited Q in flexural mode resonators. , 2008, , .		8
128	Synthesis of Zinc Oxide Nanostructures by Microheaters in the Ambient Environment. IEEE Nanotechnology Magazine, 2013, 12, 21-28.	2.0	8
129	Micromachined cantilevers-on-membrane topology for broadband vibration energy harvesting. Journal of Micromechanics and Microengineering, 2016, 26, 124007.	2.6	8
130	Edge-anchored mode-matched micromachined gyroscopic disk resonator. , 2017, , .		8
131	Coupled Nonlinear MEMS Resonators for Sensing. , 2018, , .		8
132	Measuring Aerosol Phase Changes and Hygroscopicity with a Microresonator Mass Sensor. Analytical Chemistry, 2018, 90, 9716-9724.	6.5	8
133	A mode-localized MEMS accelerometer with $\sqrt{1/4}$ g bias stability. , 2018, , .		8
134	Feedthrough parasitic nonlinear resonance in micromechanical oscillators. Applied Physics Letters, 2020, 117, .	3.3	8
135	A Portable System With 0.1-ppm RMSE Resolution for $1\hat{\text{a}}\text{e}^{\text{c}}10$ MHz Resonant MEMS Frequency Measurement. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7146-7157.	4.7	8
136	Frequency Combs: A New Mechanism for MEMS Vibration Energy Harvesters. , 2021, , .		8
137	Tristable properties and limit point behaviour in electrostatically actuated initially curved coupled micro beams. International Journal of Mechanical Sciences, 2021, 204, 106543.	6.7	8
138	Probing biomolecular interaction forces using an anharmonic acoustic technique for selective detection of bacterial spores. Biosensors and Bioelectronics, 2011, 29, 145-150.	10.1	7
139	Electrically coupled MEMS oscillators. , 2011, , .		7
140	Experimental and Theoretical Study of a Piezoelectric Vibration Energy Harvester Under High Temperature. Journal of Microelectromechanical Systems, 2017, 26, 1216-1225.	2.5	7
141	Excitation of multiple 2-mode parametric resonances by a single driven mode. Europhysics Letters, 2017, 119, 10002.	2.0	7
142	Nonlinear cancellation in weakly coupled MEMS resonators. , 2017, , .		7
143	Observation of phononic frequency combs in a micromechanical resonator. , 2017, , .		7
144	Three-Axis Borehole Gravity Logging for Reservoir Surveillance. , 2019, , .		7

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145	Ultra-fine Particulate Detection using Mode-localized MEMS Resonators. , 2019, , .		7
146	Sub-Deg-per-Hour Edge-Anchored Bulk Acoustic Wave Micromachined Disk Gyroscope. Journal of Microelectromechanical Systems, 2021, 30, 836-842.	2.5	7
147	Parametric Amplifiers Based on Quantum Dots. Physical Review Letters, 2022, 128, .	7.8	7
148	A Multicriteria System-Based Method for Simulation-Driven Design Synthesis. , 2006, , 651.		6
149	Internal electrical phase inversion for FF-beam resonator arrays and tuning fork filters. Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS), 2008, , .	0.0	6
150	Electrostatically transduced face-shear mode silicon MEMS microresonator. , 2010, , .		6
151	Design and modeling of an integrated device for acoustic resonance spectroscopy. , 2013, , .		6
152	White Noise Responsiveness of an AlN Piezoelectric MEMS Cantilever Vibration Energy Harvester. Journal of Physics: Conference Series, 2014, 557, 012037.	0.4	6
153	Closed-loop tracking of amplitude and frequency in a mode-localized resonant MEMS sensor. , 2017, , .		6
154	A micromachined device describing over a hundred orders of parametric resonance. Applied Physics Letters, 2018, 112, .	3.3	6
155	MEMS Piezoelectric Energy Harvester Powered Wireless Sensor Module Driven by Noisy Base Excitation. , 2019, , .		6
156	On Quantized Analog Compressive Sensing Methods for Efficient Resonator Frequency Estimation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 4556-4565.	5.4	6
157	Electrostatic Frequency Tuning of Bulk Acoustic Wave Disk Gyroscopes. , 2020, , .		6
158	Dynamic response of water droplet coated silicon MEMS resonators. , 2009, , .		5
159	Fabrication and testing of a high resolution extensometer based on resonant MEMS strain sensors. , 2011, , .		5
160	Micro-electro-mechanical resonant tilt sensor. , 2012, , .		5
161	Cantilevers-on-membrane design for broadband MEMS piezoelectric vibration energy harvesting. Journal of Physics: Conference Series, 2015, 660, 012030.	0.4	5
162	A vibration powered wireless mote on the Forth Road Bridge. Journal of Physics: Conference Series, 2015, 660, 012094.	0.4	5

