Viola Vogel

List of Publications by Year
in descending order

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233	20,678	9428	13274
papers	citations	76 h-index	135 g-index

249	249	249	22789
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Engineering solutions for biological studies of flow-exposed endothelial cells on orbital shakers. PLoS ONE, 2022, 17, e0262044.	1.1	3
2	Platelets drive fibronectin fibrillogenesis using integrin Î±IIbÎ²3. Science Advances, 2022, 8, eabj8331.	4.7	11
3	Differentiation of mouse embryonic stem cells into cells with spermatogonia-like morphology with chemical intervention-dependent increased gene expression of LIM homeobox 1 (Lhx1). Stem Cell Research, 2022, 61, 102780.	0.3	0
4	Preclinical Development of ¹⁸F-OF-NB1 for Imaging GluN2B-Containing N-Methyl-d-Aspartate Receptors and Its Utility as a Biomarker for Amyotrophic Lateral Sclerosis. Journal of Nuclear Medicine, 2021, 62, 259-265.	2.8	19
5	Site-Specifically-Labeled Antibodies for Super-Resolution Microscopy Reveal In Situ Linkage Errors. ACS Nano, 2021, 15, 12161-12170.	7.3	38
6	PIP2-induced membrane binding of the Vinculin tail competes with its other binding partners. Biophysical Journal, 2021, 120, 4608-4622.	0.2	3
7	Nanoconfinement of microvilli alters gene expression and boosts T cell activation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	21
8	Elastic and surgeon friendly electrospun tubes delivering PDGF-BB positively impact tendon rupture healing in a rabbit Achilles tendon model. Biomaterials, 2020, 232, 119722.	5.7	46
9	Different Vinculin Binding Sites Use the Same Mechanism to Regulate Directional Force Transduction. Biophysical Journal, 2020, 118, 1344-1356.	0.2	21
10	Fibronectin fibers are highly tensed in healthy organs in contrast to tumors and virus-infected lymph nodes. Matrix Biology Plus, 2020, 8, 100046.	1.9	19
11	A Pulsatile Flow System to Engineer Aneurysm and Atherosclerosis Mimetic Extracellular Matrix. Advanced Science, 2020, 7, 2000173.	5.6	17
12	Supporting Cell-Based Tendon Therapy: Effect of PDGF-BB and Ascorbic Acid on Rabbit Achilles Tenocytes In Vitro. International Journal of Molecular Sciences, 2020, 21, 458.	1.8	21
13	Fibrillar fibronectin plays a key role as nucleator of collagen I polymerization during macromolecular crowding-enhanced matrix assembly. Biomaterials Science, 2019, 7, 4519-4535.	2.6	26
14	Phosphorylated fibronectin enhances cell attachment and upregulates mechanical cell functions. PLoS ONE, 2019, 14, e0218893.	1.1	16
15	Tissue transglutaminase in fibrosis â€" more than an extracellular matrix cross-linker. Current Opinion in Biomedical Engineering, 2019, 10, 156-164.	1.8	25
16	Global modulation in DNA epigenetics during pro-inflammatory macrophage activation. Epigenetics, 2019, 14, 1183-1193.	1.3	21
17	Impact of UV sterilization and short term storage on the in vitro release kinetics and bioactivity of biomolecules from electrospun scaffolds. Scientific Reports, 2019, 9, 15117.	1.6	11
18	Mechanobiology of Macrophages: How Physical Factors Coregulate Macrophage Plasticity and Phagocytosis. Annual Review of Biomedical Engineering, 2019, 21, 267-297.	5.7	148

