

Thomas G Thundat

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8004823/publications.pdf>

Version: 2024-02-01

439
papers

19,010
citations

9786

73
h-index

18130

120
g-index

441
all docs

441
docs citations

441
times ranked

17395
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioassay of prostate-specific antigen (PSA) using microcantilevers. <i>Nature Biotechnology</i> , 2001, 19, 856-860.	17.5	968
2	Adsorption-induced surface stress and its effects on resonance frequency of microcantilevers. <i>Journal of Applied Physics</i> , 1995, 77, 3618-3622.	2.5	507
3	Nanotechnologies for biomolecular detection and medical diagnostics. <i>Current Opinion in Chemical Biology</i> , 2006, 10, 11-19.	6.1	448
4	Thermal and ambient-induced deflections of scanning force microscope cantilevers. <i>Applied Physics Letters</i> , 1994, 64, 2894-2896.	3.3	401
5	Cantilever-Based Optical Deflection Assay for Discrimination of DNA Single-Nucleotide Mismatches. <i>Analytical Chemistry</i> , 2001, 73, 1567-1571.	6.5	363
6	Stretchable, Injectable, and Self-Healing Conductive Hydrogel Enabled by Multiple Hydrogen Bonding toward Wearable Electronics. <i>Chemistry of Materials</i> , 2019, 31, 4553-4563.	6.7	321
7	Nanosensors for trace explosive detection. <i>Materials Today</i> , 2008, 11, 28-36.	14.2	296
8	Glucose Biosensor Based on the Microcantilever. <i>Analytical Chemistry</i> , 2004, 76, 292-297.	6.5	289
9	Preparation and characterization of STM tips for electrochemical studies. <i>Review of Scientific Instruments</i> , 1989, 60, 3128-3130.	1.3	288
10	Review—Organic-Inorganic Hybrid Functional Materials: An Integrated Platform for Applied Technologies. <i>Journal of the Electrochemical Society</i> , 2018, 165, B3137-B3156.	2.9	282
11	A Novel Approach Toward Fabrication of High Performance Thin Film Composite Polyamide Membranes. <i>Scientific Reports</i> , 2016, 6, 22069.	3.3	267
12	Resonance response of scanning force microscopy cantilevers. <i>Review of Scientific Instruments</i> , 1994, 65, 2532-2537.	1.3	237
13	Gold grown epitaxially on mica: conditions for large area flat faces. <i>Surface Science</i> , 1991, 256, 102-108.	1.9	235
14	Direct-current triboelectricity generation by a sliding Schottky nanocontact on MoS ₂ multilayers. <i>Nature Nanotechnology</i> , 2018, 13, 112-116.	31.5	230
15	Vapor Detection Using Resonating Microcantilevers. <i>Analytical Chemistry</i> , 1995, 67, 519-521.	6.5	211
16	MICROCANTILEVER SENSORS. <i>Microscale Thermophysical Engineering</i> , 1997, 1, 185-199.	1.2	204
17	Origin of nanomechanical cantilever motion generated from biomolecular interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 1560-1564.	7.1	200
18	Microcantilever biosensors. <i>Methods</i> , 2005, 37, 57-64.	3.8	192

#	ARTICLE	IF	CITATIONS
19	Sensitive detection of plastic explosives with self-assembled monolayer-coated microcantilevers. <i>Applied Physics Letters</i> , 2003, 83, 1471-1473.	3.3	191
20	A coupling for success: Controlled growth of Co/CoOx nanoshoots on perovskite mesoporous nanofibres as high-performance trifunctional electrocatalysts in alkaline condition. <i>Nano Energy</i> , 2017, 32, 247-254.	16.0	189
21	A microsensor for trinitrotoluene vapour. <i>Nature</i> , 2003, 425, 474-474.	27.8	173
22	Cantilever Sensors: Nanomechanical Tools for Diagnostics. <i>MRS Bulletin</i> , 2009, 34, 449-454.	3.5	170
23	Viscous drag measurements utilizing microfabricated cantilevers. <i>Applied Physics Letters</i> , 1996, 68, 3814-3816.	3.3	165
24	Nerve Agents Detection Using a Cu ²⁺ /l-Cysteine Bilayer-Coated Microcantilever. <i>Journal of the American Chemical Society</i> , 2003, 125, 1124-1125.	13.7	158
25	Imaging nanoparticles in cells by nanomechanical holography. <i>Nature Nanotechnology</i> , 2008, 3, 501-505.	31.5	152
26	Thin film composite polyamide membranes: parametric study on the influence of synthesis conditions. <i>RSC Advances</i> , 2015, 5, 54985-54997.	3.6	145
27	Micromechanical sensors for chemical and physical measurements. <i>Review of Scientific Instruments</i> , 1995, 66, 3662-3667.	1.3	140
28	Nanocrystalline ruthenium oxide dispersed Few Layered Graphene (FLG) nanoflakes as supercapacitor electrodes. <i>Journal of Materials Chemistry</i> , 2012, 22, 14944.	6.7	136
29	Fabrication of antifouling and antibacterial polyethersulfone (PES)/cellulose nanocrystals (CNC) nanocomposite membranes. <i>Journal of Membrane Science</i> , 2018, 549, 350-356.	8.2	135
30	Polypyrrole-Doped Conductive Supramolecular Elastomer with Stretchability, Rapid Self-Healing, and Adhesive Property for Flexible Electronic Sensors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18720-18729.	8.0	135
31	Microfluidic cantilever detects bacteria and measures their susceptibility to antibiotics in small confined volumes. <i>Nature Communications</i> , 2016, 7, 12947.	12.8	134
32	High performance triboelectric nanogenerators based on phase-inversion piezoelectric membranes of poly(vinylidene fluoride)-zinc stannate (PVDF-ZnSnO ₃) and polyamide-6 (PA6). <i>Nano Energy</i> , 2016, 30, 470-480.	16.0	134
33	Carbonized nanocellulose sustainably boosts the performance of activated carbon in ionic liquid supercapacitors. <i>Nano Energy</i> , 2016, 25, 161-169.	16.0	133
34	Robust fabrication of thin film polyamide-TiO ₂ nanocomposite membranes with enhanced thermal stability and anti-biofouling propensity. <i>Scientific Reports</i> , 2018, 8, 784.	3.3	131
35	Stretched DNA structures observed with atomic force microscopy. <i>Nucleic Acids Research</i> , 1994, 22, 4224-4228.	14.5	118
36	Investigation of adsorption and absorption-induced stresses using microcantilever sensors. <i>Journal of Applied Physics</i> , 2001, 90, 427-431.	2.5	117

#	ARTICLE	IF	CITATIONS
37	Pulsed Laser Deposited Dysprosium-Doped Gadolinium Vanadate Thin Films for Noncontact, Self-Referencing Luminescence Thermometry. <i>Advanced Materials</i> , 2016, 28, 7745-7752.	21.0	115
38	Microcantilever biosensors for chemicals and bioorganisms. <i>Analyst, The</i> , 2011, 136, 1539.	3.5	112
39	A novel self-assembled monolayer (SAM) coated microcantilever for low level caesium detection. <i>Chemical Communications</i> , 2000, , 457-458.	4.1	109
40	Detection of 2,4-dinitrotoluene using microcantilever sensors. <i>Sensors and Actuators B: Chemical</i> , 2004, 99, 223-229.	7.8	109
41	Design & fabrication of cantilever array biosensors. <i>Materials Today</i> , 2009, 12, 32-38.	14.2	107
42	New modes for subsurface atomic force microscopy through nanomechanical coupling. <i>Nature Nanotechnology</i> , 2010, 5, 105-109.	31.5	107
43	Friction effects in the deflection of atomic force microscope cantilevers. <i>Review of Scientific Instruments</i> , 1994, 65, 394-399.	1.3	106
44	Detection of Hg ²⁺ Using Microcantilever Sensors. <i>Analytical Chemistry</i> , 2002, 74, 3611-3615.	6.5	106
45	Detection of CrO ₄ ²⁻ Using a Hydrogel Swelling Microcantilever Sensor. <i>Analytical Chemistry</i> , 2003, 75, 4773-4777.	6.5	106
46	Sustained electron tunneling at unbiased metal-insulator-semiconductor triboelectric contacts. <i>Nano Energy</i> , 2018, 48, 320-326.	16.0	103
47	Detection of heavy metal ions using protein-functionalized microcantilever sensors. <i>Biosensors and Bioelectronics</i> , 2003, 19, 411-416.	10.1	102
48	Glucose biosensing using an enzyme-coated microcantilever. <i>Applied Physics Letters</i> , 2002, 81, 385-387.	3.3	101
49	A parametric study on the synergistic impacts of chemical additives on permeation properties of thin film composite polyamide membrane. <i>Journal of Membrane Science</i> , 2017, 535, 248-257.	8.2	100
50	Critical Issues in Sensor Science To Aid Food and Water Safety. <i>ACS Nano</i> , 2012, 6, 4548-4556.	14.6	99
51	Nanolithography on semiconductor surfaces under an etching solution. <i>Applied Physics Letters</i> , 1990, 57, 270-272.	3.3	98
52	Standoff photoacoustic spectroscopy. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	96
53	Standoff Spectroscopy of Surface Adsorbed Chemicals. <i>Analytical Chemistry</i> , 2009, 81, 1952-1956.	6.5	96
54	Measurement of Mechanical Properties of Cantilever Shaped Materials. <i>Sensors</i> , 2008, 8, 3497-3541.	3.8	94

