

James Gimzewski

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9256410/publications.pdf>

Version: 2024-02-01

224
papers

23,415
citations

13865

67
h-index

8167

148
g-index

230
all docs

230
docs citations

230
times ranked

21022
citing authors

#	ARTICLE	IF	CITATIONS
1	Electronics using hybrid-molecular and mono-molecular devices. Nature, 2000, 408, 541-548.	27.8	2,961
2	Nanomechanical analysis of cells from cancer patients. Nature Nanotechnology, 2007, 2, 780-783.	31.5	1,650
3	Translating Biomolecular Recognition into Nanomechanics. Science, 2000, 288, 316-318.	12.6	1,630
4	Short-term plasticity and long-term potentiation mimicked in single inorganic synapses. Nature Materials, 2011, 10, 591-595.	27.5	1,480
5	Nanoscale Science of Single Molecules Using Local Probes. Science, 1999, 283, 1683-1688.	12.6	596
6	Surface Stress in the Self-Assembly of Alkanethiols on Gold. Science, 1997, 276, 2021-2024.	12.6	501
7	Transition from the tunneling regime to point contact studied using scanning tunneling microscopy. Physical Review B, 1987, 36, 1284-1287.	3.2	473
8	Electronic Transparency of a Single C ₆₀ Molecule. Physical Review Letters, 1995, 74, 2102-2105.	7.8	466
9	Observation of a chemical reaction using a micromechanical sensor. Chemical Physics Letters, 1994, 217, 589-594.	2.6	464
10	Inelastic tunneling excitation of tip-induced plasmon modes on noble-metal surfaces. Physical Review Letters, 1991, 67, 3796-3799.	7.8	424
11	A chemical sensor based on a microfabricated cantilever array with simultaneous resonance-frequency and bending readout. Sensors and Actuators B: Chemical, 2001, 77, 122-131.	7.8	414
12	Rotation of a Single Molecule Within a Supramolecular Bearing. , 1998, 281, 531-533.		372
13	A cantilever array-based artificial nose. Ultramicroscopy, 2000, 82, 1-9.	1.9	335
14	AFM-based analysis of human metastatic cancer cells. Nanotechnology, 2008, 19, 384003.	2.6	329
15	Local Nanomechanical Motion of the Cell Wall of <i>Saccharomyces cerevisiae</i> . Science, 2004, 305, 1147-1150.	12.6	328
16	Structural-Mechanical Characterization of Nanoparticle Exosomes in Human Saliva, Using Correlative AFM, FESEM, and Force Spectroscopy. ACS Nano, 2010, 4, 1921-1926.	14.6	312
17	Nanostructural and Transcriptomic Analyses of Human Saliva Derived Exosomes. PLoS ONE, 2010, 5, e8577.	2.5	286
18	An artificial nose based on a micromechanical cantilever array. Analytica Chimica Acta, 1999, 393, 59-65.	5.4	283

#	ARTICLE	IF	CITATIONS
19	Learning Abilities Achieved by a Single Solidâ€State Atomic Switch. Advanced Materials, 2010, 22, 1831-1834.	21.0	274
20	A femtojoule calorimeter using micromechanical sensors. Review of Scientific Instruments, 1994, 65, 3793-3798.	1.3	261
21	Measurement of the intrinsic strength of crystalline and polycrystalline graphene. Nature Communications, 2013, 4, .	12.8	246
22	Experimental Observation of Forces Acting during Scanning Tunneling Microscopy. Physical Review Letters, 1986, 57, 2403-2406.	7.8	245
23	Photon emission experiments with the scanning tunnelling microscope. Journal of Microscopy, 1988, 152, 325-336.	1.8	214
24	Roomâ€temperature repositioning of individual C60 molecules at Cu steps: Operation of a molecular counting device. Applied Physics Letters, 1996, 69, 3016-3018.	3.3	204
25	Observation of nuclear fusion driven by a pyroelectric crystal. Nature, 2005, 434, 1115-1117.	27.8	193
26	On-Demand Nanodevice with Electrical and Neuromorphic Multifunction Realized by Local Ion Migration. ACS Nano, 2012, 6, 9515-9521.	14.6	186
27	Emergent Criticality in Complex Turing Bâ€type Atomic Switch Networks. Advanced Materials, 2012, 24, 286-293.	21.0	182
28	Enhanced Photon Emission in Scanning Tunnelling Microscopy. Europhysics Letters, 1989, 8, 435-440.	2.0	180
29	A theoretical and experimental study of neuromorphic atomic switch networks for reservoir computing. Nanotechnology, 2013, 24, 384004.	2.6	178
30	Continuity of Graphene on Polycrystalline Copper. Nano Letters, 2011, 11, 251-256.	9.1	175
31	Single Crystals of Single-Walled Carbon Nanotubes Formed by Self-Assembly. Science, 2001, 292, 1136-1139.	12.6	174
32	Quantitative Nanostructural and Single-Molecule Force Spectroscopy Biomolecular Analysis of Human-Saliva-Derived Exosomes. Langmuir, 2011, 27, 14394-14400.	3.5	174
33	Scanning tunneling microscopy of individual molecules of copper phthalocyanine adsorbed on polycrystalline silver surfaces. Surface Science, 1987, 181, 267-277.	1.9	167
34	Thermal analysis using a micromechanical calorimeter. Applied Physics Letters, 1996, 69, 40-42.	3.3	162
35	Thermodynamically Controlled Self-Assembly of Covalent Nanoarchitectures in Aqueous Solution. ACS Nano, 2011, 5, 3923-3929.	14.6	162
36	Controlling the Synaptic Plasticity of a Cu₂S Gapâ€type Atomic Switch. Advanced Functional Materials, 2012, 22, 3606-3613.	14.9	160

