Ernst Meyer

List of Publications by Year
in descending order

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431 papers	22,975 citations	11608 70 h-index	11288 136 g-index
440 all docs	440 docs citations	440 times ranked	13250 citing authors

#	Article	IF	Citations
1	Translating Biomolecular Recognition into Nanomechanics. Science, 2000, 288, 316-318.	6.0	1,630
2	Multiple label-free biodetection and quantitative DNA-binding assays on a nanomechanical cantilever array. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9783-9788.	3.3	582
3	Velocity Dependence of Atomic Friction. Physical Review Letters, 2000, 84, 1172-1175.	2.9	577
4	Friction measurements on phase-separated thin films with a modified atomic force microscope. Nature, 1992, 359, 133-135.	13.7	534
5	Surface Stress in the Self-Assembly of Alkanethiols on Gold. Science, 1997, 276, 2021-2024.	6.0	501
6	Transition from Stick-Slip to Continuous Sliding in Atomic Friction: Entering a New Regime of Ultralow Friction. Physical Review Letters, 2004, 92, 134301.	2.9	501
7	Observation of a chemical reaction using a micromechanical sensor. Chemical Physics Letters, 1994, 217, 589-594.	1.2	464
8	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.	4.0	414
9	Atomically controlled substitutional boron-doping of graphene nanoribbons. Nature Communications, 2015, 6, 8098.	5.8	400
10	Structural superlubricity and ultralow friction across the length scales. Nature, 2018, 563, 485-492.	13.7	382
11	Label-free protein assay based on a nanomechanical cantilever array. Nanotechnology, 2003, 14, 86-90.	1.3	365
12	A cantilever array-based artificial nose. Ultramicroscopy, 2000, 82, 1-9.	0.8	335
13	Observation of magnetic forces by the atomic force microscope. Journal of Applied Physics, 1987, 62, 4293-4295.	1.1	334
14	Interaction Potential and Hopping Dynamics Governing Sliding Friction. Physical Review Letters, 2003, 91, 084502.	2.9	322
15	Atomic-Scale Control of Friction by Actuation of Nanometer-Sized Contacts. Science, 2006, 313, 207-210.	6.0	308
16	Superlubricity of graphene nanoribbons on gold surfaces. Science, 2016, 351, 957-961.	6.0	302
17	An artificial nose based on a micromechanical cantilever array. Analytica Chimica Acta, 1999, 393, 59-65.	2.6	283
18	Probing atomic structure and Majorana wavefunctions in mono-atomic Fe chains on superconducting Pb surface. Npj Quantum Information, 2016, 2, .	2.8	283

#	Article	IF	Citations
19	Friction and wear of Langmuir-Blodgett films observed by friction force microscopy. Physical Review Letters, 1992, 69, 1777-1780.	2.9	265
20	Force Microscopy Study of Friction and Elastic Compliance of Phase-Separated Organic Thin Films. Langmuir, 1994, 10, 1281-1286.	1.6	262
21	Molecular-resolution images of Langmuirâ€“Blodgett films using atomic force microscopy. Nature, 1991, 349, 398-400.	13.7	225
22	Atomic force microscopy. Progress in Surface Science, 1992, 41, 3-49.	3.8	220
23	Separation of interactions by noncontact force microscopy. Physical Review B, 2000, 61, 11151-11155.	1.1	214
24	Atomically resolved edges and kinks of NaCl islands on Cu(111): Experiment and theory. Physical Review B, 2000, 62, 2074-2084.	1.1	213
25	A chemical sensor based on a micromechanical cantilever array for the identification of gases and vapors. Applied Physics A: Materials Science and Processing, 1998, 66, S61-S64.	1.1	206
26	Sled-Type Motion on the Nanometer Scale: Determination of Dissipation and Cohesive Energies of C60. Science, 1994, 266, 1979-1981.	6.0	188
27	Friction force microscopy of mixed Langmuir-Blodgett films. Thin Solid Films, 1992, 220, 132-137.	0.8	187
28	Direct Determination of the Energy Required to Operate a Single Molecule Switch. Physical Review Letters, 2003, 90, 066107.	2.9	179
29	Friction experiments on the nanometre scale. Journal of Physics Condensed Matter, 2001, 13, R619-R642.	0.7	175
30	Multifunctional probe microscope for facile operation in ultrahigh vacuum. Applied Physics Letters, 1993, 63, 117-119.	1.5	172
31	Kelvin Probe Force Microscopy on Surfaces:Â Investigation of the Surface Potential of Self-Assembled Monolayers on Gold. Langmuir, 1999, 15, 8184-8188.	1.6	168
32	Surface and domain structures of ferroelectric crystals studied with scanning force microscopy. Journal of Applied Physics, 1993, 74, 7461-7471.	1.1	162
33	Thermal analysis using a micromechanical calorimeter. Applied Physics Letters, 1996, 69, 40-42.	1.5	162
34	Sequential position readout from arrays of micromechanical cantilever sensors. Applied Physics Letters, 1998, 72, 383-385.	1.5	154
35	Multiple heteroatom substitution to graphene nanoribbon. Science Advances, 2018, 4, eaar7181.	4.7	151
36	Tribological Investigations Using Friction Force Microscopy. MRS Bulletin, 1993, 18, 26-34.	1.7	145