#	ARTICLE	IF	CITATIONS
55	Ultrasensitive Detection of CrO ₄ ²⁻ Using a Microcantilever Sensor. <i>Analytical Chemistry</i> , 2001, 73, 1572-1576.	6.5	92
56	Mercury vapor detection with a self-sensing, resonating piezoelectric cantilever. <i>Review of Scientific Instruments</i> , 2003, 74, 4899-4901.	1.3	92
57	Detection of trinitrotoluene via deflagration on a microcantilever. <i>Journal of Applied Physics</i> , 2004, 95, 5871-5875.	2.5	92
58	Degradable Thermoresponsive Nanogels for Protein Encapsulation and Controlled Release. <i>Bioconjugate Chemistry</i> , 2012, 23, 75-83.	3.6	91
59	Impedimetric Detection of Pathogenic Gram-Positive Bacteria Using an Antimicrobial Peptide from Class IIa Bacteriocins. <i>Analytical Chemistry</i> , 2014, 86, 1693-1700.	6.5	90
60	STM and AFM Images of Nucleosome DNA Under Water. <i>Journal of Biomolecular Structure and Dynamics</i> , 1989, 7, 279-287.	3.5	88
61	Determination of adsorption-induced variation in the spring constant of a microcantilever. <i>Applied Physics Letters</i> , 2002, 80, 2219-2221.	3.3	88
62	Effects of temperature and pressure on microcantilever resonance response. <i>Ultramicroscopy</i> , 2003, 97, 119-126.	1.9	87
63	Trace explosive detection using photothermal deflection spectroscopy. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	83
64	Sustained drug release and antibacterial activity of ampicillin incorporated poly(methyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50,382 Td (m	3.8	83
65	Flexible Ultraviolet Photodetectors Based on One-Dimensional Gallium-Doped Zinc Oxide Nanostructures. <i>ACS Applied Electronic Materials</i> , 2020, 2, 3522-3529.	4.3	82
66	Injectable Self-Healing Zwitterionic Hydrogels Based on Dynamic Benzoxaborole-Sugar Interactions with Tunable Mechanical Properties. <i>Biomacromolecules</i> , 2018, 19, 596-605.	5.4	81
67	Microwave ring resonator-based non-contact interface sensor for oil sands applications. <i>Sensors and Actuators B: Chemical</i> , 2016, 224, 632-639.	7.8	80
68	Simulation of adsorption-induced stress of a microcantilever sensor. <i>Journal of Applied Physics</i> , 2005, 97, 043526.	2.5	79
69	Detection of pH variation using modified microcantilever sensors. <i>Sensors and Actuators B: Chemical</i> , 2001, 72, 233-238.	7.8	78
70	Universal spin-momentum locked optical forces. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	78
71	Synthesis of Selenium Nanoparticle and Its Photocatalytic Application for Decolorization of Methylene Blue under UV Irradiation. <i>Langmuir</i> , 2004, 20, 7880-7883.	3.5	77
72	A web of streamers: biofilm formation in a porous microfluidic device. <i>Lab on A Chip</i> , 2012, 12, 5133.	6.0	76

#	ARTICLE	IF	CITATIONS
73	High resolution microwave microstrip resonator for sensing applications. <i>Sensors and Actuators A: Physical</i> , 2015, 233, 224-230.	4.1	75
74	Multi-Walled Carbon Nanotubes Decorated with Silver Nanoparticles for Acetone Gas Sensing at Room Temperature. <i>Journal of the Electrochemical Society</i> , 2020, 167, 167519.	2.9	75
75	Microfluidic manipulation via Marangoni forces. <i>Applied Physics Letters</i> , 2004, 85, 4237-4239.	3.3	74
76	Glucose-responsive polymer brushes for microcantilever sensing. <i>Journal of Materials Chemistry</i> , 2010, 20, 3391.	6.7	74
77	Manipulation and controlled amplification of Brownian motion of microcantilever sensors. <i>Applied Physics Letters</i> , 2001, 78, 1637-1639.	3.3	73
78	Nanomechanical sandwich assay for multiple cancer biomarkers in breast cancer cell-derived exosomes. <i>Nanoscale</i> , 2016, 8, 15137-15141.	5.6	73
79	Harmonic response of near-contact scanning force microscopy. <i>Journal of Applied Physics</i> , 1995, 78, 1465-1469.	2.5	72
80	Real-time Detection of Breast Cancer Cells Using Peptide-functionalized Microcantilever Arrays. <i>Scientific Reports</i> , 2015, 5, 13967.	3.3	72
81	Interfacial friction-induced electronic excitation mechanism for tribo-tunneling current generation. <i>Materials Horizons</i> , 2019, 6, 1020-1026.	12.2	70
82	Portable Nanofiber-Light Addressable Potentiometric Sensor for Rapid <i>Escherichia coli</i> Detection in Orange Juice. <i>ACS Sensors</i> , 2018, 3, 815-822.	7.8	69
83	Observation of dipolar emission patterns from isolated Eu ³⁺ :Y ₂ O ₃ doped nanocrystals: new evidence for single ion luminescence. <i>Chemical Physics Letters</i> , 2002, 358, 459-465.	2.6	68
84	In situ detection of calcium ions with chemically modified microcantilevers. <i>Biosensors and Bioelectronics</i> , 2002, 17, 337-343.	10.1	67
85	Bioelectromechanical imaging by scanning probe microscopy: Galvani's experiment at the nanoscale. <i>Ultramicroscopy</i> , 2006, 106, 334-340.	1.9	66
86	Detection of Volatile Organic Compounds Using Microwave Sensors. <i>IEEE Sensors Journal</i> , 2015, 15, 248-254.	4.7	66
87	Synthesis of thin film composite polyamide membranes: Effect of monohydric and polyhydric alcohol additives in aqueous solution. <i>Journal of Membrane Science</i> , 2017, 523, 336-345.	8.2	66
88	Developing high throughput thin film composite polyamide membranes for forward osmosis treatment of SAGD produced water. <i>Journal of Membrane Science</i> , 2016, 511, 29-39.	8.2	64
89	The detection of <i>Escherichia coli</i> (<i>E. coli</i>) with the pH sensitive hydrogel nanofiber-light addressable potentiometric sensor (NF-LAPS). <i>Sensors and Actuators B: Chemical</i> , 2016, 226, 176-183.	7.8	64
90	Knudsen forces on microcantilevers. <i>Journal of Applied Physics</i> , 2002, 92, 6326-6333.	2.5	63

#	ARTICLE	IF	CITATIONS
91	Metabolic Study of Cancer Cells Using a pH Sensitive Hydrogel Nanofiber Light Addressable Potentiometric Sensor. ACS Sensors, 2017, 2, 151-156.	7.8	63
92	Atomic force microscope investigation of C60adsorbed on silicon and mica. Applied Physics Letters, 1993, 63, 891-893.	3.3	62
93	Optical modulation processes in thin films based on thermal effects of surface plasmons. Applied Physics Letters, 2005, 86, 154101.	3.3	62
94	Moore's law in homeland defense: an integrated sensor platform based on silicon microcantilevers. IEEE Sensors Journal, 2005, 5, 774-785.	4.7	62
95	Characterization of atomic force microscope tips by adhesion force measurements. Applied Physics Letters, 1993, 63, 2150-2152.	3.3	60
96	A rational design for enhanced oxygen reduction: Strongly coupled silver nanoparticles and engineered perovskite nanofibers. Nano Energy, 2017, 38, 392-400.	16.0	60
97	Anomalous interfacial stress generation during sodium intercalation/extraction in MoS ₂ thin-film anodes. Science Advances, 2019, 5, eaav2820.	10.3	60
98	A sensitive, handheld vapor sensor based on microcantilevers. Review of Scientific Instruments, 2004, 75, 4554-4557.	1.3	58
99	Direct atomic force microscope imaging of EcoRI endonuclease site specifically bound to plasmid DNA molecules.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 8826-8829.	7.1	57
100	Photothermal spectroscopy of Bacillus anthracis and Bacillus cereus with microcantilevers. Sensors and Actuators B: Chemical, 2006, 114, 206-211.	7.8	56
101	Separation and Quantum Tunneling of Photo-generated Carriers Using a Tribo-Induced Field. Matter, 2019, 1, 650-660.	10.0	56
102	Detection of Femtomolar Concentrations of HF Using an SiO ₂ Microcantilever. Analytical Chemistry, 2004, 76, 2478-2481.	6.5	55
103	Elastic phase response of silica nanoparticles buried in soft matter. Applied Physics Letters, 2008, 93, .	3.3	55
104	Freestanding hierarchical porous carbon film derived from hybrid nanocellulose for high-power supercapacitors. Nano Research, 2017, 10, 1847-1860.	10.4	55
105	Scaled-up Direct-Current Generation in MoS ₂ Multilayer-Based Moving Heterojunctions. ACS Applied Materials & Interfaces, 2019, 11, 35404-35409.	8.0	55
106	Adsorption&desorption characteristics of explosive vapors investigated with microcantilevers. Ultramicroscopy, 2003, 97, 433-439.	1.9	51
107	Surface enhanced strong visible photoluminescence from one-dimensional multiferroic BiFeO ₃ nanostructures. Surface Science, 2012, 606, L83-L86.	1.9	51
108	Nanomechanical Effect of Enzymatic Manipulation of DNA on Microcantilever Surfaces. Langmuir, 2002, 18, 8732-8736.	3.5	48