#	ARTICLE	IF	CITATIONS
37	Sequential position readout from arrays of micromechanical cantilever sensors. Applied Physics Letters, 1998, 72, 383-385.	3.3	154
38	Atomic-Scale Characterization of Graphene Grown on Copper (100) Single Crystals. Journal of the American Chemical Society, 2011, 133, 12536-12543.	13.7	154
39	Cooperative self-assembly of Au atoms and C ₆₀ on Au(110) surfaces. Physical Review Letters, 1994, 72, 1036-1039.	7.8	150
40	Neuromorphic Atomic Switch Networks. PLoS ONE, 2012, 7, e42772.	2.5	146
41	Glucose inhibits cardiac muscle maturation through nucleotide biosynthesis. ELife, 2017, 6, .	6.0	142
42	Electromagnetic interactions of metallic objects in nanometer proximity. Physical Review Letters, 1993, 71, 3493-3496.	7.8	129
43	Atomic Resolution in Photon Emission Induced by a Scanning Tunneling Microscope. Physical Review Letters, 1995, 74, 102-105.	7.8	120
44	Synaptic plasticity and memory functions achieved in a WO ₃ -based nanoionics device by using the principle of atomic switch operation. Nanotechnology, 2013, 24, 384003.	2.6	117
45	Properties of microcrystalline silicon. IV. Electrical conductivity, electron spin resonance and the effect of gas adsorption. Journal of Physics C: Solid State Physics, 1983, 16, 6241-6262.	1.5	116
46	Photon emission in scanning tunneling microscopy: Interpretation of photon maps of metallic systems. Physical Review B, 1993, 48, 4746-4754.	3.2	115
47	Nanoscale visualization and characterization of Myxococcus xanthus cells with atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6484-6489.	7.1	112
48	Stress at the Solid-Liquid Interface of Self-Assembled Monolayers on Gold Investigated with a Nanomechanical Sensor. Langmuir, 2000, 16, 9694-9696.	3.5	109
49	Parallel nanodevice fabrication using a combination of shadow mask and scanning probe methods. Applied Physics Letters, 1999, 75, 1314-1316.	3.3	108
50	Silver Films Condensed at 300 and 90 K: Scanning Tunneling Microscopy of Their Surface Topography. Physical Review Letters, 1985, 55, 951-954.	7.8	102
51	Chemical Wiring and Soldering toward All-Molecule Electronic Circuitry. Journal of the American Chemical Society, 2011, 133, 8227-8233.	13.7	93
52	Emergent dynamics of neuromorphic nanowire networks. Scientific Reports, 2019, 9, 14920.	3.3	93
53	Resorcin[4]arene Cavitand-Based Molecular Switches. Advanced Functional Materials, 2006, 16, 147-156.	14.9	92
54	Correlative nanomechanical profiling with super-resolution F-actin imaging reveals novel insights into mechanisms of cisplatin resistance in ovarian cancer cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 757-766.	3.3	92

