

Thomas G Thundat

List of Publications by Citations

Source: <https://exaly.com/author-pdf/8004823/thomas-g-thundat-publications-by-citations.pdf>
Version: 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

394 papers	15,441 citations	68 h-index	108 g-index
441 ext. papers	17,377 ext. citations	5.8 avg, IF	6.73 L-index

#	Paper	IF	Citations
394	Bioassay of prostate-specific antigen (PSA) using microcantilevers. <i>Nature Biotechnology</i> , 2001 , 19, 856-60	14.5	836
393	Adsorption-induced surface stress and its effects on resonance frequency of microcantilevers. <i>Journal of Applied Physics</i> , 1995 , 77, 3618-3622	2.5	440
392	Nanotechnologies for biomolecular detection and medical diagnostics. <i>Current Opinion in Chemical Biology</i> , 2006 , 10, 11-9	9.7	408
391	Thermal and ambient-induced deflections of scanning force microscope cantilevers. <i>Applied Physics Letters</i> , 1994 , 64, 2894-2896	3.4	334
390	Cantilever-based optical deflection assay for discrimination of DNA single-nucleotide mismatches. <i>Analytical Chemistry</i> , 2001 , 73, 1567-71	7.8	300
389	Glucose biosensor based on the microcantilever. <i>Analytical Chemistry</i> , 2004 , 76, 292-7	7.8	252
388	Nanosensors for trace explosive detection. <i>Materials Today</i> , 2008 , 11, 28-36	21.8	250
387	Preparation and characterization of STM tips for electrochemical studies. <i>Review of Scientific Instruments</i> , 1989 , 60, 3128-3130	1.7	221
386	Gold grown epitaxially on mica: conditions for large area flat faces. <i>Surface Science</i> , 1991 , 256, 102-108	1.8	217
385	Resonance response of scanning force microscopy cantilevers. <i>Review of Scientific Instruments</i> , 1994 , 65, 2532-2537	1.7	212
384	Review Organic-Inorganic Hybrid Functional Materials: An Integrated Platform for Applied Technologies. <i>Journal of the Electrochemical Society</i> , 2018 , 165, B3137-B3156	3.9	199
383	Stretchable, Injectable, and Self-Healing Conductive Hydrogel Enabled by Multiple Hydrogen Bonding toward Wearable Electronics. <i>Chemistry of Materials</i> , 2019 , 31, 4553-4563	9.6	194
382	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, 1560-4	11.5	187
381	A Novel Approach Toward Fabrication of High Performance Thin Film Composite Polyamide Membranes. <i>Scientific Reports</i> , 2016 , 6, 22069	4.9	186
380	MICROCANTILEVER SENSORS. <i>Microscale Thermophysical Engineering</i> , 1997 , 1, 185-199		181
379	Vapor Detection Using Resonating Microcantilevers. <i>Analytical Chemistry</i> , 1995 , 67, 519-521	7.8	174
378	Microcantilever biosensors. <i>Methods</i> , 2005 , 37, 57-64	4.6	169

377	Sensitive detection of plastic explosives with self-assembled monolayer-coated microcantilevers. <i>Applied Physics Letters</i> , 2003 , 83, 1471-1473	3.4	162
376	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	17.1	153
375	Explosives: a microsensor for trinitrotoluene vapour. <i>Nature</i> , 2003 , 425, 474	50.4	153
374	Direct-current triboelectricity generation by a sliding Schottky nanocontact on MoS multilayers. <i>Nature Nanotechnology</i> , 2018 , 13, 112-116	28.7	146
373	Cantilever Sensors: Nanomechanical Tools for Diagnostics. <i>MRS Bulletin</i> , 2009 , 34, 449-454	3.2	143
372	Viscous drag measurements utilizing microfabricated cantilevers. <i>Applied Physics Letters</i> , 1996 , 68, 3814-3816	3.4	140
371	Nerve agents detection using a Cu ²⁺ /L-cysteine bilayer-coated microcantilever. <i>Journal of the American Chemical Society</i> , 2003 , 125, 1124-5	16.4	138
370	Imaging nanoparticles in cells by nanomechanical holography. <i>Nature Nanotechnology</i> , 2008 , 3, 501-5	28.7	133
369	Nanocrystalline ruthenium oxide dispersed Few Layered Graphene (FLG) nanoflakes as supercapacitor electrodes. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14944		119
368	Thin film composite polyamide membranes: parametric study on the influence of synthesis conditions. <i>RSC Advances</i> , 2015 , 5, 54985-54997	3.7	111
367	Micromechanical sensors for chemical and physical measurements. <i>Review of Scientific Instruments</i> , 1995 , 66, 3662-3667	1.7	108
366	Carbonized nanocellulose sustainably boosts the performance of activated carbon in ionic liquid supercapacitors. <i>Nano Energy</i> , 2016 , 25, 161-169	17.1	104
365	Stretched DNA structures observed with atomic force microscopy. <i>Nucleic Acids Research</i> , 1994 , 22, 4224-8	28.1	100
364	Microfluidic cantilever detects bacteria and measures their susceptibility to antibiotics in small confined volumes. <i>Nature Communications</i> , 2016 , 7, 12947	17.4	99
363	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	17.1	97
362	A novel self-assembled monolayer (SAM) coated microcantilever for low level caesium detection. <i>Chemical Communications</i> , 2000 , 457-458	5.8	97
361	Robust fabrication of thin film polyamide-TiO nanocomposite membranes with enhanced thermal stability and anti-biofouling propensity. <i>Scientific Reports</i> , 2018 , 8, 784	4.9	96
360	Detection of 2,4-dinitrotoluene using microcantilever sensors. <i>Sensors and Actuators B: Chemical</i> , 2004 , 99, 223-229	8.5	96

359	Detection of CrO ₄ (2-) using a hydrogel swelling microcantilever sensor. <i>Analytical Chemistry</i> , 2003 , 75, 4773-7	7.8	96
358	Friction effects in the deflection of atomic force microscope cantilevers. <i>Review of Scientific Instruments</i> , 1994 , 65, 394-399	1.7	96
357	Investigation of adsorption and absorption-induced stresses using microcantilever sensors. <i>Journal of Applied Physics</i> , 2001 , 90, 427-431	2.5	95
356	New modes for subsurface atomic force microscopy through nanomechanical coupling. <i>Nature Nanotechnology</i> , 2010 , 5, 105-9	28.7	94
355	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	9.5	91
354	Design & fabrication of cantilever array biosensors. <i>Materials Today</i> , 2009 , 12, 32-38	21.8	86
353	Nanolithography on semiconductor surfaces under an etching solution. <i>Applied Physics Letters</i> , 1990 , 57, 270-272	3.4	85
352	Fabrication of antifouling and antibacterial polyethersulfone (PES)/cellulose nanocrystals (CNC) nanocomposite membranes. <i>Journal of Membrane Science</i> , 2018 , 549, 350-356	9.6	84
351	Microcantilever biosensors for chemicals and bioorganisms. <i>Analyst, The</i> , 2011 , 136, 1539-56	5	84
350	Glucose biosensing using an enzyme-coated microcantilever. <i>Applied Physics Letters</i> , 2002 , 81, 385-387	3.4	84
349	Detection of Hg ²⁺ using microcantilever sensors. <i>Analytical Chemistry</i> , 2002 , 74, 3611-5	7.8	83
348	Ultrasensitive detection of CrO ₄ (2-) using a microcantilever sensor. <i>Analytical Chemistry</i> , 2001 , 73, 1572-6	6.8	83
347	Degradable thermoresponsive nanogels for protein encapsulation and controlled release. <i>Bioconjugate Chemistry</i> , 2012 , 23, 75-83	6.3	81
346	Measurement of Mechanical Properties of Cantilever Shaped Materials. <i>Sensors</i> , 2008 , 8, 3497-3541	3.8	81
345	Pulsed Laser Deposited Dysprosium-Doped Gadolinium-Vanadate Thin Films for Noncontact, Self-Referencing Luminescence Thermometry. <i>Advanced Materials</i> , 2016 , 28, 7745-52	24	79
344	Critical issues in sensor science to aid food and water safety. <i>ACS Nano</i> , 2012 , 6, 4548-56	16.7	79
343	Detection of heavy metal ions using protein-functionalized microcantilever sensors. <i>Biosensors and Bioelectronics</i> , 2003 , 19, 411-6	11.8	79
342	Mercury vapor detection with a self-sensing, resonating piezoelectric cantilever. <i>Review of Scientific Instruments</i> , 2003 , 74, 4899-4901	1.7	79

