

An atomic-resolution nanomechanical mass sensor

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Charge storage characteristics of hydrogenated nanocrystalline silicon film prepared by rapid thermal annealing. Chinese Physics B, 2007, 16, 795-798.	1.3	3
3	Ultrasensitive Mass Sensing with a Nanotube Electromechanical Resonator. Nano Letters, 2008, 8, 3735-3738.	4.5	369
4	Weighing single atoms with a nanotube. Nature Nanotechnology, 2008, 3, 525-526.	15.6	34
5	Time-domain control of ultrahigh-frequency nanomechanical systems. Nature Nanotechnology, 2008, 3, 715-719.	15.6	49
6	Fast and Controlled Integration of Carbon Nanotubes into Microstructures. Materials Research Society Symposia Proceedings, 2008, 1139, 1.	0.1	0
7	Room temperature piezoelectric displacement detection via a silicon field effect transistor. Applied Physics Letters, 2009, 95, .	1.5	15
8	Mechanical Properties of Beams from Self-Assembled Closely Packed and Aligned Single-Walled Carbon Nanotubes. Physical Review Letters, 2009, 102, 175505.	2.9	23
9	Deterministic fabrication of carbon nanotube probes using the dielectrophoretic assembly and electrical detection. Review of Scientific Instruments, 2009, 80, 105103.	0.6	4
10	Excitation, detection, and passive cooling of a micromechanical cantilever using near-field of a microwave resonator. Applied Physics Letters, 2009, 95, 113501.	1.5	10
11	Cooling Carbon Nanotubes to the Phononic Ground State with a Constant Electron Current. Physical Review Letters, 2009, 102, 096804.	2.9	77
12	Electron Beam Stimulated Oxidation of Carbon (EBSOC)., 2009, , .		1
13	Enhancing Parametric Sensitivity in Electrically Coupled MEMS Resonators. Journal of Microelectromechanical Systems, 2009, 18, 1077-1086.	1.7	116
14	Optical Tuning of Coupled Micromechanical Resonators. Applied Physics Express, 0, 2, 062202.	1.1	36
15	Radio frequency nanowire resonators and <i>in situ</i> frequency tuning. Applied Physics Letters, 2009, 94, 203104.	1.5	24
16	Sensitive in plane motion detection of NEMS through semiconducting (p+) piezoresistive gauge transducers. , 2009, , .		3
17	Entropy of Field Interacting With Two Atoms in Bell State. Communications in Theoretical Physics, 2009, 51, 53-56.	1.1	1
18	Effect of undercut on the resonant behaviour of silicon nitride cantilevers. Journal of Micromechanics and Microengineering, 2009, 19, 035003.	1.5	41
19	Fabrication of complementary metal-oxide-semiconductor integrated nanomechanical devices by ion beam patterning. Journal of Vacuum Science & Technology B, 2009, 27, 2691-2697.	1.3	16

#	ARTICLE	IF	CITATIONS
20	The Dynamic Behaviour of Chiral, Fixed-Free, Single-Walled Carbon Nanotube-Based Nanomechanical Mass Sensors Due to Atomic Vacancies. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2009, 223, 45-56.	0.1	1
21	Response of Carbon Nanotube Field Effect Transistors to Vibrating Gate Determined by Scanning Gate Microscopy. Japanese Journal of Applied Physics, 2009, 48, 04C202.	0.8	4
22	Temperature-independent current deficit due to induced quantum nanowire vibrations. New Journal of Physics, 2009, 11, 073037.	1.2	5
23	Calculations of the resonant response of carbon nanotubes to binding of DNA. Journal Physics D: Applied Physics, 2009, 42, 145408.	1.3	16
24	Effect of Gaseous Dissipation of Oscillating Cantilevered Carbon Nanotubes. Japanese Journal of Applied Physics, 2009, 48, 06FG04.	0.8	15
25	Evaluation of Thermal Mechanical Vibration Amplitude and Mechanical Properties of Carbon Nanopillars Using Scanning Electron Microscopy. Japanese Journal of Applied Physics, 2009, 48, 06FG07.	0.8	4
26	Beam to String Transition of Vibrating Carbon Nanotubes Under Axial Tension. Advanced Functional Materials, 2009, 19, 1753-1758.	7.8	41
27	Microchip technology in mass spectrometry. Mass Spectrometry Reviews, 2009, 29, n/a-n/a.	2.8	94
28	Universal transduction scheme for nanomechanical systems based on dielectric forces. Nature, 2009, 458, 1001-1004.	13.7	219
29	Gradient force shows its potential. Nature Nanotechnology, 2009, 4, 344-345.	15.6	3
30	Towards single-molecule nanomechanical mass spectrometry. Nature Nanotechnology, 2009, 4, 445-450.	15.6	602
31	Mass spec goes nanomechanical. Nature Nanotechnology, 2009, 4, 404-405.	15.6	37
32	Damping of acoustic vibrations in gold nanoparticles. Nature Nanotechnology, 2009, 4, 492-495.	15.6	191
33	Nanotubes keep rolling on. Nature Nanotechnology, 2009, 4, 465-465.	15.6	2
34	Performance of monolayer graphene nanomechanical resonators with electrical readout. Nature Nanotechnology, 2009, 4, 861-867.	15.6	847
35	Nanomechanical motion measured with an imprecision below that at the standard quantum limit. Nature Nanotechnology, 2009, 4, 820-823.	15.6	421
36	Near-field cavity optomechanics with nanomechanical oscillators. Nature Physics, 2009, 5, 909-914.	6.5	430
37	Chemical functionalization of atomically flat cantilever surfaces. Microelectronic Engineering, 2009, 86, 1200-1203.	1.1	1

#	ARTICLE	IF	CITATIONS
38	Nanostructure-based electrical biosensors. Nano Today, 2009, 4, 318-334.	6.2	163
39	Frequency change by inter-walled length difference of double-wall carbon nanotube resonator. Solid State Communications, 2009, 149, 1574-1577.	0.9	18
40	Actuation and Detection of a Nanoresonator by an Integrated Antiferro/Ferromagnetic Multilayer Stack. Procedia Chemistry, 2009, 1, 1407-1410.	0.7	0
41	Modeling of an ultrahigh-frequency resonator based on the relative vibrations of carbon nanotubes. Physical Review B, 2009, 80, .	1.1	24
42	Assembly of functional nanodebice using platinum/ tungsten nanowire. , 2009, , .		0
43	The frequency of cantilevered double-wall carbon nanotube resonators as a function of outer wall length. Journal of Physics Condensed Matter, 2009, 21, 385301.	0.7	10
44	Self-oscillation conditions of a resonant nanoelectromechanical mass sensor. Journal of Applied Physics, 2009, 105, .	1.1	20
45	Accessing nanomechanical resonators via a fast microwave circuit. Applied Physics Letters, 2009, 95, 011909.	1.5	25
46	Mass Sensing Based on Deterministic and Stochastic Responses of Elastically Coupled Nanocantilevers. Nano Letters, 2009, 9, 4122-4127.	4.5	104
47	Carbon Nanotubes as Ultrahigh Quality Factor Mechanical Resonators. Nano Letters, 2009, 9, 2547-2552.	4.5	322
48	Electrostatic Actuation and Electromechanical Switching Behavior of One-Dimensional Nanostructures. ACS Nano, 2009, 3, 2953-2964.	7.3	23
49	Coupling Mechanics to Charge Transport in Carbon Nanotube Mechanical Resonators. Science, 2009, 325, 1107-1110.	6.0	317
50	A superconducting NbN detector for neutral nanoparticles. Nanotechnology, 2009, 20, 455501.	1.3	12
51	Nanomechanical Motions of Cantilevers: Direct Imaging in Real Space and Time with 4D Electron Microscopy. Nano Letters, 2009, 9, 875-881.	4.5	69
52	Diameter dependence of modulus in zinc oxide nanowires and the effect of loading mode: <i>In situ</i> experiments and universal core-shell approach. Applied Physics Letters, 2009, 95, .	1.5	46
53	Ultra Small Single Walled Carbon Nanotube Pressure Sensors. , 2009, , .		14
54	Modeling and simulation of a nanowire-based cantilever structure. , 2009, , .		2
55	Modeling a fixed-fixed beam nano biosensor using equivalent electrical circuit technique. , 2009, , .		3

#	ARTICLE	IF	CITATIONS
56	Tuning Nanoelectromechanical Resonators with Mass Migration. Nano Letters, 2009, 9, 3209-3213.	4.5	28
57	Piezoelectric Potential Gated Field-Effect Transistor Based on a Free-Standing ZnO Wire. Nano Letters, 2009, 9, 3435-3439.	4.5	132
58	Size-Dependent Elastic Behavior of Silicon Nanofilms: Molecular Dynamics Study. , 2009, , .		2
59	The versatility of nanoscale mechanical resonators. Physics Today, 2009, 62, 68-69.	0.3	2
60	Mechanical vibration-induced coherent optical spectroscopy in a single quantum dot coupled to a nanomechanical resonator. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 155504.	0.6	6
61	Carbon-Nanotube-Based Sensors. , 2010, , 1-30.		0
62	Electro-mechanics of resonating nanotubes and nanowires in the field emission environment. International Journal of Nanotechnology, 2010, 7, 702.	0.1	4
63	Nonlinear phenomena in nanomechanical resonators: mechanical behaviors and physical limitations. Mecanique Et Industries, 2010, 11, 521-529.	0.2	20
64	Toward Ubiquitous Environmental Gas Sensorsâ€™Capitalizing on the Promise of Graphene. Environmental Science & Technology, 2010, 44, 1167-1176.	4.6	266
65	Electron Transport in Carbon Nanotubes. Annual Review of Condensed Matter Physics, 2010, 1, 1-25.	5.2	59
66	Ground-state-cooling vibrations of suspended carbon nanotubes with constant electron current. Physical Review B, 2010, 81, .	1.1	23
67	Equilibrium thermal vibrations of carbon nanotubes. Physical Review B, 2010, 81, .	1.1	21
68	Carbon nanotube electromechanical resonator for ultrasensitive mass/force sensing. Comptes Rendus Physique, 2010, 11, 355-361.	0.3	18
69	Pharmacia and biological functionalities of nutrient broth dispersed multi-walled carbon nanotubes: A novel drug delivery system. Science China Chemistry, 2010, 53, 612-618.	4.2	3
70	Mechanical Properties of Silicon Nanowires. Nanoscale Research Letters, 2010, 5, 211-216.	3.1	103
71	A Smart Glycolâ€Directed Nanodevice from Rationally Designed Macroporous Materials. Chemistry - A European Journal, 2010, 16, 822-828.	1.7	38
72	Carbon nanotube-based resonant nanomechanical sensors: A computational investigation of their behavior. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1795-1801.	1.3	78
73	A study on the bending stiffness of single-walled carbon nanotubes and related issues. Journal of the Mechanics and Physics of Solids, 2010, 58, 428-443.	2.3	22

#	ARTICLE	IF	CITATIONS
74	Statics and dynamics of a nanowire in field emission. International Journal of Mechanical Sciences, 2010, 52, 1396-1406.	3.6	8
75	Inverted tapered pillars for mass sensing. Microelectronic Engineering, 2010, 87, 730-733.	1.1	10
76	Surface reconstruction and elastic behavior of silicon nanobeams: The impact of applied deformation. Thin Solid Films, 2010, 518, 3273-3275.	0.8	13
77	Microfluidic integration of nanomechanical resonators for protein analysis in serum. Sensors and Actuators B: Chemical, 2010, 150, 550-555.	4.0	29
78	Production, properties and potential of graphene. Carbon, 2010, 48, 2127-2150.	5.4	1,502
79	Functionalization of graphene with transition metals. Physica Status Solidi (B): Basic Research, 2010, 247, 2920-2923.	0.7	12
80	Designing multifunctional chemical sensors using Ni and Cu doped carbon nanotubes. Physica Status Solidi (B): Basic Research, 2010, 247, 2678-2682.	0.7	8
81	Single electron tunnelling through high-Q single-wall carbon nanotube NEMS resonators. Physica Status Solidi (B): Basic Research, 2010, 247, 2974-2979.	0.7	23
82	Digital and FM Demodulation of a Doubly Clamped Single-Walled Carbon Nanotube Oscillator: Towards a Nanotube Cell Phone. Small, 2010, 6, 1060-1065.	5.2	139
83	Large deflection theory of nanobeams. Acta Mechanica Solida Sinica, 2010, 23, 394-399.	1.0	18
84	Hysteresis-free operation of suspended carbon nanotube transistors. Nature Nanotechnology, 2010, 5, 589-592.	15.6	99
85	Nanomechanical mass sensing and stiffness spectrometry based on two-dimensional vibrations of resonant nanowires. Nature Nanotechnology, 2010, 5, 641-645.	15.6	235
86	Sensing, actuation, and interaction. , 0, , 121-173.		1
87	Voltage-driven superconducting weak link as a refrigerator for cooling of nanomechanical vibrations. Low Temperature Physics, 2010, 36, 902-910.	0.2	5
88	Optical Measurement of Nanomechanical Motion with an Imprecision at the Standard Quantum Limit. , 2010, , .		0
89	Applications of carbon nanotubes. , 0, , 233-248.		1
90	Ultra-low-power noninvasive medical electronics. , 0, , 579-614.		0
91	Nanometer displacement measurement of a multiwalled carbon nanotube cantilever under aqueous conditions. Measurement Science and Technology, 2010, 21, 085104.	1.4	3

#	ARTICLE	IF	CITATIONS
92	On the determination of the nonlinearity from localized measurements in a reaction-diffusion equation. <i>Nonlinearity</i> , 2010, 23, 675-686.	0.6	19
93	Calibrating the atomic balance by carbon nanoclusters. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	10
94	A symmetry-breaking electromechanical detector. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	15
95	Temperature Dependence of Cantilevered Carbon Nanotube Oscillation. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 06GK02.	0.8	4
96	Nanomechanical torque magnetometry of permalloy cantilevers. <i>Journal of Applied Physics</i> , 2010, 108, 123910.	1.1	9
97	Material limitations of carbon-nanotube inertial balances: Possibility of intrinsic yoctogram mass resolution at room temperature. <i>Physical Review B</i> , 2010, 81, .	1.1	14
98	Beyond the linear and Duffing regimes in nanomechanics: Circularly polarized mechanical resonances of nanocantilevers. <i>Physical Review B</i> , 2010, 81, .	1.1	26
99	Efficient parametric amplification in high and very high frequency piezoelectric nanoelectromechanical systems. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	62
100	Energy dissipation in microfluidic beam resonators: Dependence on mode number. <i>Journal of Applied Physics</i> , 2010, 108, 114507.	1.1	21
101	Tuning mechanical modes and influence of charge screening in nanowire resonators. <i>Physical Review B</i> , 2010, 81, .	1.1	39
102	Spectrum of an Oscillator with Jumping Frequency and the Interference of Partial Susceptibilities. <i>Physical Review Letters</i> , 2010, 105, 230601.	2.9	31
103	Mechanically coupled synchronized resonators for resonant sensing applications. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 115001.	1.5	8
104	In-plane nanoelectromechanical resonators based on silicon nanowire piezoresistive detection. <i>Nanotechnology</i> , 2010, 21, 165504.	1.3	113
105	Intertube spacing effect of cantilevered double-walled carbon nanotube resonators with short outer tubes. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2010, 18, 045011.	0.8	6
106	Magnetomotive instability and generation of mechanical vibrations in suspended semiconducting carbon nanotubes. <i>New Journal of Physics</i> , 2010, 12, 123013.	1.2	5
107	Device overshield for mass-sensing enhancement (DOME) structure fabrication. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 105020.	1.5	3
108	Characterization of silver-gallium nanowires for force and mass sensing applications. <i>Nanotechnology</i> , 2010, 21, 305701.	1.3	28
109	Cooling of a Suspended Nanowire by an ac Josephson Current Flow. <i>Physical Review Letters</i> , 2010, 104, 226802.	2.9	33