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37	Temperature dependence of the force sensitivity of silicon cantilevers. Physical Review B, 2004, 69, .	1.1	144
38	Suppression of electronic friction on Nb films in the superconducting state. Nature Materials, 2011, 10, 119-122.	13.3	137
39	Abrasive Wear on the Atomic Scale. Physical Review Letters, 2002, 88, 215501.	2.9	120
40	Dynamic force microscopy of copper surfaces: Atomic resolution and distance dependence of tip-sample interaction and tunneling current. Physical Review B, 2000, 62, 16944-16949.	1.1	119
41	Extended Halogen Bonding between Fully Fluorinated Aromatic Molecules. ACS Nano, 2015, 9, 2574-2583.	7.3	119
42	Micromechanical thermogravimetry. Chemical Physics Letters, 1998, 294, 363-369.	1.2	116
43	Fluctuations and jump dynamics in atomic friction experiments. Physical Review B, 2005, 72, .	1.1	115
44	Atomic-scale stick-slip processes on Cu(111). Physical Review B, 1999, 60, R11301-R11304.	1.1	113
45	Systematic Achievement of Improved Atomic-Scale Contrast via Bimodal Dynamic Force Microscopy. Physical Review Letters, 2009, 103, 220801.	2.9	113
46	Experimental aspects of dissipation force microscopy. Physical Review B, 2000, 62, 13674-13679.	1.1	112
47	Nanomechanics from atomic resolution to molecular recognition based on atomic force microscopy technology. Nanotechnology, 2002, 13, R29-R36.	1.3	112
48	Van der Waals interactions and the limits of isolated atom models at interfaces. Nature Communications, 2016, 7, 11559.	5.8	111
49	Mechanism of Atomic Friction. Europhysics Letters, 1995, 31, 269-274.	0.7	110
50	Stress at the Solidâ^'Liquid Interface of Self-Assembled Monolayers on Gold Investigated with a Nanomechanical Sensor. Langmuir, 2000, 16, 9694-9696.	1.6	109
51	Ultrathin films of NaCl on Cu(111): a LEED and dynamic force microscopy study. Surface Science, 1999, 438, 289-296.	0.8	108
52	Site-specific friction force spectroscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 1285.	1.6	107
53	Observation of Individual Molecules Trapped on a Nanostructured Insulator. Nano Letters, 2004, 4, 2185-2189.	4.5	99
54	Bottom-up Synthesis of Nitrogen-Doped Porous Graphene Nanoribbons. Journal of the American Chemical Society, 2020, 142, 12568-12573.	6.6	97

