Takayuki Uchihashi

List of Publications by Year
in descending order

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247 papers	8,541 citations	50276 46 h-index	56724 83 g-index
263 all docs	263 docs citations	263 times ranked	6932 citing authors

#	Article	IF	Citations
1	Traffic Jams Reduce Hydrolytic Efficiency of Cellulase on Cellulose Surface. Science, 2011, 333, 1279-1282.	12.6	501
2	High-speed atomic force microscopy for nano-visualization of dynamic biomolecular processes. Progress in Surface Science, 2008, 83, 337-437.	8.3	493
3	High-Speed Atomic Force Microscopy Reveals Rotary Catalysis of Rotorless F ₁ -ATPase. Science, 2011, 333, 755-758.	12.6	420
4	Filming Biomolecular Processes by High-Speed Atomic Force Microscopy. Chemical Reviews, 2014, 114, 3120-3188.	47.7	320
5	High-speed atomic force microscopy shows dynamic molecular processes in photoactivated bacteriorhodopsin. Nature Nanotechnology, 2010, 5, 208-212.	31.5	292
6	Guide to video recording of structure dynamics and dynamic processes of proteins by high-speed atomic force microscopy. Nature Protocols, 2012, 7, 1193-1206.	12.0	246
7	High-Speed AFM and Applications to Biomolecular Systems. Annual Review of Biophysics, 2013, 42, 393-414.	10.0	241
8	High-speed AFM and nano-visualization of biomolecular processes. Pflugers Archiv European Journal of Physiology, 2008, 456, 211-225.	2.8	224
9	Real-space and real-time dynamics of CRISPR-Cas9 visualized by high-speed atomic force microscopy. Nature Communications, 2017, 8, 1430.	12.8	184
10	Local Solvation Shell Measurement in Water Using a Carbon Nanotube Probe. Journal of Physical Chemistry B, 2000, 104, 6091-6094.	2.6	157
11	Quantitative force measurements using frequency modulation atomic force microscopy?theoretical foundations. Nanotechnology, 2005, 16, S94-S101.	2.6	137
12	Role of a covalent bonding interaction in noncontact-mode atomic-force microscopy on Si(111)7Ã—7. Physical Review B, 1997, 56, 9834-9840.	3.2	136
13	A natural light-driven inward proton pump. Nature Communications, 2016, 7, 13415.	12.8	124
14	Single-Molecule Imaging on Living Bacterial Cell Surface by High-Speed AFM. Journal of Molecular Biology, 2012, 422, 300-309.	4.2	114
15	Inner lumen proteins stabilize doublet microtubules in cilia and flagella. Nature Communications, 2019, 10, 1143.	12.8	110
16	High-speed Atomic Force Microscopy for Capturing Dynamic Behavior of Protein Molecules at Work. E-Journal of Surface Science and Nanotechnology, 2005, 3, 384-392.	0.4	98
17	Visualization of Intrinsically Disordered Regions of Proteins by Highâ€Speed Atomic Force Microscopy. ChemPhysChem, 2008, 9, 1859-1866.	2.1	95
18	Dynamics of bacteriorhodopsin 2D crystal observed by high-speed atomic force microscopy. Journal of Structural Biology, 2009, 167, 153-158.	2.8	93

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19	The atomic resolution imaging of metallic Ag(111) surface by noncontact atomic force microscope. Applied Surface Science, 1999, 140, 243-246.	6.1	91
20	Wide-area scanner for high-speed atomic force microscopy. Review of Scientific Instruments, 2013, 84, 053702.	1.3	90
21	Long-tip high-speed atomic force microscopy for nanometer-scale imaging in live cells. Scientific Reports, 2015, 5, 8724.	3.3	89
22	Two-way traffic of glycoside hydrolase family 18 processive chitinases on crystalline chitin. Nature Communications, 2014, 5, 3975.	12.8	82
23	Trade-off between Processivity and Hydrolytic Velocity of Cellobiohydrolases at the Surface of Crystalline Cellulose. Journal of the American Chemical Society, 2014, 136, 4584-4592.	13.7	77
24	Oligomeric states of microbial rhodopsins determined by high-speed atomic force microscopy and circular dichroic spectroscopy. Scientific Reports, 2018, 8, 8262.	3.3	76
25	Highâ€speed atomic force microscopy for observing dynamic biomolecular processes. Journal of Molecular Recognition, 2007, 20, 448-458.	2.1	74
