Quantifying the forces guiding microbial cell adhesion u
spectroscopy

Nature Protocols

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Citation Report

#	Article	IF	Citations
1	Atomic Force Microscopy in Microbiology: New Structural and Functional Insights into the Microbial Cell Surface. MBio, 2014, 5, e01363-14.	1.8	123
2	Isolation of Viable Type I and II Methanotrophs Using Cell-Imprinted Polyurethane Thin Films. ACS Applied Materials & Interfaces, 2014, 6, 20550-20556.	4.0	8
3	Nanoscale Adhesion Forces of <i>Pseudomonas aeruginosa</i> Type IV Pili. ACS Nano, 2014, 8, 10723-10733.	7.3	141
4	Implications for directionality of nanoscale forces in bacterial attachment. Biophysics Reports, 2015, 1, 120-126.	0.2	4
5	Nanomechanics of Cells and Biomaterials Studied by Atomic Force Microscopy. Advanced Healthcare Materials, 2015, 4, 2456-2474.	3.9	38
6	A Review of Cell Adhesion Studies for Biomedical and Biological Applications. International Journal of Molecular Sciences, 2015, 16, 18149-18184.	1.8	663
7	A detailed guideline for the fabrication of single bacterial probes used for atomic force spectroscopy. European Physical Journal E, 2015, 38, 140.	0.7	27
8	Generation of living cell arrays for atomic force microscopy studies. Nature Protocols, 2015, 10, 199-204.	5.5	55
9	Binding Forces of <i>Streptococcus mutans</i> P1 Adhesin. ACS Nano, 2015, 9, 1448-1460.	7.3	60
10	Force Nanoscopy of Hydrophobic Interactions in the Fungal Pathogen <i>Candida glabrata</i>. ACS Nano, 2015, 9, 1648-1655.	7.3	48
11	Bacterial adhesion force quantification by fluidic force microscopy. Nanoscale, 2015, 7, 4070-4079.	2.8	72
12	Sticky microbes: forces in microbial cell adhesion. Trends in Microbiology, 2015, 23, 376-382.	3.5	149
13	Inference of cellâ€“cell interactions from population density characteristics and cell trajectories on static and growing domains. Mathematical Biosciences, 2015, 264, 108-118.	0.9	15
14	Recent advances in micromechanical characterization of polymer, biomaterial, and cell surfaces with atomic force microscopy. Japanese Journal of Applied Physics, 2015, 54, 08LA02.	0.8	41
15	<i>Staphylococcus epidermidis</i> Affinity for Fibrinogen-Coated Surfaces Correlates with the Abundance of the SdrG Adhesin on the Cell Surface. Langmuir, 2015, 31, 4713-4721.	1.6	31
16	Quantifying bacterial adhesion on antifouling polymer brushes <i>via</i> single-cell force spectroscopy. Polymer Chemistry, 2015, 6, 5740-5751.	1.9	70
17	Atomic Force Microscopy Tools to Characterize the Physicochemical and Mechanical Properties of Pathogens. NATO Science for Peace and Security Series A: Chemistry and Biology, 2015, , 1-15.	0.5	0
18	Stochastic binding of Staphylococcus aureus to hydrophobic surfaces. Soft Matter, 2015, 11, 8913-8919.	1.2	35