341	Determination of adsorption-induced variation in the spring constant of a microcantilever. <i>Applied Physics Letters</i> , 2002 , 80, 2219-2221	3.4	78
340	Detection of trinitrotoluene via deflagration on a microcantilever. <i>Journal of Applied Physics</i> , 2004 , 95, 5871-5875	2.5	77
339	Standoff spectroscopy of surface adsorbed chemicals. <i>Analytical Chemistry</i> , 2009 , 81, 1952-6	7.8	76
338	Standoff photoacoustic spectroscopy. <i>Applied Physics Letters</i> , 2008 , 92, 234102	3.4	76
337	STM and AFM images of nucleosome DNA under water. <i>Journal of Biomolecular Structure and Dynamics</i> , 1989 , 7, 279-87	3.6	76
336	Sustained drug release and antibacterial activity of ampicillin incorporated poly(methyl methacrylate)/PCL core/shell nanofibers. <i>Polymer</i> , 2013 , 54, 2699-2705	3.9	74
335	Microfluidic manipulation via Marangoni forces. <i>Applied Physics Letters</i> , 2004 , 85, 4237-4239	3.4	73
334	Effects of temperature and pressure on microcantilever resonance response. <i>Ultramicroscopy</i> , 2003 , 97, 119-26	3.1	72
333	Impedimetric detection of pathogenic Gram-positive bacteria using an antimicrobial peptide from class IIa bacteriocins. <i>Analytical Chemistry</i> , 2014 , 86, 1693-700	7.8	70
332	Trace explosive detection using photothermal deflection spectroscopy. <i>Journal of Applied Physics</i> , 2008 , 103, 094906	2.5	70
331	Simulation of adsorption-induced stress of a microcantilever sensor. <i>Journal of Applied Physics</i> , 2005 , 97, 043526	2.5	70
330	Detection of pH variation using modified microcantilever sensors. <i>Sensors and Actuators B: Chemical</i> , 2001 , 72, 233-238	8.5	69
329	Sustained electron tunneling at unbiased metal-insulator-semiconductor triboelectric contacts. <i>Nano Energy</i> , 2018 , 48, 320-326	17.1	68
328	Glucose-responsive polymer brushes for microcantilever sensing. <i>Journal of Materials Chemistry</i> , 2010 , 20, 3391		68
327	Synthesis of selenium nanoparticle and its photocatalytic application for decolorization of methylene blue under UV irradiation. <i>Langmuir</i> , 2004 , 20, 7880-3	4	68
326	Manipulation and controlled amplification of Brownian motion of microcantilever sensors. <i>Applied Physics Letters</i> , 2001 , 78, 1637-1639	3.4	68
325	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	9.6	66
324	Harmonic response of near-contact scanning force microscopy. <i>Journal of Applied Physics</i> , 1995 , 78, 1465-1469	2.1	65

323	A web of streamers: biofilm formation in a porous microfluidic device. <i>Lab on A Chip</i> , 2012 , 12, 5133-7	7.2	62
322	Bioelectromechanical imaging by scanning probe microscopy: Galvani's experiment at the nanoscale. <i>Ultramicroscopy</i> , 2006 , 106, 334-40	3.1	62
321	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	2.5	62
320	Nanomechanical sandwich assay for multiple cancer biomarkers in breast cancer cell-derived exosomes. <i>Nanoscale</i> , 2016 , 8, 15137-41	7.7	62
319	Microwave ring resonator-based non-contact interface sensor for oil sands applications. <i>Sensors and Actuators B: Chemical</i> , 2016 , 224, 632-639	8.5	61
318	In situ detection of calcium ions with chemically modified microcantilevers. <i>Biosensors and Bioelectronics</i> , 2002 , 17, 337-43	11.8	60
317	Atomic force microscope investigation of C ₆₀ adsorbed on silicon and mica. <i>Applied Physics Letters</i> , 1993 , 63, 891-893	3.4	60
316	Real-time Detection of Breast Cancer Cells Using Peptide-functionalized Microcantilever Arrays. <i>Scientific Reports</i> , 2015 , 5, 13967	4.9	58
315	Injectable Self-Healing Zwitterionic Hydrogels Based on Dynamic Benzoxaborole-Sugar Interactions with Tunable Mechanical Properties. <i>Biomacromolecules</i> , 2018 , 19, 596-605	6.9	57
314	Direct atomic force microscope imaging of EcoRI endonuclease site specifically bound to plasmid DNA molecules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 8826-9	11.5	55
313	Characterization of atomic force microscope tips by adhesion force measurements. <i>Applied Physics Letters</i> , 1993 , 63, 2150-2152	3.4	54
312	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	9.6	54
311	Moore's law in homeland defense: an integrated sensor platform based on silicon microcantilevers. <i>IEEE Sensors Journal</i> , 2005 , 5, 774-785	4	53
310	Universal spin-momentum locked optical forces. <i>Applied Physics Letters</i> , 2016 , 108, 061102	3.4	53
309	The detection of Escherichia coli (E. coli) with the pH sensitive hydrogel nanofiber-light addressable potentiometric sensor (NF-LAPS). <i>Sensors and Actuators B: Chemical</i> , 2016 , 226, 176-183	8.5	52
308	Optical modulation processes in thin films based on thermal effects of surface plasmons. <i>Applied Physics Letters</i> , 2005 , 86, 154101	3.4	52
307	Detection of Volatile Organic Compounds Using Microwave Sensors. <i>IEEE Sensors Journal</i> , 2015 , 15, 248-254	4.54	51
306	Knudsen forces on microcantilevers. <i>Journal of Applied Physics</i> , 2002 , 92, 6326-6333	2.5	51