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55	Nanotribology: an UHV-SFM study on thin films of C60 and AgBr. Surface Science, 1995, 338, 247-260.	0.8	88
56	Dynamic SFM with true atomic resolution on alkali halide surfaces. Applied Physics A: Materials Science and Processing, 1998, 66, S293-S294.	1.1	88
57	Comparative study of lithium fluoride and graphite by atomic force microscopy (AFM). Journal of Microscopy, 1988, 152, 269-280.	0.8	87
58	Atomic resolution in dynamic force microscopy across steps on Si(1 1 1)7Ã—7. Zeitschrift FÃ¼r Physik B-Condensed Matter, 1996, 100, 165-167.	1.1	85
59	Application of atomic force microscopy to magnetic materials. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 279-282.	0.9	84
60	Lateral-force measurements in dynamic force microscopy. Physical Review B, 2002, 65, .	1.1	82
61	Cu-TBPP and PTCDA molecules on insulating surfaces studied by ultra-high-vacuum non-contact AFM. Nanotechnology, 2004, 15, S91-S96.	1.3	82
62	Atomic-force microscopy on the Si(111)7Ã—7 surface. Physical Review B, 1995, 51, 5484-5487.	1.1	81
63	Direct quantitative measurement of the Câ•Oâ‹…â‹…â‹…Hâ€“C bond by atomic force microscopy. Science Advances, 2017, 3, e1603258.	4.7	80
64	Ultrasensitive detection of lateral atomic-scale interactions on graphite (0001) via bimodal dynamic force measurements. Physical Review B, 2010, 81, .	1.1	79
65	Nanoscale Engineering of Molecular Porphyrin Wires on Insulating Surfaces. Small, 2008, 4, 1115-1118.	5.2	78
66	Surface stress in the self-assembly of alkanethiols on gold probed .by a force microscopy technique. Applied Physics A: Materials Science and Processing, 1998, 66, S55-S59.	1.1	76
67	Atomic-Scale Mechanical Properties of Orientated C₆₀ Molecules Revealed by Noncontact Atomic Force Microscopy. ACS Nano, 2011, 5, 6349-6354.	7.3	74
68	Water interaction with hydrogenated and oxidized detonation nanodiamonds â€" Microscopic and spectroscopic analyses. Diamond and Related Materials, 2016, 63, 97-102.	1.8	74
69	Atomic resolution on LiF (001) by atomic force microscopy. European Physical Journal B, 1990, 79, 3-4.	0.6	72
70	Thermal control of sequential on-surface transformation of a hydrocarbon molecule on a copper surface. Nature Communications, 2016, 7, 12711.	5.8	71
71	Scanning Probe Microscopy of Thin Films. MRS Bulletin, 1993, 18, 41-49.	1.7	70
72	Fast digital electronics for application in dynamic force microscopy using high-Q cantilevers. Applied Physics A: Materials Science and Processing, 1998, 66, S215-S218.	1.1	70

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73	Atomic-resolution images of radiation damage in KBr. Surface Science, 2001, 474, L197-L202.	0.8	70
74	The role of the cantilever in Kelvin probe force microscopy measurements. Beilstein Journal of Nanotechnology, 2011, 2, 252-260.	1.5	69
75	Ferroelectric domain characterisation and manipulation : A challenge for scanning probe microscopy. Ferroelectrics, 1999, 222, 153-162.	0.3	68
76	Surface science at the PEARL beamline of the Swiss Light Source. Journal of Synchrotron Radiation, 2017, 24, 354-366.	1.0	66
77	Surface chemistry of rare-earth oxide surfaces at ambient conditions: reactions with water and hydrocarbons. Scientific Reports, 2017, 7, 43369.	1.6	66
78	Friction on the atomic scale: An ultrahigh vacuum atomic force microscopy study on ionic crystals. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 1280.	1.6	65
79	Two-dimensional simulation of superlubricity on NaCl and highly oriented pyrolytic graphite. Physical Review B, 2009, 79, .	1.1	65
80	Atomic force microscopy for the study of tribology and adhesion. Thin Solid Films, 1989, 181, 527-544.	0.8	64
81	Competing Annulene and Radialene Structures in a Single Anti-Aromatic Molecule Studied by High-Resolution Atomic Force Microscopy. ACS Nano, 2017, 11, 8122-8130.	7.3	64
82	Manipulation of Gold Nanoparticles:â€‰ Influence of Surface Chemistry, Temperature, and Environment (Vacuum versus Ambient Atmosphere). Langmuir, 2008, 24, 1577-1581.	1.6	62
83	A Twoâ€Dimensional Polymer Synthesized at the Air/Water Interface. Angewandte Chemie - International Edition, 2018, 57, 10584-10588.	7.2	61
84	Statics and dynamics of ferroelectric domains studied with scanning force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 2451.	1.6	59
85	Multiscale approach for simulations of Kelvin probe force microscopy with atomic resolution. Physical Review B, 2012, 86, .	1.1	59
86	Quantifying the atomic-level mechanics of single long physisorbed molecular chains. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3968-3972.	3.3	59
87	Phase variation experiments in non-contact dynamic force microscopy using phase locked loop techniques. Applied Surface Science, 1999, 140, 287-292.	3.1	58
88	Characterization of nanoparticles using Atomic Force Microscopy. Journal of Physics: Conference Series, 2007, 61, 971-976.	0.3	58
89	Chladni Figures Revisited Based on Nanomechanics. Physical Review Letters, 2007, 98, 026102.	2.9	58
90	Functionalized Truxenes: Adsorption and Diffusion of Single Molecules on the KBr(001) Surface. ACS Nano, 2010, 4, 3429-3439.	7.3	58