#	Article	IF	Citations
19	Staphylococcus aureus Fibronectin-Binding Protein A Mediates Cell-Cell Adhesion through Low-Affinity Homophilic Bonds. MBio, 2015, 6, e00413-15.	1.8	103
20	Understanding forces in biofilms. Nanomedicine, 2015, 10, 1219-1221.	1.7	5
21	Forces in yeast flocculation. Nanoscale, 2015, 7, 1760-1767.	2.8	37
22	Probing the nanoadhesion of Streptococcus sanguinis to titanium implant surfaces by atomic force microscopy. International Journal of Nanomedicine, 2016, 11, 1443.	3.3	6
23	A Microfluidic Device for Hydrodynamic Trapping and Manipulation Platform of a Single Biological Cell. Applied Sciences (Switzerland), 2016, 6, 40.	1.3	15
24	Atomic Force Microscopy of Biofilmsâ€"Imaging, Interactions, and Mechanics. , 2016, , .		11
25	Use of Atomic Force Microscopy to Study the Multi-Modular Interaction of Bacterial Adhesins to Mucins. International Journal of Molecular Sciences, 2016, 17, 1854.	1.8	39
26	Atomic force microscopy reveals a dual collagenâ€binding activity for the staphylococcal surface protein <scp>SdrF</scp>. Molecular Microbiology, 2016, 99, 611-621.	1.2	21
27	Bacterial Surfaces: Front Lines in Hostâ€"Pathogen Interaction. Advances in Experimental Medicine and Biology, 2016, 915, 129-156.	0.8	12
28	Vaginal epithelial cells regulate membrane adhesiveness to co-ordinate bacterial adhesion. Cellular Microbiology, 2016, 18, 605-614.	1.1	7
29	Biophysics of Infection. Advances in Experimental Medicine and Biology, 2016, , .	0.8	3
30	Forces between Staphylococcus aureus and human skin. Nanoscale Horizons, 2016, 1, 298-303.	4.1	28
31	Mechanics of Bacterial Cells and Initial Surface Colonisation. Advances in Experimental Medicine and Biology, 2016, 915, 245-260.	0.8	14
32	Lactobacilli require physical contact to reduce staphylococcal TSST-1 secretion and vaginal epithelial inflammatory response. Pathogens and Disease, 2016, 74, ftw029.	0.8	8
33	Colonization of Polystyrene Microparticles by <i>Vibrio crassostreae</i>: Light and Electron Microscopic Investigation. Environmental Science & Technology, 2016, 50, 10988-10996.	4.6	104
34	Rupture Forces among Human Blood Platelets at different Degrees of Activation. Scientific Reports, 2016, 6, 25402.	1.6	45
35	Measuring protein isoelectric points by AFM-based force spectroscopy using trace amounts of sample. Nature Nanotechnology, 2016, 11, 817-823.	15.6	89
36	Mechanical Strength and Inhibition of the Staphylococcus aureus Collagen-Binding Protein Cna. MBio, 2016, 7, .	1.8	65

#	Article	IF	Citations
37	Force Nanoscopy as a Versatile Platform for Quantifying the Activity of Antiadhesion Compounds Targeting Bacterial Pathogens. Nano Letters, 2016, 16, 1299-1307.	4.5	35
38	Facile Use of Cationic Hydrogel Particles for Surface Modification of Planar Substrates Toward Multifunctional Neural Permissive Surfaces: An in Vitro Investigation. ACS Applied Materials & Interfaces, 2016, 8, 5737-5745.	4.0	11
39	Sticky Matrix: Adhesion Mechanism of the Staphylococcal Polysaccharide Intercellular Adhesin. ACS Nano, 2016, 10, 3443-3452.	7.3	80
40	Nanoscale adhesion forces between the fungal pathogen Candida albicans and macrophages. Nanoscale Horizons, 2016, 1, 69-74.	4.1	31
41	Forces guiding staphylococcal adhesion. Journal of Structural Biology, 2017, 197, 65-69.	1.3	20
42	Bacteria-templated fabrication of a charge heterogeneous polymeric interface for highly specific bacterial recognition. Chemical Communications, 2017, 53, 2319-2322.	2.2	28
43	Single-Cell and Single-Molecule Analysis Unravels the Multifunctionality of the <i>Staphylococcus aureus</i> Collagen-Binding Protein Cna. ACS Nano, 2017, 11, 2160-2170.	7.3	47
44	Microbial Nanoscopy: Breakthroughs, Challenges, and Opportunities. ACS Nano, 2017, 11, 19-22.	7.3	20
45	Photopicking: In Situ Approach for Siteâ€Specific Attachment of Single Multiprotein Nanoparticles to Atomic Force Microscopy Tips. Advanced Functional Materials, 2017, 27, 1604506.	7.8	2
46	Atomic force microscopy studies of bioprocess engineering surfaces â€“ imaging, interactions and mechanical properties mediating bacterial adhesion. Biotechnology Journal, 2017, 12, 1600698.	1.8	34
47	Early Adhesion of <i>Candida albicans</i> onto Dental Acrylic Surfaces. Journal of Dental Research, 2017, 96, 917-923.	2.5	26
48	A novel protocol to prepare cell probes for the quantification of microbial adhesion and biofilm initiation on structured bioinspired surfaces using AFM for singleâ€cell force spectroscopy. Engineering in Life Sciences, 2017, 17, 833-840.	2.0	6
49	Dynamic response of biaxially loaded double-layer viscoelastic orthotropic nanoplate system under a moving nanoparticle. International Journal of Engineering Science, 2017, 115, 51-72.	2.7	60
50	Clumping Factor B Promotes Adherence of Staphylococcus aureus to Corneocytes in Atopic Dermatitis. Infection and Immunity, 2017, 85, .	1.0	79
51	PVDF/TiO2 nanocomposites prepared by solution blow spinning: Surface properties and their relation with S.ÂMutans adhesion. Polymer Testing, 2017, 58, 21-30.	2.3	36
52	Nanoscale imaging and force probing of biomolecular systems using atomic force microscopy: from single molecules to living cells. Nanoscale, 2017, 9, 17643-17666.	2.8	39
53	Single-cell study of the extracellular matrix effect on cell growth by <i>in situ</i> imaging of gene expression. Chemical Science, 2017, 8, 8019-8024.	3.7	19
54	Quantification of cell-substratum interactions by atomic force microscopy. Colloids and Surfaces B: Biointerfaces, 2017, 159, 639-643.	2.5	7