#	ARTICLE	IF	CITATIONS
109	Standoff detection of explosive residues using photothermal microcantilevers. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	48
110	Consistently High V_{oc} Values in p-i-n Type Perovskite Solar Cells Using Ni ³⁺ -Doped NiO Nanomesh as the Hole Transporting Layer. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11467-11478.	8.0	48
111	Mapping Individual Cosmid DNAs by Direct AFM Imaging. <i>Genomics</i> , 1997, 41, 379-384.	2.9	46
112	Oriented Nanostructures from Single Molecules of a Semiconducting Polymer: Polarization Evidence for Highly Aligned Intramolecular Geometries. <i>Nano Letters</i> , 2003, 3, 603-607.	9.1	46
113	Label-Free Sugar Detection Using Phenylboronic Acid-Functionalized Piezoresistive Microcantilevers. <i>Analytical Chemistry</i> , 2008, 80, 4860-4865.	6.5	46
114	Tribo-Tunneling DC Generator with Carbon Aerogel/Silicon Multi-Nanocontacts. <i>Advanced Electronic Materials</i> , 2019, 5, 1900464.	5.1	46
115	Effect of annealing atmosphere on microstructural and photoluminescence characteristics of multiferroic BiFeO ₃ thin films prepared by pulsed laser deposition technique. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 903-907.	2.3	45
116	Photocatalytic BiFeO ₃ Nanofibrous Mats for Effective Water Treatment. <i>Journal of Nanotechnology</i> , 2013, 2013, 1-6.	3.4	45
117	Molecular recognition using receptor-free nanomechanical infrared spectroscopy based on a quantum cascade laser. <i>Scientific Reports</i> , 2013, 3, 1111.	3.3	45
118	Adsorption of Trinitrotoluene on Uncoated Silicon Microcantilever Surfaces. <i>Langmuir</i> , 2004, 20, 2690-2694.	3.5	43
119	Nanocatalytic Spontaneous Ignition and Self-Supporting Room-Temperature Combustion. <i>Energy & Fuels</i> , 2005, 19, 855-858.	5.1	43
120	Surface-Conjugated Antimicrobial Peptide Leucocin A Displays High Binding to Pathogenic Gram-Positive Bacteria. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 1131-1138.	8.0	43
121	Piezotransistive transduction of femtoscale displacement for photoacoustic spectroscopy. <i>Nature Communications</i> , 2015, 6, 7885.	12.8	43
122	Hollow Microtube Resonators via Silicon Self-Assembly toward Subattogram Mass Sensing Applications. <i>Nano Letters</i> , 2016, 16, 1537-1545.	9.1	43
123	Rapid and Highly Sensitive Detection of Dopamine Using Conjugated Oxaborole-Based Polymer and Glycopolymer Systems. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15225-15231.	8.0	41
124	Flocculation and Dewatering of Mature Fine Tailings Using Temperature-Responsive Cationic Polymers. <i>Langmuir</i> , 2017, 33, 5900-5909.	3.5	41
125	Chemisorption of bromine on cleaved silicon (111) surfaces: An X-ray standing wave interference spectrometric analysis. <i>Surface Science</i> , 1985, 163, 457-477.	1.9	40
126	Effect of nanometer surface morphology on surface stress and adsorption kinetics of alkanethiol self-assembled monolayers. <i>Ultramicroscopy</i> , 2006, 106, 795-799.	1.9	39

#	ARTICLE	IF	CITATIONS
127	Effect of normal vibration on friction in the atomic force microscopy experiment. Applied Physics Letters, 2006, 88, 214102.	3.3	39
128	Micro-differential thermal analysis detection of adsorbed explosive molecules using microfabricated bridges. Review of Scientific Instruments, 2009, 80, 035102.	1.3	39
129	Pump-probe photothermal spectroscopy using quantum cascade lasers. Journal Physics D: Applied Physics, 2012, 45, 125101.	2.8	39
130	Modulation of multiple photon energies by use of surface plasmons. Optics Letters, 2005, 30, 41.	3.3	38
131	Hydrogen Sensing at Room Temperature Using Flame-Synthesized Palladium-Decorated Crumpled Reduced Graphene Oxide Nanocomposites. ACS Sensors, 2020, 5, 2344-2350.	7.8	38
132	Observation of Knudsen effect with microcantilevers. Ultramicroscopy, 2003, 97, 401-406.	1.9	37
133	Observation of the surface stress induced in microcantilevers by electrochemical redox processes. Ultramicroscopy, 2004, 100, 217-223.	1.9	37
134	Desorption characteristics of uncoated silicon microcantilever surfaces for explosive and common nonexplosive vapors. Ultramicroscopy, 2004, 100, 211-216.	1.9	37
135	Effect of chain length on nanomechanics of alkanethiol self-assembly. Nanotechnology, 2007, 18, 424028.	2.6	37
136	Detection of Cd(II) using antibody-modified microcantilever sensors. Ultramicroscopy, 2007, 107, 1123-1128.	1.9	37
137	Size-correlated spectroscopy and imaging of rare-earth-doped nanocrystals. Applied Optics, 2003, 42, 2132.	2.1	36
138	Step Instabilities: A New Kinetic Route to 3D Growth. Physical Review Letters, 1995, 75, 1582-1585.	7.8	35
139	Modal analysis of microcantilever sensors with environmental damping. Journal of Applied Physics, 2005, 97, 084902.	2.5	35
140	Atomic force microscopy of silica nanoparticles and carbon nanohorns in macrophages and red blood cells. Ultramicroscopy, 2010, 110, 586-591.	1.9	35
141	Bacterial floc mediated rapid streamer formation in creeping flows. Scientific Reports, 2015, 5, 13070.	3.3	35
142	Electrical, spectroscopic, and morphological investigation of chromium diffusion through gold films. Thin Solid Films, 1990, 189, 59-72.	1.8	34
143	Molecular recognition of biowarfare agents using micromechanical sensors. Expert Review of Molecular Diagnostics, 2004, 4, 859-866.	3.1	34
144	Dynamic Microcantilever Sensors for Discerning Biomolecular Interactions. Analytical Chemistry, 2005, 77, 1601-1606.	6.5	34

#	ARTICLE	IF	CITATIONS
145	Marangoni forces created by surface plasmon decay. <i>Optics Letters</i> , 2005, 30, 616.	3.3	34
146	Single-contact transmission for the quasi-wireless delivery of power over large surfaces. <i>Wireless Power Transfer</i> , 2014, 1, 75-82.	1.1	34
147	Opto-nanomechanical spectroscopic material characterization. <i>Nature Nanotechnology</i> , 2015, 10, 870-877.	31.5	34
148	Dynamics of bacterial streamers induced clogging in microfluidic devices. <i>Lab on A Chip</i> , 2016, 16, 4091-4096.	6.0	34
149	Effect of process parameters on phase stability and metal-insulator transition of vanadium dioxide (VO ₂) thin films by pulsed laser deposition. <i>Acta Materialia</i> , 2017, 137, 12-21.	7.9	34
150	AFM and RHEED study of Ge islanding on Si(111) and Si(100). <i>Applied Surface Science</i> , 1996, 104-105, 510-515.	6.1	33
151	Investigating the Mechanical Effects of Adsorption of Ca ²⁺ Ions on a Silicon Nitride Microcantilever Surface. <i>Langmuir</i> , 2002, 18, 6935-6939.	3.5	33
152	Use of Microcantilevers for the Monitoring of Molecular Binding to Self-Assembled Monolayers. <i>Langmuir</i> , 2003, 19, 7841-7844.	3.5	33
153	Vibrational energy harvesting using photo-patternable piezoelectric nanocomposite cantilevers. <i>Nano Energy</i> , 2013, 2, 923-932.	16.0	33
154	Core cross-linked double hydrophilic block copolymer micelles based on multiple hydrogen-bonding interactions. <i>Polymer Chemistry</i> , 2017, 8, 3066-3073.	3.9	33
155	Instant curvature measurement for microcantilever sensors. <i>Applied Physics Letters</i> , 2004, 85, 1083-1084.	3.3	32
156	Photon-driven nanomechanical cyclic motion. <i>Chemical Communications</i> , 2004, , 2532.	4.1	31
157	Spectroscopy and atomic force microscopy of biomass. <i>Ultramicroscopy</i> , 2010, 110, 701-707.	1.9	31
158	Peptide-Bacteria Interactions using Engineered Surface-Immobilized Peptides from Class IIa Bacteriocins. <i>Langmuir</i> , 2013, 29, 4048-4056.	3.5	31
159	Standoff reflection-absorption spectra of surface adsorbed explosives measured with pulsed quantum cascade lasers. <i>Sensors and Actuators B: Chemical</i> , 2014, 191, 450-456.	7.8	31
160	Discerning Biomolecular Interactions Using Kelvin Probe Technology. <i>Langmuir</i> , 2003, 19, 7514-7520.	3.5	30
161	Nanomechanics of a self-assembled monolayer on microcantilever sensors measured by a multiple-point deflection technique. <i>Sensors and Actuators B: Chemical</i> , 2007, 122, 365-368.	7.8	30
162	Enhanced photo-collection in single BiFeO ₃ nanowire due to carrier separation from radial surface field. <i>Nano Energy</i> , 2015, 13, 240-248.	16.0	30

