

# James Gimzewski

## List of Publications by Year in descending order

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224  
papers

23,415  
citations

13827

67  
h-index

8138

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. <i>Nature</i> , 2000, 408, 541-548.	13.7	2,961
2	Nanomechanical analysis of cells from cancer patients. <i>Nature Nanotechnology</i> , 2007, 2, 780-783.	15.6	1,650
3	Translating Biomolecular Recognition into Nanomechanics. <i>Science</i> , 2000, 288, 316-318.	6.0	1,630
4	Short-term plasticity and long-term potentiation mimicked in single inorganic synapses. <i>Nature Materials</i> , 2011, 10, 591-595.	13.3	1,480
5	Nanoscale Science of Single Molecules Using Local Probes. <i>Science</i> , 1999, 283, 1683-1688.	6.0	596
6	Surface Stress in the Self-Assembly of Alkanethiols on Gold. <i>Science</i> , 1997, 276, 2021-2024.	6.0	501
7	Transition from the tunneling regime to point contact studied using scanning tunneling microscopy. <i>Physical Review B</i> , 1987, 36, 1284-1287.	1.1	473
8	Electronic Transparency of a Single C <sub>60</sub> Molecule. <i>Physical Review Letters</i> , 1995, 74, 2102-2105.	2.9	466
9	Observation of a chemical reaction using a micromechanical sensor. <i>Chemical Physics Letters</i> , 1994, 217, 589-594.	1.2	464
10	Inelastic tunneling excitation of tip-induced plasmon modes on noble-metal surfaces. <i>Physical Review Letters</i> , 1991, 67, 3796-3799.	2.9	424
11	A chemical sensor based on a microfabricated cantilever array with simultaneous resonance-frequency and bending readout. <i>Sensors and Actuators B: Chemical</i> , 2001, 77, 122-131.	4.0	414
12	Rotation of a Single Molecule Within a Supramolecular Bearing. , 1998, 281, 531-533.		372
13	A cantilever array-based artificial nose. <i>Ultramicroscopy</i> , 2000, 82, 1-9.	0.8	335
14	AFM-based analysis of human metastatic cancer cells. <i>Nanotechnology</i> , 2008, 19, 384003.	1.3	329
15	Local Nanomechanical Motion of the Cell Wall of <i>Saccharomyces cerevisiae</i> . <i>Science</i> , 2004, 305, 1147-1150.	6.0	328
16	Structural-Mechanical Characterization of Nanoparticle Exosomes in Human Saliva, Using Correlative AFM, FESEM, and Force Spectroscopy. <i>ACS Nano</i> , 2010, 4, 1921-1926.	7.3	312
17	Nanostructural and Transcriptomic Analyses of Human Saliva Derived Exosomes. <i>PLoS ONE</i> , 2010, 5, e8577.	1.1	286
18	An artificial nose based on a micromechanical cantilever array. <i>Analytica Chimica Acta</i> , 1999, 393, 59-65.	2.6	283