305	High resolution microwave microstrip resonator for sensing applications. <i>Sensors and Actuators A: Physical</i> , 2015 , 233, 224-230	3.9	50
304	A sensitive, handheld vapor sensor based on microcantilevers. <i>Review of Scientific Instruments</i> , 2004 , 75, 4554-4557	1.7	50
303	Anomalous interfacial stress generation during sodium intercalation/extraction in MoS thin-film anodes. <i>Science Advances</i> , 2019 , 5, eaav2820	14.3	50
302	Elastic phase response of silica nanoparticles buried in soft matter. <i>Applied Physics Letters</i> , 2008 , 93, 133113	3.4	49
301	Detection of femtomolar concentrations of HF Using an SiO(2) microcantilever. <i>Analytical Chemistry</i> , 2004 , 76, 2478-81	7.8	49
300	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	9.6	48
299	Photothermal spectroscopy of Bacillus anthracis and Bacillus cereus with microcantilevers. <i>Sensors and Actuators B: Chemical</i> , 2006 , 114, 206-211	8.5	46
298	Adsorption-desorption characteristics of explosive vapors investigated with microcantilevers. <i>Ultramicroscopy</i> , 2003 , 97, 433-9	3.1	46
297	Interfacial friction-induced electronic excitation mechanism for tribo-tunneling current generation. <i>Materials Horizons</i> , 2019 , 6, 1020-1026	14.4	46
296	Metabolic Study of Cancer Cells Using a pH Sensitive Hydrogel Nanofiber Light Addressable Potentiometric Sensor. <i>ACS Sensors</i> , 2017 , 2, 151-156	9.2	45
295	Oriented Nanostructures from Single Molecules of a Semiconducting Polymer: Polarization Evidence for Highly Aligned Intramolecular Geometries. <i>Nano Letters</i> , 2003 , 3, 603-607	11.5	45
294	A rational design for enhanced oxygen reduction: Strongly coupled silver nanoparticles and engineered perovskite nanofibers. <i>Nano Energy</i> , 2017 , 38, 392-400	17.1	44
293	Portable Nanofiber-Light Addressable Potentiometric Sensor for Rapid Escherichia coli Detection in Orange Juice. <i>ACS Sensors</i> , 2018 , 3, 815-822	9.2	44
292	Surface enhanced strong visible photoluminescence from one-dimensional multiferroic BiFeO3 nanostructures. <i>Surface Science</i> , 2012 , 606, L83-L86	1.8	44
291	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	3.9	44
290	Freestanding hierarchical porous carbon film derived from hybrid nanocellulose for high-power supercapacitors. <i>Nano Research</i> , 2017 , 10, 1847-1860	10	43
289	Label-free sugar detection using phenylboronic acid-functionalized piezoresistive microcantilevers. <i>Analytical Chemistry</i> , 2008 , 80, 4860-5	7.8	42
288	Standoff detection of explosive residues using photothermal microcantilevers. <i>Applied Physics Letters</i> , 2008 , 92, 134102	3.4	41

287	Adsorption of trinitrotoluene on uncoated silicon microcantilever surfaces. <i>Langmuir</i> , 2004 , 20, 2690-4	4	41
286	Mapping individual cosmid DNAs by direct AFM imaging. <i>Genomics</i> , 1997 , 41, 379-84	4.3	40
285	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	2.6	39
284	Effect of nanometer surface morphology on surface stress and adsorption kinetics of alkanethiol self-assembled monolayers. <i>Ultramicroscopy</i> , 2006 , 106, 795-9	3.1	38
283	Nanocatalytic Spontaneous Ignition and Self-Supporting Room-Temperature Combustion. <i>Energy & Fuels</i> , 2005 , 19, 855-858	4.1	37
282	Chemisorption of bromine on cleaved silicon (111) surfaces: An X-ray standing wave interference spectrometric analysis. <i>Surface Science</i> , 1985 , 163, 457-477	1.8	37
281	Nanomechanical Effect of Enzymatic Manipulation of DNA on Microcantilever Surfaces. <i>Langmuir</i> , 2002 , 18, 8732-8736	4	36
280	Photocatalytic BiFeO ₃ Nanofibrous Mats for Effective Water Treatment. <i>Journal of Nanotechnology</i> , 2013 , 2013, 1-6	3.5	35
279	Desorption characteristics of uncoated silicon microcantilever surfaces for explosive and common nonexplosive vapors. <i>Ultramicroscopy</i> , 2004 , 100, 211-6	3.1	35
278	Flexible Ultraviolet Photodetectors Based on One-Dimensional Gallium-Doped Zinc Oxide Nanostructures. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 3522-3529	4	35
277	Hollow Microtube Resonators via Silicon Self-Assembly toward Subattogram Mass Sensing Applications. <i>Nano Letters</i> , 2016 , 16, 1537-45	11.5	34
276	Surface-conjugated antimicrobial peptide leucocin a displays high binding to pathogenic gram-positive bacteria. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 1131-8	9.5	34
275	Step Instabilities: A New Kinetic Route to 3D Growth. <i>Physical Review Letters</i> , 1995 , 75, 1582-1585	7.4	34
274	Piezotransistive transduction of femtoscale displacement for photoacoustic spectroscopy. <i>Nature Communications</i> , 2015 , 6, 7885	17.4	33
273	Observation of Knudsen effect with microcantilevers. <i>Ultramicroscopy</i> , 2003 , 97, 401-6	3.1	33
272	Size-correlated spectroscopy and imaging of rare-earth-doped nanocrystals. <i>Applied Optics</i> , 2003 , 42, 2132-9	1.7	33
271	Molecular recognition using receptor-free nanomechanical infrared spectroscopy based on a quantum cascade laser. <i>Scientific Reports</i> , 2013 , 3, 1111	4.9	33
270	Consistently High Values in p-i-n Type Perovskite Solar Cells Using Ni-Doped NiO Nanomesh as the Hole Transporting Layer. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 11467-11478	9.5	33

- 269 Detection of Cd(II) using antibody-modified microcantilever sensors. *Ultramicroscopy*, **2007**, 107, 1123-8 3.1 32
- 268 Effect of chain length on nanomechanics of alkanethiol self-assembly. *Nanotechnology*, **2007**, 18, 424028 3.4 32
- 267 Observation of the surface stress induced in microcantilevers by electrochemical redox processes. *Ultramicroscopy*, **2004**, 100, 217-23 3.1 32
- 266 AFM and RHEED study of Ge islanding on Si(111) and Si(100). *Applied Surface Science*, **1996**, 104-105, 510-515 6.7 32
- 265 Separation and Quantum Tunneling of Photo-generated Carriers Using a Tribo-Induced Field. *Matter*, **2019**, 1, 650-660 12.7 31
- 264 Dynamic microcantilever sensors for discerning biomolecular interactions. *Analytical Chemistry*, **2005**, 77, 1601-6 7.8 31
- 263 Marangoni forces created by surface plasmon decay. *Optics Letters*, **2005**, 30, 616-8 3 31
- 262 Use of Microcantilevers for the Monitoring of Molecular Binding to Self-Assembled Monolayers. *Langmuir*, **2003**, 19, 7841-7844 4 31
- 261 Investigating the Mechanical Effects of Adsorption of Ca²⁺ Ions on a Silicon Nitride Microcantilever Surface. *Langmuir*, **2002**, 18, 6935-6939 4 31
- 260 Electrical, spectroscopic, and morphological investigation of chromium diffusion through gold films. *Thin Solid Films*, **1990**, 189, 59-72 2.2 31
- 259 Bacterial floc mediated rapid streamer formation in creeping flows. *Scientific Reports*, **2015**, 5, 13070 4.9 30
- 258 Micro-differential thermal analysis detection of adsorbed explosive molecules using microfabricated bridges. *Review of Scientific Instruments*, **2009**, 80, 035102 1.7 30
- 257 Pump-probe photothermal spectroscopy using quantum cascade lasers. *Journal Physics D: Applied Physics*, **2012**, 45, 125101 3 30
- 256 Effect of normal vibration on friction in the atomic force microscopy experiment. *Applied Physics Letters*, **2006**, 88, 214102 3.4 30
- 255 Molecular recognition of biowarfare agents using micromechanical sensors. *Expert Review of Molecular Diagnostics*, **2004**, 4, 859-66 3.8 30
- 254 Flocculation and Dewatering of Mature Fine Tailings Using Temperature-Responsive Cationic Polymers. *Langmuir*, **2017**, 33, 5900-5909 4 29
- 253 Core cross-linked double hydrophilic block copolymer micelles based on multiple hydrogen-bonding interactions. *Polymer Chemistry*, **2017**, 8, 3066-3073 4.9 29
- 252 Atomic force microscopy of silica nanoparticles and carbon nanohorns in macrophages and red blood cells. *Ultramicroscopy*, **2010**, 110, 586-91 3.1 29