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19	An ultra-small fluid oscillation unit for pumping driven by self-organized three-dimensional bridging of pulsatile cardiomyocytes on elastic micro-piers. Sensors and Actuators B: Chemical, 2019, 293, 256-264.	4.0	17
20	Nanosensors and particles: a technology frontier with pitfalls. Journal of Nanobiotechnology, 2019, 17, 111.	4.2	8
21	Mechano-chromic proteinâ€“polymer hybrid hydrogel to visualize mechanical strain. Soft Matter, 2019, 15, 9388-9393.	1.2	17
22	Morphometric analysis of spread platelets identifies integrin Î±IIbÎ²3-specific contractile phenotype. Scientific Reports, 2018, 8, 5428.	1.6	28
23	Nanopillar force measurements reveal actin-cap-mediated YAP mechanotransduction. Nature Cell Biology, 2018, 20, 262-271.	4.6	160
24	Unraveling the Mechanobiology of Extracellular Matrix. Annual Review of Physiology, 2018, 80, 353-387.	5.6	158
25	Adenoviral vector with shield and adapter increases tumor specificity and escapes liver and immune control. Nature Communications, 2018, 9, 450.	5.8	65
26	Tensile forces drive a reversible fibroblast-to-myofibroblast transition during tissue growth in engineered clefts. Science Advances, 2018, 4, eaao4881.	4.7	102
27	Mechanical Stretching of Fibronectin Fibers Upregulates Binding of Interleukin-7. Nano Letters, 2018, 18, 15-25.	4.5	26
28	A Simple Modification Method to Obtain Anisotropic and Porous 3D Microfibrillar Scaffolds for Surgical and Biomedical Applications. Small, 2018, 14, 1702650.	5.2	18
29	Membrane Binding and Dimerization of Vinculin Tail. Biophysical Journal, 2018, 114, 276a.	0.2	0
30	Spatial confinement downsizes the inflammatory response of macrophages. Nature Materials, 2018, 17, 1134-1144.	13.3	167
31	Structural Insights How PIP2 Imposes Preferred Binding Orientations of FAK at Lipid Membranes. Journal of Physical Chemistry B, 2017, 121, 3523-3535.	1.2	28
32	Robotically controlled microprey to resolve initial attack modes preceding phagocytosis. Science Robotics, 2017, 2, .	9.9	49
33	Safety and efficacy of cardiopoietic stem cells in the treatment of post-infarction left-ventricular dysfunction â€“ From cardioprotection to functional repair in a translational pig infarction model. Biomaterials, 2017, 122, 48-62.	5.7	28
34	Clot-entrapped blood cells in synergy with human mesenchymal stem cells create a pro-angiogenic healing response. Biomaterials Science, 2017, 5, 2009-2023.	2.6	19
35	Novel peptide probes to assess the tensional state of fibronectin fibers in cancer. Nature Communications, 2017, 8, 1793.	5.8	31
36	Nanoscale invaginations of the nuclear envelope: Shedding new light on wormholes with elusive function. Nucleus, 2017, 8, 506-514.	0.6	27

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37	An ensemble of agarose microwells and AI for understanding hMSC differentiation patterns. , 2017, , .		0
38	Simple agarose micro-confinement array and machine-learning-based classification for analyzing the patterned differentiation of mesenchymal stem cells. PLoS ONE, 2017, 12, e0173647.	1.1	22
39	Full-Length Fibronectin Drives Fibroblast Accumulation at the Surface of Collagen Microtissues during Cell-Induced Tissue Morphogenesis. PLoS ONE, 2016, 11, e0160369.	1.1	21
40	Stretchable Silver Nanowire Microelectrodes for Combined Mechanical and Electrical Stimulation of Cells. Advanced Healthcare Materials, 2016, 5, 2045-2054.	3.9	14
41	How type 1 fimbriae help Escherichia coli to evade extracellular antibiotics. Scientific Reports, 2016, 6, 18109.	1.6	47
42	A gonogenic stimulated transition of mouse embryonic stem cells with enhanced control of diverse differentiation pathways. Scientific Reports, 2016, 6, 25104.	1.6	4
43	Agarose micro-cast for the patterned differentiation of mesenchymal stem cells. , 2016, , .		0
44	Gradual conversion of cellular stress patterns into pre-stressed matrix architecture during in vitro tissue growth. Journal of the Royal Society Interface, 2016, 13, 20160136.	1.5	37
45	Improved Side Chain Dynamics in MARTINI Simulations of Proteinâ€“Lipid Interfaces. Journal of Chemical Theory and Computation, 2016, 12, 2446-2458.	2.3	54
46	Cell sheet mechanics: How geometrical constraints induce the detachment of cell sheets from concave surfaces. Acta Biomaterialia, 2016, 45, 85-97.	4.1	38
47	Resilience of bacterial quorum sensing against fluid flow. Scientific Reports, 2016, 6, 33115.	1.6	25
48	Synergistic interactions of blood-borne immune cells, fibroblasts and extracellular matrix drive repair in an in vitro peri-implant wound healing model. Scientific Reports, 2016, 6, 21071.	1.6	29
49	Bioactive, Elastic, and Biodegradable Emulsion Electrospun DegraPol Tube Delivering PDGFâ€ÐB for Tendon Rupture Repair. Macromolecular Bioscience, 2016, 16, 1048-1063.	2.1	34
50	Ectokinases as novel cancer markers and drug targets in cancer therapy. Cancer Medicine, 2015, 4, 404-414.	1.3	16
51	Spatial distribution of cellâ€“cell and cellâ€“ECM adhesions regulates force balance while mainÂtaining E-cadherin molecular tension in cell pairs. Molecular Biology of the Cell, 2015, 26, 2456-2465.	0.9	77
52	Molecular architecture of native fibronectin fibrils. Nature Communications, 2015, 6, 7275.	5.8	90
53	The ultrastructure of fibronectin fibers pulled from a protein monolayer at the air-liquid interface and the mechanism of the sheet-to-fiber transition. Biomaterials, 2015, 36, 66-79.	5.7	14
54	Heparin-induced conformational changes of fibronectin within the extracellular matrix promote hMSC osteogenic differentiation. Biomaterials Science, 2015, 3, 73-84.	2.6	24