#	ARTICLE	IF	CITATIONS
163	Effect of interface on mid-infrared photothermal response of MoS ₂ thin film grown by pulsed laser deposition. Nano Research, 2017, 10, 3571-3584.	10.4	30
164	Carbon fiber doped thermosetting elastomer for flexible sensors: physical properties and microfabrication. Scientific Reports, 2018, 8, 12313.	3.3	30
165	Effect of thermal variations on the Knudsen forces in the transitional regime. Applied Physics Letters, 2004, 84, 1013-1015.	3.3	29
166	Gas sensing using electrostatic force potentiometry. Applied Physics Letters, 2007, 90, 173105.	3.3	29
167	Fluidic applications for atomic force microscopy (AFM) with microcantilever sensors. Experiments in Fluids, 2010, 48, 721-736.	2.4	29
168	Virtual Resonance and Frequency Difference Generation by van der Waals Interaction. Physical Review Letters, 2011, 106, 180801.	7.8	29
169	Analytical model for zeta potential of asphaltene. Fuel, 2013, 108, 543-549.	6.4	29
170	Electrochemical and oxygen reduction properties of pristine and nitrogen-doped few layered graphene nanoflakes (FLGs). Journal of Solid State Electrochemistry, 2013, 17, 2139-2149.	2.5	29
171	Direct Detection and Speciation of Trace Explosives Using a Nanoporous Multifunctional Microcantilever. Analytical Chemistry, 2014, 86, 5077-5082.	6.5	29
172	Mapping and Quantifying Surface Charges on Clay Nanoparticles. Langmuir, 2015, 31, 10469-10476.	3.5	28
173	Detection of adsorbed explosive molecules using thermal response of suspended microfabricated bridges. Applied Physics Letters, 2008, 93, 154102.	3.3	27
174	Surface dominant photoresponse of multiferroic BiFeO ₃ nanowires under sub-bandgap illumination. Nanotechnology, 2013, 24, 505710.	2.6	27
175	Effect of Temperature on Morphologies of Evaporation-Triggered Asphaltene Nanoaggregates. Langmuir, 2014, 30, 800-804.	3.5	26
176	Nanomechanical identification of liquid reagents in a microfluidic channel. Lab on A Chip, 2014, 14, 1302-1307.	6.0	26
177	Sequence, Packing and Nanometer Scale Structure in STM Images of Nucleic Acids Under Water. Journal of Biomolecular Structure and Dynamics, 1989, 7, 289-299.	3.5	25
178	Torsional spring constant obtained for an atomic force microscope cantilever. Applied Physics Letters, 2004, 84, 1795-1797.	3.3	25
179	A piezoresistive microcantilever array for surface stress measurement: curvature model and fabrication. Journal of Micromechanics and Microengineering, 2007, 17, 2065-2076.	2.6	25
180	Effects of gold patterning on the bending profile and frequency response of a microcantilever. Journal of Applied Physics, 2009, 106, 024310.	2.5	25

#	ARTICLE	IF	CITATIONS
181	Detection of <i>Listeria monocytogenes</i> with Short Peptide Fragments from Class IIa Bacteriocins as Recognition Elements. ACS Combinatorial Science, 2015, 17, 156-163.	3.8	25
182	Appearance of SERS activity in single silver nanoparticles by laser-induced reshaping. Nanoscale, 2019, 11, 321-330.	5.6	25
183	The effect of oxygen flow rate on metal-insulator transition (MIT) characteristics of vanadium dioxide (VO ₂) thin films by pulsed laser deposition (PLD). Applied Surface Science, 2020, 529, 146995.	6.1	25
184	Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection. ACS Sensors, 2022, 7, 225-234.	7.8	25
185	Electrochemical deposition of molecular adsorbates for in situ scanning probe microscopy. Ultramicroscopy, 1990, 33, 107-116.	1.9	24
186	Localized heating of nickel nitride/aluminum nitride nanocomposite films for data storage. Applied Physics Letters, 1995, 67, 3034-3036.	3.3	24
187	Polymer-Mediated Assembly of Gold Nanoclusters. Langmuir, 2000, 16, 9151-9154.	3.5	24
188	Probing large area surface plasmon interference in thin metal films using photon scanning tunneling microscopy. Ultramicroscopy, 2004, 100, 429-436.	1.9	24
189	Piezoelectric self-sensing of adsorption-induced microcantilever bending. Sensors and Actuators A: Physical, 2005, 121, 457-461.	4.1	24
190	Monitoring chemical and physical changes on sub-nanogram quantities of platinum dioxide. Surface Science, 1999, 430, L546-L552.	1.9	23
191	Manipulation of microcantilever oscillations. Ultramicroscopy, 2003, 97, 391-399.	1.9	23
192	Calibration of optical cantilever deflection readers. Review of Scientific Instruments, 2004, 75, 400-404.	1.3	23
193	Photochemical Hydrosilylation of 11-Undecenyltriethylammonium Bromide with Hydrogen-Terminated Si Surfaces for the Development of Robust Microcantilever Sensors for Cr(VI). Langmuir, 2005, 21, 1139-1142.	3.5	23
194	Microcantilever (MCL) Biosensing. Current Analytical Chemistry, 2006, 2, 297-307.	1.2	23
195	Nanopowder molding method for creating implantable high-aspect-ratio electrodes on thin flexible substrates. Biomaterials, 2006, 27, 2009-2017.	11.4	23
196	Quartz crystal tuning fork photoacoustic point sensing. Sensors and Actuators B: Chemical, 2010, 150, 402-405.	7.8	23
197	Activation process of reversible Pd thin film hydrogen sensors. Sensors and Actuators B: Chemical, 2013, 186, 258-262.	7.8	23
198	Spatially resolved organic coating on clay minerals in bitumen froth revealed by atomic force microscopy adhesion mapping. Fuel, 2017, 191, 283-289.	6.4	23

#	ARTICLE	IF	CITATIONS
199	Evaporation dynamics of water droplets on superhydrophobic nanogras surfaces. International Journal of Heat and Mass Transfer, 2020, 160, 120149.	4.8	23
200	Measuring magnetic susceptibilities of nanogram quantities of materials using microcantilevers. Ultramicroscopy, 2001, 86, 175-180.	1.9	22
201	Covalent Attachment of Gold Nanoparticles to DNA Templates. Journal of Nanoscience and Nanotechnology, 2002, 2, 397-404.	0.9	22
202	Investigation of mercury adsorption on gold films by STM. Journal of Microscopy, 1988, 152, 703-713.	1.8	21
203	Dynamics of self-driven microcantilevers. Journal of Applied Physics, 2002, 91, 4693-4700.	2.5	21
204	Observation of an anomalous mass effect in microcantilever-based biosensing caused by adsorbed DNA. Applied Physics Letters, 2010, 96, 153703.	3.3	21
205	Plasmon assisted thermal modulation in nanoparticles. Optics Express, 2013, 21, 12145.	3.4	21
206	Selective detection of physisorbed hydrocarbons using photothermal cantilever deflection spectroscopy. Sensors and Actuators B: Chemical, 2014, 191, 765-769.	7.8	21
207	A novel technique for rapid vapor detection using swelling polymer covered microstrip ring resonator. , 2014, , .		21
208	A general microcantilever surface modification method using a multilayer for biospecific recognition. Organic and Biomolecular Chemistry, 2003, 1, 460-462.	2.8	20
209	Flexible approach pays off. Nature Nanotechnology, 2008, 3, 133-134.	31.5	20
210	Rapid label-free detection of E. coli using antimicrobial peptide assisted impedance spectroscopy. Analytical Methods, 2015, 7, 9744-9748.	2.7	20
211	Analysis of amplification of thermal vibrations of a microcantilever. Journal of Applied Physics, 2001, 89, 4587-4591.	2.5	19
212	Microcantilever charged-particle flux detector. Review of Scientific Instruments, 2002, 73, 36-41.	1.3	19
213	1,6-Hexanedithiol monolayer as a receptor for specific recognition of alkylmercury. Analyst, The, 2005, 130, 1577.	3.5	19
214	Surface plasmon assisted thermal coupling of multiple photon energies. Thin Solid Films, 2006, 497, 315-320.	1.8	19
215	Nanometrology of delignified <i>Populus</i> using mode synthesizing atomic force microscopy. Nanotechnology, 2011, 22, 465702.	2.6	19
216	Investigation of pH-Induced Protein Conformation Changes by Nanomechanical Deflection. Langmuir, 2014, 30, 2109-2116.	3.5	19