#	ARTICLE	IF	CITATIONS
55	Electron spectroscopic investigations of the influence of initial- and final-state effects on electronegativity. Journal of the American Chemical Society, 1980, 102, 4873-4879.	13.7	89
56	Atomic Force Microscopy Reveals Drebrin Induced Remodeling of F-Actin with Subnanometer Resolution. Nano Letters, 2011, 11, 825-827.	9.1	87
57	Applicability of AFM in cancer detection. Nature Nanotechnology, 2009, 4, 72-73.	31.5	86
58	Folding of a donor-acceptor polyrotaxane by using noncovalent bonding interactions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6514-6519.	7.1	84
59	A breakthrough therapy for dentin hypersensitivity: how dental products containing 8% arginine and calcium carbonate work to deliver effective relief of sensitive teeth. Journal of Clinical Dentistry, 2009, 20, 23-31.	0.9	83
60	One-dimensional metal structures at decorated steps. Applied Physics A: Materials Science and Processing, 1995, 61, 467-474.	2.3	81
61	Epitaxial growth of C ₆₀ on Ag(110) studied by scanning tunneling microscopy and tunneling spectroscopy. Physical Review B, 1994, 50, 5810-5813.	3.2	78
62	Nanomechanical properties of glucans and associated cell-surface adhesion of Streptococcus mutans probed by atomic force microscopy under in situ conditions. Microbiology (United Kingdom), 2007, 153, 3124-3132.	1.8	77
63	Unoccupied electronic states of graphite as probed by inverse-photoemission and tunneling spectroscopy. Physical Review B, 1986, 33, 5770-5773.	3.2	76
64	Analysis of Low-Voltage $I(V)$ Characteristics of a Single C ₆₀ Molecule. Europhysics Letters, 1995, 30, 409-414.	2.0	76
65	Graphene MEMS: AFM Probe Performance Improvement. ACS Nano, 2013, 7, 4164-4170.	14.6	74
66	Observation of a new Au (111) reconstruction at the interface of an adsorbed C ₆₀ overlayer. Chemical Physics Letters, 1993, 213, 401-406.	2.6	72
67	Green tea extract selectively targets nanomechanics of live metastatic cancer cells. Nanotechnology, 2011, 22, 215101.	2.6	70
68	The role of Rho GTPase in cell stiffness and cisplatin resistance in ovarian cancer cells. Integrative Biology (United Kingdom), 2014, 6, 611-617.	1.3	68
69	Mitochondrial Ca ²⁺ uptake by the voltage-dependent anion channel 2 regulates cardiac rhythmicity. ELife, 2015, 4, .	6.0	67
70	The reaction of oxygen and water with iron films studied by X-Ray photoelectron spectroscopy. Surface Science, 1977, 62, 386-396.	1.9	66
71	Core-level electron-electron coincidence spectroscopy. Review of Scientific Instruments, 1984, 55, 696-711.	1.3	66
72	Injection luminescence from CdS(112̄0) studied with scanning tunneling microscopy. Physical Review B, 1992, 45, 14095-14099.	3.2	66

#	ARTICLE	IF	CITATIONS
73	Atomic switch networksâ€™ nanoarchitectonic design of a complex system for natural computing. Nanotechnology, 2015, 26, 204003.	2.6	66
74	The reactions of oxygen and water with the rare-earth metals terbium to lutetium studied by x-ray photoelectron spectroscopy. Surface Science, 1976, 61, 468-482.	1.9	65
75	Sensory and short-term memory formations observed in a Ag ₂ S gap-type atomic switch. Applied Physics Letters, 2011, 99, .	3.3	63
76	Scanning-tunneling-microscope study of antiphase domain boundaries, dislocations, and local mass transport on Au(110) surfaces. Physical Review B, 1992, 45, 6844-6857.	3.2	61
77	Functional characterization of cell-wall-associated protein WapA in Streptococcus mutans. Microbiology (United Kingdom), 2006, 152, 2395-2404.	1.8	61
78	Rigid microenvironments promote cardiac differentiation of mouse and human embryonic stem cells. Science and Technology of Advanced Materials, 2013, 14, 025003.	6.1	60
79	Nanoscale characterization of effect of l-arginine on Streptococcus mutans biofilm adhesion by atomic force microscopy. Microbiology (United Kingdom), 2014, 160, 1466-1473.	1.8	59
80	Distinct contributions of microtubule subtypes to cell membrane shape and stability. Nanomedicine: Nanotechnology, Biology, and Medicine, 2007, 3, 43-52.	3.3	58
81	Complementary TEM and AFM Force Spectroscopy to Characterize the Nanomechanical Properties of Nanoparticle Chain Aggregates. Nano Letters, 2004, 4, 2287-2292.	9.1	57
82	DNA Builds and Strengthens the Extracellular Matrix in Myxococcus xanthus Biofilms by Interacting with Exopolysaccharides. PLoS ONE, 2012, 7, e51905.	2.5	57
83	Live Cell Interferometry Reveals Cellular Dynamism During Force Propagation. ACS Nano, 2008, 2, 841-846.	14.6	56
84	Nanofilaments on glioblastoma exosomes revealed by peak force microscopy. Journal of the Royal Society Interface, 2014, 11, 20131150.	3.4	56
85	Rapid, Massively Parallel Single-Cell Drug Response Measurements via Live Cell Interferometry. Biophysical Journal, 2011, 101, 1025-1031.	0.5	55
86	Time dependence of the frequency and amplitude of the local nanomechanical motion of yeast. Nanomedicine: Nanotechnology, Biology, and Medicine, 2005, 1, 178-183.	3.3	53
87	Fine structure in field emission resonances at surfaces. Journal of Microscopy, 1988, 152, 841-851.	1.8	51
88	Apoptotic effect of a novel kefir product, PFT, on multidrug-resistant myeloid leukemia cells via a hole-piercing mechanism. International Journal of Oncology, 2014, 44, 830-837.	3.3	48
89	A review of the biomechanical properties of single extracellular vesicles. Nano Select, 2021, 2, 1-15.	3.7	48
90	Nanoarchitectonic atomic switch networks for unconventional computing. Japanese Journal of Applied Physics, 2016, 55, 1102B2.	1.5	47