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55	Mechanical forces regulate the interactions of fibronectin and collagen I in extracellular matrix. Nature Communications, 2015, 6, 8026.	5.8	256
56	Differential basal-to-apical accessibility of laminÂA/C epitopes in the nuclear lamina regulated by changes in cytoskeletal tension. Nature Materials, 2015, 14, 1252-1261.	13.3	142
57	Nanopore Diameters Tune Strain in Extruded Fibronectin Fibers. Nano Letters, 2015, 15, 6357-6364.	4.5	26
58	Patterning of supported lipid bilayers and proteins using material selective nitrodopamine-mPEG. Biomaterials Science, 2015, 3, 94-102.	2.6	7
59	Walking the Line: A Fibronectin Fiber-Guided Assay to Probe Early Steps of (Lymph)angiogenesis. PLoS ONE, 2015, 10, e0145210.	1.1	16
60	Maturation of Filopodia Shaft Adhesions Is Upregulated by Local Cycles of Lamellipodia Advancements and Retractions. PLoS ONE, 2014, 9, e107097.	1.1	24
61	Bistable Expression of Virulence Genes in Salmonella Leads to the Formation of an Antibiotic-Tolerant Subpopulation. PLoS Biology, 2014, 12, e1001928.	2.6	172
62	Disentangling the multifactorial contributions of fibronectin, collagen and cyclic strain on MMP expression and extracellular matrix remodeling by fibroblasts. Matrix Biology, 2014, 40, 62-72.	1.5	49
63	Conformational distribution of surface-adsorbed fibronectin molecules explored by single molecule localization microscopy. Biomaterials Science, 2014, 2, 883.	2.6	15
64	Functional Modification of Fibronectin by Nâ€Terminal FXIIIaâ€Mediated Transamidation. ChemBioChem, 2014, 15, 1481-1486.	1.3	7
65	How Cells Exploit Forces to Sense and Respond to their Environments. Biophysical Journal, 2014, 106, 3a.	0.2	0
66	Fiberâ€Assisted Molding (FAM) of Surfaces with Tunable Curvature to Guide Cell Alignment and Complex Tissue Architecture. Small, 2014, 10, 4851-4857.	5.2	41
67	The talinâ€“integrin interface under mechanical stress. Molecular BioSystems, 2014, 10, 3217-3228.	2.9	12
68	Nanoshuttles propelled by motor proteins sequentially assemble molecular cargo in a microfluidic device. Lab on A Chip, 2014, 14, 3729-3738.	3.1	18
69	Fundamental and Practical Limits for the Localization Precision in the Presence of Shot Noise from other Emitters. Biophysical Journal, 2014, 106, 797a.	0.2	0
70	Interference with the contractile machinery of the fibroblastic chondrocyte cytoskeleton induces re-expression of the cartilage phenotype through involvement of PI3K, PKC and MAPKs. Experimental Cell Research, 2014, 320, 175-187.	1.2	39
71	Mesenchymal Stem Cells Exploit Extracellular Matrix as Mechanotransducer. Scientific Reports, 2013, 3, 2425.	1.6	77
72	Fluorescence-based in situ assay to probe the viability and growth kinetics of surface-adhering and suspended recombinant bacteria. Biointerphases, 2013, 8, 22.	0.6	11

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73	Three-dimensional, automated magnetic biomanipulation with subcellular resolution. , 2013, , .		4
74	Transcatheter based electromechanical mapping guided intramyocardial transplantation and inÂvivo tracking of human stem cell based three dimensional microtissues in the porcine heart. Biomaterials, 2013, 34, 2428-2441.	5.7	48
75	Proteins as Mechano-Chemical Signalling Switches. Biophysical Journal, 2013, 104, 5a.	0.2	0
76	The role of filopodia in the recognition of nanotopographies. Scientific Reports, 2013, 3, 1658.	1.6	189
77	The Yin-Yang of Rigidity Sensing: How Forces and Mechanical Properties Regulate the Cellular Response to Materials. Annual Review of Materials Research, 2013, 43, 589-618.	4.3	106
78	Multiple Steps to Activate FAKâ€™s Kinase Domain: Adaptation to Confined Environments?. Biophysical Journal, 2013, 104, 2521-2529.	0.2	4
79	Bacterial filamentation accelerates colonization of adhesive spots embedded in biopassive surfaces. New Journal of Physics, 2013, 15, 125016.	1.2	29
80	Macrophages lift off surface-bound bacteria using a filopodium-lamellipodium hook-and-shovel mechanism. Scientific Reports, 2013, 3, 2884.	1.6	75
81	Nogo-A is a negative regulator of CNS angiogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1943-52.	3.3	95
82	Intramyocardial Transplantation and Tracking of Human Mesenchymal Stem Cells in a Novel Intra-Uterine Pre-Immune Fetal Sheep Myocardial Infarction Model: A Proof of Concept Study. PLoS ONE, 2013, 8, e57759.	1.1	23
83	Near Surface Swimming of Salmonella Typhimurium Explains Target-Site Selection and Cooperative Invasion. PLoS Pathogens, 2012, 8, e1002810.	2.1	109
84	Catch bonds. Current Biology, 2012, 22, R823-R825.	1.8	16
85	Influence of the fiber diameter and surface roughness of electrospun vascular grafts on blood activation. Acta Biomaterialia, 2012, 8, 4349-4356.	4.1	185
86	Covalent Cargo Loading to Molecular Shuttles via Copper-free â€œClick Chemistryâ€• Biomacromolecules, 2012, 13, 3908-3911.	2.6	19
87	Binding-Activated Localization Microscopy of DNA Structures. Biophysical Journal, 2012, 102, 419a.	0.2	0
88	Fibers with Integrated Mechanochemical Switches: Minimalistic Design Principles Derived from Fibronectin. Biophysical Journal, 2012, 103, 1909-1918.	0.2	27
89	Engineering Mechanosensitive Multivalent Receptorâ€“Ligand Interactions: Why the Nanolinker Regions of Bacterial Adhesins Matter. Nano Letters, 2012, 12, 5162-5168.	4.5	20
90	Bionic jellyfish. Nature Materials, 2012, 11, 841-842.	13.3	17