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19	Learning Abilities Achieved by a Single Solid-State Atomic Switch. <i>Advanced Materials</i> , 2010, 22, 1831-1834.	11.1	274
20	A femtojoule calorimeter using micromechanical sensors. <i>Review of Scientific Instruments</i> , 1994, 65, 3793-3798.	0.6	261
21	Measurement of the intrinsic strength of crystalline and polycrystalline graphene. <i>Nature Communications</i> , 2013, 4, .	5.8	246
22	Experimental Observation of Forces Acting during Scanning Tunneling Microscopy. <i>Physical Review Letters</i> , 1986, 57, 2403-2406.	2.9	245
23	Photon emission experiments with the scanning tunnelling microscope. <i>Journal of Microscopy</i> , 1988, 152, 325-336.	0.8	214
24	Room-temperature repositioning of individual C60 molecules at Cu steps: Operation of a molecular counting device. <i>Applied Physics Letters</i> , 1996, 69, 3016-3018.	1.5	204
25	Observation of nuclear fusion driven by a pyroelectric crystal. <i>Nature</i> , 2005, 434, 1115-1117.	13.7	193
26	On-Demand Nanodevice with Electrical and Neuromorphic Multifunction Realized by Local Ion Migration. <i>ACS Nano</i> , 2012, 6, 9515-9521.	7.3	186
27	Emergent Criticality in Complex Turing-Type Atomic Switch Networks. <i>Advanced Materials</i> , 2012, 24, 286-293.	11.1	182
28	Enhanced Photon Emission in Scanning Tunnelling Microscopy. <i>Europhysics Letters</i> , 1989, 8, 435-440.	0.7	180
29	A theoretical and experimental study of neuromorphic atomic switch networks for reservoir computing. <i>Nanotechnology</i> , 2013, 24, 384004.	1.3	178
30	Continuity of Graphene on Polycrystalline Copper. <i>Nano Letters</i> , 2011, 11, 251-256.	4.5	175
31	Single Crystals of Single-Walled Carbon Nanotubes Formed by Self-Assembly. <i>Science</i> , 2001, 292, 1136-1139.	6.0	174
32	Quantitative Nanostructural and Single-Molecule Force Spectroscopy Biomolecular Analysis of Human-Saliva-Derived Exosomes. <i>Langmuir</i> , 2011, 27, 14394-14400.	1.6	174
33	Scanning tunneling microscopy of individual molecules of copper phthalocyanine adsorbed on polycrystalline silver surfaces. <i>Surface Science</i> , 1987, 181, 267-277.	0.8	167
34	Thermal analysis using a micromechanical calorimeter. <i>Applied Physics Letters</i> , 1996, 69, 40-42.	1.5	162
35	Thermodynamically Controlled Self-Assembly of Covalent Nanoarchitectures in Aqueous Solution. <i>ACS Nano</i> , 2011, 5, 3923-3929.	7.3	162
36	Controlling the Synaptic Plasticity of a Cu <sub>2</sub> S Gap-Type Atomic Switch. <i>Advanced Functional Materials</i> , 2012, 22, 3606-3613.	7.8	160

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37	Sequential position readout from arrays of micromechanical cantilever sensors. <i>Applied Physics Letters</i> , 1998, 72, 383-385.	1.5	154
38	Atomic-Scale Characterization of Graphene Grown on Copper (100) Single Crystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 12536-12543.	6.6	154
39	Cooperative self-assembly of Au atoms and C <sub>60</sub> on Au(110) surfaces. <i>Physical Review Letters</i> , 1994, 72, 1036-1039.	2.9	150
40	Neuromorphic Atomic Switch Networks. <i>PLoS ONE</i> , 2012, 7, e42772.	1.1	146
41	Glucose inhibits cardiac muscle maturation through nucleotide biosynthesis. <i>ELife</i> , 2017, 6, .	2.8	142
42	Electromagnetic interactions of metallic objects in nanometer proximity. <i>Physical Review Letters</i> , 1993, 71, 3493-3496.	2.9	129
43	Atomic Resolution in Photon Emission Induced by a Scanning Tunneling Microscope. <i>Physical Review Letters</i> , 1995, 74, 102-105.	2.9	120
44	Synaptic plasticity and memory functions achieved in a WO <sub>3</sub> -based nanoionics device by using the principle of atomic switch operation. <i>Nanotechnology</i> , 2013, 24, 384003.	1.3	117
45	Properties of microcrystalline silicon. IV. Electrical conductivity, electron spin resonance and the effect of gas adsorption. <i>Journal of Physics C: Solid State Physics</i> , 1983, 16, 6241-6262.	1.5	116
46	Photon emission in scanning tunneling microscopy: Interpretation of photon maps of metallic systems. <i>Physical Review B</i> , 1993, 48, 4746-4754.	1.1	115
47	Nanoscale visualization and characterization of <i>Myxococcus xanthus</i> cells with atomic force microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 6484-6489.	3.3	112
48	Stress at the Solid-Liquid Interface of Self-Assembled Monolayers on Gold Investigated with a Nanomechanical Sensor. <i>Langmuir</i> , 2000, 16, 9694-9696.	1.6	109
49	Parallel nanodevice fabrication using a combination of shadow mask and scanning probe methods. <i>Applied Physics Letters</i> , 1999, 75, 1314-1316.	1.5	108
50	Silver Films Condensed at 300 and 90 K: Scanning Tunneling Microscopy of Their Surface Topography. <i>Physical Review Letters</i> , 1985, 55, 951-954.	2.9	102
51	Chemical Wiring and Soldering toward All-Molecule Electronic Circuitry. <i>Journal of the American Chemical Society</i> , 2011, 133, 8227-8233.	6.6	93
52	Emergent dynamics of neuromorphic nanowire networks. <i>Scientific Reports</i> , 2019, 9, 14920.	1.6	93
53	Resorcin[4]arene Cavitand-Based Molecular Switches. <i>Advanced Functional Materials</i> , 2006, 16, 147-156.	7.8	92
54	Correlative nanomechanical profiling with super-resolution F-actin imaging reveals novel insights into mechanisms of cisplatin resistance in ovarian cancer cells. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2012, 8, 757-766.	1.7	92