251	Modulation of multiple photon energies by use of surface plasmons. <i>Optics Letters</i> , 2005 , 30, 41-3	3	29
250	Modal analysis of microcantilever sensors with environmental damping. <i>Journal of Applied Physics</i> , 2005 , 97, 084902	2.5	29
249	Instant curvature measurement for microcantilever sensors. <i>Applied Physics Letters</i> , 2004 , 85, 1083-1084	3.4	29
248	Discerning Biomolecular Interactions Using Kelvin Probe Technology. <i>Langmuir</i> , 2003 , 19, 7514-7520	4	29
247	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	9.5	28
246	Electrochemical and oxygen reduction properties of pristine and nitrogen-doped few layered graphene nanoflakes (FLGs). <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 2139-2149	2.6	28
245	Direct detection and speciation of trace explosives using a nanoporous multifunctional microcantilever. <i>Analytical Chemistry</i> , 2014 , 86, 5077-82	7.8	27
244	Single-contact transmission for the quasi-wireless delivery of power over large surfaces. <i>Wireless Power Transfer</i> , 2014 , 1, 75-82	0.9	27
243	Peptide-bacteria interactions using engineered surface-immobilized peptides from class IIa bacteriocins. <i>Langmuir</i> , 2013 , 29, 4048-56	4	27
242	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	8.5	27
241	Effect of thermal variations on the Knudsen forces in the transitional regime. <i>Applied Physics Letters</i> , 2004 , 84, 1013-1015	3.4	26
240	Scaled-up Direct-Current Generation in MoS Multilayer-Based Moving Heterojunctions. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 35404-35409	9.5	25
239	Opto-nanomechanical spectroscopic material characterization. <i>Nature Nanotechnology</i> , 2015 , 10, 870-7	28.7	25
238	Mapping and Quantifying Surface Charges on Clay Nanoparticles. <i>Langmuir</i> , 2015 , 31, 10469-76	4	25
237	Effect of temperature on morphologies of evaporation-triggered asphaltene nanoaggregates. <i>Langmuir</i> , 2014 , 30, 800-4	4	25
236	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	8.5	25
235	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	8.4	25
234	Surface dominant photoresponse of multiferroic BiFeO ₃ nanowires under sub-bandgap illumination. <i>Nanotechnology</i> , 2013 , 24, 505710	3.4	25

233	Virtual resonance and frequency difference generation by van der Waals interaction. <i>Physical Review Letters</i> , 2011 , 106, 180801	7.4	25
232	Spectroscopy and atomic force microscopy of biomass. <i>Ultramicroscopy</i> , 2010 , 110, 701-7	3.1	25
231	Enhanced photo-collection in single BiFeO ₃ nanowire due to carrier separation from radial surface field. <i>Nano Energy</i> , 2015 , 13, 240-248	17.1	24
230	Vibrational energy harvesting using photo-patternable piezoelectric nanocomposite cantilevers. <i>Nano Energy</i> , 2013 , 2, 923-932	17.1	24
229	Effects of gold patterning on the bending profile and frequency response of a microcantilever. <i>Journal of Applied Physics</i> , 2009 , 106, 024310	2.5	24
228	Fluidic applications for atomic force microscopy (AFM) with microcantilever sensors. <i>Experiments in Fluids</i> , 2010 , 48, 721-736	2.5	24
227	Electrochemical deposition of molecular adsorbates for in situ scanning probe microscopy. <i>Ultramicroscopy</i> , 1990 , 33, 107-16	3.1	24
226	Tribo-Tunneling DC Generator with Carbon Aerogel/Silicon Multi-Nanocontacts. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900464	6.4	23
225	Dynamics of bacterial streamers induced clogging in microfluidic devices. <i>Lab on A Chip</i> , 2016 , 16, 4091-4096	4.2	23
224	Effect of interface on mid-infrared photothermal response of MoS ₂ thin film grown by pulsed laser deposition. <i>Nano Research</i> , 2017 , 10, 3571-3584	10	23
223	Nanopowder molding method for creating implantable high-aspect-ratio electrodes on thin flexible substrates. <i>Biomaterials</i> , 2006 , 27, 2009-17	15.6	23
222	Gas sensing using electrostatic force potentiometry. <i>Applied Physics Letters</i> , 2007 , 90, 173105	3.4	23
221	A piezoresistive microcantilever array for surface stress measurement: curvature model and fabrication. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 2065-2076	2	23
220	Photochemical hydrosilylation of 11-undecenyltriethylammonium bromide with hydrogen-terminated Si surfaces for the development of robust microcantilever sensors for Cr(VI). <i>Langmuir</i> , 2005 , 21, 1139-42	4	23
219	Calibration of optical cantilever deflection readers. <i>Review of Scientific Instruments</i> , 2004 , 75, 400-404	1.7	23
218	Photon-driven nanomechanical cyclic motion. <i>Chemical Communications</i> , 2004 , 2532-3	5.8	23
217	Sequence, packing and nanometer scale structure in STM images of nucleic acids under water. <i>Journal of Biomolecular Structure and Dynamics</i> , 1989 , 7, 289-99	3.6	23
216	Carbon fiber doped thermosetting elastomer for flexible sensors: physical properties and microfabrication. <i>Scientific Reports</i> , 2018 , 8, 12313	4.9	22

215	Detection of adsorbed explosive molecules using thermal response of suspended microfabricated bridges. <i>Applied Physics Letters</i> , 2008 , 93, 154102	3.4	22
214	Localized heating of nickel nitride/aluminum nitride nanocomposite films for data storage. <i>Applied Physics Letters</i> , 1995 , 67, 3034-3036	3.4	22
213	Detection of <i>Listeria monocytogenes</i> with short peptide fragments from class IIa bacteriocins as recognition elements. <i>ACS Combinatorial Science</i> , 2015 , 17, 156-63	3.9	21
212	Microcantilever (MCL) Biosensing. <i>Current Analytical Chemistry</i> , 2006 , 2, 297-307	1.7	21
211	Torsional spring constant obtained for an atomic force microscope cantilever. <i>Applied Physics Letters</i> , 2004 , 84, 1795-1797	3.4	21
210	Manipulation of microcantilever oscillations. <i>Ultramicroscopy</i> , 2003 , 97, 391-9	3.1	21
209	Polymer-Mediated Assembly of Gold Nanoclusters. <i>Langmuir</i> , 2000 , 16, 9151-9154	4	21
208	Nanomechanical identification of liquid reagents in a microfluidic channel. <i>Lab on A Chip</i> , 2014 , 14, 1302-7.2	7.2	20
207	Activation process of reversible Pd thin film hydrogen sensors. <i>Sensors and Actuators B: Chemical</i> , 2013 , 186, 258-262	8.5	20
206	Probing large area surface plasmon interference in thin metal films using photon scanning tunneling microscopy. <i>Ultramicroscopy</i> , 2004 , 100, 429-36	3.1	20
205	Piezoelectric self-sensing of adsorption-induced microcantilever bending. <i>Sensors and Actuators A: Physical</i> , 2005 , 121, 457-461	3.9	20
204	Measuring magnetic susceptibilities of nanogram quantities of materials using microcantilevers. <i>Ultramicroscopy</i> , 2001 , 86, 175-80	3.1	20
203	2014,		19
202	Plasmon assisted thermal modulation in nanoparticles. <i>Optics Express</i> , 2013 , 21, 12145-58	3.3	19
201	Covalent attachment of gold nanoparticles to DNA templates. <i>Journal of Nanoscience and Nanotechnology</i> , 2002 , 2, 397-404	1.3	19
200	Monitoring chemical and physical changes on sub-nanogram quantities of platinum dioxide. <i>Surface Science</i> , 1999 , 430, L546-L552	1.8	19
199	Investigation of mercury adsorption on gold films by STM. <i>Journal of Microscopy</i> , 1988 , 152, 703-713	1.9	19
198	Analytical model for zeta potential of asphaltene. <i>Fuel</i> , 2013 , 108, 543-549	7.1	18