26	High-Speed Atomic Force Microscopy for Studying the Dynamic Behavior of Protein Molecules at Work. Japanese Journal of Applied Physics, 2006, 45, 1897-1903.	1.5	72
27	Crystal structure of heliorhodopsin. Nature, 2019, 574, 132-136.	27.8	71
28	True atomic resolution imaging of surface structure and surface charge on the GaAs(110). Applied Surface Science, 1999, 140, 371-375.	6.1	70
29	High-resolution imaging of organic monolayers using noncontact AFM. Applied Surface Science, 2000, 157, 244-250.	6.1	70
30	Inorganic Polyphosphate: a Possible Stimulant of Bone Formation. Journal of Dental Research, 2007, 86, 893-897.	5.2	69
31	High-Speed Atomic Force Microscopy Techniques for Observing Dynamic Biomolecular Processes. Methods in Enzymology, 2010, 475, 541-564.	1.0	66
32	Tip-sample distance control using photothermal actuation of a small cantilever for high-speed atomic force microscopy. Review of Scientific Instruments, 2007, 78, 083702.	1.3	65
33	High resonance frequency force microscope scanner using inertia balance support. Applied Physics Letters, 2008, 92, 243119.	3.3	65
34	High-speed atomic force microscope combined with single-molecule fluorescence microscope. Review of Scientific Instruments, 2013, 84, 073706.	1.3	65
35	Schizorhodopsins: A family of rhodopsins from Asgard archaea that function as light-driven inward H ⁺ pumps. Science Advances, 2020, 6, eaaz2441.	10.3	65
36	Quantitative measurement of solvation shells using frequency modulated atomic force microscopy. Nanotechnology, 2005, 16, S49-S53.	2.6	64

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37	Real-Time Visualization of Assembling of a Sphingomyelin-Specific Toxin on Planar Lipid Membranes. Biophysical Journal, 2013, 105, 1397-1405.	0.5	64
38	Functional extension of high-speed AFM for wider biological applications. Ultramicroscopy, 2016, 160, 182-196.	1.9	62
39	Distance dependence of noncontact-AFM image contrast on Si(111)Ã—â€“Ag structure. Applied Surface Science, 1999, 140, 298-303.	6.1	57
40	Thermoresponsive Micellar Assembly Constructed from a Hexameric Hemoprotein Modified with Poly(N-isopropylacrylamide) toward an Artificial Light-Harvesting System. Journal of the American Chemical Society, 2020, 142, 1822-1831.	13.7	57
41	Carbon-Nanotube Tip for Highly-Reproducible Imaging of Deoxyribonucleic Acid Helical Turns by Noncontact Atomic Force Microscopy. Japanese Journal of Applied Physics, 2000, 39, L887-L889.	1.5	55
42	Visualization and structural analysis of the bacterial magnetic organelle magnetosome using atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9382-9387.	7.1	55
43	Dynamic structural states of ClpB involved in its disaggregation function. Nature Communications, 2018, 9, 2147.	12.8	55
44	Structural Changes in Bacteriorhodopsin in Response to Alternate Illumination Observed by Highâ€Speed Atomic Force Microscopy. Angewandte Chemie - International Edition, 2011, 50, 4410-4413.	13.8	54
45	Anisotropic diffusion of point defects in a two-dimensional crystal of streptavidin observed by high-speed atomic force microscopy. Nanotechnology, 2008, 19, 384009.	2.6	53
46	Self-assembled monolayer of adenine base on graphite studied by noncontact atomic force microscopy. Physical Review B, 1999, 60, 8309-8313.	3.2	52
47	Single-molecule Imaging Analysis of Elementary Reaction Steps of Trichoderma reesei Cellobiohydrolase I (Cel7A) Hydrolyzing Crystalline Cellulose Iα and Iβ. Journal of Biological Chemistry, 2014, 289, 14056-14065.	3.4	50
48	Insight into structural remodeling of the FlhA ring responsible for bacterial flagellar type III protein export. Science Advances, 2018, 4, eaao7054.	10.3	50
49	An Assessment of the Ability of Submicron- and Micron-Size Silicone Oil Droplets in Dropped Prefillable Syringes to Invoke Early- and Late-Stage Immune Responses. Journal of Pharmaceutical Sciences, 2019, 108, 2278-2287.	3.3	47
50	High-Speed Atomic Force Microscopy Reveals Loss of Nuclear Pore Resilience as a Dying Code in Colorectal Cancer Cells. ACS Nano, 2017, 11, 5567-5578.	14.6	46