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55	Electron spectroscopic investigations of the influence of initial- and final-state effects on electronegativity. <i>Journal of the American Chemical Society</i> , 1980, 102, 4873-4879.	6.6	89
56	Atomic Force Microscopy Reveals Drebrin Induced Remodeling of F-Actin with Subnanometer Resolution. <i>Nano Letters</i> , 2011, 11, 825-827.	4.5	87
57	Applicability of AFM in cancer detection. <i>Nature Nanotechnology</i> , 2009, 4, 72-73.	15.6	86
58	Folding of a donor-acceptor polyrotaxane by using noncovalent bonding interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 6514-6519.	3.3	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. <i>Journal of Clinical Dentistry</i> , 2009, 20, 23-31.	0.9	83
60	One-dimensional metal structures at decorated steps. <i>Applied Physics A: Materials Science and Processing</i> , 1995, 61, 467-474.	1.1	81
61	Epitaxial growth of C <sub>60</sub> on Ag(110) studied by scanning tunneling microscopy and tunneling spectroscopy. <i>Physical Review B</i> , 1994, 50, 5810-5813.	1.1	78
62	Nanomechanical properties of glucans and associated cell-surface adhesion of <i>Streptococcus mutans</i> probed by atomic force microscopy under in situ conditions. <i>Microbiology (United Kingdom)</i> , 2007, 153, 3124-3132.	0.7	77
63	Unoccupied electronic states of graphite as probed by inverse-photoemission and tunneling spectroscopy. <i>Physical Review B</i> , 1986, 33, 5770-5773.	1.1	76
64	Analysis of Low-Voltage $I(V)$ Characteristics of a Single C <sub>60</sub> Molecule. <i>Europhysics Letters</i> , 1995, 30, 409-414.	0.7	76
65	Graphene MEMS: AFM Probe Performance Improvement. <i>ACS Nano</i> , 2013, 7, 4164-4170.	7.3	74
66	Observation of a new Au (111) reconstruction at the interface of an adsorbed C <sub>60</sub> overlayer. <i>Chemical Physics Letters</i> , 1993, 213, 401-406.	1.2	72
67	Green tea extract selectively targets nanomechanics of live metastatic cancer cells. <i>Nanotechnology</i> , 2011, 22, 215101.	1.3	70
68	The role of Rho GTPase in cell stiffness and cisplatin resistance in ovarian cancer cells. <i>Integrative Biology (United Kingdom)</i> , 2014, 6, 611-617.	0.6	68
69	Mitochondrial Ca <sup>2+</sup> uptake by the voltage-dependent anion channel 2 regulates cardiac rhythmicity. <i>ELife</i> , 2015, 4, .	2.8	67
70	The reaction of oxygen and water with iron films studied by X-Ray photoelectron spectroscopy. <i>Surface Science</i> , 1977, 62, 386-396.	0.8	66
71	Core-level electron-electron coincidence spectroscopy. <i>Review of Scientific Instruments</i> , 1984, 55, 696-711.	0.6	66
72	Injection luminescence from CdS(112̂0) studied with scanning tunneling microscopy. <i>Physical Review B</i> , 1992, 45, 14095-14099.	1.1	66