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91	Extracellular-matrix tethering regulates stem-cell fate. Nature Materials, 2012, 11, 642-649.	13.3	1,346
92	The Race to the Pole: How High-Aspect Ratio Shape and Heterogeneous Environments Limit Phagocytosis of Filamentous Escherichia coli Bacteria by Macrophages. Nano Letters, 2012, 12, 2901-2905.	4.5	92
93	Tuning the â€œRoadblockâ€•Effect in Kinesin-Based Transport. Nano Letters, 2012, 12, 3466-3471.	4.5	24
94	Force-induced fibronectin assembly and matrix remodeling in a 3D microtissue model of tissue morphogenesis. Integrative Biology (United Kingdom), 2012, 4, 1164.	0.6	74
95	Extracellular Phosphorylation and Phosphorylated Proteins: Not Just Curiosities But Physiologically Important. Science Signaling, 2012, 5, re7.	1.6	72
96	GFP's Mechanical Intermediate States. PLoS ONE, 2012, 7, e46962.	1.1	25
97	Using Mesoscopic Models to Design Strong and Tough Biomimetic Polymer Networks. Langmuir, 2011, 27, 13796-13805.	1.6	20
98	Binding-Activated Localization Microscopy of DNA Structures. Nano Letters, 2011, 11, 4008-4011.	4.5	165
99	Shrunk to nano: The secrete language of mechanical communication. , 2010, , .		2
100	The role of the interplay between polymer architecture and bacterial surface properties on the microbial adhesion to polyoxazoline-based ultrathin films. Biomaterials, 2010, 31, 9462-9472.	5.7	114
101	Journal club. Nature, 2010, 463, 591-591.	13.7	21
102	Stretching fibronectin fibres disrupts binding of bacterial adhesins by physically destroying an epitope. Nature Communications, 2010, 1, 135.	5.8	92
103	How Mechanical Forces Can Switch On and Off Protein and Cell Binding Sites. Biophysical Journal, 2010, 98, 211a.	0.2	0
104	Probing Cellular Traction Forces by Micropillar Arrays: Contribution of Substrate Warping to Pillar Deflection. Nano Letters, 2010, 10, 1823-1830.	4.5	153
105	Structural Basis for Mechanical Force Regulation of the Adhesin FimH via Finger Trap-like Î² Sheet Twisting. Cell, 2010, 141, 645-655.	13.5	239
106	Molecular shuttles powered by motor proteins: loading and unloading stations for nanocargo integrated into one device. Lab on A Chip, 2010, 10, 2195.	3.1	52
107	10th Anniversary Issue: Switzerland. Lab on A Chip, 2010, 10, 2190.	3.1	0
108	Dimensionality Controls Cytoskeleton Assembly and Metabolism of Fibroblast Cells in Response to Rigidity and Shape. PLoS ONE, 2010, 5, e9445.	1.1	83