#	ARTICLE	IF	CITATIONS
91	Atomic force microscopy study of the structure–function relationships of the biofilm-forming bacterium <i>Streptococcus mutans</i> . <i>Nanotechnology</i> , 2006, 17, S1-S7.	2.6	46
92	Nanocharacterization in Dentistry. <i>International Journal of Molecular Sciences</i> , 2010, 11, 2523-2545.	4.1	46
93	Morphological Transitions from Dendrites to Nanowires in the Electroless Deposition of Silver. <i>Crystal Growth and Design</i> , 2013, 13, 465-469.	3.0	46
94	Memristive operations demonstrated by gap-type atomic switches. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 102, 811-815.	2.3	43
95	Spoken Digit Classification by In-Material Reservoir Computing With Neuromorphic Atomic Switch Networks. <i>Frontiers in Nanotechnology</i> , 2021, 3, .	4.8	43
96	Isochromat spectroscopy of photons emitted from metal surfaces in an STM. <i>Annalen Der Physik</i> , 1993, 505, 133-140.	2.4	42
97	In Situ Mechanical Interferometry of Matrigel Films. <i>Langmuir</i> , 2009, 25, 36-39.	3.5	42
98	Construction of Robust Bio–nanotubes using the Controlled Self–Assembly of Component Proteins of Bacteriophage T4. <i>Small</i> , 2010, 6, 1873-1879.	10.0	41
99	A low noise all-fiber interferometer for high resolution frequency modulated atomic force microscopy imaging in liquids. <i>Review of Scientific Instruments</i> , 2010, 81, 023703.	1.3	39
100	Core-ionization energies and the anomalous basicity of arsabenzene and phosphabenzene. <i>Journal of the American Chemical Society</i> , 1979, 101, 1764-1767.	13.7	38
101	The role of proximity plasmon modes on noble metal surfaces in scanning tunneling microscopy. <i>Surface Science</i> , 1992, 269-270, 556-559.	1.9	36
102	Molecular Cooperativity of Drebrin1-300 Binding and Structural Remodeling of F-Actin. <i>Biophysical Journal</i> , 2012, 103, 275-283.	0.5	36
103	Observation of mass transport on Au(110)-(1 Å ^{−2}) reconstructed surfaces using scanning tunneling microscopy. <i>Surface Science</i> , 1991, 247, 327-332.	1.9	35
104	Two dimensional electrophysiological characterization of human pluripotent stem cell-derived cardiomyocyte system. <i>Scientific Reports</i> , 2017, 7, 43210.	3.3	35
105	Observation of nanoscale dynamics in cantilever sensor arrays. <i>Nanotechnology</i> , 2006, 17, 3873-3879.	2.6	34
106	The Role of Isolation Methods on a Nanoscale Surface Structure and its Effect on the Size of Exosomes. <i>Journal of Circulating Biomarkers</i> , 2016, 5, 11.	1.3	34
107	Characterization of Ocular Tissues Using Microindentation and Hertzian Viscoelastic Models. , 2011, 52, 3475.		32
108	High throughput cell nanomechanics with mechanical imaging interferometry. <i>Nanotechnology</i> , 2008, 19, 235101.	2.6	31