51	Fast phase imaging in liquids using a rapid scan atomic force microscope. Applied Physics Letters, 2006, 89, 213112.	3.3	45
52	Role of trimerâ€“trimer interaction of bacteriorhodopsin studied by optical spectroscopy and high-speed atomic force microscopy. Journal of Structural Biology, 2013, 184, 2-11.	2.8	45
53	Applications of high-speed atomic force microscopy to real-time visualization of dynamic biomolecular processes. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 229-240.	2.4	45
54	Quantitative force measurements in liquid using frequency modulation atomic force microscopy. Applied Physics Letters, 2004, 85, 3575-3577.	3.3	44

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55	Na ⁺ -induced structural transition of MotPS for stator assembly of the Bacillus flagellar motor. Science Advances, 2017, 3, eaao4119.	10.3	44
56	Atomic Force Microscopy of RecAâ€“DNA Complexes Using a Carbon Nanotube Tip. Biochemical and Biophysical Research Communications, 2001, 281, 390-395.	2.1	43
57	Revealing circadian mechanisms of integration and resilience by visualizing clock proteins working in real time. Nature Communications, 2018, 9, 3245.	12.8	43
58	True atomic resolution imaging with noncontact atomic force microscopy. Applied Surface Science, 1997, 113-114, 364-370.	6.1	42
59	Fast Adsorption of Soft Hydrogel Microspheres on Solid Surfaces in Aqueous Solution. Angewandte Chemie - International Edition, 2017, 56, 12146-12149.	13.8	40
60	Direct observation of surfactant aggregate behavior on a mica surface using high-speed atomic force microscopy. Chemical Communications, 2011, 47, 4974.	4.1	39
61	Frequency modulation atomic force microscopy: a dynamic measurement technique for biological systems. Nanotechnology, 2005, 16, S85-S89.	2.6	38
62	Direct Observation and Manipulation of Supramolecular Polymerization by Highâ€Speed Atomic Force Microscopy. Angewandte Chemie - International Edition, 2018, 57, 15465-15470.	13.8	38
63	Dynamic clustering of dynamin-amphiphysin helices regulates membrane constriction and fission coupled with GTP hydrolysis. ELife, 2018, 7, .	6.0	38
64	Desiccation-induced fibrous condensation of CAHS protein from an anhydrobiotic tardigrade. Scientific Reports, 2021, 11, 21328.	3.3	38
65	Visualisation of a flexible modular structure of the ER folding-sensor enzyme UGGT. Scientific Reports, 2017, 7, 12142.	3.3	36
66	Structural basis of nucleosome assembly by the Abo1 AAA+ÂATPase histone chaperone. Nature Communications, 2019, 10, 5764.	12.8	36
67	Dynamics of oligomer and amyloid fibril formation by yeast prion Sup35 observed by high-speed atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7831-7836.	7.1	36
68	Atomic Force Microscopy of Single-Walled Carbon Nanotubes Using Carbon Nanotube Tip. Japanese Journal of Applied Physics, 2000, 39, 3707-3710.	1.5	35
69	STM and atomic-resolution noncontact AFM of an oxygen-deficientTiO2(110)surface. Physical Review B, 2000, 61, 13955-13959.	3.2	35
70	The Fab portion of immunoglobulin G contributes to its binding to FcÎ³ receptor III. Scientific Reports, 2019, 9, 11957.	3.3	35
71	Development of ultrahigh vacuum-atomic force microscopy with frequency modulation detection and its application to electrostatic force measurement. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1543.	1.6	34
72	Feed-Forward Compensation for High-Speed Atomic Force Microscopy Imaging of Biomolecules. Japanese Journal of Applied Physics, 2006, 45, 1904-1908.	1.5	33

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73	Nonâ€Thermoresponsive Decananoâ€sized Domains in Thermoresponsive Hydrogel Microspheres Revealed by Temperatureâ€Controlled Highâ€Speed Atomic Force Microscopy. Angewandte Chemie - International Edition, 2019, 58, 8809-8813.	13.8	33
74	Frequency modulation detection atomic force microscopy in the liquid environment. Applied Physics A: Materials Science and Processing, 2001, 72, S129-S132.	2.3	32