#	ARTICLE	IF	CITATIONS
110	Linear augmented cylindrical wave Greenâ€™s function method for electronic structure of nanotubes with substitutional impurities. Physical Review B, 2010, 82, .	1.1	35
111	The calibration of carbon nanotube based bionanosensors. Journal of Applied Physics, 2010, 107, .	1.1	67
112	Mechanical properties of graphene cantilever from atomic force microscopy and density functional theory. Nanotechnology, 2010, 21, 185503.	1.3	63
113	SENSITIVITY OF A NANOCANTILEVER-BASED MASS SENSOR. Nano, 2010, 05, 25-30.	0.5	1
114	Cavity cooling of an optically trapped nanoparticle. Physical Review A, 2010, 81, .	1.0	130
115	Bistability and Oscillatory Motion of Natural Nanomembranes Appearing within Monolayer Graphene on Silicon Dioxide. Nano Letters, 2010, 10, 461-465.	4.5	101
116	Strong Gate Coupling of High- Q Nanomechanical Resonators. Nano Letters, 2010, 10, 4884-4889.	4.5	44
117	Tunable dual-frequency oscillators of carbon nanotubes. Journal of Applied Physics, 2010, 108, 054304.	1.1	3
118	Resonance frequency shift of a carbon nanotube with a silver nanoparticle adsorbed at various positions. Applied Physics Letters, 2010, 97, 133105.	1.5	6
119	Tunable, Broadband Nonlinear Nanomechanical Resonator. Nano Letters, 2010, 10, 1793-1798.	4.5	66
120	Dynamic range enhancement of nonlinear nanomechanical resonant cantilevers for highly sensitive NEMS gas/mass sensor applications. Journal of Micromechanics and Microengineering, 2010, 20, 045023.	1.5	116
121	Transmission of surface plasmon polaritons through a nanowire array: mechano-optical modulation and motion sensing. Optics Express, 2010, 18, 20115.	1.7	9
122	Quantum optomechanicsâ€”throwing a glance [Invited]. Journal of the Optical Society of America B: Optical Physics, 2010, 27, A189.	0.9	247
123	A study on resonance frequency of cantilevered triple-walled carbon nanotube with short middle- and outer-walls. Computational Materials Science, 2010, 50, 686-689.	1.4	7
124	The formation of wrinkles in single-layer graphene sheets under nanoindentation. Journal of Physics Condensed Matter, 2010, 22, 145302.	0.7	31
125	Vibration and symmetry-breaking of boron nitride nanotubes. Nanotechnology, 2010, 21, 365702.	1.3	50
126	Carbon Nanotube Resonator in Liquid. Nano Letters, 2010, 10, 3395-3398.	4.5	57
127	Nanoelectromechanical Resonator Arrays for Ultrafast, Gas-Phase Chromatographic Chemical Analysis. Nano Letters, 2010, 10, 3899-3903.	4.5	151

#	ARTICLE	IF	CITATIONS
128	Toward Attogram Mass Measurements in Solution with Suspended Nanochannel Resonators. Nano Letters, 2010, 10, 2537-2542.	4.5	165
129	Higher-order harmonic resonances and mechanical properties of individual cadmium sulphide nanowires measured by in situ transmission electron microscopy. Journal of Electron Microscopy, 2010, 59, 285-289.	0.9	15
130	Phase Transitions of Adsorbed Atoms on the Surface of a Carbon Nanotube. Science, 2010, 327, 552-555.	6.0	110
131	First Principles Study of the Binding of 4d and 5d Transition Metals to Graphene. Journal of Physical Chemistry C, 2010, 114, 18548-18552.	1.5	49
132	Measuring nanomechanical motion with an imprecision below the standard quantum limit. Physical Review A, 2010, 82, .	1.0	131
133	Nanomechanical mass measurement using nonlinear response of a graphene membrane. Europhysics Letters, 2010, 91, 48001.	0.7	44
134	Damping of Nanomechanical Resonators. Physical Review Letters, 2010, 105, 027205.	2.9	192
135	Towards carbon-nanotube integrated devices: optically controlled parallel integration of single-walled carbon nanotubes. Nanotechnology, 2010, 21, 315601.	1.3	13
136	Effect of Mechanical Strain on the Optical Properties of Quantum Dots: Controlling Exciton Shape, Orientation, and Phase with a Mechanical Strain. Physical Review Letters, 2010, 105, 067404.	2.9	48
137	Sustained Mechanical Self-Oscillations in Carbon Nanotubes. Nano Letters, 2010, 10, 1728-1733.	4.5	55
138	Fabrication of a Nanomechanical Mass Sensor Containing a Nanofluidic Channel. Nano Letters, 2010, 10, 2058-2063.	4.5	89
139	High-frequency nanofluidics: a universal formulation of the fluid dynamics of MEMS and NEMS. Lab on A Chip, 2010, 10, 3013.	3.1	48
140	Probing thermal expansion of graphene and modal dispersion at low-temperature using graphene NEMS resonators. Nanotechnology, 2010, 21, 209801-209801.	1.3	6
141	Probing thermal expansion of graphene and modal dispersion at low-temperature using graphene nanoelectromechanical systems resonators. Nanotechnology, 2010, 21, 165204.	1.3	201
142	Carbon NanostructuresCarbon nanostructures “ Tubes, Graphenegraphene , Fullerenesfullerenes , Wave-Particle Dualitywave-particle duality. , 2010, , 209-266.		1
143	On the utility of vacancies and tensile strain-induced quality factor enhancement for mass sensing using graphene monolayers. Nanotechnology, 2010, 21, 105710.	1.3	31
144	Nanoresonator Based on Relative Vibrations of the Walls of Carbon Nanotubes. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 523-530.	1.0	9
145	Cooling of mechanical motion with a two-level system: The high-temperature regime. Physical Review B, 2010, 82, .	1.1	51

#	ARTICLE	IF	CITATIONS
146	Nano-gyroscope assembly using Carbon Nanotube based on nanorobotic manipulation. , 2011, , .		6
147	The effect of boundary conditions on the vibrations of armchair, zigzag, and chiral single-walled carbon nanotubes. Journal of Applied Physics, 2011, 110, 124311.	1.1	9
148	In Situ Tuning of Focused-Ion-Beam Defined Nanomechanical Resonators Using Joule Heating. Journal of Microelectromechanical Systems, 2011, 20, 1074-1080.	1.7	1
149	Receptor-coated porous silicon resonators for enhanced sensitivity of vapor detection. , 2011, , .		4
150	Surface Adsorbate Fluctuations and Noise in Nanoelectromechanical Systems. Nano Letters, 2011, 11, 1753-1759.	4.5	93
151	Shedding Light on Axial Stress Effect on Resonance Frequencies of Nanocantilevers. ACS Nano, 2011, 5, 4269-4275.	7.3	34
152	High, Size-Dependent Quality Factor in an Array of Graphene Mechanical Resonators. Nano Letters, 2011, 11, 1232-1236.	4.5	212
153	Parametric Amplification and Self-Oscillation in a Nanotube Mechanical Resonator. Nano Letters, 2011, 11, 2699-2703.	4.5	96
154	Piezoresistance of top-down suspended Si nanowires. Nanotechnology, 2011, 22, 395701.	1.3	49
155	Carbon Nanotube-Based Sensors: Overview. , 2011, , 519-528.		2
156	Carbon-Based Materials: Growth, Properties, MEMS/NEMS Technologies, and MEM/NEM Switches. Critical Reviews in Solid State and Materials Sciences, 2011, 36, 66-101.	6.8	55
157	An embedded microchannel in a MEMS plate resonator for ultrasensitive mass sensing in liquid. Lab on A Chip, 2011, 11, 2598.	3.1	44
158	Sustained mechanical self-oscillation of carbon nanotube cantilever by phase locked loop with optomechanical heterodyne. Applied Physics Letters, 2011, 98, .	1.5	10
159	Boron-Nitride Nanotubes as Zeptogram-Scale Bionanosensors: Theoretical Investigations. IEEE Nanotechnology Magazine, 2011, 10, 659-667.	1.1	60
160	Flow-induced dynamics of carbon nanotubes. Nanoscale, 2011, 3, 4383.	2.8	11
161	Wide-band idler generation in a GaAs electromechanical resonator. Physical Review B, 2011, 84, .	1.1	22
162	A Survey of Modeling and Control Techniques for Micro- and Nanoelectromechanical Systems. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2011, 41, 350-364.	3.3	31
163	Landauer's principle in the quantum regime. Physical Review E, 2011, 83, 030102.	0.8	61

#	ARTICLE	IF	CITATIONS
164	Selective vapor phase sensing of small molecules using biofunctionalized field effect transistors. Proceedings of SPIE, 2011, , .	0.8	4
165	Finite size effect on nanomechanical mass detection: the role of surface elasticity. Nanotechnology, 2011, 22, 265502.	1.3	26
166	A Mechanical Nanomembrane Detector for Time-of-Flight Mass Spectrometry. Nano Letters, 2011, 11, 3681-3684.	4.5	39
167	Multiplexed Optical Operation of Distributed Nanoelectromechanical Systems Arrays. Nano Letters, 2011, 11, 1014-1019.	4.5	35
168	Detecting and characterizing frequency fluctuations of vibrational modes. Physical Review B, 2011, 84, .	1.1	17
169	Mechanical Damping of Longitudinal Acoustic Oscillations of Metal Nanoparticles in Solution. Journal of Physical Chemistry C, 2011, 115, 23732-23740.	1.5	41
170	Weighing nanoparticles and viruses using suspended nanochannel resonators. , 2011, , .		0
171	Superfast-Response and Ultrahigh-Power-Density Electromechanical Actuators Based on Hierarchal Carbon Nanotube Electrodes and Chitosan. Nano Letters, 2011, 11, 4636-4641.	4.5	142
172	Molecular dynamics study on nanotube-resonators with mass migration applicable to both frequency-tuner and data-storage-media. Computational Materials Science, 2011, 50, 1818-1822.	1.4	18
173	Molecular dynamics modeling and simulations of a single-walled carbon-nanotube-resonator encapsulating a finite nanoparticle. Computational Materials Science, 2011, 50, 2741-2744.	1.4	18
174	Cavity optomechanics and cooling nanomechanical oscillators using microresonator enhanced evanescent near-field coupling. Comptes Rendus Physique, 2011, 12, 800-816.	0.3	23
175	Vibrations of spherical core-shell nanoparticles. Physical Review B, 2011, 83, .	1.1	45
176	Resonance frequency distribution of cantilevered (5,5)(10,10) double-walled carbon nanotube with different intertube lengths. Molecular Simulation, 2011, 37, 18-22.	0.9	2
177	Design of an electronic oscillator for biosensing applications based on a MEMS resonator. , 2011, , .		2
178	Laser cooling of a nanomechanical oscillator into its quantum ground state. Nature, 2011, 478, 89-92.	13.7	1,866
179	An Atomistic-based Spring-mass Finite Element Approach for Vibration Analysis of Carbon Nanotube Mass Detectors. , 0, , .		0
180	A Carbon Nanotube-based NEMS Parametric Amplifier for Enhanced Radio Wave Detection and Electronic Signal Amplification. Journal of Physics: Conference Series, 2011, 302, 012001.	0.3	6
181	Signal amplification through bifurcation in nanoresonators. Physics Magazine, 2011, 4, .	0.1	0

#	ARTICLE	IF	CITATIONS
182	On Electrostatically Actuated CNT Bio-Sensors. , 2011, , .		0
183	Visualization of Vibrating Cantilevered Multilayer Graphene Mechanical Oscillator. Applied Physics Express, 2011, 4, 115103.	1.1	7
184	Comparative advantages of mechanical biosensors. Nature Nanotechnology, 2011, 6, 203-215.	15.6	816
185	Nonlinear damping in mechanical resonators made from carbon nanotubes and graphene. Nature Nanotechnology, 2011, 6, 339-342.	15.6	555
186	Gas sensors based on gravimetric detectionâ€”A review. Sensors and Actuators B: Chemical, 2011, 160, 804-821.	4.0	162
187	Nanoanalytics for medicine. Biophysics (Russian Federation), 2011, 56, 905-909.	0.2	1
188	Transverse vibration of single-layer graphene sheets. Journal Physics D: Applied Physics, 2011, 44, 205401.	1.3	73
189	Double-walled carbon nanotubes: Challenges and opportunities. Nanoscale, 2011, 3, 503-518.	2.8	169
190	Thermal oscillations of structurally distinct single-walled carbon nanotubes. Physical Review B, 2011, 84, .	1.1	7
191	Ultrasensitive Magnetometers Based on Carbon-Nanotube Mechanical Resonators. Physical Review Letters, 2011, 107, 130801.	2.9	26
192	Carbon nanotube cantilevers for next-generation sensors. Physical Review B, 2011, 83, .	1.1	16
193	Performance of field-emitting resonating carbon nanotubes as radio-frequency demodulators. Physical Review B, 2011, 83, .	1.1	29
194	Simulation and vibrational analysis of thermal oscillations of single-walled carbon nanotubes. Physical Review B, 2011, 83, .	1.1	18
195	Akhiezer damping in nanostructures. Physical Review B, 2011, 84, .	1.1	50
196	Nanoelectromechanical systems and quantum information processing. Russian Microelectronics, 2011, 40, 254-267.	0.1	4
197	Perspectives on Nanotechnology for RF and Terahertz Electronics. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2709-2718.	2.9	12
198	Vibrating carbon nanotubes as water pumps. Nano Research, 2011, 4, 284-289.	5.8	51
199	Mpemba-Like Behavior in Carbon Nanotube Resonators. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3907-3912.	1.1	30

#	ARTICLE	IF	CITATIONS
200	Mass spectrometry based on a coupled Cooper-pair box and nanomechanical resonator system. <i>Nanoscale Research Letters</i> , 2011, 6, 570.	3.1	6
201	Surface structure and field emission properties of few-layer graphene flakes. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2623-2626.	0.7	16
202	PZT Nanoactive Fiber Composites for Acoustic Emission Detection. <i>Advanced Materials</i> , 2011, 23, 3965-3969.	11.1	26
203	A new multiscale formulation for the electromechanical behavior of nanomaterials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 2447-2457.	3.4	15
204	Computational and quasi-analytical models for non-linear vibrations of resonant MEMS and NEMS sensors. <i>International Journal of Non-Linear Mechanics</i> , 2011, 46, 532-542.	1.4	72
205	Zeptogram scale mass sensing using single walled carbon nanotube based biosensors. <i>Sensors and Actuators A: Physical</i> , 2011, 168, 275-280.	2.0	45
206	Study on tunable resonator using a cantilevered carbon nanotube encapsulating a copper nanocluster. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2011, 43, 909-913.	1.3	19
207	Nanomechanical resonators and their applications in biological/chemical detection: Nanomechanics principles. <i>Physics Reports</i> , 2011, 503, 115-163.	10.3	389
208	Electron spin resonance investigation of ultra-small double walled carbon nanotubes embedded in zeolite nanochannels. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 455801.	0.7	6
209	Ultimate quantum bounds on mass measurements with a nano-mechanical resonator. <i>Europhysics Letters</i> , 2011, 94, 68007.	0.7	10
210	Carbon nanomechanical resonator fabrication from PMMA by FIB/electron-beam dual-beam lithography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	0.6	1
211	Dynamic characteristics control of DLC nano-resonator fabricated by focused-ion-beam chemical vapor deposition. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	0.6	4
212	Vertically aligned carbon based varactors. <i>Journal of Applied Physics</i> , 2011, 110, 021101.	1.1	6
213	Accuracy of the lattice Boltzmann method for low-speed noncontinuum flows. <i>Physical Review E</i> , 2011, 83, 045701.	0.8	30
214	Exponential tuning of the coupling constant of coupled microcantilevers by modifying their separation. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	37
215	Diffusion-Induced Bistability of Driven Nanomechanical Resonators. <i>Physical Review Letters</i> , 2011, 106, 227202.	2.9	28
216	High-sensitivity charge detection using antisymmetric vibration in coupled micromechanical oscillators. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	33
217	Fabrication and performance of graphene nanoelectromechanical systems. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	0.6	55

#	ARTICLE	IF	CITATIONS
218	Controlling the optics of quantum dots with nanomechanical strain. Physical Review B, 2011, 84, .	1.1	24
219	Diffusion-induced dephasing in nanomechanical resonators. Physical Review B, 2011, 83, .	1.1	24
220	Simultaneous imaging of the topography and dynamic properties of nanomechanical systems by optical beam deflection microscopy. Journal of Applied Physics, 2011, 109, 064315.	1.1	7
221	Adjustable stiffness of individual piezoelectric nanofibers by electron beam polarization. Applied Physics Letters, 2011, 99, .	1.5	8
222	Stressed nanomechanical resonator fabrication utilizing stiction phenomena. , 2011, , .		0
223	Mass sensing based on a circuit cavity electromechanical system. Journal of Applied Physics, 2011, 110, 083107.	1.1	10
224	Phonon-tunnelling dissipation in mechanical resonators. Nature Communications, 2011, 2, 231.	5.8	147
225	High Q electromechanics with InAs nanowire quantum dots. Applied Physics Letters, 2011, 99, .	1.5	9
226	Distortion in the thermal noise spectrum and quality factor of nanomechanical devices due to finite frequency resolution with applications to the atomic force microscope. Review of Scientific Instruments, 2011, 82, 095104.	0.6	11
227	Room temperature magnetometry of an individual iron filled carbon nanotube acting as nanocantilever. Journal of Applied Physics, 2011, 110, .	1.1	17
228	High-frequency nanotube mechanical resonators. Applied Physics Letters, 2011, 99, .	1.5	51
229	50 nm thick AlN film-based piezoelectric cantilevers for gravimetric detection. Journal of Micromechanics and Microengineering, 2011, 21, 085023.	1.5	58
230	Material properties and effective work function of reactive sputtered TaN gate electrodes. Journal of Semiconductors, 2011, 32, 053005.	2.0	0
231	Vibration of Double-Walled Carbon Nanotube-Based Mass Sensor via Nonlocal Timoshenko Beam Theory. Journal of Nanotechnology in Engineering and Medicine, 2011, 2, .	0.8	14
232	Post-CMOS Integration of Nanomechanical Devices by Direct Ion Beam Irradiation of Silicon. Materials Research Society Symposia Proceedings, 2011, 1354, 103.	0.1	1
233	The mechanical resonances of electrostatically coupled nanocantilevers. Applied Physics Letters, 2011, 98, .	1.5	14
234	Remote actuation of a mechanical resonator. Applied Physics Letters, 2011, 99, 103105.	1.5	1
235	Dynamic analysis of fixed-free single-walled carbon nanotube-based bio-sensors because of various viruses. IET Nanobiotechnology, 2012, 6, 115.	1.9	6