#	ARTICLE	IF	CITATIONS
109	<i>In Situ</i> STM Investigation of Aromatic Poly(azomethine) Arrays Constructed by “On-Site” Equilibrium Polymerization. <i>Langmuir</i> , 2012, 28, 13844-13851.	3.5	31
110	Impact of isolation methods on the biophysical heterogeneity of single extracellular vesicles. <i>Scientific Reports</i> , 2020, 10, 13327.	3.3	30
111	Enhanced photon emission from the STM: a general property of metal surfaces. <i>Ultramicroscopy</i> , 1992, 42-44, 355-359.	1.9	29
112	High-speed atomic force microscopy of dental enamel dissolution in citric acid. <i>Archives of Histology and Cytology</i> , 2009, 72, 209-215.	0.2	28
113	X-ray photoelectron studies of scandium and its hydride and oxide. <i>Journal of Physics F: Metal Physics</i> , 1977, 7, L305-L308.	1.6	27
114	Title is missing!. <i>Journal of Materials Chemistry</i> , 2001, 11, 2895-2897.	6.7	27
115	DNA nanomapping using CRISPR-Cas9 as a programmable nanoparticle. <i>Nature Communications</i> , 2017, 8, 1665.	12.8	27
116	Atomic switch networks as complex adaptive systems. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03ED02.	1.5	27
117	Evaluation of bacteria-induced enamel demineralization using optical profilometry. <i>Dental Materials</i> , 2009, 25, 1517-1526.	3.5	26
118	Phenotypic characterization of the foldase homologue PrsA in <i>Streptococcus mutans</i> . <i>Molecular Oral Microbiology</i> , 2013, 28, 154-165.	2.7	26
119	Multistate resistive switching in silver nanoparticle films. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 045004.	6.1	26
120	Analysis of type IV pilus and its associated motility in <i>Myxococcus xanthus</i> using an antibody reactive with native pilin and pili. <i>Microbiology (United Kingdom)</i> , 2005, 151, 353-360.	1.8	25
121	Scanning tunneling microscopy of surface microstructure on rough surfaces. <i>IBM Journal of Research and Development</i> , 1986, 30, 472-477.	3.1	24
122	Investigation of the initial stages of oxidation of microcrystalline silicon by means of X-ray photoelectron spectroscopy. <i>Solid State Communications</i> , 1983, 47, 747-751.	1.9	23
123	Self-organized and highly ordered domain structures within swarms of <i>Myxococcus xanthus</i> . <i>Cytoskeleton</i> , 2006, 63, 141-148.	4.4	22
124	Emergence of “Materio Intelligence from an Incidental Structure of a Single-Walled Carbon Nanotube” Porphyrin Polyoxometalate Random Network. <i>Advanced Intelligent Systems</i> , 2022, 4, .	6.1	22
125	Nanodiamond and nanoplatinum liquid, DPV576, activates human monocyte-derived dendritic cells in vitro. <i>Anticancer Research</i> , 2010, 30, 4075-9.	1.1	21
126	Scanning tunneling microscopy of nanocrystalline silicon surfaces. <i>Surface Science</i> , 1986, 168, 795-800.	1.9	20

#	ARTICLE	IF	CITATIONS
127	Self-organized atomic switch networks. Japanese Journal of Applied Physics, 2014, 53, 01AA02.	1.5	20
128	Reservoir Computing with Neuromemristive Nanowire Networks. , 2020, , .		20
129	Oxidation of scandium by oxygen and water studied by XPS. Surface Science, 1979, 80, 298-305.	1.9	19
130	Photon-emission scanning tunneling microscopy of silver films in ultrahigh vacuum: A spectroscopic method. Physical Review B, 1993, 48, 15250-15255.	3.2	19
131	Manipulation of C 60 molecules on Cu(111) surfaces using a scanning tunneling microscope. Applied Physics A: Materials Science and Processing, 1998, 66, S669-S673.	2.3	19
132	Forces with submolecular resolution between the probing tip and Cu-TBPP molecules on Cu(100) observed with a combined AFM/STM. Applied Physics A: Materials Science and Processing, 2001, 72, S105-S108.	2.3	19
133	Tunneling characteristics at atomic resolution on close-packed metal surfaces. Ultramicroscopy, 1992, 42-44, 528-532.	1.9	18
134	Single molecule transcription profiling with AFM. Nanotechnology, 2007, 18, 044032.	2.6	17
135	Synaptic electronics. Nanotechnology, 2013, 24, 380201-380201.	2.6	17
136	Cancer cell mechanobiology: a new frontier for cancer research. Journal of the National Cancer Center, 2022, 2, 10-17.	7.4	17
137	Nonequilibrium lateral force and torque by thermally excited nonreciprocal surface electromagnetic waves. Physical Review B, 2021, 104, .	3.2	17
138	Dynamic mechanical oscillations during metamorphosis of the monarch butterfly. Journal of the Royal Society Interface, 2009, 6, 29-37.	3.4	16
139	Thermodynamic Self-Assembly of Two-Dimensional <i>π</i>-Conjugated Metalâ€Porphyrin Covalent Organic Frameworks by â€œOn-Siteâ€Equilibrium Polymerization. Journal of Nanoscience and Nanotechnology, 2014, 14, 2211-2216.	0.9	16
140	Nanoscale neuromorphic networks and criticality: a perspective. Journal of Physics Complexity, 2021, 2, 042001.	2.2	16
141	A comparative study of coldly- and warmly-condensed Ag films by scanning tunneling microscopy. Surface Science, 1985, 162, 961-964.	1.9	15
142	Theoretical aspects and experimental results of STM studies in polar liquids. Journal of Physics Condensed Matter, 1991, 3, S121-S126.	1.8	15
143	Templating a face-centered cubic (110) termination of C60. Surface Science, 1996, 367, L79-L84.	1.9	15
144	Localized Nanoscopic Surface Measurements of Nickel-Modified Mica for Single-Molecule DNA Sequence Sampling. ACS Applied Materials & Interfaces, 2010, 2, 3249-3256.	8.0	15