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163	Multifrequency acoustics as a probe of mesoscopic blood coagulation dynamics. Applied Physics Letters, 2016, 109, 063701.	3.3	5
164	Comparison of the specificity and affinity of surface immobilised Affimer binders using the quartz crystal microbalance. Analyst, The, 2016, 141, 6278-6286.	3.5	5
165	Reduction of amplitude ratio dependence on drive level in mode localized resonant MEMS sensors. , 2017, , .		5
166	Compact High-Precision Analog Temperature Controller for MEMS Inertial Sensors. , 2018, , .		5
167	On The Sensitivity of Mode-Localized Accelerometers Operating in the Nonlinear Duffing Regime. , 2021, , .		5
168	MEMS Electrometer System Simulation using a Time-Domain Variable Capacitor Model. , 2007, , .		4
169	Mechanical phase inversion for coupled lamé mode resonator array filters. Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS), 2008, , .	0.0	4
170	Internal phase inversion narrow bandwidth MEMS filter. , 2008, , .		4
171	Effects of mechanical and electrical coupling on the parametric sensitivity of mode localized sensors. , 2009, , .		4
172	Mechanically coupled bulk-mode dual resonator mass sensor. Procedia Engineering, 2010, 5, 1454-1457.	1.2	4
173	Comparison of Five Topologies of Cantilever-based MEMS Piezoelectric Vibration Energy Harvesters. Journal of Physics: Conference Series, 2014, 557, 012086.	0.4	4
174	Low power MEMS oscillators for sensor applications. , 2014, , .		4
175	Micromachined Piezoelectric Acoustic Sensor with Multiple Addressable Flexural Modes Demonstrating Improved Q in Liquid. Procedia Engineering, 2015, 120, 1003-1006.	1.2	4
176	< i>In-Situ</ i> Hydrothermal Synthesis of Zinc Oxide Nanostructures Using Microheaters. IEEE Nanotechnology Magazine, 2015, 14, 1046-1053.	2.0	4
177	Quantifying Measurement Fluctuations from Stochastic Surface Processes on Sensors with Heterogeneous Sensitivity. Physical Review Applied, 2016, 5, .	3.8	4
178	Numerical Verification of an Analytical Model for Phase Noise in MEMS Oscillators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1204-1207.	3.0	4
179	Enhanced frequency stability in a non-linear MEMS oscillator employing phase feedback. , 2017, , .		4
180	Detection of phase transition in polyethylene glycol using a multimodal micromechanical acoustic resonator. Applied Physics Letters, 2017, 110, 134101.	3.3	4

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181	Acoustic mode confinement using coupled cavity structures in UHF unreleased MEMS resonators. <i>Microsystem Technologies</i> , 2019, 25, 777-787.	2.0	4
182	A 10 NANO-G/RT-HZ RESONANT MEMS ACCELEROMETER EMPLOYING ANTI-ALIASING CONTROL. , 2021, , .		4
183	Active Temperature Compensation for MEMS Capacitive Sensor. <i>IEEE Sensors Journal</i> , 2021, 21, 18588-18592.	4.7	4
184	Sub-10e Charge Resolution for Room Temperature Electrometry. , 2007, , .		3
185	Fabrication of DETF sensors in SOI technology with submicron air gaps using a maskless line narrowing technique. , 2008, , .		3
186	Direct parameter extraction in capacitively transduced micromechanical resonators using the anti-resonance. , 2010, , .		3
187	Catalyst-free synthesis of zinc oxide nanostructures by microheaters in the ambient environment. , 2011, , .		3
188	Microfluidics-based acoustic microbubble biosensor. , 2013, , .		3
189	Studying particulate adsorption by drying droplets on a microfabricated electro-acoustic resonator. , 2014, , .		3
190	Micromechanical piezoelectric-on-silicon BAW resonators for sensing in liquid environments. , 2015, , .		3
191	A microfluidic platform for glucose sensing using broadband ultrasound spectroscopy. , 2016, , .		3
192	Compositional Analysis of Adsorbed Organic Aerosol on a Microresonator Mass Sensor. <i>Aerosol Science and Engineering</i> , 2018, 2, 118-129.	1.9	3
193	Elastic Mode Semicircular Beams Resonator Oscillator with Weakened Nonlinearities. , 2019, , .		3
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