#	ARTICLE	IF	CITATIONS
236	Coupling carbon nanotube mechanics to a superconducting circuit. Scientific Reports, 2012, 2, 599.	1.6	52
237	Electrical Field Gradient Pumping of Parametric Oscillation in a High-Frequency Nanoelectromechanical Resonator. Japanese Journal of Applied Physics, 2012, 51, 074003.	0.8	0
238	Arrays of nanoelectromechanical biosensors functionalized by microcontact printing. Nanotechnology, 2012, 23, 495501.	1.3	21
239	Current-oscillator correlation and Fano factor spectrum of quantum shuttle with finite bias voltage and temperature. Journal of Physics Condensed Matter, 2012, 24, 175301.	0.7	8
240	Mass detection by means of the vibrating nanomechanical resonators. Applied Physics Letters, 2012, 100, .	1.5	48
241	Optimal Mass-sensing with a Nano-mechanical Resonator. , 2012, , .		0
242	Cavity optoelectromechanical regenerative amplification. Optics Express, 2012, 20, 12742.	1.7	14
243	Optical mass sensing with a carbon nanotube resonator. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 965.	0.9	11
244	An electromechanical membrane resonator. Applied Physics Letters, 2012, 101, 063102.	1.5	38
245	Noise sensitivity of a mass detection method using vibration modes of coupled microcantilever arrays. Applied Physics Letters, 2012, 101, 043104.	1.5	14
246	Poisson noise induced switching in driven micromechanical resonators. Physical Review B, 2012, 86, .	1.1	12
247	Detecting single molecules inside a carbon nanotube to control molecular sequences using inertia trapping phenomenon. Applied Physics Letters, 2012, 101, 133105.	1.5	3
248	Nanomechanical detection of nuclear magnetic resonance using a silicon nanowire oscillator. Physical Review B, 2012, 85, .	1.1	76
249	High accuracy numerical solutions of the Boltzmann Bhatnagar-Gross-Krook equation for steady and oscillatory Couette flows. Physics of Fluids, 2012, 24, 032004.	1.6	29
250	Ohmic electromechanical dissipation in nanomechanical cantilevers. Physical Review B, 2012, 85, .	1.1	18
251	Tuneable electromechanical comb generation. Applied Physics Letters, 2012, 100, .	1.5	17
252	Nanophotonic detection of side-coupled nanomechanical cantilevers. Applied Physics Letters, 2012, 100, .	1.5	24
253	All-Electrical Control of the Photon-Charge-Qubit Interfaces for Quantum Networks. Journal of the Physical Society of Japan, 2012, 81, 104001.	0.7	1

#	ARTICLE	IF	CITATIONS
254	Fluctuation broadening in carbon nanotube resonators. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19093-19096.	3.3	57
255	Hydrodynamic loading and viscous damping of patterned perforations on microfabricated resonant structures. Applied Physics Letters, 2012, 100, .	1.5	5
256	Weighing a single atom using a coupled plasmonâ€“carbon nanotube system. Science and Technology of Advanced Materials, 2012, 13, 025006.	2.8	18
257	ENHANCING THE MASS SENSITIVITY OF NANOCANTILEVER. International Journal of Nanoscience, 2012, 11, 1250002.	0.4	0
258	Coherent Control of Micro/Nanomechanical Oscillation Using Parametric Mode Mixing. Applied Physics Express, 2012, 5, 014001.	1.1	21
260	Enhancing the mass sensitivity of graphene nanoresonators via nonlinear oscillations: the effective strain mechanism. Nanotechnology, 2012, 23, 475501.	1.3	41
261	Results and perspectives in hadron spectroscopy. Physica Scripta, 2012, T150, 014014.	1.2	0
262	Nonlinear control for stabilization of small neoclassical tearing modes in ITER. Nuclear Fusion, 2012, 52, 063007.	1.6	3
263	Sound Propagation in a Wedge with a Rigid Bottom. Chinese Physics Letters, 2012, 29, 104303.	1.3	3
264	Torsional electromechanical systems based on carbon nanotubes. Reports on Progress in Physics, 2012, 75, 116501.	8.1	20
265	Microwave cavity-enhanced transduction for plug and play nanomechanics at room temperature. Nature Communications, 2012, 3, 728.	5.8	71
266	Effect of Phonon Confinement on the Dispersion Relation and Heat Capacity in Nanoscale Si Membranes. , 2012, , .		0
267	Optical mass sensing with coupled nanomechanical resonator systems. , 2012, , .		0
268	A hybrid on-chip optonanomechanical transducer for ultra-sensitive force measurements. , 2012, , .		0
269	Carbon Nanotube Devices. Hyomen Kagaku, 2012, 33, 404-412.	0.0	0
270	An efficient continuum model for CNTs-based bio-sensors. EPJ Applied Physics, 2012, 59, 10403.	0.3	4
271	A multi-walled carbon nanotube cantilever for interaction force sensing in liquid. AIP Advances, 2012, 2, .	0.6	2
272	Entanglement dynamics in a non-Markovian environment: An exactly solvable model. Physical Review B, 2012, 85, .	1.1	17

#	ARTICLE	IF	CITATIONS
273	Selective Gas Sensing with a Single Pristine Graphene Transistor. Nano Letters, 2012, 12, 2294-2298.	4.5	361
274	Theory of control of optomechanical transducers for quantum networks. Physical Review A, 2012, 85, .	1.0	5
275	Challenges for nanomechanical sensors in biological detection. Nanoscale, 2012, 4, 4925.	2.8	92
276	Nanomedicine. , 2012, , 1644-1644.		0
277	Electron beam induced real time rocket-type propulsion effect in indium metal filled indium oxide nanotubes. Materials Letters, 2012, 68, 47-50.	1.3	6
278	Nonlocal frequency analysis of nanoscale biosensors. Sensors and Actuators A: Physical, 2012, 173, 41-48.	2.0	82
279	Nano-gyroscope device using field emission of isolated carbon nanotube. , 2012, , .		1
280	Intrinsic localized modes in two-dimensional vibrations of crystalline pillars and their application for sensing. Journal of Applied Physics, 2012, 112, .	1.1	7
281	Near-field microwave excitation and detection of NEMS resonators. , 2012, , .		4
282	Acoustic and breathing phonon modes in bilayer graphene with Moiré patterns. Applied Physics Letters, 2012, 101, 023113.	1.5	25
283	Quasi-dynamic mode of nanomembranes for time-of-flight mass spectrometry of proteins. Nanoscale, 2012, 4, 2543.	2.8	11
284	Laser-assisted nanofabrication of carbon nanostructures. Journal of Laser Applications, 2012, 24, .	0.8	17
285	Femtogram Doubly Clamped Nanomechanical Resonators Embedded in a High-Q Two-Dimensional Photonic Crystal Nanocavity. Nano Letters, 2012, 12, 2299-2305.	4.5	80
286	Assembly and evaluation of MWCNTs probe thermal sensor by nanorobotic manipulation. , 2012, , .		2
287	Dramatic change of water-cluster accessibility of highly pure double-walled carbon nanotubes with high temperature annealing. Nanoscale, 2012, 4, 4960.	2.8	3
288	Pointwise Plucking of Suspended Carbon Nanotubes. Nano Letters, 2012, 12, 3663-3667.	4.5	5
289	Acoustic Vibrations in Bimetallic Au@Pd Core-Shell Nanorods. Journal of Physical Chemistry Letters, 2012, 3, 613-619.	2.1	50
290	Stamp Transferred Suspended Graphene Mechanical Resonators for Radio Frequency Electrical Readout. Nano Letters, 2012, 12, 198-202.	4.5	132

#	ARTICLE	IF	CITATIONS
291	Nonlocal Timoshenko beam theory for vibration of carbon nanotube-based biosensor. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 1169-1175.	1.3	60
292	Molecular dynamics study on resonance frequency shifts due to linear density of nanoclusters encapsulated in carbon nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 1543-1547.	1.3	10
293	A molecular dynamics study on carbon-nanotube oscillators with intertube gaps. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 2027-2031.	1.3	16
294	A study of carbon-nanotube-based nanoelectromechanical resonators tuned by shear strain. <i>Computational Materials Science</i> , 2012, 51, 360-364.	1.4	9
295	Free vibrations of single-walled carbon nanotubes in the vicinity of a fully constrained graphene sheet. <i>Computational Materials Science</i> , 2012, 53, 12-17.	1.4	11
296	Transverse vibration of nanotube-based micro-mass sensor via nonlocal Timoshenko beam theory. <i>Computational Materials Science</i> , 2012, 53, 340-346.	1.4	62
297	Vibration of double-walled carbon nanotube based nanomechanical sensor with initial axial stress. <i>Computational Materials Science</i> , 2012, 58, 51-58.	1.4	38
298	Modeling, Analysis, and Experimental Validation of a Bifurcation-Based Microsensor. <i>Journal of Microelectromechanical Systems</i> , 2012, 21, 549-558.	1.7	48
299	Few-Hundred GHz Carbon Nanotube Nanoelectromechanical Systems (NEMS). <i>Nano Letters</i> , 2012, 12, 4564-4569.	4.5	38
300	Optomechanics with Silicon Nanowires by Harnessing Confined Electromagnetic Modes. <i>Nano Letters</i> , 2012, 12, 932-937.	4.5	40
302	Nanostructures for Coloration (Organisms other than Animals). , 2012, , 1790-1803.		0
303	Suspended Graphene Devices for Nanoelectromechanics and for the Study of Quantum Hall Effect. , 2012, , 197-209.		0
304	Tunable, Dual-Gate, Silicon-on-Insulator (SOI) Nanoelectromechanical Resonators. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 1093-1099.	1.1	16
305	Resonance phenomenon of the ATP motor as an ultrasensitive biosensor. <i>Biochemical and Biophysical Research Communications</i> , 2012, 426, 399-403.	1.0	1
306	Carbon nanotube nanoradios: The field emission and transistor configurations. <i>Comptes Rendus Physique</i> , 2012, 13, 395-409.	0.3	2
307	Nonlinear optical mass sensor with an optomechanical microresonator. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	47
308	Tunable Growth of Indium Oxide from Nanoflute to Metal-Filled Nanotubes. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5450-5455.	1.5	12
309	Single-protein nanomechanical mass spectrometry in real time. <i>Nature Nanotechnology</i> , 2012, 7, 602-608.	15.6	434

#	ARTICLE	IF	CITATIONS
310	Design and characterization of a CMOS MEMS capacitive resonant sensor array. Journal of Micromechanics and Microengineering, 2012, 22, 125030.	1.5	8
311	Self-excitation of piezoelectric microbridge resonators by external feedback. Microelectronic Engineering, 2012, 98, 463-466.	1.1	4
312	Mass loading induced dephasing in nanomechanical resonators. Journal of Physics Condensed Matter, 2012, 24, 475301.	0.7	5
313	Large-Scale Integration of Nanoelectromechanical Systems for Gas Sensing Applications. Nano Letters, 2012, 12, 1269-1274.	4.5	133
314	Mechanical vibration of a cylindrically rolled-up cantilever shell in microelectromechanical and nanoelectromechanical systems. Physical Review B, 2012, 85, .	1.1	4
315	Nanotechnology for Detection of Small Mass Difference. Springer Series in Materials Science, 2012, , 287-319.	0.4	1
316	Phonons in Slow Motion: Dispersion Relations in Ultrathin Si Membranes. Nano Letters, 2012, 12, 3569-3573.	4.5	83
317	Single-step, high-throughput biofunctionalization of nanoelectromechanical systems by means of nanocontact printing method. , 2012, , .		0
318	Devices reach single-proton limit. Nature Nanotechnology, 2012, 7, 278-280.	15.6	23
319	A nanomechanical mass sensor with yoctogram resolution. Nature Nanotechnology, 2012, 7, 301-304.	15.6	855
320	Vibration Analysis of Single Walled Boron Nitride Nanotube Based Nanoresonators. Journal of Nanotechnology in Engineering and Medicine, 2012, 3, .	0.8	17
321	Nano-FET. , 2012, , 1543-1543.		0
322	Nonlinear dynamics of nanoelectromechanical cantilevers based on nanowire piezoresistive detection. MATEC Web of Conferences, 2012, 1, 04007.	0.1	0
323	Dynamics and Dissipation Induced by Single-Electron Tunneling in Carbon Nanotube Nanoelectromechanical Systems. Physical Review Letters, 2012, 108, 175502.	2.9	37
324	Nonlinear detection mechanism in quantitative atomic force microscopy characterization of high-frequency nanoelectromechanical systems. Physical Review B, 2012, 85, .	1.1	6
325	Tuning of nanogap size in high tensile stress silicon nitride thin films. Review of Scientific Instruments, 2012, 83, 055003.	0.6	2
326	A local optical probe for measuring motion and stress in a nanoelectromechanical system. Nature Nanotechnology, 2012, 7, 151-155.	15.6	61
327	Coupling between quantum Hall state and electromechanics in suspended graphene resonator. Applied Physics Letters, 2012, 100, 233103.	1.5	29

#	ARTICLE	IF	CITATIONS
328	A hybrid on-chip optomechanical transducer for ultrasensitive force measurements. <i>Nature Nanotechnology</i> , 2012, 7, 509-514.	15.6	344
329	Strong and tunable mode coupling in carbon nanotube resonators. <i>Physical Review B</i> , 2012, 86, .	1.1	59
330	Natural frequencies and buckling of pressurized nanotubes using shear deformable nonlocal shell model. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 563-573.	0.7	9
331	Frequency shift of a nanomechanical sensor carrying a nanoparticle using nonlocal Timoshenko beam theory. <i>Journal of Mechanical Science and Technology</i> , 2012, 26, 1577-1583.	0.7	15
332	Finite element reduced order models for nonlinear vibrations of piezoelectric layered beams with applications to NEMS. <i>Finite Elements in Analysis and Design</i> , 2012, 49, 35-51.	1.7	78
333	Diffraction from physisorbed layers. <i>Current Opinion in Colloid and Interface Science</i> , 2012, 17, 23-32.	3.4	15
334	Mechanical systems in the quantum regime. <i>Physics Reports</i> , 2012, 511, 273-335.	10.3	398
335	Effect of vacuum level on field emission from nanographite films. <i>Technical Physics</i> , 2012, 57, 1003-1007.	0.2	15
336	Molecular dynamics modeling and simulation of a graphene-based nanoelectromechanical resonator. <i>Current Applied Physics</i> , 2013, 13, 789-794.	1.1	39
337	Detection of gas atoms with carbon nanotubes. <i>Scientific Reports</i> , 2013, 3, .	1.6	63
338	Achieving the quantum ground state of a mechanical oscillator using a Bose-Einstein condensate with back-action and cold damping feedback schemes. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 085301.	0.6	25
339	Effect of the chemisorbed molecular structure on the frequency of carbon nanotube resonators: Molecular dynamics simulations. , 2013, , .		0
340	Graphene nanoelectromechanical systems. <i>Proceedings of the IEEE</i> , 2013, 101, 1766-1779.	16.4	119
341	An atomic-resolution nanomechanical mass sensor based on circular monolayer graphene sheet: Theoretical analysis of vibrational properties. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	42
342	Modeling and Measurement of Geometrically Nonlinear Damping in a Microcantilever-Nanotube System. <i>ACS Nano</i> , 2013, 7, 8547-8553.	7.3	36
343	Current and emerging challenges of field effect transistor based bio-sensing. <i>Nanoscale</i> , 2013, 5, 10702.	2.8	81
344	Optomechanical sensing with on-chip microcavities. <i>Frontiers of Physics</i> , 2013, 8, 475-490.	2.4	68
345	Stochastic switching of cantilever motion. <i>Nature Communications</i> , 2013, 4, 2624.	5.8	42

#	ARTICLE	IF	CITATIONS
346	Photothermal Infrared Spectroscopy of Airborne Samples with Mechanical String Resonators. <i>Analytical Chemistry</i> , 2013, 85, 10531-10535.	3.2	33
347	Bistability and chaos at low levels of quanta. <i>Physical Review E</i> , 2013, 88, 022910.	0.8	13
348	Differences in the catalyst removal from single- and double-walled carbon nanotubes. <i>Current Applied Physics</i> , 2013, 13, 1069-1074.	1.1	9
349	Interaction imaging with amplitude-dependence force spectroscopy. <i>Nature Communications</i> , 2013, 4, 1360.	5.8	61
350	Intrinsic loss due to unstable modes in graphene. <i>Nanotechnology</i> , 2013, 24, 275701.	1.3	6
351	Stabilization of a linear nanomechanical oscillator to its thermodynamic limit. <i>Nature Communications</i> , 2013, 4, 2860.	5.8	48
352	Coupled NanoSQUIDs and Nano-Electromechanical Systems (NEMS) Resonators. <i>IEEE Transactions on Applied Superconductivity</i> , 2013, 23, 1800304-1800304.	1.1	16
353	Nonlinearity-assisted frequency stabilization for nanowire array membrane oscillator. , 2013, , .		1
354	Development of near-field microwave methods for NEMS resonators. , 2013, , .		2
355	A high order mode 6.4GHz ultra-high sensitivity nanoscale surface acoustic wave biosensor. , 2013, , .		0
356	Mechanical properties of selected nanostructured materials and complex bio-nano, hybrid and hierarchical systems. <i>International Materials Reviews</i> , 2013, 58, 167-202.	9.4	18
357	Biosensors based on nanomechanical systems. <i>Chemical Society Reviews</i> , 2013, 42, 1287-1311.	18.7	334
358	All-optical mass sensing with coupled mechanical resonator systems. <i>Physics Reports</i> , 2013, 525, 223-254.	10.3	120
359	Strong spin-phonon coupling between a single-molecule magnet and a carbon nanotube nanoelectromechanical system. <i>Nature Nanotechnology</i> , 2013, 8, 165-169.	15.6	287
360	Test of A CNT gyroscope based on field emission. , 2013, , .		0
361	Growth of double-walled carbon nanotubes from silicon oxide nanoparticles. <i>Carbon</i> , 2013, 56, 167-172.	5.4	18
362	A general procedure for thermomechanical calibration of nano/micro-mechanical resonators. <i>Annals of Physics</i> , 2013, 339, 181-207.	1.0	121
363	Stretch for a moment. <i>Nature Nanotechnology</i> , 2013, 8, 159-160.	15.6	18