#	ARTICLE	IF	CITATIONS
217	Photothermal Electrical Resonance Spectroscopy of Physisorbed Molecules on a Nanowire Resonator. Nano Letters, 2015, 15, 5658-5663.	9.1	19
218	Heat capacity measurements of sub-nanoliter volumes of liquids using bimaterial microchannel cantilevers. Applied Physics Letters, 2016, 108, .	3.3	19
219	Thermal graphene metamaterials and epsilon-near-zero high temperature plasmonics. Journal of Optics (United Kingdom), 2017, 19, 055101.	2.2	19
220	Investigating fouling at the pore-scale using a microfluidic membrane mimic filtration system. Scientific Reports, 2019, 9, 10587.	3.3	19
221	Mechanistic Understanding and Nanomechanics of Multiple Hydrogen-Bonding Interactions in Aqueous Environment. Journal of Physical Chemistry C, 2019, 123, 4540-4548.	3.1	19
222	Photothermal Cantilever Deflection Spectroscopy. Electrochemical Society Interface, 2019, 28, 55-57.	0.4	19
223	Smooth polycrystalline ceramic substrates with enhanced metal adhesion by pulsed excimer laser processing. Applied Physics Letters, 1994, 64, 1791-1793.	3.3	18
224	Microscale Marangoni actuation: All-optical and all-electrical methods. Ultramicroscopy, 2006, 106, 815-821.	1.9	18
225	<i>In situ</i> study of electric field-induced magnetization in multiferroic BiFeO ₃ nanowires. Scanning, 2014, 36, 224-230.	1.5	18
226	Photon tunneling via surface plasmon coupling. Applied Physics Letters, 2004, 85, 3420-3422.	3.3	17
227	Detection of Organophosphates Using an Acetyl Cholinesterase (AChE) Coated Microcantilever. Instrumentation Science and Technology, 2004, 32, 175-183.	1.8	17
228	Influence of nanobubbles on the bending of microcantilevers. Applied Physics Letters, 2006, 88, 103118.	3.3	17
229	Suspended polymer nanobridge on a quartz resonator. Applied Physics Letters, 2013, 103, .	3.3	17
230	Femtogram-Scale Photothermal Spectroscopy of Explosive Molecules on Nanostrings. Analytical Chemistry, 2014, 86, 11368-11372.	6.5	17
231	Photothermal cantilever deflection spectroscopy. EPJ Techniques and Instrumentation, 2014, 1, .	1.3	17
232	Determination of Charge on Asphaltene Nanoaggregates in Air Using Electrostatic Force Microscopy. Langmuir, 2015, 31, 679-684.	3.5	17
233	Sample Preparation in Centrifugal Microfluidic Discs for Human Serum Metabolite Analysis by Surface Assisted Laser Desorption/Ionization Mass Spectrometry. Analytical Chemistry, 2019, 91, 7570-7577.	6.5	17
234	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO ₂ nanorods. Journal of Power Sources, 2019, 417, 176-187.	7.8	17

#	ARTICLE	IF	CITATIONS
235	Reduced Graphene Oxide-Wrapped Palladium Nanowires Coated with a Layer of Zeolitic Imidazolate Framework-8 for Hydrogen Sensing. <i>ACS Applied Nano Materials</i> , 2021, 4, 8081-8093.	5.0	17
236	Tip-induced surface modification on gold surfaces. <i>Journal of Microscopy</i> , 1988, 152, 145-147.	1.8	16
237	Piezoresistive detection of acoustic waves. <i>Review of Scientific Instruments</i> , 2003, 74, 1031-1035.	1.3	16
238	Ultra violet decomposition of surface adsorbed explosives investigated with infrared standoff spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2012, 161, 961-966.	7.8	16
239	Synthesis and Characterization of Zinc Phthalocyanine-Cellulose Nanocrystal (CNC) Conjugates: Toward Highly Functional CNCs. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43992-44006.	8.0	16
240	Growth mechanisms and defects in boronated CVD diamond as identified by scanning tunneling microscopy. <i>Physical Review B</i> , 1995, 51, 14554-14558.	3.2	15
241	Optical thin-film interference effects in microcantilevers. <i>Journal of Applied Physics</i> , 2004, 95, 1162-1165.	2.5	15
242	Methane sensing at room temperature using photothermal cantilever deflection spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 564-569.	7.8	15
243	Conduction and Dielectric Relaxation Mechanisms in Athabasca Oil Sands with Application to Electrical Heating. <i>Energy & Fuels</i> , 2016, 30, 5630-5642.	5.1	15
244	The role of chloride ions in plasma-activated water treatment processes. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 156-168.	2.4	15
245	Cross talk between bending, twisting, and buckling modes of three types of microcantilever sensors. <i>Review of Scientific Instruments</i> , 2004, 75, 4841-4844.	1.3	14
246	Optically directed molecular transport and 3D isoelectric positioning of amphoteric biomolecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 6436-6441.	7.1	14
247	Nanomechanical Thermal Analysis of Photosensitive Polymers. <i>Macromolecules</i> , 2011, 44, 9661-9665.	4.8	14
248	Photothermal cantilever deflection spectroscopy of a photosensitive polymer. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	14
249	Directed self-assembly of proteins into discrete radial patterns. <i>Scientific Reports</i> , 2013, 3, 1923.	3.3	14
250	Dynamic and Static Manifestation of Molecular Absorption in Thin Films Probed by a Microcantilever. <i>Physical Review Applied</i> , 2014, 1, .	3.8	14
251	Electronic Nose for Recognition of Volatile Vapor Mixtures Using a Nanopore-Enhanced Opto-Calorimetric Spectroscopy. <i>Analytical Chemistry</i> , 2015, 87, 7125-7132.	6.5	14
252	Electrical excitation of the local earth for resonant, wireless energy transfer. <i>Wireless Power Transfer</i> , 2016, 3, 117-125.	1.1	14

#	ARTICLE	IF	CITATIONS
253	Quasi-wireless capacitive energy transfer for the dynamic charging of personal mobility vehicles. , 2016, , .		14
254	Abiotic streamers in a microfluidic system. <i>Soft Matter</i> , 2017, 13, 8698-8705.	2.7	14
255	Atomic layer-by-layer surface removal by force microscopy. <i>Surface Science</i> , 1993, 293, L863-L869.	1.9	13
256	Multi-modal characterization of nanogram amounts of a photosensitive polymer. <i>Applied Physics Letters</i> , 2013, 102, 024103.	3.3	13
257	Modulus-tunable magnetorheological elastomer microcantilevers. <i>Smart Materials and Structures</i> , 2014, 23, 055017.	3.5	13
258	Standoff Mechanical Resonance Spectroscopy Based on Infrared-Sensitive Hydrogel Microcantilevers. <i>Analytical Chemistry</i> , 2016, 88, 9678-9684.	6.5	13
259	Effect of Steam-Assisted Gravity Drainage Produced Water Properties on Oil/Water Transient Interfacial Tension. <i>Energy & Fuels</i> , 2016, 30, 10714-10720.	5.1	13
260	Sharpness and intensity modulation of the metal-insulator transition in ultrathin VO_2 films by interfacial structure manipulation. <i>Physical Review Materials</i> , 2018, 2, .	2.4	13
261	<title>MEMS sensors and wireless telemetry for distributed systems</title>. , 1998, , .		12
262	Effective mass and flow patterns of fluids surrounding microcantilevers. <i>Ultramicroscopy</i> , 2006, 106, 789-794.	1.9	12
263	Piezoresistive cantilever array sensor for consolidated bioprocess monitoring. <i>Scanning</i> , 2009, 31, 204-210.	1.5	12
264	Standoff imaging of chemicals using IR spectroscopy. <i>Proceedings of SPIE</i> , 2011, , .	0.8	12
265	Photoacoustic spectroscopy of surface adsorbed molecules using a nanostructured coupled resonator array. <i>Nanotechnology</i> , 2014, 25, 035501.	2.6	12
266	Sensitive and selective detection of hydrocarbon/water vapor mixtures with a nanoporous silicon microcantilever. <i>Sensors and Actuators B: Chemical</i> , 2015, 206, 84-89.	7.8	12
267	Hybrid micromolding of silver micro fiber doped electrically conductive elastomeric composite polymer for flexible sensors and electronic devices. <i>Microsystem Technologies</i> , 2018, 24, 4159-4164.	2.0	12
268	Magnetoelectric Coupling in NiMnIn /PLZT Artificial Multiferroic Heterostructure and Its Application in Mid-IR Photothermal Modulation by External Magnetic Field. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2226-2235.	4.3	12
269	Thermomechanical responses of microfluidic cantilever capture DNA melting and properties of DNA premelting states using picoliters of DNA solution. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	12
270	Hydrogel Microelectromechanical System (MEMS) Resonators: Beyond Cost-Effective Sensing Platform. <i>Advanced Materials Technologies</i> , 2019, 4, 1800597.	5.8	12