#	Article	IF	Citations
55	Adhesion forces of the sea-water bacterium <i>Paracoccus seriniphilus</i> on titanium: Influence of microstructures and environmental conditions. Biointerphases, 2017, 12, 05G606.	0.6	9
56	Force-Induced Strengthening of the Interaction between <i>Staphylococcus aureus</i> Clumping Factor B and Loricrin. MBio, 2017, 8, .	1.8	67
57	Fibrinogen Activates the Capture of Human Plasminogen by Staphylococcal Fibronectin-Binding Proteins. MBio, 2017, 8, .	1.8	26
58	Singleâ€molecule force spectroscopy applied to heparinâ€induced thrombocytopenia. Journal of Molecular Recognition, 2017, 30, e2585.	1.1	13
59	Critical review on biofilm methods. Critical Reviews in Microbiology, 2017, 43, 313-351.	2.7	693
60	Phenotypic Heterogeneity in Attachment of Marine Bacteria toward Antifouling Copolymers Unraveled by AFM. Frontiers in Microbiology, 2017, 8, 1399.	1.5	18
61	Surface mechanical properties. , 2017, , 255-282.		0
62	Mechanical Forces Guiding <i>Staphylococcus aureus</i> Cellular Invasion. ACS Nano, 2018, 12, 3609-3622.	7.3	56
63	Investigation of adhesive interactions in the specific targeting of Triptorelin-conjugated PEG-coated magnetite nanoparticles to breast cancer cells. Acta Biomaterialia, 2018, 71, 363-378.	4.1	48
64	Layered Structure and Complex Mechanochemistry Underlie Strength and Versatility in a Bacterial Adhesive. MBio, 2018, 9, .	1.8	29
65	Comparison of Versatile Immobilization Methods for Gramâ€Positive Bacteria on a Silicon Cantilever. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700846.	0.8	2
66	Cell biology of microbes and pharmacology of antimicrobial drugs explored by Atomic Force Microscopy. Seminars in Cell and Developmental Biology, 2018, 73, 165-176.	2.3	31
67	The Role of Nanomechanics in Healthcare. Advanced Healthcare Materials, 2018, 7, 1700793.	3.9	13
68	Bacterial Adhesion to Ultrafiltration Membranes: Role of Hydrophilicity, Natural Organic Matter, and Cell-Surface Macromolecules. Environmental Science & Technology, 2018, 52, 162-172.	4.6	57
69	Nanoscale structural mapping as a measure of maturation in the murine frontal cortex. Brain Structure and Function, 2018, 223, 255-265.	1.2	3
70	Genome Sequence of a Staphylococcus epidermidis Strain (GTH12) Associated with Candida albicans SC5314 Cultured under Hypoxia at 37Â°C in Glycerol for 12 Weeks. Genome Announcements, 2018, 6, .	0.8	1
71	Bacterial Sexuality at the Nanoscale. Nano Letters, 2018, 18, 5821-5826.	4.5	11
72	<i>Staphylococcus aureus</i> clumping factor A is a force-sensitive molecular switch that activates bacterial adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5564-5569.	3.3	110