#	ARTICLE	IF	CITATIONS
364	Nonlinear Mode-Coupling in Nanomechanical Systems. Nano Letters, 2013, 13, 1622-1626.	4.5	110
365	Plasmonically Enhanced Thermomechanical Detection of Infrared Radiation. Nano Letters, 2013, 13, 1638-1643.	4.5	66
366	Gas sensors using carbon nanomaterials: A review. Sensors and Actuators B: Chemical, 2013, 179, 32-45.	4.0	549
367	Damping of the acoustic vibrations of a suspended gold nanowire in air and water environments. Physical Chemistry Chemical Physics, 2013, 15, 4169-4176.	1.3	76
368	Lifetimes of Confined Acoustic Phonons in Ultrathin Silicon Membranes. Physical Review Letters, 2013, 110, 095503.	2.9	96
369	Cavity-enhanced optical detection of carbon nanotube Brownian motion. Applied Physics Letters, 2013, 102, .	1.5	58
370	Vibration of Nanoparticles in Viscous Fluids. Journal of Physical Chemistry C, 2013, 117, 8536-8544.	1.5	36
371	Plasmon Nanomechanical Coupling for Nanoscale Transduction. Nano Letters, 2013, 13, 3293-3297.	4.5	76
372	Synthesis of high-quality double-walled carbon nanotubes using porous MgO nanowire supported iron oxide as catalyst. Materials Letters, 2013, 107, 46-49.	1.3	9
373	Effects of noise on hysteresis and resonance width in graphene and nanotubes resonators. Physical Review B, 2013, 87, .	1.1	1
374	Tension-induced nonlinearities of flexural modes in nanomechanical resonators. Physical Review B, 2013, 87, .	1.1	10
375	Molecular dynamics modeling and simulations of graphene-nanoribbon-resonator-based nanobalance as yoctogram resolution detector. Computational Materials Science, 2013, 67, 329-333.	1.4	38
376	Influence of aging time of oleate precursor on the magnetic relaxation of cobalt ferrite nanoparticles synthesized by the thermal decomposition method. Journal of Magnetism and Magnetic Materials, 2013, 328, 41-52.	1.0	67
377	NEMS-based heterodyne self-oscillator. Sensors and Actuators A: Physical, 2013, 189, 512-518.	2.0	11
378	Crystallization Effects of Nanocrystalline GaN Films on Field Emission. Journal of Physical Chemistry C, 2013, 117, 1518-1523.	1.5	13
379	Optomechanical effect on the Dicke quantum phase transition and quasi-particle damping in a Bose-Einstein condensate: a new tool to measure weak force. Journal of Modern Optics, 2013, 60, 1263-1272.	0.6	8
380	A carbon nanotube vibration gyroscope based on field emission. , 2013, , .		0
381	Real-time single airborne nanoparticle detection with nanomechanical resonant filter-fiber. Scientific Reports, 2013, 3, 1288.	1.6	55

#	ARTICLE	IF	CITATIONS
382	Quantum degenerate Fermi gas entanglement in optomechanics. European Physical Journal D, 2013, 67, 1.	0.6	13
383	Influence of nanomechanical force on the electronic structure of InAs/GaAs quantum dots. Chinese Physics B, 2013, 22, 047305.	0.7	0
384	Preserving the Q -factors of ZnO nanoresonators via polar surface reconstruction. Nanotechnology, 2013, 24, 405705.	1.3	3
385	Phonon mediated loss in a graphene nanoribbon. Journal of Applied Physics, 2013, 114, .	1.1	8
386	Resonant behavior in heat transfer across weak molecular interfaces. Journal of Applied Physics, 2013, 114, 234308.	1.1	1
387	Quantized phonon modes in loaded polymer films. Journal of Applied Physics, 2013, 113, 033516.	1.1	2
388	Tapered silicon nanowires for enhanced nanomechanical sensing. Applied Physics Letters, 2013, 103, .	1.5	19
389	Carbon nanotube resonators with capacitive and piezoresistive current modulation readout. Applied Physics Letters, 2013, 103, 033117.	1.5	13
390	Optomechanical parameter estimation. New Journal of Physics, 2013, 15, 103028.	1.2	15
391	Mechanics and Multidisciplinary Study for Creating Graphene-Based van der Waals Nano/Microscale Devices. , 2013, , 87-104.		0
392	Photothermal Actuation of Cantilevered Multiwall Carbon Nanotubes with Bimaterial Configuration toward Calorimeter. Japanese Journal of Applied Physics, 2013, 52, 06GH02.	0.8	3
393	Vibration analysis of nanomechanical mass sensor using double-layered graphene sheets resonators. Journal of Applied Physics, 2013, 114, .	1.1	51
394	Demonstration of Motion Transduction Based on Parametrically Coupled Mechanical Resonators. Physical Review Letters, 2013, 110, 227202.	2.9	47
395	Damping of mechanical vibrations by free electrons in metallic nanoresonators. Physical Review B, 2013, 87, .	1.1	10
396	Reading, writing, and squeezing the entangled states of two nanomechanical resonators coupled to a SQUID. Physical Review B, 2013, 87, .	1.1	20
397	Ultrasensitive mass sensing with nonlinear optics in a doubly clamped suspended carbon nanotube resonator. Journal of Applied Physics, 2013, 114, 213101.	1.1	6
398	Molecular dynamics simulation of inertial trapping-induced atomic scale mass transport inside single walled carbon nanotubes. Applied Physics Letters, 2013, 102, 083108.	1.5	0
399	Graphene resonant channel transistor. , 2013, , .		4

#	ARTICLE	IF	CITATIONS
400	Indentation-induced two-way shape-memory effect in NiTi. , 2013, , .		0
401	New Shedding Motion, Based on Electroactuation Force, for Micro- and Nanoweaving. Advanced Engineering Materials, 2013, 15, 962-965.	1.6	2
402	Modal "self-coupling" as a sensitive probe for nanomechanical detection. Applied Physics Letters, 2013, 103, 013104.	1.5	7
403	Nanoscale resonant sensors with 1D carbon nanostructures: A review of carbon nanotube based NEMS devices. , 2013, , .		1
404	Synthesis and elastic properties of SiO ₂ nanotubes and helical nanosprings templated from organic amphiphilic self-assemblies through inorganic transcription. , 2013, , .		1
405	Flexural mode dispersion in ultra-thin Ge membranes. , 2013, , .		0
406	Graphene nanofilm as pressure and force sensor: A mechanical analysis. Physica Status Solidi (B): Basic Research, 2013, 250, 2085-2089.	0.7	7
407	Liquid Mass Sensing Using Resonating Microplates under Harsh Drop and Spray Conditions. Research Letters in Physics, 2014, 2014, 1-8.	0.2	13
408	Bifurcation topology transfer in nonlinear nanocantilever arrays subject to parametric and internal resonances. MATEC Web of Conferences, 2014, 16, 04004.	0.1	1
409	Silicon nano-mechanical resonators fabricated by using tip-based nanofabrication. Nanotechnology, 2014, 25, 275301.	1.3	13
410	Nanomechanical gas sensing with nonlinear resonant cantilevers. Nanotechnology, 2014, 25, 425501.	1.3	30
411	Recent studies on applications of nanoresonators in sensors and molecular transportation. , 2014, , .		0
412	SINGLE WALLED-BORON NITRIDE NANOTUBES BASED NANORESONATOR FOR SENSING OF ACETONE MOLECULES. Nano, 2014, 09, 1450086.	0.5	3
413	Nanoresonators in Sensors and Molecular Transportation: An Introduction to the Possibilities of Carbon Nanotubes and Graphene Sheets. IEEE Nanotechnology Magazine, 2014, 8, 29-37.	0.9	3
414	Synchronizing a single-electron shuttle to an external drive. New Journal of Physics, 2014, 16, 043009.	1.2	6
415	Detecting Both the Mass and Position of an Accreted Particle by a Micro/Nano-Mechanical Resonator Sensor. Sensors, 2014, 14, 16296-16310.	2.1	13
416	GaAs Coupled Micro Resonators with Enhanced Sensitive Mass Detection. Sensors, 2014, 14, 22785-22797.	2.1	5
417	Ultrasensitive nanomechanical mass sensor using hybrid opto-electromechanical systems. Optics Express, 2014, 22, 13773.	1.7	33

#	ARTICLE	IF	CITATIONS
418	Graphene field emission devices. <i>Applied Physics Letters</i> , 2014, 105, 103107.	1.5	62
419	Impact of surface and residual stresses and electro-/magnetostatic axial loading on the suspended nanomechanical based mass sensors: A theoretical study. <i>Journal of Applied Physics</i> , 2014, 115, 214310.	1.1	21
420	Intrinsic dissipation in a nano-mechanical resonator. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	13
421	Lattice Boltzmann method for linear oscillatory noncontinuum flows. <i>Physical Review E</i> , 2014, 89, 033305.	0.8	12
422	Review of Recent Developments in Sensing Materials. , 2014, , 47-101.		17
423	Semi-analytical modeling of a partially wetted resonant mass sensor operated in a low-loss localized eigenmode. <i>Journal of Applied Physics</i> , 2014, 115, 183510.	1.1	2
424	Room-temperature ultrasensitive mass spectrometer via dynamical decoupling. <i>Physical Review A</i> , 2014, 90, .	1.0	33
425	Diffusion-induced dissipation and mode coupling in nanomechanical resonators. <i>Physical Review B</i> , 2014, 90, .	1.1	5
426	Mechanical resonance characteristics of a cylindrical semiconductor heterostructure containing a high-mobility two-dimensional electron gas. <i>Physical Review B</i> , 2014, 89, .	1.1	1
427	Electromechanical resonators based on electrospun ZnO nanofibers. <i>Journal of Micro/Nanolithography, MEMS, and MOEMS</i> , 2014, 13, 043011.	1.0	1
428	Detecting the mass and position of an adsorbate on a drum resonator. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20140418.	1.0	12
429	Nonlinear and quasi-linear behavior of a curved carbon nanotube vibrating in an electric force field; an analytical approach. <i>Acta Mechanica Solida Sinica</i> , 2014, 27, 97-110.	1.0	17
430	Superconducting nano-mechanical diamond resonators. <i>Carbon</i> , 2014, 72, 100-105.	5.4	26
431	Vibration analysis of nanomechanical mass sensor using carbon nanotubes under axial tensile loads. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 1001-1007.	1.1	34
432	Transverse vibration of circular graphene sheet-based mass sensor via nonlocal Kirchhoff plate theory. <i>Computational Materials Science</i> , 2014, 86, 73-78.	1.4	60
433	Carbon nanomaterials for nerve tissue stimulation and regeneration. <i>Materials Science and Engineering C</i> , 2014, 34, 35-49.	3.8	99
434	Extraordinary Dynamic Mechanical Response of Vanadium Dioxide Nanowires around the Insulator to Metal Phase Transition. <i>Nano Letters</i> , 2014, 14, 1898-1902.	4.5	45
435	Vibration analysis of multi-walled carbon nanotubes embedded in elastic medium. <i>Frontiers of Structural and Civil Engineering</i> , 2014, 8, 151-159.	1.2	60

#	ARTICLE	IF	CITATIONS
436	Nonlocal postbuckling analysis of graphene sheets in a nonlinear polymer medium. International Journal of Engineering Science, 2014, 81, 49-65.	2.7	43
437	Computational models for large amplitude nonlinear vibrations of electrostatically actuated carbon nanotube-based mass sensors. Sensors and Actuators A: Physical, 2014, 208, 10-20.	2.0	47
438	Weighing nanoparticles in solution at the attogram scale. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1310-1315.	3.3	120
439	Optical racetrack resonator transduction of nanomechanical cantilevers. Nanotechnology, 2014, 25, 055202.	1.3	18
440	Nanomechanical readout of a single spin. Physical Review B, 2014, 89, .	1.1	8
441	A review on applications of carbon nanotubes and graphenes as nano-resonator sensors. Computational Materials Science, 2014, 82, 350-360.	1.4	176
442	Balances. , 2014, , .		10
443	Vibrational characteristics of graphene sheets elucidated using an elastic network model. Physical Chemistry Chemical Physics, 2014, 16, 15263.	1.3	7
444	Computational Investigation of Mass Sensing Using Defective Double Walled Carbon Nanotubes. , 2014, 5, 482-488.		3
445	Building a Fab on a Chip. Nanoscale, 2014, 6, 5049-5062.	2.8	17
446	High quality factor metallic glass cantilevers with tunable mechanical properties. Applied Physics Letters, 2014, 105, .	1.5	25
447	Direct fabrication of a W-C SNS Josephson junction using focused-ion-beam chemical vapour deposition. Journal of Micromechanics and Microengineering, 2014, 24, 055015.	1.5	6
448	Resolution enhancement of suspended microchannel resonators for weighing of biomolecular complexes in solution. Lab on A Chip, 2014, 14, 342-350.	3.1	26
449	Vapor Sensing Characteristics of Nanoelectromechanical Chemical Sensors Functionalized Using Surface-Initiated Polymerization. Nano Letters, 2014, 14, 3728-3732.	4.5	43
450	Measurement of Young's modulus and volumetric mass density/thickness of ultrathin films utilizing resonant based mass sensors. Applied Physics Letters, 2014, 104, 083102.	1.5	21
451	Graphene nanoelectromechanics (NEMS). , 2014, , 341-362.		5
452	Dynamic Similarity of Oscillatory Flows Induced by Nanomechanical Resonators. Physical Review Letters, 2014, 112, 015501.	2.9	14
453	Mechanical vibrations of carbon nanotube-based mass sensors: an analytical approach. Sensor Review, 2014, 34, 319-326.	1.0	2

#	ARTICLE	IF	CITATIONS
454	Thermoplasmonic Membrane-Based Infrared Detector. IEEE Photonics Technology Letters, 2014, 26, 202-205.	1.3	28
455	On-chip cavity optomechanical coupling. EPJ Techniques and Instrumentation, 2014, 1, .	0.5	25
456	Mechanical Transducers. , 2014, , 321-414.		5
457	Effect of surface energy on the sensing performance of bridged nanotube-based micro-mass sensors. Journal of Intelligent Material Systems and Structures, 2014, 25, 2177-2186.	1.4	1
458	Transversally and Axially Tunable Carbon Nanotube Resonators In Situ Fabricated and Studied Inside a Scanning Electron Microscope. Nano Letters, 2014, 14, 1221-1227.	4.5	32
459	Atomic Monolayer Deposition on the Surface of Nanotube Mechanical Resonators. Physical Review Letters, 2014, 112, 196103.	2.9	21
460	Magnetically affected single-walled carbon nanotubes as nanosensors. Mechanics Research Communications, 2014, 60, 33-39.	1.0	30
461	Detecting the stiffness and mass of biochemical adsorbates by a resonator sensor. Sensors and Actuators B: Chemical, 2014, 202, 286-293.	4.0	20
462	A MWCNT gyroscope fabricated by nanorobotic manipulation. , 2014, , .		0
463	Printing Highly Controlled Suspended Carbon Nanotube Network on Micro-patterned Superhydrophobic Flexible Surface. Scientific Reports, 2015, 5, 15908.	1.6	15
464	Time-Resolved Mass Sensing of a Molecular Adsorbate Nonuniformly Distributed Along a Nanomechanical String. Physical Review Applied, 2015, 3, .	1.5	8
465	Telegraph frequency noise in electromechanical resonators. Physical Review B, 2015, 91, .	1.1	7
466	Thermally induced nonlinear vibration of single-walled carbon nanotubes. Physical Review B, 2015, 92, .	1.1	12
467	Dual-MWCNT Probe Thermal Sensor Assembly and Evaluation Based on Nanorobotic Manipulation inside a Field-Emission-Scanning Electron Microscope. International Journal of Advanced Robotic Systems, 2015, 12, 21.	1.3	3
468	Frequency Domain Sensors and Frequency Measurement Techniques. Applied Mechanics and Materials, 2015, 756, 575-584.	0.2	12
469	High quality factor indium oxide mechanical microresonators. Applied Physics Letters, 2015, 107, 191910.	1.5	4
470	Micro-/nanosized cantilever beams and mass sensors under applied axial tensile/compressive force vibrating in vacuum and viscous fluid. AIP Advances, 2015, 5, 117140.	0.6	12
471	Overcoming limitations of nanomechanical resonators with simultaneous resonances. Applied Physics Letters, 2015, 107, 073105.	1.5	33