#	ARTICLE	IF	CITATIONS
271	Transparent and Flexible Thermal Insulation Window Material. Cell Reports Physical Science, 2020, 1, 100140.	5.6	12
272	Assembly of Gold Nanoclusters on Silicon Surfaces. Langmuir, 2002, 18, 2392-2397.	3.5	11
273	Opto-electronic versus electro-optic modulation. Applied Physics Letters, 2004, 85, 2703-2705.	3.3	11
274	Nanowell-patterned TiO ₂ microcantilevers for calorimetric chemical sensing. Applied Physics Letters, 2014, 104, 141903.	3.3	11
275	Modified cantilever arrays improve sensitivity and reproducibility of nanomechanical sensing in living cells. Communications Biology, 2018, 1, 175.	4.4	11
276	Spin photonic forces in non-reciprocal waveguides. Optics Express, 2018, 26, 23898.	3.4	11
277	Nanocantilever Signal Transduction by Electron Transfer. Journal of Nanoscience and Nanotechnology, 2002, 2, 369-373.	0.9	10
278	Read with quantum mechanics. Nature Nanotechnology, 2010, 5, 246-247.	31.5	10
279	The Effect of Applied Electric Field on the Diameter and Size Distribution of Electrospun α -Nylon6 Nanofibers. Scanning, 2013, 35, 183-188.	1.5	10
280	Wireless single contact power delivery. , 2015, , .		10
281	Thermomechanical analysis of picograms of polymers using a suspended microchannel cantilever. RSC Advances, 2017, 7, 8415-8420.	3.6	10
282	Review of Nanomechanical Calorimetric Infrared Spectroscopy using Bi-Material Microfluidic Cantilevers. Journal of the Electrochemical Society, 2020, 167, 037504.	2.9	10
283	Locally Enhanced Relative Humidity for Scanning Probe Nanolithography. Langmuir, 2005, 21, 10902-10906.	3.5	9
284	Optomechanical spectroscopy with broadband interferometric and quantum cascade laser sources. Optics Letters, 2011, 36, 3251.	3.3	9
285	Visible photothermal deflection spectroscopy using microcantilevers. Sensors and Actuators B: Chemical, 2012, 169, 222-228.	7.8	9
286	Protocol for Biofilm Streamer Formation in a Microfluidic Device with Micro-pillars. Journal of Visualized Experiments, 2014, , .	0.3	9
287	Thermomechanical behavior of a bimaterial microchannel cantilever subjected to periodic IR radiation. Sensors and Actuators B: Chemical, 2016, 235, 273-279.	7.8	9
288	Effect of annealing conditions on structural and luminescent properties of Eu ³⁺ -doped Gd ₂ Ti ₂ O ₇ thin films. Applied Surface Science, 2016, 364, 273-279.	6.1	9

#	ARTICLE	IF	CITATIONS
289	Evaluation of efficiency factors and internal resistance of thermoelectric materials. International Journal of Energy Research, 2017, 41, 198-206.	4.5	9
290	Quarter wavelength resonators for use in wireless capacitive power transfer. , 2017, , .		9
291	Microcantilevers for Physical, Chemical, and Biological Sensing. , 2003, , 337-355.		9
292	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. Carbohydrate Polymers, 2020, 246, 116393.	10.2	9
293	Detection of Hexavalent Chromium in Ground Water Using a Single Microcantilever Sensor. Sensor Letters, 2004, 2, 25-30.	0.4	9
294	Ultrathin Palladium Nanowires for Fast and Hysteresis-Free H ₂ Sensing. ACS Applied Nano Materials, 2022, 5, 5895-5905.	5.0	9
295	Experimental observations of a long-range surface mode in metal island films. Physical Review B, 1994, 49, 7782-7785.	3.2	8
296	Vibration response of microcantilevers bounded by a confined fluid. Ultramicroscopy, 2007, 107, 1105-1110.	1.9	8
297	Speciation of Energetic Materials on a Microcantilever Using Surface Reduction. Scanning, 2008, 30, 208-212.	1.5	8
298	Stripping voltammetry of Pb and Cu using a microcantilever electrode. Surface Science, 2009, 603, L125-L127.	1.9	8
299	Quasi-wireless surface power and control for battery-free robotics. Wireless Power Transfer, 2015, 2, 134-142.	1.1	8
300	Ultrasensitive Detection of Cu ²⁺ Using a Microcantilever Sensor Modified with L-Cysteine Self-Assembled Monolayer. Applied Biochemistry and Biotechnology, 2017, 183, 555-565.	2.9	8
301	Phase transformation induced modulation of the resonance frequency of VO ₂ /TiO ₂ coated microcantilevers. MRS Advances, 2018, 3, 359-364.	0.9	8
302	Collapse of house-of-cards clay structures and corresponding tailings dewatering induced by alternating electric fields. Drying Technology, 2019, 37, 1053-1067.	3.1	8
303	Mass Spectrometric Analysis of Water-soluble Gold Nanoclusters. Journal of Nanoparticle Research, 2002, 4, 417-422.	1.9	7
304	Fluctuation and dissipation of a stochastic micro-oscillator under delayed feedback. Journal of Applied Physics, 2006, 100, 114314.	2.5	7
305	Electromechanical identification of molecules adsorbed on microcantilevers. Sensors and Actuators B: Chemical, 2007, 124, 143-146.	7.8	7
306	Photothermal Cantilever Deflection Spectroscopy. ECS Transactions, 2013, 50, 459-464.	0.5	7

#	ARTICLE	IF	CITATIONS
307	Rapid discrimination of DNA strands using an opto-calorimetric microcantilever sensor. Lab on A Chip, 2014, 14, 4659-4664.	6.0	7
308	Strain-induced electrostatic enhancements of BiFeO ₃ nanowire loops. Physical Chemistry Chemical Physics, 2016, 18, 22772-22777.	2.8	7
309	A nanostructured surface increases friction exponentially at the solid-gas interface. Scientific Reports, 2016, 6, 32996.	3.3	7
310	Transparent and highly luminescent dysprosium-doped GdVO ₄ thin films fabricated by pulsed laser deposition. Thin Solid Films, 2017, 638, 332-337.	1.8	7
311	Polybutadiene emulsion particles observed by scanning tunneling microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 623-626.	2.1	6
312	Surface morphology of epitaxial CaF ₂ /Si(111) and its influence on subsequent GaAs epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1995, 13, 670.	1.6	6
313	Novel Glucose Biosensor Based on the Microcantilever. Materials Research Society Symposia Proceedings, 2003, 776, 11211.	0.1	6
314	Parametric energy conversion of thermoacoustic vibrations. Applied Physics Letters, 2012, 100, .	3.3	6
315	Modeling of Asphaltene Transport and Separation in the Presence of Finite Aggregation Effects in Pressure-Driven Microchannel Flow. Energy & Fuels, 2012, 26, 5851-5857.	5.1	6
316	Asphaltene migration and separation in presence of aggregation in electroosmoticâ€“electrophoretic microchannel transport. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 446, 23-32.	4.7	6
317	In-situ probing of thermal desorption of vapor molecules on a nanowire via work function variance. Nano Research, 2016, 9, 3334-3345.	10.4	6
318	Broadband Mid-Infrared Stand-Off Reflectionâ€“Absorption Spectroscopy Using a Pulsed External Cavity Quantum Cascade Laser. Applied Spectroscopy, 2017, 71, 1494-1505.	2.2	6
319	Electrophoresis assisted time-of-flow mass spectrometry using hollow nanomechanical resonators. Scientific Reports, 2017, 7, 3535.	3.3	6
320	Nanomechanical Thermal Analysis of Indium Films Using Silicon Microcantilevers. Japanese Journal of Applied Physics, 2012, 51, 08KB07.	1.5	6
321	Diffusion length of Ga adatoms on GaAs (1 $\bar{1}$,1 $\bar{1}$,1 $\bar{1}$,) surface in the $\sqrt{3}\times\sqrt{3}$ reconstruction growth regime. Applied Physics Letters, 1994, 64, 1641-1643.	3.3	5
322	Electrostatic force density for a scanned probe above a charged surface. Journal of Applied Physics, 2001, 90, 1011-1016.	2.5	5
323	Design and Testing of Single and Double Sided Cantilevers for Chemical Sensing. , 2007, , .		5
324	Optical and plasmonic spectroscopy with cantilever shaped materials. Journal Physics D: Applied Physics, 2011, 44, 445102.	2.8	5