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73	Atomic switch networksâ€™ nanoarchitectonic design of a complex system for natural computing. <i>Nanotechnology</i> , 2015, 26, 204003.	1.3	66
74	The reactions of oxygen and water with the rare-earth metals terbium to lutetium studied by x-ray photoelectron spectroscopy. <i>Surface Science</i> , 1976, 61, 468-482.	0.8	65
75	Sensory and short-term memory formations observed in a Ag <sub>2</sub> S gap-type atomic switch. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	63
76	Scanning-tunneling-microscope study of antiphase domain boundaries, dislocations, and local mass transport on Au(110) surfaces. <i>Physical Review B</i> , 1992, 45, 6844-6857.	1.1	61
77	Functional characterization of cell-wall-associated protein WapA in <i>Streptococcus mutans</i> . <i>Microbiology (United Kingdom)</i> , 2006, 152, 2395-2404.	0.7	61
78	Rigid microenvironments promote cardiac differentiation of mouse and human embryonic stem cells. <i>Science and Technology of Advanced Materials</i> , 2013, 14, 025003.	2.8	60
79	Nanoscale characterization of effect of l-arginine on <i>Streptococcus mutans</i> biofilm adhesion by atomic force microscopy. <i>Microbiology (United Kingdom)</i> , 2014, 160, 1466-1473.	0.7	59
80	Distinct contributions of microtubule subtypes to cell membrane shape and stability. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2007, 3, 43-52.	1.7	58
81	Complementary TEM and AFM Force Spectroscopy to Characterize the Nanomechanical Properties of Nanoparticle Chain Aggregates. <i>Nano Letters</i> , 2004, 4, 2287-2292.	4.5	57
82	DNA Builds and Strengthens the Extracellular Matrix in <i>Myxococcus xanthus</i> Biofilms by Interacting with Exopolysaccharides. <i>PLoS ONE</i> , 2012, 7, e51905.	1.1	57
83	Live Cell Interferometry Reveals Cellular Dynamism During Force Propagation. <i>ACS Nano</i> , 2008, 2, 841-846.	7.3	56
84	Nanofilaments on glioblastoma exosomes revealed by peak force microscopy. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20131150.	1.5	56
85	Rapid, Massively Parallel Single-Cell Drug Response Measurements via Live Cell Interferometry. <i>Biophysical Journal</i> , 2011, 101, 1025-1031.	0.2	55
86	Time dependence of the frequency and amplitude of the local nanomechanical motion of yeast. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2005, 1, 178-183.	1.7	53
87	Fine structure in field emission resonances at surfaces. <i>Journal of Microscopy</i> , 1988, 152, 841-851.	0.8	51
88	Apoptotic effect of a novel kefir product, PFT, on multidrug-resistant myeloid leukemia cells via a hole-piercing mechanism. <i>International Journal of Oncology</i> , 2014, 44, 830-837.	1.4	48
89	A review of the biomechanical properties of single extracellular vesicles. <i>Nano Select</i> , 2021, 2, 1-15.	1.9	48
90	Nanoarchitectonic atomic switch networks for unconventional computing. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 1102B2.	0.8	47