#	ARTICLE	IF	CITATIONS
472	Frequency-domain deviational Monte Carlo method for linear oscillatory gas flows. <i>Physics of Fluids</i> , 2015, 27, 102002.	1.6	7
473	Giant resonance tuning of micro and nanomechanical oscillators. <i>Scientific Reports</i> , 2015, 5, 7818.	1.6	12
474	Mass correlation spectroscopy for mass- and size-based nanoparticle characterization in fluid. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	4
475	Study of micro- and nanomechanical oscillators based on crystalline W and amorphous C whiskers. <i>Journal of Physics: Conference Series</i> , 2015, 643, 012114.	0.3	2
476	Double-Walled Carbon Nanotube Processing. <i>Advanced Materials</i> , 2015, 27, 3105-3137.	11.1	84
477	Recent Progress on Man-Made Inorganic Nanomachines. <i>Small</i> , 2015, 11, 4037-4057.	5.2	80
478	Diazonium Chemistry for the Bio-Functionalization of Glassy Nanostring Resonator Arrays. <i>Sensors</i> , 2015, 15, 18724-18741.	2.1	5
479	Tight-binding vibrational analysis of single-wall carbon nanotubes. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	0
480	Mass Detection in Viscous Fluid Utilizing Vibrating Micro- and Nanomechanical Mass Sensors under Applied Axial Tensile Force. <i>Sensors</i> , 2015, 15, 19351-19368.	2.1	20
481	Mass and Force Sensing of an Adsorbate on a Beam Resonator Sensor. <i>Sensors</i> , 2015, 15, 14871-14886.	2.1	14
482	Proposition of a Silica Nanoparticle-Enhanced Hybrid Spin-Microcantilever Sensor Using Nonlinear Optics for Detection of DNA in Liquid. <i>Sensors</i> , 2015, 15, 24848-24861.	2.1	4
483	Tunable Micro- and Nanomechanical Resonators. <i>Sensors</i> , 2015, 15, 26478-26566.	2.1	75
484	Toward Higher-Order Mass Detection: Influence of an Adsorbate's Rotational Inertia and Eccentricity on the Resonant Response of a Bernoulli-Euler Cantilever Beam. <i>Sensors</i> , 2015, 15, 29209-29232.	2.1	11
485	Constitutive models for linear compressible viscoelastic flows of simple liquids at nanometer length scales. <i>Physics of Fluids</i> , 2015, 27, .	1.6	46
486	Whispering gallery mode sensors. <i>Advances in Optics and Photonics</i> , 2015, 7, 168.	12.1	752
487	Design optimisation of silicon-based MEMS sensors dedicated to bioaerosols monitoring. , 2015, , .		1
488	Influence of morphology and crystallinity on field emission properties of NiFe ₂ O ₄ nanoparticles grown by high-temperature vapor phase condensation route. <i>Materials Research Express</i> , 2015, 2, 095001.	0.8	15
489	Multiscale coupling based on quasicontinuum method in nanowires at finite temperatures. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
490	The Smallest Resonator Arrays in Atmosphere by Chip-Size-Grown Nanowires with Tunable Q -factor and Frequency for Subnanometer Thickness Detection. <i>Nano Letters</i> , 2015, 15, 1128-1134.	4.5	21
491	Charge Sensitivity Enhancement via Mechanical Oscillation in Suspended Carbon Nanotube Devices. <i>Nano Letters</i> , 2015, 15, 1667-1672.	4.5	22
492	A review on the flexural mode of graphene: lattice dynamics, thermal conduction, thermal expansion, elasticity and nanomechanical resonance. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 083001.	0.7	73
493	The periodicity in interfacial friction of graphene. <i>Carbon</i> , 2015, 85, 328-334.	5.4	9
494	Frequency-domain Monte Carlo method for linear oscillatory gas flows. <i>Journal of Computational Physics</i> , 2015, 284, 351-366.	1.9	10
495	Detection of biological objects using dynamic characteristics of double-walled carbon nanotubes. <i>Applied Nanoscience (Switzerland)</i> , 2015, 5, 681-695.	1.6	9
496	On-Chip Photonic Transistor Device and Biomolecule Mass Sensor Based on a Whispering Gallery Mode Cavity Optomechanical System. <i>IEEE Sensors Journal</i> , 2015, 15, 3375-3380.	2.4	3
497	Frontiers of Graphene and Carbon Nanotubes. , 2015, , .		34
498	Nano-Optomechanical Resonators in Microfluidics. <i>Nano Letters</i> , 2015, 15, 6116-6120.	4.5	33
499	Magnetically Actuated Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2015, 15, 5143-5148.	4.5	8
500	A triple-dimensional sensing chip for discrimination of eight antioxidants based on quantum dots and graphene. <i>Biosensors and Bioelectronics</i> , 2015, 74, 313-317.	5.3	19
501	Mass and force sensing of an adsorbate on a string resonator. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 305-311.	4.0	8
502	Carbon nanotube mechanical resonator in potential well induced by van der Waals interaction with graphene. <i>Applied Physics Express</i> , 2015, 8, 085101.	1.1	3
503	A note on the breathing mode of an elastic sphere in Newtonian and complex fluids. <i>Physics of Fluids</i> , 2015, 27, .	1.6	38
504	A review on nanomechanical resonators and their applications in sensors and molecular transportation. <i>Applied Physics Reviews</i> , 2015, 2, .	5.5	106
505	Synergistic improvement of gas sensing performance by micro-gravimetrically extracted kinetic/thermodynamic parameters. <i>Analytica Chimica Acta</i> , 2015, 863, 49-58.	2.6	9
506	Self-detection of mechanical oscillations of charge-density wave conductors. <i>Physica B: Condensed Matter</i> , 2015, 460, 39-44.	1.3	7
507	A third-order mode high frequency biosensor with atomic resolution. <i>Biosensors and Bioelectronics</i> , 2015, 71, 261-268.	5.3	18

#	ARTICLE	IF	CITATIONS
508	Surface electron perturbations and the collective behaviour of atoms adsorbed on a cylinder. <i>Nature Physics</i> , 2015, 11, 398-402.	6.5	6
509	Emerging carbon-based nanosensor devices: structures, functions and applications. <i>Advances in Manufacturing</i> , 2015, 3, 63-72.	3.2	20
510	Characterization of a gold coated cantilever surface for biosensing applications. <i>EPJ Techniques and Instrumentation</i> , 2015, 2, 1.	0.5	38
511	Evanescent-Field Optical Readout of Graphene Mechanical Motion at Room Temperature. <i>Physical Review Applied</i> , 2015, 3, .	1.5	40
512	Tuning the acoustic frequency of a gold nanodisk through its adhesion layer. <i>Nature Communications</i> , 2015, 6, 7022.	5.8	65
513	Nanomechanical Application of CNT. , 2015, , 187-199.		1
514	Wafer-Level Hysteresis-Free Resonant Carbon Nanotube Transistors. <i>ACS Nano</i> , 2015, 9, 2836-2842.	7.3	11
515	Inertial imaging with nanomechanical systems. <i>Nature Nanotechnology</i> , 2015, 10, 339-344.	15.6	141
516	Molten Au/Ge Alloy Migration in Ge Nanowires. <i>Nano Letters</i> , 2015, 15, 2809-2816.	4.5	15
517	Wavelength-division multiplexing of nano-optomechanical doubly clamped beam systems. <i>Optics Letters</i> , 2015, 40, 1948.	1.7	8
518	Dynamics of an optomechanical resonator containing a quantum well induced by periodic modulation of cavity field and external laser beam. <i>Canadian Journal of Physics</i> , 2015, 93, 716-724.	0.4	6
519	Dynamic range tuning of graphene nanoresonators. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	24
520	Angular Sensitivity of VHF-Band CNT Antenna. <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 1112-1116.	1.1	9
521	Humidity Sensor Based on High Proton Conductivity of Graphene Oxide. <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 931-937.	1.1	52
522	High-speed multiple-mode mass-sensing resolves dynamic nanoscale mass distributions. <i>Nature Communications</i> , 2015, 6, 7070.	5.8	106
523	Piezotransistive transduction of femtoscale displacement for photoacoustic spectroscopy. <i>Nature Communications</i> , 2015, 6, 7885.	5.8	43
524	Internal Electron Tunneling Enabled Ultrasensitive Position/Force Peapod Sensors. <i>Nano Letters</i> , 2015, 15, 7281-7287.	4.5	11
525	Nanotube Electromechanics beyond Carbon: The Case of WS ₂ . <i>ACS Nano</i> , 2015, 9, 12224-12232.	7.3	29

#	ARTICLE	IF	CITATIONS
526	Electric current induced modification of germanium nanowire NEM switch contact. Nanotechnology, 2015, 26, 195503.	1.3	13
527	A semi-analytical approach to molecular dynamics. Journal of Computational Physics, 2015, 303, 336-354.	1.9	10
528	Acoustic vibrations of metal nano-objects: Time-domain investigations. Physics Reports, 2015, 549, 1-43.	10.3	135
529	Hybrid spin-microcantilever sensor for environmental, chemical, and biological detection. Nanotechnology, 2015, 26, 015501.	1.3	9
530	Single molecular shuttle-junction: Shot noise and decoherence. Frontiers of Physics, 2015, 10, 59-86.	2.4	11
531	Time-domain investigation of the acoustic vibrations of metal nanoparticles: Size and encapsulation effects. Ultrasonics, 2015, 56, 98-108.	2.1	52
532	Graphene and carbon nanotube (CNT) in MEMS/NEMS applications. Microelectronic Engineering, 2015, 132, 192-206.	1.1	191
533	Resonance frequency and mass identification of zeptogram-scale nanosensor based on the nonlocal beam theory. Ultrasonics, 2015, 55, 75-84.	2.1	57
534	Boron nitride nanotubes as bionanosensors. , 2016, , 149-164.		4
535	Grand Challenge in N/MEMS. Frontiers in Mechanical Engineering, 2016, 1, .	0.8	18
536	A Review of Double-Walled and Triple-Walled Carbon Nanotube Synthesis and Applications. Applied Sciences (Switzerland), 2016, 6, 109.	1.3	44
537	Mixed role of surface on intrinsic losses in silicon nanostructures. Journal of Applied Physics, 2016, 119, 114304.	1.1	8
538	Micromachined Resonators: A Review. Micromachines, 2016, 7, 160.	1.4	155
539	Resonant frequency and flutter instability of a nanocantilever with the surface effects. Composite Structures, 2016, 153, 645-653.	3.1	17
540	Mass and rotary inertia sensing from vibrating cantilever nanobeams. Proceedings of SPIE, 2016, , .	0.8	1
541	Tight-binding normal mode analysis of suspended single-wall carbon nanotubes. Europhysics Letters, 2016, 113, 37004.	0.7	1
542	A method for measuring rotation of a thermal carbon nanomotor using centrifugal effect. Scientific Reports, 2016, 6, 27338.	1.6	16
543	Chemical Vapor Deposition (CVD). , 2016, , 518-524.		0

#	ARTICLE	IF	CITATIONS
544	Nonlinear damping and dephasing in nanomechanical systems. <i>Physical Review B</i> , 2016, 94, .	1.1	28
545	Simultaneous determination of the residual stress, elastic modulus, density and thickness of ultrathin film utilizing vibrating doubly clamped micro-/nanobeams. <i>AIP Advances</i> , 2016, 6, .	0.6	9
546	Investigation of nanomechanical oscillators based on amorphous carbon whiskers in vacuum and at ambient pressure. <i>Journal of Physics: Conference Series</i> , 2016, 769, 012062.	0.3	0
547	Sensitivity measurement of a cantilever-based surface stress sensor. <i>Journal of Chemical Physics</i> , 2016, 145, 154704.	1.2	1
548	Femtogram scale nanomechanical resonators embedded in a double-slot photonic crystal nanobeam cavity. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	5
549	Factors affecting the f/Q product of 3C-SiC microstrings: What is the upper limit for sensitivity?. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	9
550	Force sensitivity of multilayer graphene optomechanical devices. <i>Nature Communications</i> , 2016, 7, 12496.	5.8	118
551	Single-ion adsorption and switching in carbon nanotubes. <i>Nature Communications</i> , 2016, 7, 10475.	5.8	23
552	Pulled microcapillary tube resonators with electrical readout for mass sensing applications. <i>Scientific Reports</i> , 2016, 6, 33799.	1.6	19
553	Precise mass detector based on carbon nanooscillator. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	2
554	Nanoelectromechanical systems based on low dimensional nanomaterials: Beyond carbon nanotube and graphene nanomechanical resonators—a brief review. , 2016, , .		1
555	Chitosan. , 2016, , 524-524.		0
556	Oscillation control of carbon nanotube mechanical resonator by electrostatic interaction induced retardation. <i>Scientific Reports</i> , 2016, 6, 22600.	1.6	11
557	Ultrananocrystalline Diamond Membranes for Detection of High-Mass Proteins. <i>Physical Review Applied</i> , 2016, 6, .	1.5	7
558	Validity and Accuracy of Resonance Shift Prediction Formulas for Microcantilevers: A Review and Comparative Study. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2016, 41, 386-429.	6.8	28
559	Sphere oscillating in a rarefied gas. <i>Journal of Fluid Mechanics</i> , 2016, 794, 109-153.	1.4	21
560	Characteristics of light transfer in the connected conical waveguides with the same symmetry axis. <i>Applied Optics</i> , 2016, 55, 3854.	2.1	0
561	Mass and position determination in MEMS mass sensors: a theoretical and an experimental investigation. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 105009.	1.5	29

#	ARTICLE	IF	CITATIONS
562	Rotation measurements of a thermally driven rotary nanomotor with a spring wing. Physical Chemistry Chemical Physics, 2016, 18, 22478-22486.	1.3	26
563	A review on coupled MEMS resonators for sensing applications utilizing mode localization. Sensors and Actuators A: Physical, 2016, 249, 93-111.	2.0	176
564	Multiscale approach to modeling intrinsic dissipation in solids. Physical Review B, 2016, 94, .	1.1	1
565	Phonon Josephson junction with nanomechanical resonators. Physical Review A, 2016, 93, .	1.0	19
566	Particle number scaling for diffusion-induced dissipation in graphene and carbon nanotube nanomechanical resonators. Physical Review B, 2016, 93, .	1.1	5
567	Reversible Tuning of Individual Carbon Nanotube Mechanical Properties via Defect Engineering. Nano Letters, 2016, 16, 5221-5227.	4.5	24
568	Near-Field Integration of a SiN Nanobeam and a SiO_2 Microcavity for Heisenberg-Limited Displacement Sensing. Physical Review Applied, 2016, 5, .	1.5	48
569	Single molecule mass measurements and mass spectrometry. Rapid Communications in Mass Spectrometry, 2016, 30, 2671-2672.	0.7	0
570	Resonant Optomechanics with a Vibrating Carbon Nanotube and a Radio-Frequency Cavity. Physical Review Letters, 2016, 117, 170801.	2.9	32
571	Precise mass detector based on α W needle - C nanowire nanomechanical system. Journal of Physics: Conference Series, 2016, 741, 012207.	0.3	0
572	A PT/MWCNT hybrid nanotube resonator towards to vibrator device. , 2016, , .		0
573	Thermal expansion in nanoresonators. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 083201.	0.9	1
574	Applicability of continuum based models in designing proper carbon nanotube based nanosensors. Computational Materials Science, 2016, 122, 322-330.	1.4	14
575	A finite element modeling for large deflection analysis of uniform and tapered nanowires with good interpretation of experimental results. International Journal of Mechanical Sciences, 2016, 114, 111-119.	3.6	11
577	Factor study of nanomechanical system α metal tip α carbon nanowhisker α at low and ambient pressure. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2375-2379.	0.8	3
578	Enhanced Proton Conductivity of Graphene Oxide/Nafion Composite Material in Humidity Sensing Application. IEEE Nanotechnology Magazine, 2016, 15, 782-790.	1.1	11
579	Tailored Hypersound Generation in Single Plasmonic Nanoantennas. Nano Letters, 2016, 16, 1428-1434.	4.5	40
580	Visualizing the Motion of Graphene Nanodrums. Nano Letters, 2016, 16, 2768-2773.	4.5	74