#	ARTICLE	IF	CITATIONS
145	Nano-hole induction by nanodiamond and nanoplatinum liquid, DPV576, reverses multidrug resistance in human myeloid leukemia (HL60/AR). International Journal of Nanomedicine, 2013, 8, 2567.	6.7	15
146	A comparative assessment of antiproliferative properties of resveratrol and ethanol leaf extract of Anogeissus leiocarpus (DC) Guill and Perr against HepG2 hepatocarcinoma cells. BMC Complementary and Alternative Medicine, 2017, 17, 381.	3.7	15
147	Interferometric profiling of microcantilevers in liquid. Optics and Lasers in Engineering, 2009, 47, 217-222.	3.8	14
148	Image Analysis and Length Estimation of Biomolecules Using AFM. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 1200-1207.	3.2	14
149	Boron and doped boron first wall coatings by plasma CVD. Journal of Nuclear Materials, 1981, 103, 257-260.	2.7	13
150	Thin film interference in the optomechanical response of micromechanical silicon cantilevers. Applied Physics Letters, 2006, 89, 241916.	3.3	13
151	A flexible, highly stable electrochemical scanning probe microscope for nanoscale studies at the solid-liquid interface. Review of Scientific Instruments, 2008, 79, 103701.	1.3	13
152	Aligned carbon nanotube, graphene and graphite oxide thin films via substrate-directed rapid interfacial deposition. Nanoscale, 2012, 4, 3075.	5.6	13
153	Positional selectivity of reversible azomethine condensation reactions at solid/liquid interfaces leading to supramolecule formation. Journal of Electroanalytical Chemistry, 2014, 716, 145-149.	3.8	13
154	Nanocytology as a potential biomarker for cancer. Biomarkers in Medicine, 2017, 11, 213-216.	1.4	13
155	Atomic force microscopy correlates antimetastatic potentials of HepG2 cell line with its redox/energy status: effects of curcumin and Khaya senegalensis. Journal of Integrative Medicine, 2017, 15, 214-230.	3.1	13
156	Mechanical Interferometry Imaging for Creep Modeling of the Cornea. , 2011, 52, 8420.		12
157	Self-organization and Emergence of Dynamical Structures in Neuromorphic Atomic Switch Networks. , 2014, , 173-209.		12
158	Piezoelectric needle sensor reveals mechanical heterogeneity in human thyroid tissue lesions. Scientific Reports, 2019, 9, 9282.	3.3	12
159	Bias-dependent STM images of oxygen-induced structures on Ti(0001) facets. Surface Science, 1994, 310, 85-88.	1.9	11
160	Mechanical Interferometry of Nanoscale Motion and Local Mechanical Properties of Living Zebrafish Embryos. ACS Nano, 2009, 3, 2090-2094.	14.6	11
161	Identifying individual DNA species in a complex mixture by precisely measuring the spacing between nicking restriction enzymes with atomic force microscope. Journal of the Royal Society Interface, 2012, 9, 2341-2350.	3.4	11
162	Postannealing of coldly condensed Ag films: Influence of pyridine preadsorption. Physical Review B, 1985, 32, 4252-4253.	3.2	10