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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.	1.3	46
92	Nanocharacterization in Dentistry. <i>International Journal of Molecular Sciences</i> , 2010, 11, 2523-2545.	1.8	46
93	Morphological Transitions from Dendrites to Nanowires in the Electroless Deposition of Silver. <i>Crystal Growth and Design</i> , 2013, 13, 465-469.	1.4	46
94	Memristive operations demonstrated by gap-type atomic switches. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 102, 811-815.	1.1	43
95	Spoken Digit Classification by In-Materio Reservoir Computing With Neuromorphic Atomic Switch Networks. <i>Frontiers in Nanotechnology</i> , 2021, 3, .	2.4	43
96	Isochromat spectroscopy of photons emitted from metal surfaces in an STM. <i>Annalen Der Physik</i> , 1993, 505, 133-140.	0.9	42
97	In Situ Mechanical Interferometry of Matrigel Films. <i>Langmuir</i> , 2009, 25, 36-39.	1.6	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.	5.2	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.	0.6	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.	6.6	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.	0.8	36
102	Molecular Cooperativity of Drebrin1-300 Binding and Structural Remodeling of F-Actin. <i>Biophysical Journal</i> , 2012, 103, 275-283.	0.2	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.	0.8	35
104	Two dimensional electrophysiological characterization of human pluripotent stem cell-derived cardiomyocyte system. <i>Scientific Reports</i> , 2017, 7, 43210.	1.6	35
105	Observation of nanoscale dynamics in cantilever sensor arrays. <i>Nanotechnology</i> , 2006, 17, 3873-3879.	1.3	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.	0.8	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.	1.3	31

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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.	1.6	31
110	Impact of isolation methods on the biophysical heterogeneity of single extracellular vesicles. <i>Scientific Reports</i> , 2020, 10, 13327.	1.6	30
111	Enhanced photon emission from the STM: a general property of metal surfaces. <i>Ultramicroscopy</i> , 1992, 42-44, 355-359.	0.8	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.	5.8	27
116	Atomic switch networks as complex adaptive systems. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03ED02.	0.8	27
117	Evaluation of bacteria-induced enamel demineralization using optical profilometry. <i>Dental Materials</i> , 2009, 25, 1517-1526.	1.6	26
118	Phenotypic characterization of the foldase homologue PrsA in <i>Streptococcus mutans</i> . <i>Molecular Oral Microbiology</i> , 2013, 28, 154-165.	1.3	26
119	Multistate resistive switching in silver nanoparticle films. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 045004.	2.8	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.	0.7	25
121	Scanning tunneling microscopy of surface microstructure on rough surfaces. <i>IBM Journal of Research and Development</i> , 1986, 30, 472-477.	3.2	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.	0.9	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, .	3.3	22
125	Nanodiamond and nanoplatinum liquid, DPV576, activates human monocyte-derived dendritic cells in vitro. <i>Anticancer Research</i> , 2010, 30, 4075-9.	0.5	21
126	Scanning tunneling microscopy of nanocrystalline silicon surfaces. <i>Surface Science</i> , 1986, 168, 795-800.	0.8	20



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127	Self-organized atomic switch networks. Japanese Journal of Applied Physics, 2014, 53, 01AA02.	0.8	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.	0.8	19
130	Photon-emission scanning tunneling microscopy of silver films in ultrahigh vacuum: A spectroscopic method. Physical Review B, 1993, 48, 15250-15255.	1.1	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.	1.1	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.	1.1	19
133	Tunneling characteristics at atomic resolution on close-packed metal surfaces. Ultramicroscopy, 1992, 42-44, 528-532.	0.8	18
134	Single molecule transcription profiling with AFM. Nanotechnology, 2007, 18, 044032.	1.3	17
135	Synaptic electronics. Nanotechnology, 2013, 24, 380201-380201.	1.3	17
136	Cancer cell mechanobiology: a new frontier for cancer research. Journal of the National Cancer Center, 2022, 2, 10-17.	3.0	17
137	Nonequilibrium lateral force and torque by thermally excited nonreciprocal surface electromagnetic waves. Physical Review B, 2021, 104, .	1.1	17
138	Dynamic mechanical oscillations during metamorphosis of the monarch butterfly. Journal of the Royal Society Interface, 2009, 6, 29-37.	1.5	16
139	Thermodynamic Self-Assembly of Two-Dimensional $\pi$ -Conjugated Metal-Organic Frameworks by On-Site 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.	0.9	16
141	A comparative study of coldly- and warmly-condensed Ag films by scanning tunneling microscopy. Surface Science, 1985, 162, 961-964.	0.8	15
142	Theoretical aspects and experimental results of STM studies in polar liquids. Journal of Physics Condensed Matter, 1991, 3, S121-S126.	0.7	15
143	Templating a face-centered cubic (110) termination of C60. Surface Science, 1996, 367, L79-L84.	0.8	15
144	Localized Nanoscopic Surface Measurements of Nickel-Modified Mica for Single-Molecule DNA Sequence Sampling. ACS Applied Materials & Interfaces, 2010, 2, 3249-3256.	4.0	15