#	ARTICLE	IF	CITATIONS
581	Cyclotron transition line-width due to interactions with the flexural wave of a phonon confined in a quantum well. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 035201.	0.8	0
582	Frequency fluctuations in silicon nanoresonators. <i>Nature Nanotechnology</i> , 2016, 11, 552-558.	15.6	183
583	Whispering Gallery Mode Devices for Sensing and Biosensing. <i>Springer Series in Materials Science</i> , 2016, , 237-288.	0.4	6
584	Higher order modes excitation of electrostatically actuated clamped-clamped microbeams: experimental and analytical investigation. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 025008.	1.5	38
585	A Three Degree-of-Freedom Weakly Coupled Resonator Sensor With Enhanced Stiffness Sensitivity. <i>Journal of Microelectromechanical Systems</i> , 2016, 25, 38-51.	1.7	73
586	Role of structural symmetry breaking in the structurally induced robust superlubricity of graphene and h-BN homo- and hetero-junctions. <i>Carbon</i> , 2016, 96, 911-918.	5.4	12
587	A novel method combining Monte Carlo-FEM simulations and experiments for simultaneous evaluation of the ultrathin film mass density and Young's modulus. <i>Mechanical Systems and Signal Processing</i> , 2016, 66-67, 223-231.	4.4	11
588	Vibration analysis of initially curved single walled carbon nanotube with vacancy defect for ultrahigh frequency nanoresonators. <i>Microsystem Technologies</i> , 2016, 22, 1115-1120.	1.2	13
589	Nanobeam sensor for measuring a zeptogram mass. <i>International Journal of Mechanics and Materials in Design</i> , 2016, 12, 211-221.	1.7	47
590	Linear and nonlinear free vibrations of electrostatically actuated micro-/nanomechanical resonators. <i>Microsystem Technologies</i> , 2017, 23, 113-123.	1.2	9
591	Size-dependent resonance frequencies of longitudinal vibration of a nonlocal Love nanobar with a tip nanoparticle. <i>Mathematics and Mechanics of Solids</i> , 2017, 22, 1529-1542.	1.5	18
592	Scientometric analysis of <i>Nature Nanotechnology</i> . <i>Library Hi Tech News</i> , 2017, 34, 23-30.	0.5	10
593	Mass and position determination of an accreted particle from the vibration of a beam-based nanomechanical resonator. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 025002.	0.8	7
594	Effective Mass Sensing Using Optomechanically Induced Transparency in Microresonator System. <i>IEEE Photonics Journal</i> , 2017, 9, 1-11.	1.0	12
595	3D Tunable, Multiscale, and Multistable Vibrational Micro-Platforms Assembled by Compressive Buckling. <i>Advanced Functional Materials</i> , 2017, 27, 1605914.	7.8	43
596	3.31 Carbon Nanotube-Based Sensors: Overview. , 2017, , 690-702.		1
597	Establishing detection maps for carbon nanotube mass sensors: molecular versus continuum mechanics. <i>Acta Mechanica</i> , 2017, 228, 2377-2390.	1.1	9
598	Scattering of longitudinal acoustic phonons in thin silicon membranes. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0

#	ARTICLE	IF	CITATIONS
599	Nonlinear intrinsic dissipation in single layer MoS ₂ resonators. RSC Advances, 2017, 7, 6403-6410.	1.7	15
600	Platinum composite nanowires for ultrasensitive mass detection. Applied Physics Letters, 2017, 110, 143102.	1.5	2
601	Finite element investigation of multi-walled carbon nanotubes as mass sensors. EPJ Applied Physics, 2017, 78, 20401.	0.3	2
602	Pump-Power Dependence of Coherent Acoustic Phonon Frequencies in Colloidal CdSe/CdS Core/Shell Nanoplatelets. Nano Letters, 2017, 17, 3312-3319.	4.5	17
603	Reporting the sensitivities and resolutions of CNT-based resonators for mass sensing. Materials and Design, 2017, 114, 591-598.	3.3	31
604	A measurement criterion for accurate mass detection using vibrating suspended microchannel resonators. Journal of Sound and Vibration, 2017, 403, 1-20.	2.1	8
605	Shape tailoring to enhance and tune the properties of graphene nanomechanical resonators. 2D Materials, 2017, 4, 025101.	2.0	19
606	Dynamical response of multi-walled carbon nanotube resonators based on continuum mechanics modeling for mass sensing applications. Journal of Mechanical Science and Technology, 2017, 31, 2385-2391.	0.7	6
607	Generalized Mechanism of Field Emission from Nanostructured Semiconductor Film Cathodes. Scientific Reports, 2017, 7, .	1.6	12
608	Large deflection analysis of nanowires based on nonlocal theory using total Lagrangian finite element method. Acta Mechanica, 2017, 228, 2429-2442.	1.1	11
609	Quantum systems under frequency modulation. Reports on Progress in Physics, 2017, 80, 056002.	8.1	117
610	Cross-Linked Gold-Nanoparticle Membrane Resonators as Microelectromechanical Vapor Sensors. ACS Sensors, 2017, 2, 540-546.	4.0	21
611	Radiation and Internal Loss Engineering of High-Stress Silicon Nitride Nanobeams. Nano Letters, 2017, 17, 3501-3505.	4.5	38
612	Feedback control of multiple mechanical modes in coupled micromechanical resonators. Applied Physics Letters, 2017, 110, 053106.	1.5	10
613	Mass sensor based on split-nanobeam optomechanical oscillator. Proceedings of SPIE, 2017, , .	0.8	1
614	The study of radiation effects in emerging micro and nano electro mechanical systems (MEMS and NEMS). Semiconductor Science and Technology, 2017, 32, 013005.	1.0	27
615	Adaptive Control of Angular Sensitivity for VHF-Band Nano-Antenna Using CNT Mechanical Resonator. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2017, 3, 24-32.	1.4	10
616	Pillared graphene as an ultra-high sensitivity mass sensor. Scientific Reports, 2017, 7, 14012.	1.6	49

#	ARTICLE	IF	CITATIONS
617	Measurement of the Young's modulus of amorphous carbon nanowhisker by static and dynamic method. AIP Conference Proceedings, 2017, , .	0.3	0
618	Mass sensing by detecting the quadrature of a coupled light field. Physical Review A, 2017, 96, .	1.0	23
619	Timoshenko beam model for vibrational analysis of double-walled carbon nanotubes bridged on substrate. Current Applied Physics, 2017, 17, 1670-1690.	1.1	9
620	Optimization of the readout of microdrum optomechanical resonators. Microelectronic Engineering, 2017, 183-184, 37-41.	1.1	5
621	Inertial mass sensing with low Q-factor vibrating microcantilevers. Journal of Applied Physics, 2017, 122, .	1.1	10
622	Unconventional two-dimensional vibrations of a decorated carbon nanotube under electric field: linking actuation to advanced sensing ability. Scientific Reports, 2017, 7, 13481.	1.6	1
623	Mechanism of geometric nonlinearity in a nonprismatic and heterogeneous microbeam resonator. Physical Review B, 2017, 96, .	1.1	10
624	Stepwise relaxation and stochastic precession in degenerate oscillators dispersively coupled to particles. Physical Review B, 2017, 96, .	1.1	0
625	Effect of buckling on the thermal response of microelectromechanical beam resonators. Applied Physics Letters, 2017, 111, .	1.5	22
626	Sensitive resonant gas sensor operating in air with metal organic frameworks coating. , 2017, , .		0
628	MEMS/NEMS Devices and Applications. Springer Handbooks, 2017, , 395-429.	0.3	13
629	Single-Walled Carbon Nanotube Sensor Concepts. Springer Handbooks, 2017, , 431-456.	0.3	1
630	Smart Resonant Gas Sensor and Switch Operating in Air With Metal-Organic Frameworks Coating. , 2017, , .		0
631	Direct measurement of optical trapping force gradient on polystyrene microspheres using a carbon nanotube mechanical resonator. Scientific Reports, 2017, 7, 2825.	1.6	7
632	Electrophoresis assisted time-of-flow mass spectrometry using hollow nanomechanical resonators. Scientific Reports, 2017, 7, 3535.	1.6	6
633	A universal and ultrasensitive vectorial nanomechanical sensor for imaging 2D force fields. Nature Nanotechnology, 2017, 12, 156-162.	15.6	100
634	Entanglement of two optically driven quantum dots mediated by phonons in nanomechanical resonator. Optics Communications, 2017, 382, 580-584.	1.0	6
635	Potential of epitaxial silicon carbide microbeam resonators for chemical sensing. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600437.	0.8	6

#	ARTICLE	IF	CITATIONS
636	Simultaneous determination of position and mass of a particle by the vibration of a diaphragm-based nanomechanical resonator. <i>Meccanica</i> , 2017, 52, 2101-2109.	1.2	10
637	Financial states of world financial and commodities markets around sovereign debt crisis. <i>Journal of the Korean Physical Society</i> , 2017, 71, 733-739.	0.3	2
638	Investigation of thermomechanical motion in a nanomechanical resonator based on optical intensity mapping. <i>Journal of the Korean Physical Society</i> , 2017, 71, 684-691.	0.3	0
639	Phase shifter tuned by varying the spring constant of a nanomechanical cantilever. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	7
640	Nonlinearity and parametric pumping in sensors: Opportunities and limitations. , 2017, , .		3
641	Algebraic summation of eigenstates as a novel output metric to extend the linear sensing range of mode-localized sensors. , 2017, , .		5
642	Injection locking of an electro-optomechanical device. <i>Optica</i> , 2017, 4, 1196.	4.8	38
643	Femtogram scale high frequency nano-optomechanical resonators in water. <i>Optics Express</i> , 2017, 25, 821.	1.7	9
644	Carbon Nanotube-Based Nanomechanical Sensor: Theoretical Analysis of Mechanical and Vibrational Properties. <i>Electronics (Switzerland)</i> , 2017, 6, 56.	1.8	17
645	Fabrication and Characterization of MWCNT-Based Bridge Devices. <i>IEEE Nanotechnology Magazine</i> , 2017, 16, 1037-1046.	1.1	4
646	Resonant Gas Sensor and Switch Operating in Air With Metal-Organic Frameworks Coating. <i>Journal of Microelectromechanical Systems</i> , 2018, 27, 156-163.	1.7	29
647	Novel behaviors/properties of nanometals induced by surface effects. <i>Materials Today Nano</i> , 2018, 1, 8-21.	2.3	21
648	Precise measurement of coupling strength and high temperature quantum effect in a nonlinearly coupled qubit-oscillator system. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 043102.	0.9	0
649	Measuring the internal temperature of a levitated nanoparticle in high vacuum. <i>Physical Review A</i> , 2018, 97, .	1.0	49
650	Current state of the art in small mass and force metrology within the International System of Units. <i>Measurement Science and Technology</i> , 2018, 29, 072001.	1.4	23
651	Size-dependent resonance frequencies of cantilevered and bridged nanosensors. <i>Modern Physics Letters B</i> , 2018, 32, 1850095.	1.0	3
652	Mass Spectrometry Using Nanomechanical Systems: Beyond the Point-Mass Approximation. <i>Nano Letters</i> , 2018, 18, 1608-1614.	4.5	43
653	Electrothermally Tunable Graphene Resonators Operating at Very High Temperature up to 1200 K. <i>Nano Letters</i> , 2018, 18, 1678-1685.	4.5	65

#	ARTICLE	IF	CITATIONS
654	A micromechanical mass sensing method based on amplitude tracking within an ultra-wide broadband resonance. <i>Nonlinear Dynamics</i> , 2018, 92, 287-304.	2.7	30
655	Raman spectroscopy of graphene-based materials and its applications in related devices. <i>Chemical Society Reviews</i> , 2018, 47, 1822-1873.	18.7	1,274
656	Energy Dissipation in Fluid Coupled Nanoresonators: The Effect of Phonon-Fluid Coupling. <i>ACS Nano</i> , 2018, 12, 368-377.	7.3	17
657	Adsorption on Nanopores of Different Cross Sections Made by Electron Beam Nanolithography. <i>Langmuir</i> , 2018, 34, 106-114.	1.6	3
658	Eigenmode orthogonality breaking and anomalous dynamics in multimode nano-optomechanical systems under non-reciprocal coupling. <i>Nature Communications</i> , 2018, 9, 1401.	5.8	16
659	Electrically tunable single- and few-layer MoS ₂ nanoelectromechanical systems with broad dynamic range. <i>Science Advances</i> , 2018, 4, eaao6653.	4.7	126
660	Diamond nanothread based resonators: ultrahigh sensitivity and low dissipation. <i>Nanoscale</i> , 2018, 10, 8058-8065.	2.8	44
661	Nanomechanical resonators based on group IV element monolayers. <i>Nanotechnology</i> , 2018, 29, 165503.	1.3	3
662	Parameter Identification and Adaptive Control Of Carbon Nanotube Resonators. <i>Asian Journal of Control</i> , 2018, 20, 1329-1338.	1.9	9
663	Theoretical study of an electrostatically actuated torsional microsensor for biological applications. <i>Microsystem Technologies</i> , 2018, 24, 1109-1114.	1.2	3
664	The Hysteresis Phenomenon and Q Factor Enhancement in Nonlinear NEMS Resonators Driven by Lévy Stable Stochastic Processes. , 2018, , .		2
665	Effective Surface Enhancement of Nanomechanical Disk Resonators Using CNT for Mass Sensing Applications. , 2018, , .		1
666	Neutral mass spectrometry of virus capsids above 100 megadaltons with nanomechanical resonators. <i>Science</i> , 2018, 362, 918-922.	6.0	92
667	Microfluidic Cantilever Biosensors. , 2018, , .		1
668	Arrow Shaped Microcantilever Beams for Enhancing Mass Sensitivity. , 2018, , .		1
669	MEMS PZT Oscillating Platform for Fine Dust Particle Removal at Resonance. <i>International Journal of Precision Engineering and Manufacturing</i> , 2018, 19, 1851-1859.	1.1	8
670	Multimode excitation of a metal organics frameworks coated microbeam for smart gas sensing and actuation. <i>Sensors and Actuators A: Physical</i> , 2018, 283, 254-262.	2.0	24
671	Extraction of RBM frequency of a (10, 0) SWNT using MATLAB. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0

#	ARTICLE	IF	CITATIONS
672	Temperature and carrier density dependence of electron effective mass and bandgap in semiconductor carbon nanotubes at elevated temperature: Analytical calculations. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	4
673	Fractional-order model for the vibration of a nanobeam influenced by an axial magnetic field and attached nanoparticles. <i>Acta Mechanica</i> , 2018, 229, 4791-4815.	1.1	14
674	Nanoelectromechanical Disk Resonators as Highly Sensitive Mass Sensors. <i>IEEE Electron Device Letters</i> , 2018, 39, 1744-1747.	2.2	9
675	Passive subharmonic elimination. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	2
676	Flutter and divergence instability of rectangular plates under nonconservative forces considering surface elasticity. <i>International Journal of Mechanical Sciences</i> , 2018, 149, 254-261.	3.6	13
677	A nonlinear resonant mass sensor with enhanced sensitivity and resolution incorporating compressed bistable beam. <i>Journal of Applied Physics</i> , 2018, 124, 164503.	1.1	14
678	Array of Resonant Electromechanical Nanosystems: A Technological Breakthrough for Uncooled Infrared Imaging. <i>Micromachines</i> , 2018, 9, 401.	1.4	9
679	Highly Sensitive Mass Sensing by Means of the Optomechanical Nonlinearity. <i>IEEE Photonics Journal</i> , 2018, 10, 1-8.	1.0	8
680	The dynamic characteristics of micro-diaphragms subjected to thermal stress when coupled with a fluid. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	8
681	Ultrasensitive nanosensors based on localized surface plasmon resonances: From theory to applications. <i>Chinese Physics B</i> , 2018, 27, 107403.	0.7	34
682	Edge-mode-based graphene nanomechanical resonators for high-sensitivity mass sensor. <i>Europhysics Letters</i> , 2018, 123, 36002.	0.7	6
683	An optical Bragg scattering readout for nano-mechanical resonances of GaN nanowire arrays. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	4
684	Role and significance of thermal loading on the performance of carbon nanotube-based mass sensors. <i>Materials and Design</i> , 2018, 160, 229-250.	3.3	13
685	Stressed carbon nanotube devices for high tunability, high quality factor, single mode GHz resonators. <i>Nano Research</i> , 2018, 11, 5812-5822.	5.8	13
686	Heisenberg-limited estimation of the coupling rate in an optomechanical system with a two-level system. <i>Physical Review A</i> , 2018, 98, .	1.0	7
687	Mass Detection of Single Viruses Based on Whispering Gallery Modes of Optomechanical Systems via Optical Pump-Probe Technique. <i>Journal of Experimental and Theoretical Physics</i> , 2018, 126, 712-717.	0.2	0
688	Suppression on Nonlinearity of Mode-Localized Sensors Using Algebraic Summation of Amplitude Ratios as the Output Metric. <i>IEEE Sensors Journal</i> , 2018, 18, 7802-7809.	2.4	11
689	Electromagnetic elds and optomechanics in cancer diagnostics and treatment. <i>Frontiers in Bioscience - Landmark</i> , 2018, 23, 1391-1406.	3.0	7