75	High-speed atomic force microscopy imaging of live mammalian cells. Biophysics and Physicobiology, 2017, 14, 127-135.	1.0	32
76	Convergent evolution of processivity in bacterial and fungal cellulases. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19896-19903.	7.1	31
77	Potential Prepore Trimer Formation by the Bacillus thuringiensis Mosquito-specific Toxin. Journal of Biological Chemistry, 2015, 290, 20793-20803.	3.4	30
78	Sweeping of Adsorbed Therapeutic Protein on Prefillable Syringes Promotes Micron Aggregate Generation. Journal of Pharmaceutical Sciences, 2018, 107, 1521-1529.	3.3	30
79	Supramolecular Hemoprotein Assembly with a Periodic Structure Showing Hemeâ€“Heme Exciton Coupling. Journal of the American Chemical Society, 2018, 140, 10145-10148.	13.7	30
80	Structural insights into the mechanism of rhodopsin phosphodiesterase. Nature Communications, 2020, 11, 5605.	12.8	30
81	Probing Structural Dynamics of an Artificial Protein Cage Using High-Speed Atomic Force Microscopy. Nano Letters, 2015, 15, 1331-1335.	9.1	29
82	Reproducible and Controllable Contact Electrification on a Thin Insulator. Japanese Journal of Applied Physics, 1993, 32, L1701-L1703.	1.5	28
83	Imaging of chemical reactivity and buckled dimers on Si(100)2Ã—1 reconstructed surface with noncontact AFM. Applied Surface Science, 1999, 140, 304-308.	6.1	28
84	Correlation of frequency shift discontinuity to atomic positions on a Si(111)7 Ã— 7 surface by noncontact atomic force microscopy. Nanotechnology, 2000, 11, 120-123.	2.6	28
85	Identification of B-Form DNA in an Ultrahigh Vacuum by Noncontact-Mode Atomic Force Microscopy. Langmuir, 2000, 16, 1349-1353.	3.5	28
86	Monitoring Thermoresponsive Morphological Changes in Individual Hydrogel Microspheres. ACS Omega, 2018, 3, 10836-10842.	3.5	28
87	Microtubule self-healing and defect creation investigated by in-line force measurements during high-speed atomic force microscopy imaging. Nanoscale, 2019, 11, 125-135.	5.6	27
88	Conservative and dissipative force imaging of switchable rotaxanes with frequency-modulation atomic force microscopy. Physical Review B, 2005, 72, .	3.2	26
89	Interdomain flip-flop motion visualized in flavocytochrome cellobiose dehydrogenase using high-speed atomic force microscopy during catalysis. Chemical Science, 2017, 8, 6561-6565.	7.4	26
90	Recent advances in bioimaging with high-speed atomic force microscopy. Biophysical Reviews, 2020, 12, 363-369.	3.2	26

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91	Carbon Nanotube Tip for Scanning Tunneling Microscope. Japanese Journal of Applied Physics, 2001, 40, 4328-4330.	1.5	25
92	High-speed near-field fluorescence microscopy combined with high-speed atomic force microscopy for biological studies. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129325.	2.4	25
93	Visualization of Cellobiohydrolase I from Trichoderma reesei Moving on Crystalline Cellulose Using High-Speed Atomic Force Microscopy. Methods in Enzymology, 2012, 510, 169-182.	1.0	24
94	Oriented Reconstitution of the Full-Length KcsA Potassium Channel in a Lipid Bilayer for AFM Imaging. Journal of Physical Chemistry Letters, 2017, 8, 785-793.	4.6	24
95	Rate constants, processivity, and productive binding ratio of chitinase A revealed by single-molecule analysis. Physical Chemistry Chemical Physics, 2018, 20, 3010-3018.	2.8	24
96	Rad50 zinc hook functions as a constitutive dimerization module interchangeable with SMC hinge. Nature Communications, 2020, 11, 370.	12.8	24
97	Optical beam deflection noncontact atomic force microscope optimized with three-dimensional beam adjustment mechanism. Review of Scientific Instruments, 2000, 71, 128-132.	1.3	23
98	High-Resolution Imaging of a Single Gliding Protofilament of Tubulins by HS-AFM. Scientific Reports, 2017, 7, 6166.	3.3	22
99	Structural Dynamics of a Protein Domain Relevant to the Water-Oxidizing Complex in Photosystem II as Visualized by High-Speed Atomic Force Microscopy. Journal of Physical Chemistry B, 2020, 124, 5847-5857.	2.6	22