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145	Nano-hole induction by nanodiamond and nanoplatinum liquid, DPV576, reverses multidrug resistance in human myeloid leukemia (HL60/AR). <i>International Journal of Nanomedicine</i> , 2013, 8, 2567.	3.3	15
146	A comparative assessment of antiproliferative properties of resveratrol and ethanol leaf extract of <i>Anogeissus leiocarpus</i> (DC) Guill and Perr against HepG2 hepatocarcinoma cells. <i>BMC Complementary and Alternative Medicine</i> , 2017, 17, 381.	3.7	15
147	Interferometric profiling of microcantilevers in liquid. <i>Optics and Lasers in Engineering</i> , 2009, 47, 217-222.	2.0	14
148	Image Analysis and Length Estimation of Biomolecules Using AFM. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2012, 16, 1200-1207.	3.6	14
149	Boron and doped boron first wall coatings by plasma CVD. <i>Journal of Nuclear Materials</i> , 1981, 103, 257-260.	1.3	13
150	Thin film interference in the optomechanical response of micromechanical silicon cantilevers. <i>Applied Physics Letters</i> , 2006, 89, 241916.	1.5	13
151	A flexible, highly stable electrochemical scanning probe microscope for nanoscale studies at the solid-liquid interface. <i>Review of Scientific Instruments</i> , 2008, 79, 103701.	0.6	13
152	Aligned carbon nanotube, graphene and graphite oxide thin films via substrate-directed rapid interfacial deposition. <i>Nanoscale</i> , 2012, 4, 3075.	2.8	13
153	Positional selectivity of reversible azomethine condensation reactions at solid/liquid interfaces leading to supramolecule formation. <i>Journal of Electroanalytical Chemistry</i> , 2014, 716, 145-149.	1.9	13
154	Nanocytology as a potential biomarker for cancer. <i>Biomarkers in Medicine</i> , 2017, 11, 213-216.	0.6	13
155	Atomic force microscopy correlates antimetastatic potentials of HepG2 cell line with its redox/energy status: effects of curcumin and <i>Khaya senegalensis</i> . <i>Journal of Integrative Medicine</i> , 2017, 15, 214-230.	1.4	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. <i>Scientific Reports</i> , 2019, 9, 9282.	1.6	12
159	Bias-dependent STM images of oxygen-induced structures on Ti(0001) facets. <i>Surface Science</i> , 1994, 310, 85-88.	0.8	11
160	Mechanical Interferometry of Nanoscale Motion and Local Mechanical Properties of Living Zebrafish Embryos. <i>ACS Nano</i> , 2009, 3, 2090-2094.	7.3	11
161	Identifying individual DNA species in a complex mixture by precisely measuring the spacing between nicking restriction enzymes with atomic force microscope. <i>Journal of the Royal Society Interface</i> , 2012, 9, 2341-2350.	1.5	11
162	Postannealing of coldly condensed Ag films: Influence of pyridine preadsorption. <i>Physical Review B</i> , 1985, 32, 4252-4253.	1.1	10