#	Article	IF	Citations
73	Measuring the Adhesion Forces for the Multivalent Binding of Vancomycin-Conjugated Dendrimer to Bacterial Cell-Wall Peptide. Langmuir, 2018, 34, 7135-7146.	1.6	9
74	Adaptability of single melanoma cells to surfaces with distinct hydrophobicity and roughness. Applied Surface Science, 2018, 457, 881-890.	3.1	6
75	Probing Bacterial Adhesion at the Single-Molecule and Single-Cell Levels by AFM-Based Force Spectroscopy. Methods in Molecular Biology, 2018, 1814, 403-414.	0.4	6
76	Screening of cell surface properties of potential probiotic lactobacilli isolated from human milk. Journal of Dairy Research, 2018, 85, 347-354.	0.7	25
77	The Role of Glycans in Bacterial Adhesion to Mucosal Surfaces: How Can Single-Molecule Techniques Advance Our Understanding?. Microorganisms, 2018, 6, 39.	1.6	34
78	Bacterial adhesion at the single-cell level. Nature Reviews Microbiology, 2018, 16, 616-627.	13.6	380
79	The Role of Single-Molecule Force Spectroscopy in Unraveling Typical and Autoimmune Heparin-induced Thrombocytopenia. International Journal of Molecular Sciences, 2018, 19, 1054.	1.8	6
80	Prolonged growth of Candida albicans reveals co-isolated bacteria from single yeast colonies. Infection, Genetics and Evolution, 2018, 65, 117-126.	1.0	7
81	Molecular strategy for blocking isopeptide bond formation in nascent pilin proteins. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9222-9227.	3.3	22
82	Nanowire Arrays as Force Sensors with Superâ€Resolved Localization Position Detection: Application to Optical Measurement of Bacterial Adhesion Forces. Small Methods, 2018, 2, 1700411.	4.6	11
83	Exoelectrogens for Microbial Fuel Cells â˜†. , 2018, , 193-230.		2
84	Differential homotypic and heterotypic interactions of antigen 43 (Ag43) variants in autotransporter-mediated bacterial autoaggregation. Scientific Reports, 2019, 9, 11100.	1.6	16
85	Functionalization of Atomic Force Microscope Cantilevers with Single-T Cells or Single-Particle for Immunological Single-Cell Force Spectroscopy. Journal of Visualized Experiments, 2019, , .	0.2	0
86	A new role for host annexin A2 in establishing bacterial adhesion to vascular endothelial cells: lines of evidence from atomic force microscopy and an in vivo study. Laboratory Investigation, 2019, 99, 1650-1660.	1.7	33
87	Single-molecule atomic force microscopy studies of microbial pathogens. Current Opinion in Biomedical Engineering, 2019, 12, 1-7.	1.8	18
88	Microbial adhesion and ultrastructure from the single-molecule to the single-cell levels by Atomic Force Microscopy. Cell Surface, 2019, 5, 100031.	1.5	21
89	Micropipette force sensors for in vivo force measurements on single cells and multicellular microorganisms. Nature Protocols, 2019, 14, 594-615.	5.5	28
90	Nanoprobe-based force spectroscopy as a versatile platform for probing the mechanical adhesion of bacteria. Nanoscale, 2019, 11, 7648-7655.	2.8	7