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109	Fibronectin forms the most extensible biological fibers displaying switchable force-exposed cryptic binding sites. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18267-18272.	3.3	230
110	Integrin Activation Dynamics between the RGD-binding Site and the Headpiece Hinge. Journal of Biological Chemistry, 2009, 284, 36557-36568.	1.6	60
111	New PI(4,5)P2- and membrane proximal integrinâ€“binding motifs in the talin head control Î²3-integrin clustering. Journal of Cell Biology, 2009, 187, 715-731.	2.3	153
112	Cell fate regulation by coupling mechanical cycles to biochemical signaling pathways. Current Opinion in Cell Biology, 2009, 21, 38-46.	2.6	248
113	Optimization strategies for electrospun silk fibroin tissue engineering scaffolds. Biomaterials, 2009, 30, 3058-3067.	5.7	185
114	Exploiting fluorescence resonance energy transfer to probe structural changes in a macromolecule during adsorption and incorporation into a growing biomineral crystal. Colloids and Surfaces B: Biointerfaces, 2009, 74, 401-409.	2.5	3
115	Crosslinking of cell-derived 3D scaffolds up-regulates the stretching and unfolding of new extracellular matrix assembled by reseeded cells. Integrative Biology (United Kingdom), 2009, 1, 635.	0.6	58
116	â€œSmart dustâ€•biosensors powered by biomolecular motors. Lab on A Chip, 2009, 9, 1661.	3.1	58
117	Stretched Extracellular Matrix Proteins Turn Fouling and Are Functionally Rescued by the Chaperones Albumin and Casein. Nano Letters, 2009, 9, 4158-4167.	4.5	42
118	An Engineered Mannoside Presenting Platform: Escherichia coli Adhesion under Static and Dynamic Conditions. Advanced Functional Materials, 2008, 18, 1459-1469.	7.8	45
119	Harnessing biological motors to engineer systems for nanoscale transport and assembly. Nature Nanotechnology, 2008, 3, 465-475.	15.6	216
120	Beyond Induced-Fit Receptor-Ligand Interactions: Structural Changes that Can Significantly Extend Bond Lifetimes. Structure, 2008, 16, 1047-1058.	1.6	23
121	Biophysics of Catch Bonds. Annual Review of Biophysics, 2008, 37, 399-416.	4.5	297
122	Assay to mechanically tune and optically probe fibrillar fibronectin conformations from fully relaxed to breakage. Matrix Biology, 2008, 27, 451-461.	1.5	103
123	Catch-Bond Mechanism of Force-Enhanced Adhesion: Counterintuitive, Elusive, but â€¦ Widespread?. Cell Host and Microbe, 2008, 4, 314-323.	5.1	169
124	Fibronectin in aging extracellular matrix fibrils is progressively unfolded by cells and elicits an enhanced rigidity response. Faraday Discussions, 2008, 139, 229.	1.6	92
125	Nonfouling Surface Coatings Based on Poly(2-methyl-2-oxazoline). Chimia, 2008, 62, 264.	0.3	53
126	FimH Forms Catch Bonds That Are Enhanced by Mechanical Force Due to Allosteric Regulation. Journal of Biological Chemistry, 2008, 283, 11596-11605.	1.6	190

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127	Integrin-like Allosteric Properties of the Catch Bond-forming FimH Adhesin of Escherichia coli. Journal of Biological Chemistry, 2008, 283, 7823-7833.	1.6	60
128	How Force Might Activate Talin's Vinculin Binding Sites: SMD Reveals a Structural Mechanism. PLoS Computational Biology, 2008, 4, e24.	1.5	145
129	Motor Proteins in Synthetic Materials and Devices. , 2008, , 2484-2492.		0
130	Force-Induced Unfolding of Fibronectin in the Extracellular Matrix of Living Cells. PLoS Biology, 2007, 5, e268.	2.6	362
131	Weak Rolling Adhesion Enhances Bacterial Surface Colonization. Journal of Bacteriology, 2007, 189, 1794-1802.	1.0	65
132	Interdomain Interaction in the FimH Adhesin of Escherichia coli Regulates the Affinity to Mannose. Journal of Biological Chemistry, 2007, 282, 23437-23446.	1.6	115
133	Cargo pick-up from engineered loading stations by kinesin driven molecular shuttles. Lab on A Chip, 2007, 7, 1263.	3.1	91
134	Engineered networks of oriented microtubule filaments for directed cargo transport. Soft Matter, 2007, 3, 349-356.	1.2	60
135	Micro-well arrays for 3D shape control and high resolution analysis of single cells. Lab on A Chip, 2007, 7, 1074.	3.1	199
136	The cysteine bond in the Escherichia coli FimH adhesin is critical for adhesion under flow conditions. Molecular Microbiology, 2007, 65, 1158-1169.	1.2	28
137	Can mechanical force regulate the functional display of the extracellular matrix and initiate integrin activation?. FASEB Journal, 2007, 21, A91.	0.2	0
138	Catch-Bond Model Derived from Allostery Explains Force-Activated Bacterial Adhesion. Biophysical Journal, 2006, 90, 753-764.	0.2	176
139	MECHANOTRANSDUCTION INVOLVING MULTIMODULAR PROTEINS: Converting Force into Biochemical Signals. Annual Review of Biophysics and Biomolecular Structure, 2006, 35, 459-488.	18.3	397
140	Microfabricated three-dimensional environments for single cell studies. Biointerphases, 2006, 1, P1-P4.	0.6	37
141	Interferometric optical detection and tracking of very small gold nanoparticles at a water-glass interface. Optics Express, 2006, 14, 405.	1.7	181
142	Selective Loading of Kinesin-Powered Molecular Shuttles with Protein Cargo and its Application to Biosensing. Small, 2006, 2, 330-334.	5.2	129
143	Local force and geometry sensing regulate cell functions. Nature Reviews Molecular Cell Biology, 2006, 7, 265-275.	16.1	2,034
144	Single molecule fluorescence studies of surface-adsorbed fibronectin. Biomaterials, 2006, 27, 679-690.	5.7	35