#	ARTICLE	IF	CITATIONS
325	Galvanic and Chemical Deposition of Bismuth Powders from Aqueous Solutions. Journal of the Electrochemical Society, 2012, 159, D587-D591.	2.9	5
326	Applications of Subsurface Microscopy. Methods in Molecular Biology, 2012, 926, 331-343.	0.9	5
327	The abilities of instabilities. Nature, 2012, 487, 440-441.	27.8	5
328	Photoluminescence of europium(III)-doped (Y Sc1 ^â) ₂ O ₃ nanoparticles: Linear relationship between structural and emission properties. Ceramics International, 2016, 42, 3899-3906.	4.8	5
329	Plasmonic absorbers with optical cavity for the enhancement of photothermal/opto-calorimetric infrared spectroscopy. Applied Physics Letters, 2017, 110, .	3.3	5
330	Optimal floc structure for effective dewatering of polymer treated oil sands tailings. Minerals Engineering, 2021, 160, 106688.	4.3	5
331	Synthesis, Characterization, and Optical Properties of AuSe Nanoalloys. Journal of Nanoscience and Nanotechnology, 2005, 5, 1832-1839.	0.9	5
332	Nanostrings of silver. Journal of Materials Science Letters, 1999, 18, 1391-1394.	0.5	4
333	Study of different hormone-sensitive lipase concentrations using a surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 2001, 73, 192-198.	7.8	4
334	Explosive Vapor Detection Using Microcantilever Sensors. , 2007, , 109-130.		4
335	Laser reflectometry of submegahertz liquid meniscus ringing. Optics Letters, 2009, 34, 3148.	3.3	4
336	Highly selective separation of DNA fragments using optically directed transport. Applied Physics Letters, 2010, 96, 053701.	3.3	4
337	Xsense: a miniaturised multi-sensor platform for explosives detection. , 2011, , .		4
338	Nanomechanical Thermal Analysis of Indium Films Using Silicon Microcantilevers. Japanese Journal of Applied Physics, 2012, 51, 08KB07.	1.5	4
339	Static and dynamic operation of metal-coated hydrogel cantilever humidity sensors based on hygroscopic mismatch. , 2017, , .		4
340	Fabrication of Phase Change Microstring Resonators via Top Down Lithographic Techniques: Incorporation of VO ₂ /TiO ₂ Into Conventional Processes. Journal of Microelectromechanical Systems, 2019, 28, 766-775.	2.5	4
341	Resonant hair humidity sensors for disposable applications: Revisit the hair hygrometer. Sensors and Actuators B: Chemical, 2019, 292, 1-6.	7.8	4
342	Toward a mechanically stable solid electrolyte interphase. Matter, 2021, 4, 2119-2122.	10.0	4

#	ARTICLE	IF	CITATIONS
343	Enhanced nanoplasmonic heating in standoff sensing of explosive residues with infrared reflection-absorption spectroscopy. <i>Optics Letters</i> , 2020, 45, 2144.	3.3	4
344	Electrochemically deposited Ni on Ge(111) investigated with X-ray standing waves. <i>Surface Science</i> , 1990, 230, 205-212.	1.9	3
345	An atomic force microscope-based investigation of vertical transport through GaAs/GaAlAs/InAlAs/GaAs step-barrier heterostructures. <i>Ultramicroscopy</i> , 2002, 91, 133-138.	1.9	3
346	Explosive Vapour Detection Using Micromechanical Sensors. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2004, , 249-266.	0.1	3
347	Low-Noise Chemical Detection with a Piezoresistive Microcantilever Array. <i>ECS Transactions</i> , 2006, 3, 473-482.	0.5	3
348	Spiral springs and microspiral springs for chemical and biological sensing. <i>Applied Physics Letters</i> , 2006, 88, 063504.	3.3	3
349	Nonlinear Interaction Force Analysis of Microcantilevers Utilized in Atomic Force Microscopy. , 2009, , .		3
350	Xsense: using nanotechnology to combine detection methods for high sensitivity handheld explosives detectors. , 2010, , .		3
351	Detection of biological analytes using nanomechanical infrared spectroscopy with a nanoporous microcantilever. <i>Proceedings of SPIE</i> , 2013, , .	0.8	3
352	Communicationâ€”Galvanic Deposition of Gold on Silicon from Au(I) Alkaline Fluoride-Free Solutions. <i>Journal of the Electrochemical Society</i> , 2016, 163, D818-D820.	2.9	3
353	Dielectric Relaxation-Based Capacitive Heating of Oil Sands. <i>Energy & Fuels</i> , 2016, 30, 1987-1996.	5.1	3
354	On-Chip Integration of Photodetector and Sensor: A Multimodal Photonic Device for Sensing Applications. <i>IEEE Sensors Journal</i> , 2017, 17, 4773-4780.	4.7	3
355	Surface Stateâ€”Induced Anomalous Negative Thermal Quenching of Multiferroic BiFeO ₃ Nanowires. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018, 12, 1700352.	2.4	3
356	Dual Channel Microfluidic Resonators for Simultaneous Measurements of Liquid Analytes. , 2019, , .		3
357	Microcantilever Chemical and Biological Sensors. , 2015, , 1-9.		3
358	Microfluidic resonators with two parallel channels for independent sample loading and effective density tuning. <i>Micro and Nano Systems Letters</i> , 2020, 8, .	3.7	3
359	(Invited) Additive Manufacturing: Sustainable Manufacturing of Flexible Sensors, Systems and Devices. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2200-2200.	0.0	3
360	Pd Alloy Nanosheet Inks for Inkjetâ€”Printable H ₂ Sensors on Paper. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	3

#	ARTICLE	IF	CITATIONS
361	Site-Specific Attachment of Gold Nanoparticles to DNA Templates. Materials Research Society Symposia Proceedings, 2001, 635, C4.2.1.	0.1	2
362	Environmental Monitoring Using Microcantilever Sensors. ACS Symposium Series, 2005, , 284-305.	0.5	2
363	Frictional Dynamics at the Atomic Scale in Presence of Small Oscillations of the Sliding Surfaces. , 2007, , 119-130.		2
364	Room-Temperature Nanocatalytic Reaction Modeling and Its Applications in Direct Energy Conversion. ECS Transactions, 2009, 16, 61-71.	0.5	2
365	DNA separation on surfaces. Applied Physics Letters, 2010, 97, 033703.	3.3	2
366	Microfluidic device for studying tumor cell extravasation in cancer metastasis. , 2010, , .		2
367	Electroless Deposition of Bismuth Containing Films on Copper and Silver Substrates from KBiI ₄ Solutions. Electrochemical and Solid-State Letters, 2012, 15, D23.	2.2	2
368	Standoff infrared spectroscopy on energetic materials using hydrogel microcantilevers. , 2016, , .		2
369	Galvanic Processes on Silicon Surfaces in Cu(II) Alkaline Fluoride-Free Solutions. Journal of the Electrochemical Society, 2016, 163, D651-D654.	2.9	2
370	Development of a 3D-printed modified Scheludko-cell: Potential application for adsorption and thin liquid film study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 561, 341-348.	4.7	2
371	Standoff and Point Detection of Thin Polymer Layers Using Microcantilever Photothermal Spectroscopy. Journal of the Electrochemical Society, 2022, 169, 037501.	2.9	2
372	Photoinduced Multistable Resonance Frequency Switching of Phase Change Microstring at Room Temperature. Advanced Electronic Materials, 2022, 8, 2100819.	5.1	2
373	Superperiodic features observed on graphite under solution with scanning tunneling microscopy. Surface Science Letters, 1991, 254, L454-L459.	0.1	1
374	Probing single ion luminescence in rare-earth doped nanocrystals. AIP Conference Proceedings, 2001, , .	0.4	1
375	Nanoscale Energy Conversion by Using Nano-Catalytic Particles. , 2006, , 545.		1
376	Thermal Characterization and Temperature Control of Piezoresistive Microcantilevers. , 2006, , .		1
377	An experimental investigation of analog delay generation for dynamic control of microsensors and atomic force microscopy. Ultramicroscopy, 2007, 107, 1020-1026.	1.9	1
378	Voltammetry of the Pb/Pb ²⁺ Redox Couple using a Gold Microcantilever Electrode. ECS Transactions, 2009, 16, 147-153.	0.5	1