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91	Three-dimensional graphene nanoribbons as a framework for molecular assembly and local probe chemistry. Science Advances, 2020, 6, eaay8913.	4.7	58
92	Dynamics of damped cantilevers. Review of Scientific Instruments, 2000, 71, 2772-2775.	0.6	57
93	Atomic friction studies on well-defined surfaces. Tribology Letters, 2001, 10, 51-56.	1.2	56
94	Obtaining Detailed Structural Information about Supramolecular Systems on Surfaces by Combining High-Resolution Force Microscopy with ab Initio Calculations. ACS Nano, 2013, 7, 9098-9105.	7.3	56
95	Quantum Dots Embedded in Graphene Nanoribbons by Chemical Substitution. Nano Letters, 2017, 17, 50-56.	4.5	56
96	An atomic force microscopy study of corona-treated polypropylene films. Applied Surface Science, 1993, 64, 197-203.	3.1	55
97	Precise engineering of quantum dot array coupling through their barrier widths. Nature Communications, 2017, 8, 787.	5.8	55
98	Ultrahigh-vacuum scanning force microscopy: Atomic-scale resolution at monatomic cleavage steps. Physical Review B, 1994, 49, 5651-5656.	1.1	54
99	Attractive-mode imaging of biological materials with dynamic force microscopy. Nanotechnology, 1994, 5, 87-94.	1.3	54
100	The noise of cantilevers. Nanotechnology, 2000, 11, 169-172.	1.3	54
101	10â€nm resolution by magnetic force microscopy on FeNdB. Journal of Applied Physics, 1990, 67, 1437-1441.	1.1	53
102	Influence of humidity on friction measurements of supported MoS2 single layers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 1264.	1.6	53
103	ULTRAHIGH VACUUM ATOMIC FORCE MICROSCOPY: TRUE ATOMIC RESOLUTION. Surface Review and Letters, 1997, 04, 1025-1029.	0.5	53
104	Ubiquitous Mechanisms of Energy Dissipation in Noncontact Atomic Force Microscopy. Physical Review Letters, 2008, 100, 236106.	2.9	53
105	Valence band behaviour of zirconium oxide, Photoelectron and Auger spectroscopy study. Scientific Reports, 2018, 8, 16251.	1.6	53
106	Giant frictional dissipation peaks and charge-density-wave slips at the NbSe2 surface. Nature Materials, 2014, 13, 173-177.	13.3	52
107	Organometallic Bonding in an Ullmann-Type On-Surface Chemical Reaction Studied by High-Resolution Atomic Force Microscopy. Small, 2016, 12, 5303-5311.	5.2	52
108	Aspects of dynamic force microscopy on NaCl/Cu(111): resolution, tip-sample interactions and cantilever oscillation characteristics. , 1999, 27, 462-466.		51