#	Article	IF	Citations
91	Staphylococcus aureus adhesion in endovascular infections is controlled by the ArlRSâ€"MgrA signaling cascade. PLoS Pathogens, 2019, 15, e1007800.	2.1	41
92	Host-specialized fibrinogen-binding by a bacterial surface protein promotes biofilm formation and innate immune evasion. PLoS Pathogens, 2019, 15, e1007816.	2.1	34
93	Atomic Force Microscopy Demonstrates that Candida glabrata Uses Three Epa Proteins To Mediate Adhesion to Abiotic Surfaces. MSphere, 2019, 4, .	1.3	20
94	A modular atomic force microscopy approach reveals a large range of hydrophobic adhesion forces among bacterial members of the leaf microbiota. ISME Journal, 2019, 13, 1878-1882.	4.4	32
95	Bacterial-nanostructure interactions: The role of cell elasticity and adhesion forces. Journal of Colloid and Interface Science, 2019, 546, 192-210.	5.0	120
96	Quantification of Adhesion Force of Bacteria on the Surface of Biomaterials: Techniques and Assays. ACS Biomaterials Science and Engineering, 2019, 5, 2093-2110.	2.6	41
97	<i>In vivo</i>adhesion force measurements of<i>Chlamydomonas</i>on model substrates. Soft Matter, 2019, 15, 3027-3035.	1.2	19
98	Nanoscale antiadhesion properties of sophorolipid-coated surfaces against pathogenic bacteria. Nanoscale Horizons, 2019, 4, 975-982.	4.1	18
99	Probing the Adhesion of the Common Freshwater Diatom <i>Nitzschia palea</i> at Nanoscale. ACS Applied Materials & Interfaces, 2019, 11, 48574-48582.	4.0	18
100	Strength of bacterial adhesion on nanostructured surfaces quantified by substrate morphometry. Nanoscale, 2019, 11, 19713-19722.	2.8	47
101	Evaluation of nanocellulose interaction with water pollutants using nanocellulose colloidal probes and molecular dynamic simulations. Carbohydrate Polymers, 2020, 229, 115510.	5.1	24
102	<i>In Vivo</i> Relationship between the Nano-Biomechanical Properties of Streptococcal Polysaccharide Capsules and Virulence Phenotype. ACS Nano, 2020, 14, 1070-1083.	7.3	7
103	Plasmonic probing of the adhesion strength of single microbial cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27148-27153.	3.3	29
104	Role of extracellular polymeric substances in the adhesion interaction of Streptococcus mutans on TiO2 and SiO2 surfaces with different wettability. Colloids and Interface Science Communications, 2020, 39, 100315.	2.0	4
105	Fundamentals and Applications of FluidFM Technology in Singleâ€Cell Studies. Advanced Materials Interfaces, 2020, 7, 2001115.	1.9	19
106	Interfacial nanomechanical heterogeneity of the <i>E. coli</i> biofilm matrix. Nanoscale, 2020, 12, 16819-16830.	2.8	9
107	Nanonewton forces between <i>Staphylococcus aureus</i> surface protein IsdB and vitronectin. Nanoscale Advances, 2020, 2, 5728-5736.	2.2	2
108	Single-Molecule Analysis Demonstrates Stress-Enhanced Binding between <i>Staphylococcus aureus</i> Surface Protein IsdB and Host Cell Integrins. Nano Letters, 2020, 20, 8919-8925.	4.5	8

#	Article	IF	Citations
109	Force-clamp spectroscopy identifies a catch bond mechanism in a Gram-positive pathogen. Nature Communications, 2020, 11, 5431.	5.8	32
110	The microbial adhesive arsenal deciphered by atomic force microscopy. Nanoscale, 2020, 12, 23885-23896.	2.8	11
111	Switchable Adhesion of <i>E. coli</i> to Thermosensitive Carbohydrate-Presenting Microgel Layers: A Single-Cell Force Spectroscopy Study. Langmuir, 2020, 36, 12555-12562.	1.6	13
112	Mechanical Forces between Mycobacterial Antigen 85 Complex and Fibronectin. Cells, 2020, 9, 716.	1.8	9
113	Photocontrolled nanosystems for antibacterial drug delivery. , 2020, , 311-344.		1
114	Magnetic nanoparticles for the measurement of cell mechanics using force-induced remnant magnetization spectroscopy. Nanoscale, 2020, 12, 14573-14580.	2.8	8
115	FluidFM as a tool to study adhesion forces of bacteria - Optimization of parameters and comparison to conventional bacterial probe Scanning Force Spectroscopy. PLoS ONE, 2020, 15, e0227395.	1.1	13
116	The Molecular Complex between Staphylococcal Adhesin SpsD and Fibronectin Sustains Mechanical Forces in the Nanonewton Range. MBio, 2020, 11, .	1.8	2
117	Probiotic Validation of a Non-native, Thermostable, Phytase-Producing Bacterium: Streptococcus thermophilus. Current Microbiology, 2020, 77, 1540-1549.	1.0	5
118	How Microbes Use Force To Control Adhesion. Journal of Bacteriology, 2020, 202, .	1.0	19
120	Atomic force microscopy for revealing micro/nanoscale mechanics in tumor metastasis: from single cells to microenvironmental cues. Acta Pharmacologica Sinica, 2021, 42, 323-339.	2.8	43
121	Probing the Surface-Attached In Vitro Microbial Biofilms with Atomic Force (AFM) and Scanning Probe Microscopy (SPM). Springer Protocols, 2021, , 223-241.	0.1	3
122	Microscopy Methods for Biofilm Imaging: Focus on SEM and VP-SEM Pros and Cons. Biology, 2021, 10, 51.	1.3	77
123	AFM force-clamp spectroscopy captures the nanomechanics of the Tad pilus retraction. Nanoscale Horizons, 2021, 6, 489-496.	4.1	3
124	Nanomechanical Insights into Versatile Polydopamine Wet Adhesive Interacting with Liquid-Infused and Solid Slippery Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 6941-6950.	4.0	23
125	Feed Temperature Effects on Organic Fouling of Reverse Osmosis Membranes: Competition of Interfacial and Transport Properties. ACS ES&T Engineering, 2021, 1, 591-602.	3.7	7
126	Adhesion of Staphylococcus aureus to Candida albicans During Co-Infection Promotes Bacterial Dissemination Through the Host Immune Response. Frontiers in Cellular and Infection Microbiology, 2020, 10, 624839.	1.8	25
127	<scp>AFM</scp> in cellular and molecular microbiology. Cellular Microbiology, 2021, 23, e13324.	1.1	36