100	High-Speed Atomic Force Microscopy. Japanese Journal of Applied Physics, 2012, 51, 08KA02.	1.5	20
101	Tunneling electron induced luminescence from monolayered Cu-TBP porphyrin molecules adsorbed on Cu(100). Thin Solid Films, 2003, 438-439, 262-267.	1.8	19
102	High-speed AFM reveals accelerated binding of agitoxin-2 to a K ⁺ channel by induced fit. Science Advances, 2019, 5, eaax0495.	10.3	19
103	Hydrogel Microellipsoids that Form Robust Stringâ€Like Assemblies at the Air/Water Interface. Angewandte Chemie - International Edition, 2019, 58, 7294-7298.	13.8	19
104	Electric-dipole layer on Au(111) surfaces. Applied Physics A: Materials Science and Processing, 2001, 72, S181-S184.	2.3	18
105	Stable-Unstable Phase Transition of Densely Contract-Electrified Electrons on Thin Silicon Oxide. Japanese Journal of Applied Physics, 1993, 32, L1852-L1854.	1.5	17
106	Spatial Distribution and Its Phase Transition of Densely Contact-Electrified Electrons on a Thin Silicon Oxide. Japanese Journal of Applied Physics, 1994, 33, L70-L73.	1.5	17
107	Single-Unit Imaging of Membrane Protein-Embedded Nanodiscs from Two Oriented Sides by High-Speed Atomic Force Microscopy. Structure, 2019, 27, 152-160.e3.	3.3	17
108	Nanostructures, Thermoresponsiveness, and Assembly Mechanism of Hydrogel Microspheres during Aqueous Free-Radical Precipitation Polymerization. Langmuir, 2021, 37, 151-159.	3.5	17

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109	Heat Treatment and Steaming Effects of Silicon Oxide upon Electron Dissipation on Silicon Oxide Surface. Japanese Journal of Applied Physics, 1994, 33, L1128-L1130.	1.5	16
110	Time Dependent Dielectric Breakdown of Thin Silicon Oxide Using Dense Contact Electrification. Japanese Journal of Applied Physics, 1994, 33, 3756-3760.	1.5	16
111	Non-contact AFM images measured on Si(111)âˆš3Ã—âˆš3-Ag and Ag(111) surfaces. Surface and Interface Analysis, 1999, 27, 456-461.	1.8	16
112	Involvement of nuclear factor I transcription/replication factor in the early stage of chondrocytic differentiation. Bone, 2007, 41, 1025-1035.	2.9	16
113	Assembly Mechanism of a Supramolecular MS-Ring Complex To Initiate Bacterial Flagellar Biogenesis in Vibrio Species. Journal of Bacteriology, 2020, 202, .	2.2	16
114	High-Speed Atomic Force Microscopy. Japanese Journal of Applied Physics, 2012, 51, 08KA02.	1.5	15
115	Translating MOF chemistry into supramolecular chemistry: soluble coordination nanofibers showing efficient photon upconversion. Chemical Communications, 2018, 54, 6828-6831.	4.1	15
116	Novel Babesia bovis exported proteins that modify properties of infected red blood cells. PLoS Pathogens, 2020, 16, e1008917.	4.7	15
117	High-Speed Atomic Force Microscopy and Biomolecular Processes. Methods in Molecular Biology, 2011, 736, 285-300.	0.9	15
118	Contact Electrification on Thin $f SrTiO_{3}$ Film by Atomic Force Microscope. Japanese Journal of Applied Physics, 1994, 33, L374-L376.	1.5	14
119	Two-step process for disassembly mechanism of proteasome Î±7 homo-tetradecamer by Î±6 revealed by high-speed atomic force microscopy. Scientific Reports, 2017, 7, 15373.	3.3	14
120	Dynamics of Inter-Molecular Interactions Between Single AÎ²42 Oligomeric and Aggregate Species by High-Speed Atomic Force Microscopy. Journal of Molecular Biology, 2019, 431, 2687-2699.	4.2	14
121	Single-molecule level dynamic observation of disassembly of the apo-ferritin cage in solution. Physical Chemistry Chemical Physics, 2020, 22, 18562-18572.	2.8	14
122	Optimum Substrates for Imaging Biological Molecules with High-Speed Atomic Force Microscopy. Methods in Molecular Biology, 2018, 1814, 159-179.	0.9	14
123	Dissipation of Contact Electrified Electrons on Dielectric Thin films with Silicon Substrate. Japanese Journal of Applied Physics, 1994, 33, L959-L961.	1.5	13