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109	Can aluminium or magnesium be a surrogate for beryllium: A critical investigation of their chemistry. Fusion Engineering and Design, 2013, 88, 1718-1721.	1.0	51
110	Elasticity, wear, and friction properties of thin organic films observed with atomic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1973.	1.6	50
111	Friction and wear on the atomic scale. Wear, 2003, 254, 859-862.	1.5	50
112	Dynamic force microscopy across steps on the Si(111)-(7Ã—7) surface. Surface Science, 2000, 461, 255-265.	0.8	49
113	Ripple formation induced in localized abrasion. Physical Review B, 2003, 68, .	1.1	49
114	Atomic-Scale Friction on Stepped Surfaces of Ionic Crystals. Physical Review Letters, 2011, 106, 186104.	2.9	49
115	Kelvin probe force microscopy of nanocrystalline TiO₂ photoelectrodes. Beilstein Journal of Nanotechnology, 2013, 4, 418-428.	1.5	49
116	Atom manipulation on an insulating surface at room temperature. Nature Communications, 2014, 5, 4403.	5.8	49
117	Atomic resolution on the surface of LiF(100) by atomic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 1329.	1.6	48
118	Molecular dynamics simulations of dynamic force microscopy: applications to the Si(111)-7Ã—7 surface. Applied Surface Science, 2000, 157, 355-360.	3.1	48
119	Wear, friction and sliding speed correlations on Langmuir-Blodgett films observed by atomic force microscopy. Thin Solid Films, 1994, 240, 105-109.	0.8	47
120	Atomic-scale friction modulated by a buried interface: Combined atomic and friction force microscopy experiments. Physical Review B, 2008, 78, .	1.1	47
121	A comparative atomic force microscopic study of liquid crystal films: transferred freely-suspended vs. Langmuir-Blodgett. Morphology, lattice, and manipulation. Langmuir, 1993, 9, 341-346.	1.6	45
122	Frictional and atomic-scale study of C60 thin films by scanning force microscopy. European Physical Journal B, 1994, 95, 1-3.	0.6	44
123	Directed Rotations of Single Porphyrin Molecules Controlled by Localized Force Spectroscopy. ACS Nano, 2012, 6, 6318-6324.	7.3	44
124	Design and Characterization of an Electrically Powered Single Molecule on Gold. ACS Nano, 2017, 11, 9930-9940.	7.3	44
125	Majorana fermions in magnetic chains. Progress in Particle and Nuclear Physics, 2019, 107, 1-19.	5.6	44
126	Atomic contact potential variations of Si(111)-7 Ã— 7 analyzed by Kelvin probe force microscopy. Nanotechnology, 2010, 21, 245704.	1.3	43

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127	Interaction-induced atomic displacements revealed by drift-corrected dynamic force spectroscopy. Physical Review B, 2011, 83, .	1.1	42
128	Towards plasma cleaning of ITER first mirrors. Nuclear Fusion, 2015, 55, 063020.	1.6	41
129	Diacetylene Linked Anthracene Oligomers Synthesized by One-Shot Homocoupling of Trimethylsilyl on Cu(111). ACS Nano, 2018, 12, 8791-8797.	7.3	41
130	Progress in noncontact dynamic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1673.	1.6	40
131	Noncontact atomic force microscopy simulator with phase-locked-loop controlled frequency detection and excitation. Physical Review B, 2006, 74, .	1.1	40
132	Atomic-scale dissipation processes in dynamic force spectroscopy. Physical Review B, 2011, 84, .	1.1	40
133	Single-Molecule Tribology: Force Microscopy Manipulation of a Porphyrin Derivative on a Copper Surface. ACS Nano, 2016, 10, 713-722.	7.3	40
134	Molecular assemblies grown between metallic contacts on insulating surfaces. Applied Physics Letters, 2009, 94, 063303.	1.5	39
135	Determination of effective tip geometries in Kelvin probe force microscopy on thin insulating films on metals. Nanotechnology, 2009, 20, 264016.	1.3	39
136	Using higher flexural modes in non-contact force microscopy. Applied Surface Science, 2000, 157, 337-342.	3.1	38
137	Multiple Slips in Atomic-Scale Friction: An Indicator for the Lateral Contact Damping. Tribology Letters, 2010, 39, 63-69.	1.2	38
138	Different Response of Atomic Force Microscopy and Scanning Tunnelling Microscopy to Charge Density Waves. Europhysics Letters, 1989, 9, 695-700.	0.7	37
139	Surface morphology, chemical contrast, and ferroelectric domains in TGS bulk single crystals differentiated with UHV non-contact force microscopy. Applied Surface Science, 1999, 140, 253-258.	3.1	37
140	Morphological Changes of Tungsten Surfaces by Low-Flux Helium Plasma Treatment and Helium Incorporation via Magnetron Sputtering. ACS Applied Materials & Interfaces, 2014, 6, 11609-11616.	4.0	37
141	Carbon nanotubes as tips in non-contact SFM. Applied Surface Science, 2000, 157, 269-273.	3.1	36
142	Probing the spatial and momentum distribution of confined surface states in a metal coordination network. Chemical Communications, 2014, 50, 12289-12292.	2.2	36
143	Plasma cleaning of ITER First Mirrors in magnetic field. Journal of Nuclear Materials, 2015, 463, 940-943.	1.3	36
144	Self-assembling of Zn porphyrins on a (110) face of rutile TiO2â€“The anchoring role of carboxyl groups. Applied Surface Science, 2016, 379, 277-281.	3.1	36