#	ARTICLE	IF	CITATIONS
379	The Xsense project: The application of an intelligent sensor array for high sensitivity handheld explosives detectors. , 2011, , .		1
380	Raman and photothermal spectroscopies for explosive detection. Proceedings of SPIE, 2013, , .	0.8	1
381	Self-Assembly of Proteins into Three-Dimensional Structures Using Bio-Conjugation. Materials Research Society Symposia Proceedings, 2014, 1663, 47.	0.1	1
382	Galvanic Deposition of Gold on GaAs: A Tip-Induced Lithography Approach. Journal of the Electrochemical Society, 2015, 162, D486-D489.	2.9	1
383	Bacterial Detection Using Peptide-Based Platform and Impedance Spectroscopy. Methods in Molecular Biology, 2017, 1572, 113-124.	0.9	1
384	Microcantilever Sensors , 2017, , .		1
385	Surface State-Induced Anomalous Negative Thermal Quenching of Multiferroic BiFeO ₃ Nanowires (Phys. Status Solidi RRL 1/2018). Physica Status Solidi - Rapid Research Letters, 2018, 12, 1870403.	2.4	1
386	Microfluidic Cantilever Biosensors. , 2018, , .		1
387	Exploiting broader dynamic range in Si-bridge modified QTFs for sensitive thermometric applications. Sensors and Actuators A: Physical, 2018, 279, 442-447.	4.1	1
388	Structure, morphology, and luminescent behavior of RE ³⁺ -doped GdVO ₄ thin films. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	1
389	Effect of Surface and Interfacial Tension on the Resonance Frequency of Microfluidic Channel Cantilever. Sensors, 2020, 20, 6459.	3.8	1
390	Explosive Vapour Detection Using Micromechanical Sensors. , 2004, , 249-266.		1
391	Substrate Effects on the Growth of Multiwalled Carbon Nanotubes by Thermal Chemical Vapor Deposition. Advanced Science Letters, 2012, 7, 21-26.	0.2	1
392	(Invited) Shape Conformable Flexible Sensors for Internet of Things (IoT): A Perspective. ECS Meeting Abstracts, 2018, , .	0.0	1
393	Perspective "Maintaining the Quality of Life in Depopulating Communities: Expanding Smart Sensing via a Novel Power Supply. Journal of the Electrochemical Society, 2020, 167, 037564.	2.9	1
394	Cantilever Arrays: A Universal Platform for Multiplexed Label-Free Bioassays. , 2006, , 21-33.		1
395	Localized anisotropic stress in the sodiation of antimony anode. Nano Energy, 2022, 98, 107349.	16.0	1
396	Mapping site-specific endonuclease binding to DNA by direct imaging with atomic force microscopy (AFM). , 1995, , .		0

#	ARTICLE	IF	CITATIONS
397	Remote chemical sensing and recognition by acoustic mapping of photothermal fields. Applied Physics Letters, 2006, 88, 194103.	3.3	0
398	Receptor-free nanomechanical sensors. , 2007, , .		0
399	Photothermal Spectroscopy using Microfabricated Cantilever Sensors. ECS Transactions, 2009, 16, 137-142.	0.5	0
400	Trace explosives detection by micro differential thermal analysis. , 2011, , .		0
401	Biography of Stuart Lindsay. Journal of Physics Condensed Matter, 2012, 24, 160401.	1.8	0
402	Bismuth ferrite clusters induced hydrogel formation in human serum albumin. Chemical Communications, 2012, 48, 4193.	4.1	0
403	Microcantilever Sensors: Electrochemical Aspects and Biomedical Applications. Modern Aspects of Electrochemistry, 2012, , 127-171.	0.2	0
404	Microrobotics. , 2012, , 1436-1436.		0
405	Comments on the paper "A comprehensive modeling and vibration analysis of AFM microcantilevers subjected to nonlinear tip-sample interaction forces" by Sohrab Eslami and Nader Jalili. Ultramicroscopy, 2013, 131, 92-93.	1.9	0
406	On-Chip Power Generation: Microfluidic-Based Reactor for Catalytic Combustion of Methanol. , 2013, , .		0
407	Microspot With Integrated Wells (MSIW) for the Detection of E.coli. , 2013, , .		0
408	Point and standoff detection of trace explosives using quantum cascade lasers. , 2014, , .		0
409	Biofilm Streamer Formation in a Microfluidic Porous Media Mimic. , 2014, , .		0
410	Determination of the Physical Properties of Oil Sands Components using Scanning Probe Microscopy. Materials Research Society Symposia Proceedings, 2015, 1754, 69-74.	0.1	0
411	Label-Free Rapid Detection of Pathogens with Antimicrobial Peptide Assisted Impedance Spectrometry. Materials Research Society Symposia Proceedings, 2015, 1793, 13-18.	0.1	0
412	Investigation of Polymer Dendritic Growth in Composite Material using Contact Resonance Method. Materials Research Society Symposia Proceedings, 2015, 1754, 61-67.	0.1	0
413	Ozone alteration for background references using QCL-based mid infrared standoff spectroscopy. , 2015, , .		0
414	Self-Assembly of Human Serum Albumin: A Simplex Phenomenon. Biomolecules, 2017, 7, 69.	4.0	0

#	ARTICLE	IF	CITATIONS
415	Thermal Characterization of Liquid Analytes via Photothermal Modulation of Microfluidic Resonators. , 2019, , .		0
416	Polymer Microelectromechanical Systems: Hydrogel Microelectromechanical System (MEMS) Resonators: Beyond Cost-Effective Sensing Platform (Adv. Mater. Technol. 3/2019). Advanced Materials Technologies, 2019, 4, 1970017.	5.8	0
417	Photothermal Sensing of Chemical Vapors Using Microcantilevers. Nanostructure Science and Technology, 2010, , 183-191.	0.1	0
418	Nanomechanical Methods To Study Single Cells. , 0, , 245-265.		0
419	Carbonized Nanocellulose Sustainably Boosts the Performance of Activated Carbon in Ionic Liquid Supercapacitors. ECS Meeting Abstracts, 2016, , .	0.0	0
420	Microcantilever Chemical and Biological Sensors. , 2016, , 2137-2145.		0
421	(Keynote) Chemical Selectivity and Micro/Nano Sensors. ECS Meeting Abstracts, 2016, , .	0.0	0
422	Time-of-Flow Micromechanical Mass Spectrometry and Micromechanical Infrared Spectroscopy Using Microfluidic Cantilever. ECS Meeting Abstracts, 2018, , .	0.0	0
423	Tunable Shape Memory Polymer with Adhesive Property at Body Temperature for Shape Conformable Wearable Sensor Skins. ECS Meeting Abstracts, 2018, , .	0.0	0
424	Synthesis and Characterization of Thermoplastic PDMS. ECS Meeting Abstracts, 2018, , .	0.0	0
425	Fabrication of Polymer Bonded Permanent Magnets. ECS Meeting Abstracts, 2018, , .	0.0	0
426	3D Printing of Electrically Conductive Hybrid Organic-Inorganic Materials. ECS Meeting Abstracts, 2018, , .	0.0	0
427	3D Printing of Molds for Soft Lithography. ECS Meeting Abstracts, 2018, , .	0.0	0
428	(Plenary) 4D Printing for Sensors and Energy Applications. ECS Meeting Abstracts, 2018, , .	0.0	0
429	Physical Properties of Carbon Fiber Doped Micropatternable Nanocomposite Polymer. ECS Meeting Abstracts, 2018, , .	0.0	0
430	Electroless deposition of Fe-Ni alloys from acidic and alkaline solutions using hypophosphite as a reducing agent. Journal of the Serbian Chemical Society, 2019, 84, 1199-1208.	0.8	0
431	(Invited) Multi-Material Additive Manufacturing (3D/4D printing). ECS Meeting Abstracts, 2019, , .	0.0	0
432	(Invited) Receptor-Free and Label-Free Biomolecular Sensing Using Miniature Sensors. ECS Meeting Abstracts, 2020, MA2020-01, 1919-1919.	0.0	0

#	ARTICLE	IF	CITATIONS
433	Standoff Detection of Plastics. ECS Meeting Abstracts, 2021, MA2021-02, 1663-1663.	0.0	0
434	Micro-Fuel Cell Sensor-Based Transcutaneous Anesthesia Monitoring Systems (TAMS). ECS Meeting Abstracts, 2021, MA2021-02, 1673-1673.	0.0	0
435	Solving Power and Control Using Wireless Transmission Systems for Hard to Access Electrochemical Sensors. ECS Meeting Abstracts, 2021, MA2021-02, 1588-1588.	0.0	0
436	Microfluidic Cantilever Dynamics and Thermomechanics of DNA Melting Transitions. ECS Meeting Abstracts, 2021, MA2021-02, 1667-1667.	0.0	0
437	(Invited) Photothermal Cantilever Sensors for Soil Health Monitoring. ECS Meeting Abstracts, 2021, MA2021-02, 1669-1669.	0.0	0
438	(Invited) Measurement of Thermophysical Properties of Liquid Analytes Using Microfluidic Resonators via Photothermal Modulation. ECS Meeting Abstracts, 2021, MA2021-02, 1668-1668.	0.0	0
439	Microcantilever: An Unique Apparatus to Revolve the Mechanical Stress in Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 106-106.	0.0	0