#	ARTICLE	IF	CITATIONS
163	Scanning probe microscopy of polymeric methyltrioxorhenium. <i>Advanced Materials</i> , 1996, 8, 654-657.	21.0	10
164	Fourier transform mechanical spectroscopy of micro-fabricated electromechanical resonators: A novel, information-rich pulse method for sensor applications. <i>Sensors and Actuators B: Chemical</i> , 2010, 147, 508-516.	7.8	10
165	Fine Needle Elastography (FNE) device for biomechanically determining local variations of tissue mechanical properties. <i>Journal of Biomechanics</i> , 2015, 48, 81-88.	2.1	10
166	Single Cell Mechanotype and Associated Molecular Changes in Urothelial Cell Transformation and Progression. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 601376.	3.7	10
167	Effect of surface contamination and pretreatment on the hydrogen diffusion into and out of titanium under plasma conditions. <i>Journal of Nuclear Materials</i> , 1981, 103, 465-469.	2.7	9
168	Extraatomic relaxation in HCl, ClF, and Cl ₂ from x-ray photoelectron spectroscopy. <i>Journal of Chemical Physics</i> , 1983, 78, 5437-5442.	3.0	9
169	Applications of imaging interferometry. , 2006, 6293, 629301.		9
170	Atomic Force Microscopic Detection Enabling Multiplexed Low-Cycle-Number Quantitative Polymerase Chain Reaction for Biomarker Assays. <i>Analytical Chemistry</i> , 2014, 86, 6180-6183.	6.5	9
171	Nanostructured Self-Assembly of Inverted Formin 2 (INF2) and F-Actin-INF2 Complexes Revealed by Atomic Force Microscopy. <i>Langmuir</i> , 2014, 30, 7533-7539.	3.5	9
172	High-Speed Atomic Force Microscopy Revealing Contamination in DNA Purification Systems. <i>Analytical Chemistry</i> , 2016, 88, 2527-2532.	6.5	9
173	Identification of a Human Airway Epithelial Cell Subpopulation with Altered Biophysical, Molecular, and Metastatic Properties. <i>Cancer Prevention Research</i> , 2017, 10, 514-524.	1.5	9
174	Inhibition of TRPV1 Channel Activity in Human CD4+ T Cells by Nanodiamond and Nanoplatinum Liquid, DPV576. <i>Nanomaterials</i> , 2018, 8, 770.	4.1	9
175	Nanoscale Extracellular Vesicles Carry the Mechanobiology Signatures of Breast Cancer Cells. <i>ACS Applied Nano Materials</i> , 2021, 4, 9876-9885.	5.0	9
176	Harnessing adaptive dynamics in neuro-memristive nanowire networks for transfer learning. , 2020, , .		9
177	Neuromorphic Information Processing with Nanowire Networks. , 2020, , .		9
178	XPS study of the interaction of nickel (II) ions with alumina. <i>Journal of Catalysis</i> , 1978, 55, 250-254.	6.2	8
179	Investigations of the surface of the amorphous alloy Fe ₈₀ B ₂₀ by STM, XPS and AES. <i>Journal of Non-Crystalline Solids</i> , 1990, 116, 253-261.	3.1	8
180	Low-temperature scanning tunneling microscopy. <i>Physica B: Condensed Matter</i> , 1994, 197, 64-71.	2.7	8

#	ARTICLE	IF	CITATIONS
181	NANO: An Exhibition of Scale and Senses. Leonardo, 2005, 38, 310-311.	0.3	8
182	The Quest for Characterizing Exosomes: Circulating Nano-Sized Vesicles. Journal of Nanomedicine & Nanotechnology, 2012, 03, .	1.1	8
183	Scanning Tunneling Microscopic Techniques Applied To Roughness Of Silver Surfaces. Proceedings of SPIE, 1989, , .	0.8	7
184	Is There A Minimum Size and a Maximum Speed for a Nanoscale Amplifier?. Annals of the New York Academy of Sciences, 1998, 852, 243-256.	3.8	7
185	Electrostatic force microscopy as a broadly applicable method for characterizing pyroelectric materials. Nanotechnology, 2012, 23, 235701.	2.6	7
186	Correlative nanoscale imaging of actin filaments and their complexes. Nanoscale, 2013, 5, 5692.	5.6	7
187	Biophysical and morphological effects of nanodiamond/nanoplatinum solution (DPV576) on metastatic murine breast cancer cells in vitro. Nanotechnology, 2014, 25, 465101.	2.6	7
188	Benchmark Fabrication of Memristive Atomic Switch Networks. Journal of Nanoscience and Nanotechnology, 2014, 14, 2792-2798.	0.9	7
189	Application of AFM to the Nanomechanics of Cancer. MRS Advances, 2016, 1, 1817-1827.	0.9	7
190	MNIST classification using Neuromorphic Nanowire Networks. , 2021, , .		7
191	Modulation of aged murine T lymphocytes in vivo by DPV576-C, a nanodiamond- and nanoplatinum-coated material. In Vivo, 2010, 24, 141-6.	1.3	7
192	Extended-x-ray-absorption fine-structure amplitude attenuation in Br ₂ : Relationship to satellites in the x-ray photoelectron spectrum. Physical Review A, 1979, 20, 2405-2410.	2.5	6
193	A scanning tunneling microscopy investigation of 4,4'-dimethylbiphenyl molecules adsorbed on Cu(111). Surface Science, 1997, 383, 37-49.	1.9	6
194	Nanomechanical properties of piezoresistive cantilevers: Theory and experiment. Journal of Applied Physics, 2008, 104, 103527.	2.5	5
195	Amplification of Conformational Effects via tert-Butyl Groups: Hexa-tert-butyl Decacyclene on Cu(100) at Room Temperature. Langmuir, 2013, 29, 7309-7317.	3.5	5
196	Observations of image contrast and dimerization of decacyclene by low temperature scanning tunneling microscopy. Journal of Chemical Physics, 2007, 127, 174703.	3.0	4
197	Monomolecular covalent honeycomb nanosheets produced by surface-mediated polycondensation between 1,3,5-triamino benzene and benzene-1,3,5-tricarboxaldehyde on Au(111). Nanoscale Advances, 2020, 2, 3202-3208.	4.6	4
198	Mitigation of aflatoxin B ₁ - and sodium arsenite-induced cytotoxicities in HUC-PC urinary bladder cells by curcumin and <i>Khaya senegalensis</i> . Journal of Basic and Clinical Physiology and Pharmacology, 2020, 31, .	1.3	4