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145	Biological materials studied with dynamic force microscopy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1500.	1.6	35
146	The effect of low temperature deuterium plasma on molybdenum reflectivity. Nuclear Fusion, 2011, 51, 103025.	1.6	35
147	Elastic Response of Graphene Nanodomes. ACS Nano, 2013, 7, 2927-2934.	7.3	35
148	Atomic force microscopy: General aspects and application to insulators. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 275-278.	0.9	34
149	Scanning force microscopy on the Si(111)7i¿½7 surface reconstruction. European Physical Journal B, 1994, 93, 267-268.	0.6	34
150	Quantitative determination of atomic buckling of silicene by atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 228-237.	3.3	34
151	High resolution magnetic force microscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 406-410.	0.9	33
152	Atomic-scale contrast mechanism in atomic force microscopy. European Physical Journal B, 1992, 88, 321-326.	0.6	33
153	The analytical relations between particles and probe trajectories in atomic force microscope nanomanipulation. Nanotechnology, 2009, 20, 115706.	1.3	33
154	Atomic corrugation in nc-AFM of alkali halides. Applied Surface Science, 2002, 188, 232-237.	3.1	32
155	Cleaning of first mirrors in ITER by means of radio frequency discharges. Review of Scientific Instruments, 2016, 87, 11D439.	0.6	32
156	Atomic Resolution on the AgBr(001) Surface by Atomic Force Microscopy. Europhysics Letters, 1991, 15, 319-323.	0.7	31
157	Friction force microscopy on clean surfaces of NaCl, NaF, and AgBr. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 2227.	1.6	31
158	Plasma-assisted catalytic formation of ammonia in N₂â€“H₂plasma on a tungsten surface. Physical Chemistry Chemical Physics, 2019, 21, 16623-16633.	1.3	31
159	Operando Formation of Van der Waals Heterostructures for Achieving Macroscale Superlubricity on Engineering Rough and Worn Surfaces. Advanced Functional Materials, 2022, 32, .	7.8	31
160	Tribology of ultra-thin MoS2 platelets on mica: studies by scanning force microscopy. Thin Solid Films, 1994, 240, 101-104.	0.8	30
161	Dynamic superlubricity on insulating and conductive surfaces in ultra-high vacuum and ambient environment. Nanotechnology, 2009, 20, 025501.	1.3	30
162	Pure hydrogen low-temperature plasma exposure of HOPG and graphene: Graphane formation?. Beilstein Journal of Nanotechnology, 2012, 3, 852-859.	1.5	30