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145	Uncoiling Mechanics of Escherichia coli Type I Fimbriae Are Optimized for Catch Bonds. PLoS Biology, 2006, 4, e298.	2.6	117
146	Catch Bond-mediated Adhesion without a Shear Threshold. Journal of Biological Chemistry, 2006, 281, 16656-16663.	1.6	77
147	How the headpiece hinge angle is opened: new insights into the dynamics of integrin activation. Journal of Cell Biology, 2006, 175, 349-360.	2.3	181
148	Elevated Shear Stress Protects Escherichia coli Cells Adhering to Surfaces via Catch Bonds from Detachment by Soluble Inhibitors. Applied and Environmental Microbiology, 2006, 72, 3005-3010.	1.4	58
149	Fibronectin conformational changes induced by adsorption to liposomes. Journal of Controlled Release, 2005, 101, 209-222.	4.8	23
150	SPARC Regulates Extracellular Matrix Organization through Its Modulation of Integrin-linked Kinase Activity. Journal of Biological Chemistry, 2005, 280, 36483-36493.	1.6	179
151	Molecular Self-Assembly of â€œNanowiresâ€•and â€œNanospoolsâ€•Using Active Transport. Nano Letters, 2005, 5, 629-633.	4.5	165
152	Lifetime of biomolecules in polymer-based hybrid nanodevices. Nanotechnology, 2004, 15, S540-S548.	1.3	72
153	Integrating dual-color imaging capability into a monochromator. Review of Scientific Instruments, 2004, 75, 266-269.	0.6	4
154	Shear-dependent â€˜stick-and-rollâ€™ adhesion of type 1 fimbriated Escherichia coli. Molecular Microbiology, 2004, 53, 1545-1557.	1.2	225
155	Sequential switch of biomineral crystal morphology using trivalent ions. Nature Materials, 2004, 3, 239-243.	13.3	31
156	Tuning the Mechanical Stability of Fibronectin Type III Modules through Sequence Variations. Structure, 2004, 12, 21-30.	1.6	98
157	Structural Insights into How the MIDAS Ion Stabilizes Integrin Binding to an RGD Peptide under Force. Structure, 2004, 12, 2049-2058.	1.6	75
158	Structural changes of fibronectin adsorbed to model surfaces probed by fluorescence resonance energy transfer. Journal of Biomedical Materials Research Part B, 2004, 69A, 525-534.	3.0	128
159	Powering Nanodevices with Biomolecular Motors. ChemInform, 2004, 35, no.	0.1	0
160	Powering Nanodevices with Biomolecular Motors. Chemistry - A European Journal, 2004, 10, 2110-2116.	1.7	234
161	Motor-protein â€œroundaboutsâ€• Microtubules moving on kinesin-coated tracks through engineered networks. Lab on A Chip, 2004, 4, 83-86.	3.1	115
162	Engineered Lipids That Cross-Link the Inner and Outer Leaflets of Lipid Bilayers. Langmuir, 2004, 20, 2416-2423.	1.6	42

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163	A Catch-Bond Based Nanoadhesive Sensitive to Shear Stress. Nano Letters, 2004, 4, 1593-1597.	4.5	40
164	The Tissue Engineering Puzzle: A Molecular Perspective. Annual Review of Biomedical Engineering, 2003, 5, 441-463.	5.7	132
165	Mechanisms of Microtubule Guiding on Microfabricated Kinesin-Coated Surfaces:Â Chemical and Topographic Surface Patterns. Langmuir, 2003, 19, 10967-10974.	1.6	143
166	Analysis of Microtubule Guidance in Open Microfabricated Channels Coated with the Motor Protein Kinesinâ€. Langmuir, 2003, 19, 1738-1744.	1.6	117
167	Molecular Shuttles Operating Undercover:Â A New Photolithographic Approach for the Fabrication of Structured Surfaces Supporting Directed Motility. Nano Letters, 2003, 3, 1651-1655.	4.5	135
168	Covalent Coupling and Characterization of Supported Lipid Layers. Langmuir, 2003, 19, 8316-8324.	1.6	25
169	Liquid-Crystalline Collapse of Pulmonary Surfactant Monolayers. Biophysical Journal, 2003, 84, 3792-3806.	0.2	81
170	Structure and functional significance of mechanically unfolded fibronectin type III1 intermediates. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14784-14789.	3.3	187
171	Fibronectin extension and unfolding within cell matrix fibrils controlled by cytoskeletal tension. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5139-5143.	3.3	327
172	Reverse Engineering: Learning from Proteins How to Enhance the Performance of Synthetic Nanosystems. MRS Bulletin, 2002, 27, 972-978.	1.7	15
173	Surface Imaging by Self-Propelled Nanoscale Probes. Nano Letters, 2002, 2, 113-116.	4.5	100
174	A Piconewton Forcemeter Assembled from Microtubules and Kinesins. Nano Letters, 2002, 2, 1113-1115.	4.5	89
175	Molecular Basis for Asymmetrical Growth in Two-Dimensional Streptavidin Crystals. Langmuir, 2002, 18, 7447-7451.	1.6	7
176	Bacterial Adhesion to Target Cells Enhanced by Shear Force. Cell, 2002, 109, 913-923.	13.5	533
177	Identifying Unfolding Intermediates of FN-III10 by Steered Molecular Dynamics. Journal of Molecular Biology, 2002, 323, 939-950.	2.0	159
178	A structural model for force regulated integrin binding to fibronectin's RGD-synergy site. Matrix Biology, 2002, 21, 139-147.	1.5	158
179	Surface Imaging by Self-propelled Nanoscale Probes. Microscopy and Microanalysis, 2002, 8, 1092-1093.	0.2	1
180	Ratchet patterns sort molecular shuttles. Applied Physics A: Materials Science and Processing, 2002, 75, 309-313.	1.1	64