124	Dissipation of contact-electrified charge on thin Si-oxide studied by atomic force microscopy. Applied Surface Science, 1994, 75, 151-156.	6.1	13
125	Direct Observation and Manipulation of Supramolecular Polymerization by Highâ€Speed Atomic Force Microscopy. Angewandte Chemie, 2018, 130, 15691-15696.	2.0	13
126	A ring-shaped hemoprotein trimer thermodynamically controlled by the supramolecular hemeâ€“heme pocket interaction. Chemical Communications, 2019, 55, 1544-1547.	4.1	13

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127	Metastable asymmetrical structure of a shaftless V ₁ motor. Science Advances, 2019, 5, eaau8149.	10.3	13
128	On-Membrane Dynamic Interplay between Anti-GM1 IgG Antibodies and Complement Component C1q. International Journal of Molecular Sciences, 2020, 21, 147.	4.1	13
129	Single-molecule imaging analysis reveals the mechanism of a high-catalytic-activity mutant of chitinase A from Serratia marcescens. Journal of Biological Chemistry, 2020, 295, 1915-1925.	3.4	12
130	Deformation of microtubules regulates translocation dynamics of kinesin. Science Advances, 2021, 7, eabf2211.	10.3	12
131	Contact Electrification on Thin Silicon Oxide in Vacuum. Japanese Journal of Applied Physics, 1994, 33, L1046-L1048.	1.5	11
132	Phase Transition of Contact-Electrified Negative Charges on a Thin Silicon Oxide in Air. Japanese Journal of Applied Physics, 1996, 35, 2394-2401.	1.5	11
133	Quantum-dot antibody conjugation visualized at the single-molecule scale with high-speed atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2018, 167, 267-274.	5.0	11
134	Negatively Charged Lipids Are Essential for Functional and Structural Switch of Human 2-Cys Peroxiredoxin II. Journal of Molecular Biology, 2018, 430, 602-610.	4.2	11
135	Structural properties determining low K+ affinity of the selectivity filter in the TWIK1 K+ channel. Journal of Biological Chemistry, 2018, 293, 6969-6984.	3.4	11
136	Protein uptake into individual hydrogel microspheres visualized by high-speed atomic force microscopy. Chemical Communications, 2019, 55, 10064-10067.	4.1	11
137	Spatial Distributions of Densely Contact-Electrified Charges on a Thin Silicon Oxide. Japanese Journal of Applied Physics, 1994, 33, L74-L77.	1.5	10
138	Atomic-scale structures on a non-stoichiometric TiO2(110) surface studied by noncontact AFM. Applied Surface Science, 2000, 157, 212-217.	6.1	10
139	Involvement of phosphoinositide 3-kinase signaling pathway in chondrocytic differentiation of ATDC5 cells: Application of a gene-trap mutagenesis. Journal of Cellular Biochemistry, 2004, 93, 418-426.	2.6	10
140	Tardigrade Secretory-Abundant Heat-Soluble Protein Has a Flexible Î²-Barrel Structure in Solution and Keeps This Structure in Dehydration. Journal of Physical Chemistry B, 2021, 125, 9145-9154.	2.6	10
141	Reconstruction of Three-Dimensional Conformations of Bacterial ClpB from High-Speed Atomic-Force-Microscopy Images. Frontiers in Molecular Biosciences, 2021, 8, 704274.	3.5	10
142	Atomic force microscopy studies of contact-electrified charges on silicon oxide film. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 1627.	1.6	9
143	Proximity effects of negative charge groups contact-electrified on thin silicon oxide in air. Journal of Applied Physics, 1996, 79, 4174.	2.5	9
144	Stability of Densely Contact-Electrified Charges on Thin Silicon Oxide in Air. Japanese Journal of Applied Physics, 1996, 35, 5811-5814.	1.5	9

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145	Detection mechanism of an optical evanescent field using a noncontact mode atomic force microscope with a frequency modulation detection method. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1997, 15, 1512.	1.6	9
146	Method of mechanical holding of cantilever chip for tip-scan high-speed atomic force microscope. Review of Scientific Instruments, 2015, 86, 063703.	1.3	9
147	Microscale Contact Charging on a Silicon Oxide. , 2005, , 289-308.		9