#	Article	IF	Citations
128	A Review of Single-Cell Adhesion Force Kinetics and Applications. Cells, 2021, 10, 577.	1.8	33
129	AFM Unravels the Unique Adhesion Properties of the <i>Caulobacter</i> Type IVc Pilus Nanomachine. Nano Letters, 2021, 21, 3075-3082.	4.5	13
130	AFM-Based Correlative Microscopy Illuminates Human Pathogens. Frontiers in Cellular and Infection Microbiology, 2021, 11, 655501.	1.8	6
131	Self-adhesive lubricated coating for enhanced bacterial resistance. Bioactive Materials, 2021, 6, 2535-2545.	8.6	30
132	Force spectroscopy of single cells using atomic force microscopy. Nature Reviews Methods Primers, 2021, 1, .	11.8	61
133	Quantifying molecular- to cellular-level forces in living cells. Journal Physics D: Applied Physics, 2021, 54, 483001.	1.3	5
134	Development of Polythiourethane/ZnO-Based Anti-Fouling Materials and Evaluation of the Adhesion of Staphylococcus aureus and Candida glabrata Using Single-Cell Force Spectroscopy. Nanomaterials, 2021, 11, 271.	1.9	12
135	Atomic force microscopy of food assembly: Structural and mechanical insights at the nanoscale and potential opportunities from other fields. Food Bioscience, 2020, 36, 100654.	2.0	6
136	<i>Staphylococcus aureus</i> binds to the N-terminal region of corneodesmosin to adhere to the stratum corneum in atopic dermatitis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	33
142	Atomic Force Microscopy: A New Look at Microbes. Synthesis Lectures on Materials and Optics, 2020, 1, 1-111.	0.2	0
143	Conceptual Design of a Microscale Balance Based on Force Compensation. Mechanisms and Machine Science, 2021, , 103-114.	0.3	2
144	Single-cell plasmonic imaging for activity analysis. Comprehensive Analytical Chemistry, 2021, , 107-143.	0.7	1
145	Biofilm interceded microbial prospecting of bioremediation. , 2022, , 371-391.		1
146	Unraveling the binding microprocess of individual <i>Streptococcus mutans</i> cells via sucrose-dependent adhesion based on surface plasmon resonance imaging. Journal of Oral Microbiology, 2022, 14, 2038906.	1.2	3
147	Chapter 1. Relevant Aspects of Surface Physical Chemistry. RSC Detection Science, 0, , 1-46.	0.0	0
148	Extending applications of AFM to fluidic AFM in single living cell studies. Journal of Cellular Physiology, 2022, 237, 3222-3238.	2.0	8
149	Amphiphilic Nanointerface: Inducing the Interfacial Activation for Lipase. ACS Applied Materials & Interfaces, 2022, 14, 39622-39636.	4.0	6
150	Bubble functionalization in flotation process improve microalgae harvesting. Chemical Engineering Journal, 2023, 452, 139349.	6.6	13

#	Article	IF	Citations
151	AFM Force Spectroscopy of Living Bacteria. Synthesis Lectures on Materials and Optics, 2020, , 53-73.	0.2	0
152	Microscale characterization of abiotic surfaces and prediction of their biofouling/anti-biofouling potential using the AFM colloidal probe technique. Advances in Colloid and Interface Science, 2022, 310, 102796.	7.0	6
153	Exploring the impact of PEGylation on the cell-nanomicelle interactions by AFM-based single-molecule force spectroscopy and force tracing. Acta Biomaterialia, 2023, 157, 310-320.	4.1	4
154	The Determination, Monitoring, Molecular Mechanisms and Formation of Biofilm in E. coli. Brazilian Journal of Microbiology, 2023, 54, 259-277.	0.8	6
155	Nanoscale imaging and force probing of single microbial cells by atomic force microscopy. , 2023, , 187-217.		1
160	Environmental microbial biofilms. , 2023, , 3-45.		0