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181	Discrepancy between Phase Behavior of Lung Surfactant Phospholipids and the Classical Model of Surfactant Function. Biophysical Journal, 2001, 81, 2172-2180.	0.2	83
182	Molecular shuttles based on motor proteins: active transport in synthetic environments. Reviews in Molecular Biotechnology, 2001, 82, 67-85.	2.9	190
183	Light-Controlled Molecular Shuttles Made from Motor Proteins Carrying Cargo on Engineered Surfaces. Nano Letters, 2001, 1, 235-239.	4.5	313
184	Incorporation of fluorescent molecules and proteins into calcium oxalate monohydrate single crystals. Journal of Crystal Growth, 2001, 233, 380-388.	0.7	29
185	Structural insights into the mechanical regulation of molecular recognition sites. Trends in Biotechnology, 2001, 19, 416-423.	4.9	73
186	Comparison of the early stages of forced unfolding for fibronectin type III modules. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 5590-5595.	3.3	125
187	Coexisting conformations of fibronectin in cell culture imaged using fluorescence resonance energy transfer. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 14464-14468.	3.3	177
188	Light scattering microscopy from monolayers and nanoparticles at the air/water interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 171, 75-86.	2.3	20
189	Spatially patterned static roughness superimposed on thermal roughness in a condensed phospholipid monolayer. Physical Review E, 2000, 62, 6831-6837.	0.8	24
190	Role of N- and C-Terminal Amino Acids in Two-Dimensional Streptavidin Crystal Formation. Langmuir, 2000, 16, 5199-5204.	1.6	15
191	Nanoscale Topographic Instabilities of a Phospholipid Monolayer. Journal of Physical Chemistry B, 2000, 104, 7388-7393.	1.2	50
192	Computer Modeling of Force-Induced Titin Domain Unfolding. Advances in Experimental Medicine and Biology, 2000, 481, 143-162.	0.8	18
193	Forced unfolding of the fibronectin type III module reveals a tensile molecular recognition switch. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 1351-1356.	3.3	251
194	Molecular shuttles: directed motion of microtubules along nanoscale kinesin tracks. Nanotechnology, 1999, 10, 232-236.	1.3	145
195	Self-assembly of fibronectin into fibrillar networks underneath dipalmitoyl phosphatidylcholine monolayers: Role of lipid matrix and tensile forces. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 12518-12523.	3.3	86
196	Two-dimensional crystallization of streptavidin: in pursuit of the molecular origins of structure, morphology, and thermodynamics. New Biotechnology, 1999, 16, 29-38.	2.7	12
197	Binding and two-dimensional crystallization of streptavidin at the air/water interface via engineered Cu-IDA chelator lipids. Coordination Chemistry Reviews, 1999, 183, 3-18.	9.5	12
198	In Situ Analysis of Europium Calcium Oxalate Crystallization Using Luminescence Microspectroscopy. Journal of Physical Chemistry B, 1999, 103, 3411-3416.	1.2	14