197	Quartz crystal tuning fork photoacoustic point sensing. <i>Sensors and Actuators B: Chemical</i> , 2010 , 150, 402-405	8.5	18
196	Surface plasmon assisted thermal coupling of multiple photon energies. <i>Thin Solid Films</i> , 2006 , 497, 315-320		18
195	A general microcantilever surface modification method using a multilayer for biospecific recognition. <i>Organic and Biomolecular Chemistry</i> , 2003 , 1, 460-2	3.9	18
194	Analysis of amplification of thermal vibrations of a microcantilever. <i>Journal of Applied Physics</i> , 2001 , 89, 4587-4591	2.5	18
193	Dynamics of self-driven microcantilevers. <i>Journal of Applied Physics</i> , 2002 , 91, 4693-4700	2.5	18
192	Hydrogen Sensing at Room Temperature Using Flame-Synthesized Palladium-Decorated Crumpled Reduced Graphene Oxide Nanocomposites. <i>ACS Sensors</i> , 2020 , 5, 2344-2350	9.2	18
191	Determination of charge on asphaltene nanoaggregates in air using electrostatic force microscopy. <i>Langmuir</i> , 2015 , 31, 679-84	4	17
190	Investigation of pH-induced protein conformation changes by nanomechanical deflection. <i>Langmuir</i> , 2014 , 30, 2109-16	4	17
189	Observation of an anomalous mass effect in microcantilever-based biosensing caused by adsorbed DNA. <i>Applied Physics Letters</i> , 2010 , 96, 153703	3.4	17
188	Microscale Marangoni actuation: all-optical and all-electrical methods. <i>Ultramicroscopy</i> , 2006 , 106, 815-23	3.1	17
187	Influence of nanobubbles on the bending of microcantilevers. <i>Applied Physics Letters</i> , 2006 , 88, 103118	3.4	17
186	1,6-Hexanedithiol monolayer as a receptor for specific recognition of alkylmercury. <i>Analyst, The</i> , 2005 , 130, 1577-9	5	17
185	Microcantilever charged-particle flux detector. <i>Review of Scientific Instruments</i> , 2002 , 73, 36-41	1.7	17
184	Rapid label-free detection of E. coli using antimicrobial peptide assisted impedance spectroscopy. <i>Analytical Methods</i> , 2015 , 7, 9744-9748	3.2	16
183	Selective detection of physisorbed hydrocarbons using photothermal cantilever deflection spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2014 , 191, 765-769	8.5	16
182	In situ study of electric field-induced magnetization in multiferroic BiFeO ₃ nanowires. <i>Scanning</i> , 2014 , 36, 224-30	1.6	16
181	Photon tunneling via surface plasmon coupling. <i>Applied Physics Letters</i> , 2004 , 85, 3420-3422	3.4	16
180	Detection of Organophosphates Using an Acetyl Cholinesterase (AChE) Coated Microcantilever. <i>Instrumentation Science and Technology</i> , 2004 , 32, 175-183	1.4	16

179	Photothermal Cantilever Deflection Spectroscopy. <i>Electrochemical Society Interface</i> , 2019 , 28, 55-57	3.6	16
178	Thermal graphene metamaterials and epsilon-near-zero high temperature plasmonics. <i>Journal of Optics (United Kingdom)</i> , 2017 , 19, 055101	1.7	15
177	Spatially resolved organic coating on clay minerals in bitumen froth revealed by atomic force microscopy adhesion mapping. <i>Fuel</i> , 2017 , 191, 283-289	7.1	15
176	Optical thin-film interference effects in microcantilevers. <i>Journal of Applied Physics</i> , 2004 , 95, 1162-1165	2.5	15
175	Piezoresistive detection of acoustic waves. <i>Review of Scientific Instruments</i> , 2003 , 74, 1031-1035	1.7	15
174	Smooth polycrystalline ceramic substrates with enhanced metal adhesion by pulsed excimer laser processing. <i>Applied Physics Letters</i> , 1994 , 64, 1791-1793	3.4	15
173	Nanophotonic enhancement and improved electron extraction in perovskite solar cells using near-horizontally aligned TiO ₂ nanorods. <i>Journal of Power Sources</i> , 2019 , 417, 176-187	8.9	14
172	Photothermal Electrical Resonance Spectroscopy of Physisorbed Molecules on a Nanowire Resonator. <i>Nano Letters</i> , 2015 , 15, 5658-63	11.5	14
171	Investigating fouling at the pore-scale using a microfluidic membrane mimic filtration system. <i>Scientific Reports</i> , 2019 , 9, 10587	4.9	14
170	Suspended polymer nanobridge on a quartz resonator. <i>Applied Physics Letters</i> , 2013 , 103, 053109	3.4	14
169	Cross talk between bending, twisting, and buckling modes of three types of microcantilever sensors. <i>Review of Scientific Instruments</i> , 2004 , 75, 4841-4844	1.7	14
168	Tip-bias induced surface modification on gold surfaces. <i>Journal of Microscopy</i> , 1988 , 152, 145-147	1.9	14
167	Appearance of SERS activity in single silver nanoparticles by laser-induced reshaping. <i>Nanoscale</i> , 2018 , 11, 321-330	7.7	13
166	Dynamic and Static Manifestation of Molecular Absorption in Thin Films Probed by a Microcantilever. <i>Physical Review Applied</i> , 2014 , 1,	4.3	13
165	Femtogram-scale photothermal spectroscopy of explosive molecules on nanostrings. <i>Analytical Chemistry</i> , 2014 , 86, 11368-72	7.8	13
164	Nanomechanical Thermal Analysis of Photosensitive Polymers. <i>Macromolecules</i> , 2011 , 44, 9661-9665	5.5	13
163	Growth mechanisms and defects in boronated CVD diamond as identified by scanning tunneling microscopy. <i>Physical Review B</i> , 1995 , 51, 14554-14558	3.3	13
162	Abiotic streamers in a microfluidic system. <i>Soft Matter</i> , 2017 , 13, 8698-8705	3.6	12