#	ARTICLE	IF	CITATIONS
199	Self-organization and Emergence of Dynamical Structures in Neuromorphic Atomic Switch Networks. , 2019, , 391-427.		4
200	Impurity Deposition Profiles in the Plasma Edge of the TCA Tokamak. Physica Scripta, 1984, 30, 271-278.	2.5	3
201	Scrape-off measurements during Alfvén wave heating in the TCA tokamak. Journal of Nuclear Materials, 1984, 121, 22-28.	2.7	3
202	Self-Organization and Emergence of Dynamic Systems. , 2016, , 163-180.		3
203	Non-temporal logic performance of an atomic switch network. , 2017, , .		3
204	Marina crystal minerals (MCM) activate human dendritic cells to induce CD4+ and CD8+ T cell responses <i>in vitro</i> . International Journal of Immunopathology and Pharmacology, 2018, 32, 205873841879776.	2.1	3
205	Potential role of MRN-100, an iron-based compound, in upregulating production of cytokine IL-10 in human dendritic cells to promote an anti-inflammatory response <i>in vitro</i> . International Journal of Immunopathology and Pharmacology, 2019, 33, 205873841984493.	2.1	3
206	Atomic Force Microscopy for Medicine. , 2011, , 421-436.		3
207	Scanning Tunneling Microscope Study of a Local Electronic State Surrounding Mn Nanoclusters on Graphite. Japanese Journal of Applied Physics, 2006, 45, L469-L471.	1.5	2
208	Exosomes: Nanoscale Packages Contain the Health-state [Status Quo] of the Cells that Secrete them. Journal of Nanomedicine & Nanotechnology, 2015, 06, .	1.1	2
209	Pacemaker translocations and power laws in 2D stem cell-derived cardiomyocyte cultures. PLoS ONE, 2022, 17, e0263976.	2.5	2
210	Excitation of Fe 1s core-level photoelectrons with synchrotron radiation. Journal of Physics F: Metal Physics, 1977, 7, L345-L348.	1.6	1
211	Interaction of ozone with nickel ions adsorbed on alumina. Journal of Catalysis, 1977, 47, 79-84.	6.2	1
212	Photon emission from nanostructures in an STM. Scripta Materialia, 1993, 3, 345-348.	0.5	1
213	Atomic force microscope observation of branching in single transcript molecules derived from human cardiac muscle. Nanotechnology, 2008, 19, 384021.	2.6	1
214	Blue morph. , 2010, , .		1
215	Biomimetics: Controlling the Synaptic Plasticity of a Cu ₂ S Gap-Type Atomic Switch (Adv. Funct. Mater.) Tj ETQq1 10,784314 rgBT /Ove	14.9	1
216	Immunological Biosensors. , 2013, , 203-207.		1

#	ARTICLE	IF	CITATIONS
217	Programmable Fading Memory in Atomic Switch Systems for Error Checking Applications. Natural Computing Series, 2021, , 273-303.	2.2	1
218	Artificial Synapses Realized by Atomic Switch Technology. Advances in Atom and Single Molecule Machines, 2020, , 175-199.	0.0	1
219	Emergence of In-Materio Intelligence from an Incidental Structure of a Single-Walled Carbon Nanotube-Porphyrin Polyoxometalate Random Network. Advanced Intelligent Systems, 2022, 4, 2270014.	6.1	1
220	Cardio PyMEA: A user-friendly, open-source Python application for cardiomyocyte microelectrode array analysis. PLoS ONE, 2022, 17, e0266647.	2.5	1
221	Biological applications of microscope profiler. Proceedings of SPIE, 2007, , .	0.8	0
222	Unorganized Machines: Emergent Criticality in Complex Turing Machine Type Atomic Switch Networks (Adv.) Tj ETQq0 0.0 ggBT /Overlock 10	21.6	0
223	Morphic atomic switch networks for beyond-Moore computing architectures. , 2015, , .		0
224	Self-Organization and Emergence of Dynamic Systems. , 2015, , 1-14.		0