148	Charge Storage on ThinSrTiO3Film by Contact Electrification. Japanese Journal of Applied Physics, 1994, 33, 5573-5576.	1.5	8
149	Measurement of the evanescent field using noncontact mode atomic force microscope. Optical Review, 1997, 4, 232-235.	2.0	8
150	X-ray absorption measurement by scanning capacitance microscopy. Physica B: Condensed Matter, 2003, 340-342, 1142-1146.	2.7	8
151	Real-Time Dynamic Adsorption Processes of Cytochrome c on an Electrode Observed through Electrochemical High-Speed Atomic Force Microscopy. PLoS ONE, 2015, 10, e0116685.	2.5	8
152	Fast Adsorption of Soft Hydrogel Microspheres on Solid Surfaces in Aqueous Solution. Angewandte Chemie, 2017, 129, 12314-12317.	2.0	8
153	Construction of a Triangleâ€Shaped Trimer and a Tetrahedron Using an Î±â€Helixâ€Inserted Circular Permutant of Cytochrome c₅₅₅. Chemistry - an Asian Journal, 2018, 13, 964-967.	3.3	8
154	Supramolecular tholos-like architecture constituted by archaeal proteins without functional annotation. Scientific Reports, 2020, 10, 1540.	3.3	8
155	Protein Needles Designed to Selfâ€Assemble through Needle Tip Engineering. Small, 2022, 18, e2106401.	10.0	8
156	Time Evolution of Contact-Electrified Electron Dissipation on Silicon Oxide Surface Investigated Using Noncontact Atomic Force Microscope. Japanese Journal of Applied Physics, 1994, 33, 379-382.	1.5	7
157	True Atomic Resolution Imaging on Semiconductor Surfaces with Noncontact Atomic Force Microscopy. Materials Research Society Symposia Proceedings, 1996, 442, 15.	0.1	7
158	Acute inflammation in horizontal incompletely impacted third molar with radiolucency in the elderly. Clinical Interventions in Aging, 2009, 4, 337.	2.9	7
159	Construction of a Quadrangular Tetramer and a Cage-Like Hexamer from Three-Helix Bundle-Linked Fusion Proteins. ACS Synthetic Biology, 2019, 8, 1112-1120.	3.8	7
160	Construction of a Hexameric Hemoprotein Sheet and Direct Observation of Dynamic Processes of Its Formation. Chemistry Letters, 2020, 49, 186-190.	1.3	7
161	Thermoresponsive structural changes of single poly(N-isopropyl acrylamide) hydrogel microspheres under densely packed conditions on a solid substrate. Polymer Journal, 2020, 52, 1137-1141.	2.7	7
162	Potentiometry Combined with Atomic Force Microscope. Japanese Journal of Applied Physics, 1994, 33, L1562-L1564.	1.5	6

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163	Parameter Dependence of Stable State of Densely Contact-Electrified Electrons on Thin Silicon Oxide. Japanese Journal of Applied Physics, 1994, 33, 6739-6745.	1.5	6
164	Charge Dissipation on Chemically Treated Thin Silicon Oxide in Air. Japanese Journal of Applied Physics, 1997, 36, 3755-3758.	1.5	6
165	Mutational and Combinatorial Control of Self-Assembling and Disassembling of Human Proteasome Î± Subunits. International Journal of Molecular Sciences, 2019, 20, 2308.	4.1	6
166	Dynamic behavior of an artificial protein needle contacting a membrane observed by high-speed atomic force microscopy. Nanoscale, 2020, 12, 8166-8173.	5.6	6
167	Direct visualization of the conformational change of FUS/TLS upon binding to promoter-associated non-coding RNA. Chemical Communications, 2020, 56, 9134-9137.	4.1	6
168	Structures of an Oxygen-Deficient TiO2(110) Surface Studied by Noncontact Atomic Force Microscopy. Japanese Journal of Applied Physics, 2000, 39, 3765-3768.	1.5	5
169	Back-channel-type scanning charge pumping method for characterization of interface traps in silicon-on-insulator wafer. Applied Physics Letters, 2001, 79, 1825-1827.	3.3	5
170	Conversion of functionally undefined homopentameric protein PbaA into a proteasome activator by mutational modification of its C-terminal segment conformation. Protein Engineering, Design and Selection, 2018, 31, 29-36.	2.1	5
171	Dynamic Assembly/Disassembly of Staphylococcus aureus FtsZ Visualized by High-Speed Atomic Force Microscopy. International Journal of Molecular Sciences, 2021, 22, 1697.	4.1	5
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