161	Photothermal cantilever deflection spectroscopy. <i>EPJ Techniques and Instrumentation</i> , 2014 , 1,	1.8	12
160	Ultra violet decomposition of surface adsorbed explosives investigated with infrared standoff spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2012 , 161, 961-966	8.5	12
159	Directed self-assembly of proteins into discrete radial patterns. <i>Scientific Reports</i> , 2013 , 3, 1923	4.9	12
158	Nanometrology of delignified Populus using mode synthesizing atomic force microscopy. <i>Nanotechnology</i> , 2011 , 22, 465702	3.4	12
157	Atomic layer-by-layer surface removal by force microscopy. <i>Surface Science</i> , 1993 , 293, L863-L869	1.8	12
156	The role of chloride ions in plasma-activated water treatment processes. <i>Environmental Science: Water Research and Technology</i> , 2017 , 3, 156-168	4.2	11
155	Methane sensing at room temperature using photothermal cantilever deflection spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2015 , 221, 564-569	8.5	11
154	Electronic Nose for Recognition of Volatile Vapor Mixtures Using a Nanopore-Enhanced Opto-Calorimetric Spectroscopy. <i>Analytical Chemistry</i> , 2015 , 87, 7125-32	7.8	11
153	Effect of Steam-Assisted Gravity Drainage Produced Water Properties on Oil/Water Transient Interfacial Tension. <i>Energy & Fuels</i> , 2016 , 30, 10714-10720	4.1	11
152	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, 6436-41	11.5	11
151	Heat capacity measurements of sub-nanoliter volumes of liquids using bimaterial microchannel cantilevers. <i>Applied Physics Letters</i> , 2016 , 108, 211906	3.4	11
150	Standoff Mechanical Resonance Spectroscopy Based on Infrared-Sensitive Hydrogel Microcantilevers. <i>Analytical Chemistry</i> , 2016 , 88, 9678-9684	7.8	11
149	Sample Preparation in Centrifugal Microfluidic Discs for Human Serum Metabolite Analysis by Surface Assisted Laser Desorption/Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 2019 , 91, 7570-7577	7.8	10
148	The effect of oxygen flow rate on metal/insulator transition (MIT) characteristics of vanadium dioxide (VO ₂) thin films by pulsed laser deposition (PLD). <i>Applied Surface Science</i> , 2020 , 529, 146995	6.7	10
147	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	1.7	10
146	Modulus-tunable magnetorheological elastomer microcantilevers. <i>Smart Materials and Structures</i> , 2014 , 23, 055017	3.4	10
145	The effect of applied electric field on the diameter and size distribution of electrospun Nylon6 nanofibers. <i>Scanning</i> , 2013 , 35, 183-8	1.6	10
144	Multi-modal characterization of nanogram amounts of a photosensitive polymer. <i>Applied Physics Letters</i> , 2013 , 102, 024103	3.4	10

143	Standoff imaging of chemicals using IR spectroscopy 2011 ,		10
142	Effective mass and flow patterns of fluids surrounding microcantilevers. <i>Ultramicroscopy</i> , 2006 , 106, 789-94	3.1	10
141	Assembly of Gold Nanoclusters on Silicon Surfaces. <i>Langmuir</i> , 2002 , 18, 2392-2397	4	10
140	Nanocantilever signal transduction by electron transfer. <i>Journal of Nanoscience and Nanotechnology</i> , 2002 , 2, 369-73	1.3	10
139	Spin photonic forces in non-reciprocal waveguides. <i>Optics Express</i> , 2018 , 26, 23898-23910	3.3	10
138	Photoacoustic spectroscopy of surface adsorbed molecules using a nanostructured coupled resonator array. <i>Nanotechnology</i> , 2014 , 25, 035501	3.4	9
137	Piezoresistive cantilever array sensor for consolidated bioprocess monitoring. <i>Scanning</i> , 2009 , 31, 204-10.	10.6	9
136	Locally enhanced relative humidity for scanning probe nanolithography. <i>Langmuir</i> , 2005 , 21, 10902-6	4	9
135	Opto-electronic versus electro-optic modulation. <i>Applied Physics Letters</i> , 2004 , 85, 2703-2705	3.4	9
134	Ultrasensitive Detection of Cu Using a Microcantilever Sensor Modified with L-Cysteine Self-Assembled Monolayer. <i>Applied Biochemistry and Biotechnology</i> , 2017 , 183, 555-565	3.2	8
133	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	8.5	8
132	Phase transformation induced modulation of the resonance frequency of VO ₂ /TiO ₂ coated microcantilevers. <i>MRS Advances</i> , 2018 , 3, 359-364	0.7	8
131	Conduction and Dielectric Relaxation Mechanisms in Athabasca Oil Sands with Application to Electrical Heating. <i>Energy & Fuels</i> , 2016 , 30, 5630-5642	4.1	8
130	Evaluation of efficiency factors and internal resistance of thermoelectric materials. <i>International Journal of Energy Research</i> , 2017 , 41, 198-206	4.5	8
129	Nanowell-patterned TiO ₂ microcantilevers for calorimetric chemical sensing. <i>Applied Physics Letters</i> , 2014 , 104, 141903	3.4	8
128	Protocol for biofilm streamer formation in a microfluidic device with micro-pillars. <i>Journal of Visualized Experiments</i> , 2014 ,	1.6	8
127	Visible photothermal deflection spectroscopy using microcantilevers. <i>Sensors and Actuators B: Chemical</i> , 2012 , 169, 222-228	8.5	8
126	Photothermal cantilever deflection spectroscopy of a photosensitive polymer. <i>Applied Physics Letters</i> , 2012 , 100, 204103	3.4	8

125	Optomechanical spectroscopy with broadband interferometric and quantum cascade laser sources. <i>Optics Letters</i> , 2011 , 36, 3251-3	3	8
124	Speciation of energetic materials on a microcantilever using surface reduction. <i>Scanning</i> , 2008 , 30, 208-126		8
123	MEMS sensors and wireless telemetry for distributed systems 1998 ,		8
122	Experimental observations of a long-range surface mode in metal island films. <i>Physical Review B</i> , 1994 , 49, 7782-7785	3.3	8
121	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,	3.2	8
120	Detection of Hexavalent Chromium in Ground Water Using a Single Microcantilever Sensor. <i>Sensor Letters</i> , 2004 , 2, 25-30	0.9	8
119	Modified cantilever arrays improve sensitivity and reproducibility of nanomechanical sensing in living cells. <i>Communications Biology</i> , 2018 , 1, 175	6.7	8
118	Mechanistic Understanding and Nanomechanics of Multiple Hydrogen-Bonding Interactions in Aqueous Environment. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 4540-4548	3.8	7
117	Thermomechanical behavior of a bimaterial microchannel cantilever subjected to periodic IR radiation. <i>Sensors and Actuators B: Chemical</i> , 2016 , 235, 273-279	8.5	7
116	Rapid discrimination of DNA strands using an opto-calorimetric microcantilever sensor. <i>Lab on A Chip</i> , 2014 , 14, 4659-64	7.2	7
115	Evaporation dynamics of water droplets on superhydrophobic nanoglass surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 160, 120149	4.9	7
114	Hydrogel Microelectromechanical System (MEMS) Resonators: Beyond Cost-Effective Sensing Platform. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800597	6.8	7
113	Thermomechanical analysis of picograms of polymers using a suspended microchannel cantilever. <i>RSC Advances</i> , 2017 , 7, 8415-8420	3.7	6
112	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, 173703	3.4	6
111	In-situ probing of thermal desorption of vapor molecules on a nanowire via work function variance. <i>Nano Research</i> , 2016 , 9, 3334-3345	10	6
110	Effect of annealing conditions on structural and luminescent properties of Eu ³⁺ -doped Gd ₂ Ti ₂ O ₇ thin films. <i>Applied Surface Science</i> , 2016 , 364, 273-279	6.7	6
109	Quasi-wireless surface power and control for battery-free robotics. <i>Wireless Power Transfer</i> , 2015 , 2, 134-142	0.9	6
108	Stripping voltammetry of Pb and Cu using a microcantilever electrode. <i>Surface Science</i> , 2009 , 603, L125-L127	11.7	6