#	ARTICLE	IF	CITATIONS
690	Size-dependent coupled longitudinal–transverse vibration of five-fold twinned nanowires. <i>Extreme Mechanics Letters</i> , 2018, 23, 49-54.	2.0	2
691	Nanocantilevers with Adjustable Static Deflection and Significantly Tunable Spectrum Resonant Frequencies for Applications in Nanomechanical Mass Sensors. <i>Nanomaterials</i> , 2018, 8, 116.	1.9	20
692	Room temperature optical mass sensor with an artificial molecular structure based on surface plasmon optomechanics. <i>Photonics Research</i> , 2018, 6, 867.	3.4	15
693	Wafer-scale photolithography of ultra-sensitive nanocantilever force sensors. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	6
694	Interdigitated Electrode–Based Triboelectric Sliding Sensor for Security Monitoring. <i>Advanced Materials Technologies</i> , 2018, 3, 1800189.	3.0	50
695	Driven nonlinear nanomechanical resonators as digital signal detectors. <i>Scientific Reports</i> , 2018, 8, 11284.	1.6	24
696	NEMS Resonators for Detection of Chemical Warfare Agents Based on Graphene Sheet. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-23.	0.6	8
697	Piezoelectrically excited MEMS sensor with integrated planar coil for the detection of ferrous particles in liquids. <i>Sensors and Actuators B: Chemical</i> , 2019, 299, 126957.	4.0	17
698	Experimental confirmation of the nearly power-law relation between macroscopic current and characteristic current density in carbon nanotube-based large-area field emitters. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	3
699	Enhanced thermal sensitivity of MEMS bolometers integrated with nanometer-scale hole array structures. <i>AIP Advances</i> , 2019, 9, .	0.6	13
700	Mass loading effects in the acoustic vibrations of gold nanoplates. <i>Nanoscale</i> , 2019, 11, 16208-16213.	2.8	18
701	Stress-Insensitive Resonant Graphene Mass Sensing via Frequency Ratio. <i>Sensors</i> , 2019, 19, 3027.	2.1	12
702	Dependence of enhancement factor on electrode size for field emission current from carbon nanotube on silicon wafer. <i>Nanotechnology</i> , 2019, 30, 425201.	1.3	5
703	Self-sensing, tunable monolayer MoS ₂ nanoelectromechanical resonators. <i>Nature Communications</i> , 2019, 10, 4831.	5.8	65
704	QCM based enantioselective discrimination of enantiomers by a pair of serine derived homochiral coordination polymers. <i>Biosensors and Bioelectronics</i> , 2019, 144, 111667.	5.3	13
705	Quantum entanglement driven by electron-vibrational mode coupling. <i>Physical Review A</i> , 2019, 100, .	1.0	11
706	An ultrathin integrated nanoelectromechanical transducer based on hafnium zirconium oxide. <i>Nature Electronics</i> , 2019, 2, 506-512.	13.1	42
707	Carbon Nanotubes for Mechanical Sensor Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900584.	0.8	12

#	ARTICLE	IF	CITATIONS
708	Fabrication of tunnel barriers and single electron transistors in suspended multi-wall carbon nanotubes. <i>AIP Advances</i> , 2019, 9, 105015.	0.6	1
709	Free vibration of single-layered MoS ₂ suspended over a circular hole. <i>Journal of Applied Physics</i> , 2019, 126, 135106.	1.1	7
710	Highly Sensitive Mass Detection Using Optically Levitated Microdisks. <i>IEEE Sensors Journal</i> , 2019, 19, 7269-7274.	2.4	1
711	How Gaseous Environment Influences a Carbon Nanotube-Based Mechanical Resonator. <i>Journal of Physical Chemistry C</i> , 2019, 123, 25925-25933.	1.5	5
712	Real-time vibrations of a carbon nanotube. <i>Nature</i> , 2019, 566, 89-93.	13.7	58
713	Giant, Voltage Tuned, Quality Factors of Single Wall Carbon Nanotubes and Graphene at Room Temperature. <i>Nano Letters</i> , 2019, 19, 1534-1538.	4.5	10
714	Restoring Observed Classical Behavior of the Carbon Nanotube Field Emission Enhancement Factor from the Electronic Structure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5144-5149.	1.5	10
715	Nonlinear Nanomechanical Mass Spectrometry at the Single-Nanoparticle Level. <i>Nano Letters</i> , 2019, 19, 3583-3589.	4.5	31
716	Bifurcation diagram and dynamic response of a MEMS resonator with a 1:3 internal resonance. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	38
717	Force sensing with nanowire cantilevers. <i>Nanotechnology</i> , 2019, 30, 332001.	1.3	27
718	Anomalous scaling of flexural phonon damping in nanoresonators with confined fluid. <i>Microsystems and Nanoengineering</i> , 2019, 5, 2.	3.4	6
719	Application of hetero junction CNTs as mass nanosensor using nonlocal strain gradient theory: An analytical solution. <i>Applied Mathematical Modelling</i> , 2019, 76, 26-49.	2.2	18
720	Valley optomechanics in a monolayer semiconductor. <i>Nature Photonics</i> , 2019, 13, 397-401.	15.6	26
721	Optically manipulated nanomechanics of semiconductor nanowires. <i>Chinese Physics B</i> , 2019, 28, 054204.	0.7	5
722	Pulse-width modulated oscillations in a nonlinear resonator under two-tone driving as a means for MEMS sensor readout. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SBBI05.	0.8	4
723	Fast and sensitive bolometric terahertz detection at room temperature through thermomechanical transduction. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	44
724	Position and mass identification in nanotube mass sensor using neural networks. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019, 233, 5377-5387.	1.1	2
725	Effects of thermal loads representations on the dynamics and characteristics of carbon nanotubes-based mass sensors. <i>Smart Materials and Structures</i> , 2019, 28, 074003.	1.8	13

#	ARTICLE	IF	CITATIONS
726	Thin-Film Silicon MEMS for Dynamic Mass Sensing in Vacuum and Air: Phase Noise, Allan Deviation, Mass Sensitivity and Limits of Detection. <i>Journal of Microelectromechanical Systems</i> , 2019, 28, 390-400.	1.7	23
727	Nonlinear dynamic behavior of a clamped-clamped beam from BNC nanotube impacted by fullerene. <i>Nonlinear Dynamics</i> , 2019, 96, 1133-1145.	2.7	13
728	Nanomaterials for molecular sensing. , 2019, , 413-487.		5
729	Realization and direct observation of five normal and parametric modes in silicon nanowire resonators by <i>in situ</i> transmission electron microscopy. <i>Nanoscale Advances</i> , 2019, 1, 1784-1790.	2.2	4
731	Small strain effect on the mechanical vibration behavior of cross-linked functionalized carbon nanotubes with polyethylene: A molecular-dynamics study. <i>Europhysics Letters</i> , 2019, 125, 43001.	0.7	10
732	High-frequency cavity optomechanics using bulk acoustic phonons. <i>Science Advances</i> , 2019, 5, eaav0582.	4.7	37
733	Towards an Ultra-Sensitive Temperature Sensor for Uncooled Infrared Sensing in CMOS-MEMS Technology. <i>Micromachines</i> , 2019, 10, 108.	1.4	7
734	Electronic and transport properties of deformed platinum nanotubes calculated using relativistic linear augmented cylindrical wave method. <i>Chemical Physics Letters</i> , 2019, 720, 15-18.	1.2	4
735	Clamping effects on mechanical stability and energy dissipation in nanoresonators based on carbon nanotubes. <i>Journal of Applied Physics</i> , 2019, 126, 184302.	1.1	1
736	Origin of spurious oscillations in lattice Boltzmann simulations of oscillatory noncontinuum gas flows. <i>Physical Review E</i> , 2019, 100, 053317.	0.8	6
737	Tracking control of suspended microchannel resonators based on Krylov model order reduction method. <i>JVC/Journal of Vibration and Control</i> , 2019, 25, 1019-1030.	1.5	2
738	In situ quantification of interphasial chemistry in Li-ion battery. <i>Nature Nanotechnology</i> , 2019, 14, 50-56.	15.6	373
739	Soft Three-Dimensional Microscale Vibratory Platforms for Characterization of Nano-Thin Polymer Films. <i>ACS Nano</i> , 2019, 13, 449-457.	7.3	28
740	First-Principles Analysis of Nanoelectromechanical Systems Using the Loewner Equation. <i>Physical Review Applied</i> , 2019, 11, .	1.5	10
741	Electrodeposited silver nanoflowers as sensitive surface-enhanced Raman scattering sensing substrates. <i>Materials Letters</i> , 2019, 236, 398-402.	1.3	12
742	Surface Area Enhancement of Nanomechanical Disk Resonators Using MWCNT for Mass-Sensing Applications. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2019, 66, 609-615.	1.7	2
743	Transverse free vibration of resonant nanoplate mass sensors: Identification of an attached point mass. <i>International Journal of Mechanical Sciences</i> , 2019, 150, 217-225.	3.6	25
744	Measurement of the elastic modulus of nanowires based on resonant frequency and boundary condition effects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019, 105, 207-211.	1.3	4

#	ARTICLE	IF	CITATIONS
745	Nonlocal axial vibration of the multiple Bishop nanorod system. <i>Mathematics and Mechanics of Solids</i> , 2019, 24, 1668-1691.	1.5	18
746	Exact analysis of antibody-coated silicon biological nano-sensors (SBNSs) to identify viruses and bacteria. <i>Microsystem Technologies</i> , 2020, 26, 509-516.	1.2	4
747	The nonlocal frequency behavior of nanomechanical mass sensors based on the multi-directional vibrations of a buckled nanoribbon. <i>Applied Mathematical Modelling</i> , 2020, 77, 1780-1796.	2.2	7
748	Polyaniline-graphene oxide nanocomposite microelectromechanical sensor for stink bugs pheromone detection. <i>Sensors and Actuators B: Chemical</i> , 2020, 305, 127426.	4.0	17
749	Identification of Geometric Parameters Influencing the Impedance Sensitivity of Piezoelectric Mass Sensors. <i>IEEE Sensors Journal</i> , 2020, 20, 14740-14746.	2.4	2
750	Novel resonant MEMS sensor for the detection of particles with dielectric properties in aged lubricating oils. <i>Sensors and Actuators A: Physical</i> , 2020, 315, 112290.	2.0	14
751	Magnetic Sensor Based on Giant Magneto-Impedance in Commercial Inductors. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 7577-7583.	5.2	7
752	Method to Determine the Closed-Loop Precision of Resonant Sensors From Open-Loop Measurements. <i>IEEE Sensors Journal</i> , 2020, 20, 14262-14272.	2.4	5
753	Molecular Modelling and Synthesis of Nanomaterials. <i>Springer Series in Materials Science</i> , 2020, , .	0.4	5
754	An in-situ TEM microreactor for real-time nanomorphology & physicochemical parameters interrelated characterization. <i>Nano Today</i> , 2020, 35, 100932.	6.2	20
755	Vibrational Analysis of Carbon Nanotube-Based Nanomechanical Resonators. <i>Journal of Physical Chemistry C</i> , 2020, 124, 16714-16721.	1.5	4
756	Magnon current generation by dynamical distortion. <i>Physical Review B</i> , 2020, 102, .	1.1	2
757	Measurement surface plasmon polariton assisted optical force using a carbon nanowhisker mechanical resonator. <i>Journal of Physics: Conference Series</i> , 2020, 1461, 012065.	0.3	0
758	Ultrathin Mica and Graphite Cantilevers Enhanced Photoacoustic Spectroscopy towards Modelling of Acousto-mechanical Properties. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 855, 012007.	0.3	0
759	Quantum parameter estimation of the frequency and damping of a harmonic oscillator. <i>Physical Review A</i> , 2020, 102, .	1.0	7
760	Giant Enhancement in the Thermal Responsivity of Microelectromechanical Resonators by Internal Mode Coupling. <i>Physical Review Applied</i> , 2020, 14, .	1.5	16
761	Influence of Various Defect Parameters on the Vibration Characteristics of a Single-Walled Carbon Nanotube. <i>Journal of Failure Analysis and Prevention</i> , 2020, 20, 1229-1236.	0.5	1
762	Observation of phonon trapping in the continuum with topological charges. <i>Nature Communications</i> , 2020, 11, 5216.	5.8	20

#	ARTICLE	IF	CITATIONS
763	A Chip-Scale, Low Cost PVD System. <i>Journal of Microelectromechanical Systems</i> , 2020, 29, 1547-1555.	1.7	1
764	A note on the spheroidal modes vibration of an elastic sphere in linear viscoelastic fluid. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020, 384, 126556.	0.9	5
765	A Thermodynamics-Based Nonlocal Bar-Elastic Substrate Model with Inclusion of Surface-Energy Effect. <i>Journal of Nanomaterials</i> , 2020, 2020, 1-16.	1.5	3
766	Solid-state laser refrigeration of a composite semiconductor Yb:YLiF ₄ optomechanical resonator. <i>Nature Communications</i> , 2020, 11, 3235.	5.8	17
767	Exact analytical solutions to the problem of relative post-buckling stiffness of thin nonlocal graphene sheets. <i>Thin-Walled Structures</i> , 2020, 151, 106712.	2.7	9
768	Connecting concrete technology and machine learning: proposal for application of ANNs and CNT/concrete composites in structural health monitoring. <i>RSC Advances</i> , 2020, 10, 23038-23048.	1.7	13
769	Performance of Nano-Electromechanical Systems as Nanoparticle Position Sensors. <i>Frontiers in Mechanical Engineering</i> , 2020, 6, .	0.8	4
770	Regulating the electrical conductivity of hexagonal boron nitride nanosheets with excellent tribological performance for micro and nano electromechanical system applications. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 120, 114045.	1.3	13
771	Nonvolatile Rewritable Frequency Tuning of a Nanoelectromechanical Resonator Using Photoinduced Doping. <i>Nano Letters</i> , 2020, 20, 2378-2386.	4.5	9
772	Nonlinear dynamical responses of forced carbon nanotube-based mass sensors under the influence of thermal loadings. <i>Nonlinear Dynamics</i> , 2020, 100, 1013-1035.	2.7	18
773	Mass Spectrometry of Heavy Analytes and Large Biological Aggregates by Monitoring Changes in the Quality Factor of Nanomechanical Resonators in Air. <i>ACS Sensors</i> , 2020, 5, 2128-2135.	4.0	16
774	Metamaterials with Giant and Tailorable Nonreciprocal Elastic Moduli. <i>Physical Review Applied</i> , 2020, 14, .	1.5	10
775	Enhanced optomechanical entanglement and cooling via dissipation engineering. <i>Physical Review A</i> , 2020, 101, .	1.0	16
776	Vibration analysis of carbon nanotube mass sensors considering both inertia and stiffness of the detected mass. <i>Mechanics Based Design of Structures and Machines</i> , 2022, 50, 841-857.	3.4	14
777	Size- and Surface-Dependent Photoresponses of Solution-Processed Aluminum Nanoparticles. <i>ACS Photonics</i> , 2020, 7, 637-645.	3.2	7
778	Amplitude Difference Changes-Based Metrological Scheme for Force Detection in a Mode-Localized 5-Beam Array. <i>IEEE Sensors Journal</i> , 2020, 20, 2877-2884.	2.4	4
779	A GHz rotary nanoflake driven by diamond needles: A molecular dynamics study. <i>Materials and Design</i> , 2020, 191, 108593.	3.3	11
780	Analytical approach for predicting vibration characteristics of an embedded elastic sphere in complex fluid. <i>Archive of Applied Mechanics</i> , 2020, 90, 1399-1414.	1.2	5

#	ARTICLE	IF	CITATIONS
781	Diameter, strength and resistance tuning of double-walled carbon nanotubes in a transmission electron microscope. Carbon, 2020, 160, 98-106.	5.4	5
782	Raman intensity oscillation of graphene over SiO ₂ /Si micro-cavity. Japanese Journal of Applied Physics, 2020, 59, 028001.	0.8	1
783	A classical first-principles study of depolarization effects in small clusters of field emitters. Journal of Applied Physics, 2020, 127, 045304.	1.1	5
784	A strong correlation between the bending rigidity and the length of single-walled carbon nanotubes. Materials Today Communications, 2020, 24, 101144.	0.9	1
785	Carbon nanotube-based nanoelectromechanical resonator as mass biosensor. Chinese Physics B, 2020, 29, 078501.	0.7	4
786	A multimodal approach for simultaneous mass and rotary inertia sensing from vibrating cantilevers. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 125, 114366.	1.3	5
787	A Novel Frequency Stabilization Approach for Mass Detection in Nonlinear Mechanically Coupled Resonant Sensors. Micromachines, 2021, 12, 178.	1.4	11
788	Micro-Gas Flow Induced Stochastic Resonance of a Nonlinear Nanomechanical Resonator. Chinese Physics Letters, 2021, 38, 020502.	1.3	5
789	On thermoelastic damping in axisymmetric vibrations of circular nanoplates: incorporation of size effect into structural and thermal areas. European Physical Journal Plus, 2021, 136, 1.	1.2	5
790	Effects of residual stress and fluid loading on vibrations of a micro-diaphragm on a free fluid surface. AIP Advances, 2021, 11, 025128.	0.6	1
791	Mechanical Dissipation Below $1/4$ Hz with a Cryogenic Diamagnetic Levitated Micro-Oscillator. Physical Review Applied, 2021, 15, .	1.5	21
792	Quantum limit cycles and the Rayleigh and van der Pol oscillators. Physical Review Research, 2021, 3, .	1.3	21
793	Thermal vibration of circular single-layered MoS ₂ predicted by the circular Mindlin plate model. AIP Advances, 2021, 11, 025328.	0.6	1
794	Study on the progress of piezoelectric microcantilever beam micromass sensor. IOP Conference Series: Earth and Environmental Science, 0, 651, 022091.	0.2	2
795	Shape Memory Alloys and Polymers for MEMS/NEMS Applications: Review on Recent Findings and Challenges in Design, Preparation, and Characterization. Metals, 2021, 11, 415.	1.0	43
796	Correlation between the toroidal modes of an elastic sphere and the viscosity of liquids. Comptes Rendus - Mecanique, 2021, 349, 179-188.	0.3	2
797	About the robustness of Schottky conjecture when quasi-one-dimensional stages are present. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2021, 39, 022802.	0.6	1
798	Material and Charge Transport of Large Organic Salt Clusters and Nanoparticles in Electrospray Ion Beam Deposition. Journal of the American Society for Mass Spectrometry, 2021, 32, 1648-1658.	1.2	0