#	Article	IF	Citations
199	Phase Separation in Monolayers of Pulmonary Surfactant Phospholipids at the Airâ€“Water Interface: Composition and Structure. Biophysical Journal, 1999, 77, 2051-2061.	0.2	98
200	Effects of Interfacial Binding Kinetics on Two-Dimensional Streptavidin Crystallization. Langmuir, 1999, 15, 7125-7129.	1.6	5
201	Oriented growth of calcium oxalate monohydrate crystals beneath phospholipid monolayers. Biochimica Et Biophysica Acta - General Subjects, 1998, 1380, 31-45.	1.1	51
202	Molecular Basis for Ionic Strength Dependence and Crystal Morphology in Two-Dimensional Streptavidin Crystallization. Langmuir, 1998, 14, 4683-4687.	1.6	25
203	Unfolding of Titin Immunoglobulin Domains by Steered Molecular Dynamics Simulation. Biophysical Journal, 1998, 75, 662-671.	0.2	658
204	Electron Crystallographic Analysis of Two-Dimensional Streptavidin Crystals Coordinated to Metal-Chelated Lipid Monolayers. Biophysical Journal, 1998, 74, 2674-2679.	0.2	19
205	Liquid-crystal alignment on polytetrafluoroethylene and high-density polyethylene thin films studied by optical second-harmonic generation. Journal of Applied Physics, 1998, 83, 5195-5202.	1.1	14
206	Assessing the Role of Interfacial Electrostatics in Oriented Mineral Nucleation at Charged Organic Monolayers. Journal of Physical Chemistry B, 1997, 101, 10821-10827.	1.2	71
207	Dynamics of two-dimensional protein crystallization at the air/water interface: streptavidin targetted to surfaces via high-affinity binding or metal coordination. Supramolecular Science, 1997, 4, 163-171.	0.7	13
208	Lateral phase separation in interfacial films of pulmonary surfactant. Biophysical Journal, 1996, 71, 2583-2590.	0.2	110
209	Two-Dimensional Crystallization of Streptavidin Studied by Quantitative Brewster Angle Microscopy. Langmuir, 1996, 12, 1312-1320.	1.6	61
210	Two-dimensional protein crystallization via metal-ion coordination by naturally occurring surface histidines.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 4937-4941.	3.3	76
211	What do nonlinear optical techniques have to offer the biosciences?. Current Opinion in Colloid and Interface Science, 1996, 1, 257-263.	3.4	24
212	What Future Will We Choose for Physics?. Physics Today, 1995, 48, 25-30.	0.3	15
213	Fibronectin in a Surface-Adsorbed State. ACS Symposium Series, 1995, , 505-518.	0.5	8
214	<title>Investigation of interfacial peptide-lipid interactions by optical second harmonic generation from tryptophan</title>. , 1995, 2547, 371.		0
215	Near UV optical second harmonic generation studies of surfaceâ€adsorbed tryptophan residues. Journal of Chemical Physics, 1995, 103, 3140-3144.	1.2	17
216	<title>Nonlinear optical characterization of aromatic amino acids at the air/water interface: intrinsic probes of protein ordering on surfaces</title>. , 1994, 2125, 59.		1

#	Article	IF	Citations
217	Molecular assemblies at liquid interfaces probed by optical second-harmonic generation. , 1993, , .		2
218	Angular-Resolved ESCA Studies of Cadmium Arachidate Monolayers on Si (100): Inelastic Mean-Free Path and Depth Profile Analysis. Materials Research Society Symposia Proceedings, 1992, 292, 115.	0.1	0
219	Probing the structure of the adsorption layer of soluble amphiphilic molecules at the air/water interface. Langmuir, 1991, 7, 1222-1224.	1.6	23
220	Molecular monolayers of chargeâ€transfer complexes: Protonation and aggregation studied by second harmonic generation. Journal of Chemical Physics, 1991, 94, 2315-2323.	1.2	36
221	Surface density of soluble surfactants at the air/water interface: Adsorption equilibrium studied by second harmonic generation. Journal of Chemical Physics, 1991, 95, 4620-4625.	1.2	19
222	Influence of subphase conditions on the properties of Langmuir-Blodgett films from substituted phthalocyaninato-polysiloxanes. Thin Solid Films, 1990, 188, 341-353.	0.8	25
223	Laser spectroscopical investigation of atomic sodium kept at defined distances from Au(111) single crystal surfaces via Langmuirâ€“Blodgett films. Journal of Chemical Physics, 1989, 90, 6805-6807.	1.2	3
224	Probing the proton excess at interfaces by second harmonic generation. Chemical Physics Letters, 1989, 163, 555-559.	1.2	57
225	Control of interfacial equilibria by local charge distribution and average surface potential. Thin Solid Films, 1989, 178, 53-60.	0.8	19
226	Resonance of transverse capillary and longitudinal waves as a tool for monolayer investigations at the air-water interface. Langmuir, 1989, 5, 129-133.	1.6	19
227	Surface potentials and electric dipole moments of ganglioside and phospholipid monolayers: contribution of the polar headgroup at the water/lipid interface. Biochimica Et Biophysica Acta - Biomembranes, 1989, 984, 293-300.	1.4	67
228	Hydrated polar groups in lipid monolayers: Effective local dipole moments and dielectric properties. Thin Solid Films, 1988, 159, 73-81.	0.8	135
229	Structure and dynamics of deposited lipid monolayers: Low energy electron diffraction and scattering of thermal energy helium atoms. Thin Solid Films, 1988, 159, 429-434.	0.8	20
230	Local surface potentials and electric dipole moments of lipid monolayers: Contributions of the water/lipid and the lipid/air interfaces. Journal of Colloid and Interface Science, 1988, 126, 408-420.	5.0	254
231	Twoâ€dimensional crystal structure of single Langmuirâ€“Blodgett films deposited on noble metal single crystals studied with LEED. Journal of Chemical Physics, 1986, 84, 5200-5204.	1.2	65
232	Reorganization of bipolar lipid molecules in monolayers at the air/water interface. Thin Solid Films, 1985, 132, 205-219.	0.8	61
233	Translating Mechanical Force into Discrete Biochemical Signal Changes. , 0, , 286-338.		0