- 107 Parametric energy conversion of thermoacoustic vibrations. *Applied Physics Letters*, **2012**, 100, 203902 3.4 6
- 106 Vibration response of microcantilevers bounded by a confined fluid. *Ultramicroscopy*, **2007**, 107, 1105-1109 3.1 6
- 105 Electromechanical identification of molecules adsorbed on microcantilevers. *Sensors and Actuators B: Chemical*, **2007**, 124, 143-146 8.5 6
- 104 Fluctuation and dissipation of a stochastic micro-oscillator under delayed feedback. *Journal of Applied Physics*, **2006**, 100, 114314 2.5 6
- 103 Surface morphology of epitaxial CaF₂/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 6
- 102 Nanomechanical Thermal Analysis of Indium Films Using Silicon Microcantilevers. *Japanese Journal of Applied Physics*, **2012**, 51, 08KB07 1.4 6
- 101 Transparent and Flexible Thermal Insulation Window Material. *Cell Reports Physical Science*, **2020**, 1, 100140 6.4 6
- 100 Electrical excitation of the local earth for resonant, wireless energy transfer. *Wireless Power Transfer*, **2016**, 3, 117-125 0.9 6
- 99 Strain-induced electrostatic enhancements of BiFeO₃ nanowire loops. *Physical Chemistry Chemical Physics*, **2016**, 18, 22772-7 3.6 6
- 98 Collapse of house-of-cards clay structures and corresponding tailings dewatering induced by alternating electric fields. *Drying Technology*, **2019**, 37, 1053-1067 2.6 6
- 97 Broadband Mid-Infrared Stand-Off Reflection-Absorption Spectroscopy Using a Pulsed External Cavity Quantum Cascade Laser. *Applied Spectroscopy*, **2017**, 71, 1494-1505 3.1 5
- 96 Wireless single contact power delivery **2015**, 5
- 95 A nanostructured surface increases friction exponentially at the solid-gas interface. *Scientific Reports*, **2016**, 6, 32996 4.9 5
- 94 Magnetoelectric Coupling in NiMnIn/PLZT Artificial Multiferroic Heterostructure and Its Application in Mid-IR Photothermal Modulation by External Magnetic Field. *ACS Applied Electronic Materials*, **2019**, 1, 2226-2235 4 5
- 93 Asphaltene migration and separation in presence of aggregation in electroosmotic-electrophoretic microchannel transport. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2014**, 446, 23-32 5.1 5
- 92 Electrophoresis assisted time-of-flow mass spectrometry using hollow nanomechanical resonators. *Scientific Reports*, **2017**, 7, 3535 4.9 5
- 91 Applications of subsurface microscopy. *Methods in Molecular Biology*, **2012**, 926, 331-43 1.4 5
- 90 Modeling of Asphaltene Transport and Separation in the Presence of Finite Aggregation Effects in Pressure-Driven Microchannel Flow. *Energy & Fuels*, **2012**, 26, 5851-5857 4.1 5

89	Optical and plasmonic spectroscopy with cantilever shaped materials. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 445102	3	5
88	Galvanic and Chemical Deposition of Bismuth Powders from Aqueous Solutions. <i>Journal of the Electrochemical Society</i> , 2012 , 159, D587-D591	3.9	5
87	Mass Spectrometric Analysis of Water-soluble Gold Nanoclusters. <i>Journal of Nanoparticle Research</i> , 2002 , 4, 417-422	2.3	5
86	Electrostatic force density for a scanned probe above a charged surface. <i>Journal of Applied Physics</i> , 2001 , 90, 1011-1016	2.5	5
85	Polybutadiene emulsion particles observed by scanning tunneling microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1992 , 10, 623-626	2.9	5
84	Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection.. <i>ACS Sensors</i> , 2022 ,	9.2	5
83	Synthesis, characterization, and optical properties of AuSe nanoalloys. <i>Journal of Nanoscience and Nanotechnology</i> , 2005 , 5, 1832-9	1.3	5
82	Quasi-wireless capacitive energy transfer for the dynamic charging of personal mobility vehicles 2016 ,		5
81	Plasmonic absorbers with optical cavity for the enhancement of photothermal/opto-calorimetric infrared spectroscopy. <i>Applied Physics Letters</i> , 2017 , 110, 011901	3.4	4
80	Synthesis and Characterization of Zinc Phthalocyanine-Cellulose Nanocrystal (CNC) Conjugates: Toward Highly Functional CNCs. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 43992-44006	9.5	4
79	Photoluminescence of europium(III)-doped (Y Sc1)2O3 nanoparticles: Linear relationship between structural and emission properties. <i>Ceramics International</i> , 2016 , 42, 3899-3906	5.1	4
78	Transparent and highly luminescent dysprosium- doped GdVO4 thin films fabricated by pulsed laser deposition. <i>Thin Solid Films</i> , 2017 , 638, 332-337	2.2	4
77	Quarter wavelength resonators for use in wireless capacitive power transfer 2017 ,		4
76	Photothermal Cantilever Deflection Spectroscopy. <i>ECS Transactions</i> , 2013 , 50, 459-464	1	4
75	Nanomechanical Thermal Analysis of Indium Films Using Silicon Microcantilevers. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 08KB07	1.4	4
74	Design and Testing of Single and Double Sided Cantilevers for Chemical Sensing 2007 ,		4
73	Novel Glucose Biosensor Based on the Microcantilever. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 776, 11211		4
72	Study of different hormone-sensitive lipase concentrations using a surface plasmon resonance sensor. <i>Sensors and Actuators B: Chemical</i> , 2001 , 73, 192-198	8.5	4

71	Nanostrings of silver. <i>Journal of Materials Science Letters</i> , 1999 , 18, 1391-1394		4
70	Diffusion length of Ga adatoms on GaAs (1 1 1) surface in the $\sqrt{3}\sqrt{3}$ reconstruction growth regime. <i>Applied Physics Letters</i> , 1994 , 64, 1641-1643	3.4	4
69	Microcantilevers for Physical, Chemical, and Biological Sensing 2003 , 337-355		4
68	Review Nanomechanical Calorimetric Infrared Spectroscopy using Bi-Material Microfluidic Cantilevers. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 037504	3.9	4
67	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	5.6	4
66	Fabrication of Phase Change Microstring Resonators via Top Down Lithographic Techniques: Incorporation of VO ₂ /TiO ₂ Into Conventional Processes. <i>Journal of Microelectromechanical Systems</i> , 2019 , 28, 766-775	2.5	3
65	2017 ,		3
64	Detection of biological analytes using nanomechanical infrared spectroscopy with a nanoporous microcantilever 2013 ,		3
63	Xsense: a miniaturised multi-sensor platform for explosives detection 2011 ,		3
62	Highly selective separation of DNA fragments using optically directed transport. <i>Applied Physics Letters</i> , 2010 , 96, 053701	3.4	3
61	Explosive Vapor Detection Using Microcantilever Sensors 2007 , 109-130		3
60	Spiral springs and microspiral springs for chemical and biological sensing. <i>Applied Physics Letters</i> , 2006 , 88, 063504	3.4	3
59	An atomic force microscope-based investigation of vertical transport through GaAs/GaAlAs/InAlAs/GaAs step-barrier heterostructures. <i>Ultramicroscopy</i> , 2002 , 91, 133-8	3.1	3
58	Electrochemically deposited Ni on Ge(111) investigated with X-ray standing waves. <i>Surface Science</i> , 1990 , 230, 205-212	1.8	3
57	Surface State-Induced Anomalous Negative Thermal Quenching of Multiferroic BiFeO ₃ Nanowires. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 12, 1700352	2.5	3
56	Ultrathin Palladium Nanowires for Fast and Hysteresis-Free H ₂ Sensing. <i>ACS Applied Nano Materials</i> ,	5.6	3
55	. <i>IEEE Sensors Journal</i> , 2017 , 17, 4773-4780	4	2
54	Resonant hair humidity sensors for disposable applications: Revisit the hair hygrometer. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 1-6	8.5	2