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163	Combined SIMS-SPM instrument for high sensitivity and high-resolution elemental 3D analysis. Surface and Interface Analysis, 2013, 45, 513-516.	0.8	30
164	Interplay of weak interactions in the atom-by-atom condensation of xenon within quantum boxes. Nature Communications, 2015, 6, 6071.	5.8	30
165	Donorâ€“Acceptor Properties of a Single-Molecule Altered by On-Surface Complex Formation. ACS Nano, 2017, 11, 8413-8420.	7.3	30
166	Conformations and cryo-force spectroscopy of spray-deposited single-strand DNA on gold. Nature Communications, 2019, 10, 685.	5.8	30
167	Comparison of dynamic lever STM and noncontact AFM. Applied Physics A: Materials Science and Processing, 1998, 66, S245-S248.	1.1	29
168	Surface potential studies of self-assembling monolayers using Kelvin probe force microscopy. , 1999, 27, 368-373.		29
169	Frenkel defect interactions at surfaces of irradiated alkali halides studied by non-contact atomic-force microscopy. Surface Science, 2001, 482-485, 903-909.	0.8	29
170	High-resolution imaging of C₆₀molecules using tuning-fork-based non-contact atomic force microscopy. Journal of Physics Condensed Matter, 2012, 24, 084005.	0.7	29
171	Lateral vibration effects in atomic-scale friction. Applied Physics Letters, 2014, 104, .	1.5	29
172	Plasma cleaning of ITER first mirrors. Physica Scripta, 2017, T170, 014047.	1.2	29
173	Cleavage faces of alkaline earth fluorides studied by atomic force microscopy. Surface Science, 1992, 277, L29-L33.	0.8	28
174	Angular dependence of static and kinetic friction on alkali halide surfaces. Physical Review B, 2010, 82, .	1.1	28
175	Friction force microscopy studies on SiO2supported pristine and hydrogenated graphene. Applied Physics Letters, 2014, 104, 041910.	1.5	28
176	Superlubricity on the nanometer scale. Friction, 2014, 2, 106-113.	3.4	28
177	Characterization of individual molecular adsorption geometries by atomic force microscopy: Cu-TCPP on rutile TiO2 (110). Journal of Chemical Physics, 2015, 143, 094202.	1.2	28
178	Molecular surface structure of tetracene mapped by the atomic force microscope. Journal of Chemical Physics, 1991, 94, 8441-8443.	1.2	27
179	Recent highlights in nanoscale and mesoscale friction. Beilstein Journal of Nanotechnology, 2018, 9, 1995-2014.	1.5	27
180	Scanning Force Microscopy (SFM). Springer Series in Surface Sciences, 1992, , 99-149.	0.3	27

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181	Structure and dynamics of solid surfaces observed by atomic force microscopy. Ultramicroscopy, 1992, 42-44, 274-280.	0.8	26
182	Three-dimensional dynamic force spectroscopy measurements on KBr(001): atomic deformations at small tipâ€“sample separations. Nanotechnology, 2012, 23, 055401.	1.3	26
183	Onâ€Surface Synthesis of Nitrogenâ€Doped Kagome Graphene. Angewandte Chemie - International Edition, 2021, 60, 8370-8375.	7.2	26
184	Switchable cantilever for a time-of-flight scanning force microscope. Applied Physics Letters, 2004, 84, 1558-1560.	1.5	25
185	Design and performance of a combined secondary ion mass spectrometry-scanning probe microscopy instrument for high sensitivity and high-resolution elemental three-dimensional analysis. Review of Scientific Instruments, 2012, 83, 063702.	0.6	25
186	Superlubricity of dry nanocontacts. Journal of Physics Condensed Matter, 2008, 20, 354004.	0.7	24
187	Novel Probes for Molecular Electronics. Science, 2009, 324, 1397-1398.	6.0	24
188	Atomic Friction Investigations on Ordered Superstructures. Tribology Letters, 2010, 39, 321-327.	1.2	24
189	Three dimensional imaging using secondary ion mass spectrometry and atomic force microscopy. Applied Surface Science, 2011, 258, 1322-1327.	3.1	24
190	Orientation dependent molecular friction on organic layer compound crystals. Applied Physics Letters, 2011, 98, 083119.	1.5	24
191	Interplay of the tipâ€“sample junction stability and image contrast reversal on a Cu(111) surface revealed by the 3D force field. Nanotechnology, 2012, 23, 045705.	1.3	24
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