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163	Scanning probe microscopy of polymeric methyltrioxorhenium. <i>Advanced Materials</i> , 1996, 8, 654-657.	11.1	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.	4.0	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.	0.9	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.	1.8	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.	1.3	9
168	Extraatomic relaxation in HCl, ClF, and Cl <sub>2</sub> from x-ray photoelectron spectroscopy. <i>Journal of Chemical Physics</i> , 1983, 78, 5437-5442.	1.2	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.	3.2	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.	1.6	9
172	High-Speed Atomic Force Microscopy Revealing Contamination in DNA Purification Systems. <i>Analytical Chemistry</i> , 2016, 88, 2527-2532.	3.2	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.	0.7	9
174	Inhibition of TRPV1 Channel Activity in Human CD4+ T Cells by Nanodiamond and Nanoplatinum Liquid, DPV576. <i>Nanomaterials</i> , 2018, 8, 770.	1.9	9
175	Nanoscale Extracellular Vesicles Carry the Mechanobiology Signatures of Breast Cancer Cells. <i>ACS Applied Nano Materials</i> , 2021, 4, 9876-9885.	2.4	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.	3.1	8
179	Investigations of the surface of the amorphous alloy Fe <sub>80</sub> B <sub>20</sub> by STM, XPS and AES. <i>Journal of Non-Crystalline Solids</i> , 1990, 116, 253-261.	1.5	8
180	Low-temperature scanning tunneling microscopy. <i>Physica B: Condensed Matter</i> , 1994, 197, 64-71.	1.3	8

#	ARTICLE	IF	CITATIONS
181	NANO: An Exhibition of Scale and Senses. Leonardo, 2005, 38, 310-311.	0.2	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.	1.8	7
185	Electrostatic force microscopy as a broadly applicable method for characterizing pyroelectric materials. Nanotechnology, 2012, 23, 235701.	1.3	7
186	Correlative nanoscale imaging of actin filaments and their complexes. Nanoscale, 2013, 5, 5692.	2.8	7
187	Biophysical and morphological effects of nanodiamond/nanoplatinum solution (DPV576) on metastatic murine breast cancer cells in vitro. Nanotechnology, 2014, 25, 465101.	1.3	7
188	Benchtop 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.	0.5	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.	0.6	7
192	Extended-x-ray-absorption fine-structure amplitude attenuation in Br <sub>2</sub> : Relationship to satellites in the x-ray photoelectron spectrum. Physical Review A, 1979, 20, 2405-2410.	1.0	6
193	A scanning tunneling microscopy investigation of 4,4-dimethylbianthrone molecules adsorbed on Cu(111). Surface Science, 1997, 383, 37-49.	0.8	6
194	Nanomechanical properties of piezoresistive cantilevers: Theory and experiment. Journal of Applied Physics, 2008, 104, 103527.	1.1	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.	1.6	5
196	Observations of image contrast and dimerization of decacyclene by low temperature scanning tunneling microscopy. Journal of Chemical Physics, 2007, 127, 174703.	1.2	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.	2.2	4
198	Mitigation of aflatoxin B <sub>1</sub> 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, .	0.7	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.	1.2	3
201	Scrape-off measurements during Alfvén wave heating in the TCA tokamak. Journal of Nuclear Materials, 1984, 121, 22-28.	1.3	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.	1.0	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.	1.0	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.	0.8	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.	1.1	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.	3.1	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.	1.3	1
214	Blue morph. , 2010, , .		1
215	Biomimetics: Controlling the Synaptic Plasticity of a Cu <sub>2</sub> S Gap-Type Atomic Switch (Adv. Funct. Mater.) Tj ETQq1 1,0,784314,rgBT /Ore	1.0	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.	3.3	1
220	Cardio PyMEA: A user-friendly, open-source Python application for cardiomyocyte microelectrode array analysis. PLoS ONE, 2022, 17, e0266647.	1.1	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 rgBT /Oyerlock 10	11.1	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