53	Dielectric Relaxation-Based Capacitive Heating of Oil Sands. <i>Energy & Fuels</i> , 2016 , 30, 1987-1996	4.1	2
52	Electroless Deposition of Bismuth Containing Films on Copper and Silver Substrates from KBiI ₄ Solutions. <i>Electrochemical and Solid-State Letters</i> , 2012 , 15, D23		2
51	DNA separation on surfaces. <i>Applied Physics Letters</i> , 2010 , 97, 033703	3.4	2
50	2010 ,		2
49	Room-Temperature Nanocatalytic Reaction Modeling and Its Applications in Direct Energy Conversion. <i>ECS Transactions</i> , 2009 , 16, 61-71	1	2
48	Laser reflectometry of submegahertz liquid meniscus ringing. <i>Optics Letters</i> , 2009 , 34, 3148-50	3	2
47	Environmental Monitoring Using Microcantilever Sensors. <i>ACS Symposium Series</i> , 2005 , 284-305	0.4	2
46	Explosive Vapor Detection Using Microcantilever Sensors 2006 , 245-260		2
45	Explosive Vapour Detection Using Micromechanical Sensors. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2004 , 249-266		2
44	Enhanced nanoplasmonic heating in standoff sensing of explosive residues with infrared reflection-absorption spectroscopy. <i>Optics Letters</i> , 2020 , 45, 2144-2147	3	2
43	Mapping the surface potential, charge density and adhesion of cellulose nanocrystals using advanced scanning probe microscopy. <i>Carbohydrate Polymers</i> , 2020 , 246, 116393	10.3	2
42	Galvanic Deposition of Gold on Silicon From Au(I) Alkaline Fluoride-Free Solutions. <i>Journal of the Electrochemical Society</i> , 2016 , 163, D818-D820	3.9	2
41	Standoff infrared spectroscopy on energetic materials using hydrogel microcantilevers 2016 ,		2
40	Galvanic Processes on Silicon Surfaces in Cu(II) Alkaline Fluoride-Free Solutions. <i>Journal of the Electrochemical Society</i> , 2016 , 163, D651-D654	3.9	2
39	Optimal floc structure for effective dewatering of polymer treated oil sands tailings. <i>Minerals Engineering</i> , 2021 , 160, 106688	4.9	2
38	Bacterial Detection Using Peptide-Based Platform and Impedance Spectroscopy. <i>Methods in Molecular Biology</i> , 2017 , 1572, 113-124	1.4	1
37	Structure, morphology, and luminescent behavior of RE ³⁺ -doped GdVO ₄ thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2019 , 125, 1	2.6	1
36	Galvanic Deposition of Gold on GaAs: A Tip-Induced Lithography Approach. <i>Journal of the Electrochemical Society</i> , 2015 , 162, D486-D489	3.9	1

35	Surface State-Induced Anomalous Negative Thermal Quenching of Multiferroic BiFeO ₃ Nanowires (Phys. Status Solidi RRL 1/2018). <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 12, 1870403	2.5	1
34	Exploiting broader dynamic range in Si-bridge modified QTFs for sensitive thermometric applications. <i>Sensors and Actuators A: Physical</i> , 2018 , 279, 442-447	3.9	1
33	Microcantilever Sensors 2017 ,		1
32	Nonlinear Interaction Force Analysis of Microcantilevers Utilized in Atomic Force Microscopy 2009 ,		1
31	An experimental investigation of analog delay generation for dynamic control of microsensors and atomic force microscopy. <i>Ultramicroscopy</i> , 2007 , 107, 1020-6	3.1	1
30	Frictional Dynamics at the Atomic Scale in Presence of Small Oscillations of the Sliding Surfaces 2007 , 119-130		1
29	Site-Specific Attachment of Gold Nanoparticles to DNA Templates. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 635, C4.2.1		1
28	Superperiodic features observed on graphite under solution with scanning tunneling microscopy. <i>Surface Science Letters</i> , 1991 , 254, L454-L459		1
27	Microfluidic resonators with two parallel channels for independent sample loading and effective density tuning. <i>Micro and Nano Systems Letters</i> , 2020 , 8,	2	1
26	Dual Channel Microfluidic Resonators for Simultaneous Measurements of Liquid Analytes 2019 ,		1
25	Development of a 3D-printed modified Scheludko-cell: Potential application for adsorption and thin liquid film study. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019 , 561, 341-348	5.1	1
24	Microfluidic Cantilever Biosensors 2018 ,		1
23	Explosive Vapour Detection Using Micromechanical Sensors 2004 , 249-266		1
22	Photoinduced Multistable Resonance Frequency Switching of Phase Change Microstring at Room Temperature. <i>Advanced Electronic Materials</i> , 2022 , 8, 2100819	6.4	1
21	Pd Alloy Nanosheet Inks for Inkjet-Printable H ₂ Sensors on Paper. <i>Advanced Materials Interfaces</i> , 2020 , 3, 2003636	4.6	1
20	Self-Assembly of Proteins into Three-Dimensional Structures Using Bio-Conjugation. <i>Materials Research Society Symposia Proceedings</i> , 2014 , 1663, 47		0
19	Perspective Maintaining the Quality of Life in Depopulating Communities: Expanding Smart Sensing via a Novel Power Supply. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 037564	3.9	0
18	Toward a mechanically stable solid electrolyte interphase. <i>Matter</i> , 2021 , 4, 2119-2122	12.7	0

17	Polymer Microelectromechanical Systems: Hydrogel Microelectromechanical System (MEMS) Resonators: Beyond Cost-Effective Sensing Platform (Adv. Mater. Technol. 3/2019). <i>Advanced Materials Technologies</i> , 2019 , 4, 1970017	6.8
16	Investigation of Polymer Dendritic Growth in Composite Material using Contact Resonance Method. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1754, 61-67	
15	Determination of the Physical Properties of Oil Sands Components using Scanning Probe Microscopy. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1754, 69-74	
14	Label-Free Rapid Detection of Pathogens with Antimicrobial Peptide Assisted Impedance Spectrometry. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1793, 13-18	
13	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. <i>Ultramicroscopy</i> , 2013 , 131, 92-3	3.1
12	Bismuth ferrite clusters induced hydrogel formation in human serum albumin. <i>Chemical Communications</i> , 2012 , 48, 4193-5	5.8
11	Microcantilever Sensors: Electrochemical Aspects and Biomedical Applications. <i>Modern Aspects of Electrochemistry</i> , 2012 , 127-171	
10	Biography of Stuart Lindsay. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 160401	1.8
9	Remote chemical sensing and recognition by acoustic mapping of photothermal fields. <i>Applied Physics Letters</i> , 2006 , 88, 194103	3.4
8	Nanoscale Energy Conversion by Using Nano-Catalytic Particles 2006 , 545	
7	(Invited) Photothermal Cantilever Sensors for Soil Health Monitoring. <i>ECS Meeting Abstracts</i> , 2021 , MA2021-02, 1669-1669	0
6	Cantilever Arrays: A Universal Platform for Multiplexed Label-Free Bioassays 2006 , 21-33	
5	Electroless deposition of Fe-Ni alloys from acidic and alkaline solutions using hypophosphite as a reducing agent. <i>Journal of the Serbian Chemical Society</i> , 2019 , 84, 1199-1208	0.9
4	Nanomechanical Methods To Study Single Cells 245-265	
3	Photothermal Sensing of Chemical Vapors Using Microcantilevers. <i>Nanostructure Science and Technology</i> , 2010 , 183-191	0.9
2	Standoff and Point Detection of Thin Polymer Layers Using Microcantilever Photothermal Spectroscopy. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 037501	3.9
1	Localized anisotropic stress in the sodiation of antimony anode. <i>Nano Energy</i> , 2022 , 98, 107349	17.1