#	ARTICLE	IF	CITATIONS
799	Review on Carbon Nanomaterials-Based Nano-Mass and Nano-Force Sensors by Theoretical Analysis of Vibration Behavior. <i>Sensors</i> , 2021, 21, 1907.	2.1	15
800	Towards a Highly Sensitive Piezoelectric Nano-Mass Detection—A Model-Based Concept Study. <i>Sensors</i> , 2021, 21, 2533.	2.1	2
801	Theoretical analysis of detection sensitivity in nano-resonator-based sensors for elasticity and density measurement. <i>International Journal of Mechanical Sciences</i> , 2021, 197, 106309.	3.6	5
802	Phonon lasing in a hetero optomechanical crystal cavity. <i>Photonics Research</i> , 2021, 9, 937.	3.4	13
803	Integrated Resonant Micro/Nano Gravimetric Sensors for Bio/Chemical Detection in Air and Liquid. <i>Micromachines</i> , 2021, 12, 645.	1.4	20
804	Investigation of dynamic pull-in instability of suspended microchannel resonators using homotopy analysis method. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021, 43, 1.	0.8	1
805	The Recent Progress of MEMS/NEMS Resonators. <i>Micromachines</i> , 2021, 12, 724.	1.4	33
806	Optical-Thermally Excited Graphene Resonant Mass Detection: A Molecular Dynamics Analysis. <i>Nanomaterials</i> , 2021, 11, 1924.	1.9	2
807	High Dynamic Range Nanowire Resonators. <i>Nano Letters</i> , 2021, 21, 6617-6624.	4.5	19
808	Abnormal enhancement to the quality factors of carbon nanotube via defects engineering. <i>Nano Materials Science</i> , 2022, 4, 259-265.	3.9	4
809	Fast attenuation of high-frequency acoustic waves in bicontinuous nanoporous gold. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	2
810	Computational analysis of high precision nano-sensors for diagnosis of viruses: Effects of partial antibody layer. <i>Mathematics and Computers in Simulation</i> , 2021, , .	2.4	1
811	A review of gas sensors based on carbon nanomaterial. <i>Carbon Letters</i> , 2022, 32, 339-364.	3.3	45
812	Modes of Vibration of Single- and Double-Walled CNTs with an Attached Mass by a Non-local Shell Model. <i>Journal of Vibration Engineering and Technologies</i> , 2022, 10, 375-393.	1.3	3
813	Diamagnetically levitating resonant weighing scale. <i>Sensors and Actuators A: Physical</i> , 2021, 330, 112842.	2.0	4
814	On the nonlinear dynamics of porous composite nanobeams connected with fullerenes. <i>Composite Structures</i> , 2021, 274, 114356.	3.1	18
815	The impact of thermal-noise on bifurcation MEMS sensors. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107941.	4.4	11
818	Single-Walled Carbon Nanotube Sensor Concepts. , 2010, , 403-425.		9

#	ARTICLE	IF	CITATIONS
819	Molecular Quantum Spintronics Using Single-Molecule Magnets. <i>Nanoscience and Technology</i> , 2014, , 319-364.	1.5	6
820	A novel capacitive mass sensor using an open-loop controlled microcantilever. <i>Microsystem Technologies</i> , 2020, 26, 2977-2987.	1.2	6
821	Effect of beam deflection on the thermal responsivity of GaAs-based doubly clamped microelectromechanical beam resonators. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	7
822	Variational method enabling simplified solutions to the linearized Boltzmann equation for oscillatory gas flows. <i>Physical Review Fluids</i> , 2018, 3, .	1.0	3
823	An Inverse Method to Predict NEMS Beam Properties From Natural Frequencies. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020, 87, .	1.1	6
824	A Carbon Nanotube Field-Effect Transistor with a Cantilevered Carbon Nanotube Gate. <i>Applied Physics Express</i> , 2012, 5, 065101.	1.1	6
825	Highly sensitive mass detection based on nonlinear sum-sideband in a dispersive optomechanical system. <i>Optics Express</i> , 2019, 27, 3909.	1.7	13
826	Theoretical modeling of tunable vibrations of three-dimensional serpentine structures for simultaneous measurement of adherent cell mass and modulus. <i>MRS Bulletin</i> , 2021, 46, 1-8.	1.7	1
828	Microcantilever: Dynamical Response for Mass Sensing and Fluid Characterization. <i>Sensors</i> , 2021, 21, 115.	2.1	31
829	Electrical Field Gradient Pumping of Parametric Oscillation in a High-Frequency Nanoelectromechanical Resonator. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 074003.	0.8	1
830	Reaching silicon-based NEMS performances with 3D printed nanomechanical resonators. <i>Nature Communications</i> , 2021, 12, 6080.	5.8	23
831	NEMS Sensors Based on Novel Nanomaterials. , 2022, , 133-185.		1
832	High-Frequency Low Amplitude Atomic Force Microscopy. <i>Nanoscience and Technology</i> , 2009, , 347-360.	1.5	0
833	Nano and micro structures for label-free detection of biomolecules. <i>Journal of Sensor Science and Technology</i> , 2010, 19, 403-420.	0.1	0
834	Ultra-High Frequency Characteristics of Double-Wall Carbon Nanotube Resonator with Different Length. <i>Journal of the Korea Society of Computer and Information</i> , 2010, 15, 175-180.	0.0	0
835	Frequency Vibrational Behavior Analysis of Double-Wall Carbon Nanotube Resonator. <i>The Journal of the Korean Institute of Information and Communication Engineering</i> , 2011, 15, 169-174.	0.1	1
836	High Order Nonlinearities and Mixed Behavior in Micromechanical Resonators. <i>Springer Proceedings in Physics</i> , 2011, , 167-172.	0.1	0
837	Mass Response of A CMOS-Compatible, Magnetically Actuated MEMS Microbalance. <i>Lecture Notes in Electrical Engineering</i> , 2012, , 205-209.	0.3	0

#	ARTICLE	IF	CITATIONS
839	DNA-Directed Assembly of Multicomponent Single-Walled Carbon Nanotube Devices. The Electrical Engineering Handbook, 2012, , 1017-1036.	0.2	0
842	Nanopatterning for Bioapplications. , 2013, , 1013-1067.		0
843	CHAPTER 16. Superconductivity in Nanostructured Boron-doped Diamond and its Application to Device Fabrication. RSC Nanoscience and Nanotechnology, 2014, , 385-410.	0.2	0
844	Balances. , 2014, , 141-271.		0
845	Nano-Electro-Mechanical Systems: Processes and Devices. , 2014, , 13-30.		0
846	High Sensitive Mass Detection using GaAs Coupled Micro Resonators. , 0, , .		0
847	Hysteresis control of nanoelectromechanical resonator with electrothermal power. Electronics Letters, 2014, 50, 1961-1963.	0.5	0
848	Carbon Nanotube NEMS. , 2015, , 1-12.		0
849	Optomechanical Crystal Cavity with Ultra-small Effective Motion Mass based on Split-nanobeam Structure. , 2015, , .		0
850	Single Layer Graphene Sheet-based Nanoelectromechanical Resonator as Mass Detection. Journal of Lasers, Optics & Photonics, 2015, 02, .	0.1	0
853	Electromechanical Properties and Applications of Carbon Nanotube Nanocantilevers. , 2016, , 195-220.		0
854	Nanocantilever Beam Fabrication for CMOS Technology Integration. , 2016, , 3-36.		0
855	- Optical Transduction and Actuation of Subwavelength Nanomechanical Resonators. , 2015, , 308-337.		0
856	Carbon Nanotube NEMS. , 2016, , 462-472.		0
857	Nanomechanical Resonant Sensors and Fluid Interactions. , 2016, , 2508-2523.		0
858	Electromechanical resonator under the influence of telegraph unbalanced noise of frequency. Radiofizika I Elektronika, 2016, 21, 71-76.	0.2	0
859	Modeling and simulating the BrNo3 Nano sensor for illness Diagnosis. IOSR Journal of Electrical and Electronics Engineering, 2016, 11, 96-100.	0.0	0
860	Sensing the Presence and Amount of Microbes Using Double Walled Carbon Nanotubes. Advances in Medical Technologies and Clinical Practice Book Series, 2017, , 78-117.	0.3	1

#	ARTICLE	IF	CITATIONS
861	A Review on Vibration Characteristics of Carbon Nanotubes and Its Application Via Vacuum. Lecture Notes in Computer Science, 2017, , 94-102.	1.0	0
862	A novel nano-sensor based on optomechanical crystal cavity. , 2017, , .		0
863	Infrared nano-sensor based on doubly splitted optomechanical cavity. , 2017, , .		0
864	Nanotechnology for Detection of Small Mass Difference. Springer Series in Materials Science, 2019, , 303-334.	0.4	1
867	Calculation of Resonant Oscillations of a Micromechanical oscillator with an Attached Mass. Bulletin of the Lebedev Physics Institute, 2020, 47, 233-236.	0.1	0
869	1:1 internal mode coupling strength in GaAs doubly-clamped MEMS beam resonators with linear and nonlinear oscillations. Applied Physics Express, 2021, 14, 014001.	1.1	7
870	Calculation of Resonant Frequencies of Silicon AFM Cantilevers. Journal of Physics: Conference Series, 2020, 1439, 012006.	0.3	1
871	Carbon Nanotube-Based Nanomechanical Receiver for Digital Data Transfer. ACS Applied Nano Materials, 2021, 4, 13041-13047.	2.4	4
872	Dual-Resonator-Based (DRB) and Multiple-Resonator-Based (MRB) MEMS Sensors: A Review. Micromachines, 2021, 12, 1361.	1.4	2
873	Acoustic Vibration of Hexagonal Nanoparticles With Damping and Imperfect Interface Effects. Journal of Vibration and Acoustics, Transactions of the ASME, 2021, 143, .	1.0	1
874	Ultrasensitive and high resolution mass sensor by photonic-molecule optomechanics with phonon pump. Laser Physics, 2020, 30, 115203.	0.6	1
875	Nonlinear Coupling of Phononic Resonators Induced by Surface Acoustic Waves. Physical Review Applied, 2021, 16, .	1.5	3
876	Resolving measurement of large (~ÅGDa) chemical/biomolecule complexes with multimode nanomechanical resonators. Sensors and Actuators B: Chemical, 2022, 353, 131062.	4.0	13
877	Simple Design on Nanoscale Receivers Using CNT Cantilevers. IEEE Access, 2021, 9, 169387-169394.	2.6	0
878	Porous carbons for environment remediation. , 2022, , 541-802.		0
879	Lignin as a multi-functional agent for the synthesis of Ag nanoparticles and its application in antibacterial coatings. Journal of Materials Research and Technology, 2022, 17, 3211-3220.	2.6	21
880	Nanomechanics driven by the superconducting proximity effect. New Journal of Physics, 2022, 24, 033008.	1.2	1
881	Generalized thermoelasticity model for thermoelastic damping in asymmetric vibrations of nonlocal tubular shells. Thin-Walled Structures, 2022, 174, 109142.	2.7	25

#	ARTICLE	IF	CITATIONS
882	Highly Sensitive Self-Actuated Zinc Oxide Resonant Microcantilever Humidity Sensor. Nano Letters, 2022, 22, 3196-3203.	4.5	15
883	Ultra-high resolution mass sensing based on an optomechanical nonlinearity. Optics Express, 2022, 30, 15858.	1.7	4
884	Estimation of an optomechanical parameter via weak-value amplification. Physical Review A, 2022, 105, .	1.0	3
886	Acoustophoresis of a resonant elastic microparticle in a viscous fluid medium. Journal of the Acoustical Society of America, 2022, 151, 3083-3093.	0.5	1
887	Achievable accuracy of resonating nanomechanical systems for mass sensing of larger analytes in GDa range. International Journal of Mechanical Sciences, 2022, 224, 107353.	3.6	8
888	A review on the recent developments in the materials used for sensors. Materials Today: Proceedings, 2022, 62, 6679-6683.	0.9	2
889	Monolayer MXene Nanoelectromechanical Piezo-Resonators with 0.2 Zeptogram Mass Resolution. Advanced Science, 2022, 9, .	5.6	17
890	High-Sensitivity Thermal Sensing Based on a Single Strain-Assisted Resonator. IEEE Sensors Journal, 2022, 22, 13921-13929.	2.4	0
891	The pull-in instability and eigenfrequency variations of a graphene resonator under electrostatic loading. Mathematics and Mechanics of Solids, 2022, 27, 1592-1609.	1.5	3
892	Measurement of two dimensional resonance in MEMS resonators using stroboscopic differential interference contrast microscopy. Optics Express, 0, , .	1.7	0
893	Dynamics of NEMS resonators across dissipation limits. Applied Physics Letters, 2022, 121, .	1.5	2
894	A Comprehensive Categorization of Micro/Nanomechanical Resonators and Their Practical Applications from an Engineering Perspective: A Review. Advanced Electronic Materials, 2022, 8, .	2.6	9
895	Nano-optomechanical Resonators for Sensitive Pressure Sensing. ACS Applied Materials & Interfaces, 2022, 14, 39211-39219.	4.0	8
896	Modulating the Mass Sensitivity of Graphene Resonators via Kirigami. Nanotechnology, 0, , .	1.3	1
897	A Self-Sustained Mass Sensor With Physical Closed Loop Based on Thermal-Piezoresistive Coupled Resonators. IEEE Transactions on Electron Devices, 2022, 69, 5808-5813.	1.6	4
898	Superconducting Cavity Electromechanics: The Realization of an Acoustic Frequency Comb at Microwave Frequencies. Physical Review Letters, 2022, 129, .	2.9	10
899	Emerging low-dimensional materials for nanoelectromechanical systems resonators. Materials Research Letters, 2023, 11, 21-52.	4.1	6
900	Molecular-resolution micro-resonant biosensor with adjustable natural frequency. Journal of Mechanical Science and Technology, 2022, 36, 5191-5199.	0.7	1

#	ARTICLE	IF	CITATIONS
901	2D-materials-integrated optoelectromechanics: recent progress and future perspectives. Reports on Progress in Physics, 2023, 86, 026402.	8.1	4
902	Vibration induced transparency: Simulating an optomechanical system via the cavity QED setup with a movable atom. Fundamental Research, 2022, , .	1.6	0
903	Advances of Semiconductor Gas Sensing Materials, Structures, and Algorithms for Breath Analysis. Bioanalytical Reviews, 2022, , .	0.1	1
904	Scalable Self-Limiting Dielectrophoretic Trapping for Site-Selective Assembly of Nanoparticles. Nano Letters, 2022, 22, 8258-8265.	4.5	1
905	Sensing Capabilities of Single Nanowires Studied with Correlative <i>In Situ</i> Light and Electron Microscopy. ACS Nano, 2022, 16, 18110-18118.	7.3	4
906	Classifiable Limiting Mass Change Detection in a Graphene Resonator Using Applied Machine Learning. ACS Applied Electronic Materials, 2022, 4, 5184-5190.	2.0	1
907	Acoustic Sensor Based on a Cylindrical Resonator for Monitoring a Liquid Flow. Crystals, 2022, 12, 1398.	1.0	4
908	Analytical Modeling of Density and Young's Modulus Identification of Adsorbate with Microcantilever Resonator. Actuators, 2022, 11, 335.	1.2	1
909	Using fluctuation statistics to infer random forces impinging on a nanosensor. , 2022, , .		0
910	Small-scale effects on the radial vibration of an elastic nanosphere based on nonlocal strain gradient theory. Nanotechnology, 2023, 34, 115704.	1.3	3
911	Protein adsorption by nanomechanical mass spectrometry: Beyond the real-time molecular weighting. Frontiers in Molecular Biosciences, 0, 9, .	1.6	4
912	On the Configuration of Graphene/Carbon Nanotube/Graphene Van der Waals Heterostructure. Physical Chemistry Chemical Physics, 0, , .	1.3	3
913	Graphene nano-electromechanical mass sensor with high resolution at room temperature. IScience, 2023, 26, 105958.	1.9	6
914	Experimental Demonstration of Nanoscale Digital Receiver with Carbon Nanotube. , 2022, , .		0
915	Simulating Thermomechanical Phenomena of Nanoscale Systems. , 2011, , 109-146.		0
916	Subgigahertz Multilayer-Graphene Nanoelectromechanical System Integrated with a Nanometer-Scale Silicon Transistor Driven by Reflectometry. Physical Review Applied, 2023, 19, .	1.5	3
917	In-Situ Heating TEM. , 2023, , 83-104.		0
918	Mechanical Control of Nonlinearity in Doubly Clamped MEMS Beam Resonators Using Preloaded Lattice-Mismatch Strain. Physical Review Applied, 2023, 19, .	1.5	1

#	ARTICLE	IF	CITATIONS
919	Review of recent developments of sensor materials and applications. , 2023, , .		0
920	Dynamic analysis of a novel mass nanosensor made from piezo-electro-magnetic sandwich nanoplate. International Journal of Applied Mechanics, 0, , .	1.3	0
936	Ultrahigh-quality graphene resonators by liquid-based strain-engineering. Nanoscale Horizons, 0, , .	4.1	0
937	A Direct Piezoresistive Method to Transduce Electromechanical Motion in Self-Sensing Suspended NanoStructures. , 2023, , .		0
943	Progresses of in situ TEM studies of graphene and carbon nanotubes. AIP Conference Proceedings, 2023, , .	0.3	0