Mohammad R K Mofrad

List of Publications by Year in Descending Order

161 papers	5,646 citations	38 h-index	69 g-index
193 ext. papers	6,603 ext. citations	4.3 avg, IF	6.17 L-index

#	Paper	IF	Citations
161	On the nuclear pore complex and its emerging role in cellular mechanotransduction.. *APL Bioengineering*, **2022**, 6, 011504	6.6	3
160	A short HLA-DRA isoform binds the HLA-DR2 heterodimer on the outer domain of the peptide-binding site.. *Archives of Biochemistry and Biophysics*, **2022**, 109156	4.1	
159	Methylation at a conserved lysine residue modulates tau assembly and cellular functions.. *Molecular and Cellular Neurosciences*, **2022**, 103707	4.8	
158	Acid-Sensitive Surfactants Enhance the Delivery of Nucleic Acids.. *Molecular Pharmaceutics*, **2022**, 19, 67-79	5.6	0
157	Characterizing Binding Interactions That Are Essential for Selective Transport through the Nuclear Pore Complex. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
156	Drug delivery and adhesion of magnetic nanoparticles coated nanoliposomes and microbubbles to atherosclerotic plaques under magnetic and ultrasound fields. *Engineering Applications of Computational Fluid Mechanics*, **2021**, 15, 1703-1725	4.5	3
155	Intranuclear strain in living cells subjected to substrate stretching: A combined experimental and computational study. *Journal of Biomechanics*, **2021**, 119, 110292	2.9	2
154	Hydrodynamic interactions significantly alter the dynamics of actin networks and result in a length scale dependent loss modulus. *Journal of Biomechanics*, **2021**, 120, 110352	2.9	
153	EpitopeVec: Linear Epitope Prediction Using Deep Protein Sequence Embeddings. *Bioinformatics*, **2021**,	7.2	2
152	Molecular models of LINC complex assembly at the nuclear envelope. *Journal of Cell Science*, **2021**, 134,	5.3	7
151	Atomic Scale Interactions between RNA and DNA Aptamers with the TNF- Protein. *BioMed Research International*, **2021**, 2021, 9926128	3	2
150	A splice acceptor variant in HLA-DRA affects the conformation and cellular localization of the class II DR alpha-chain. *Immunology*, **2021**, 162, 194-207	7.8	1
149	PFP-WGAN: Protein function prediction by discovering Gene Ontology term correlations with generative adversarial networks. *PLoS ONE*, **2021**, 16, e0244430	3.7	3
148	FG nucleoporins feature unique patterns that distinguish them from other IDPs. *Biophysical Journal*, **2021**, 120, 3382-3391	2.9	4
147	A Coupled Multiscale Approach to Modeling Aortic Valve Mechanics in Health and Disease. *Applied Sciences (Switzerland)*, **2021**, 11, 8332	2.6	0
146	NucleoporinsSexclusive amino acid sequence features regulate their transient interaction with and selectivity of cargo complexes in the nuclear pore. *Molecular Biology of the Cell*, **2021**, 32, ar31	3.5	3
145	Free energy calculations shed light on the nuclear pore complexSs selective barrier nature. *Biophysical Journal*, **2021**, 120, 3628-3640	2.9	3

144	Nanoscale integrin cluster dynamics controls cellular mechanosensing via FAKY397 phosphorylation. *Science Advances*, **2020**, 6, eaax1909	14.3	28
143	Kindlin Assists Talin to Promote Integrin Activation. *Biophysical Journal*, **2020**, 118, 1977-1991	2.9	13
142	Strain-stiffening and strain-softening responses in random viscoelastic fibrous networks: interplay between fiber orientation and viscoelastic softening. *Soft Materials*, **2020**, 18, 373-385	1.7	3
141	Quantification of human sperm concentration using machine learning-based spectrophotometry. *Computers in Biology and Medicine*, **2020**, 127, 104061	7	1
140	Killer Cell Immunoglobulin-like Receptor Variants Are Associated with Protection from Symptoms Associated with More Severe Course in Parkinson Disease. *Journal of Immunology*, **2020**, 205, 1323-1330	5.3	9
139	Machine learning for endoleak detection after endovascular aortic repair. *Scientific Reports*, **2020**, 10, 18343	4.9	4
138	Talin is required to increase stiffness of focal molecular complex in its early formation process. *Biochemical and Biophysical Research Communications*, **2019**, 518, 579-583	3.4	4
137	Role of KASH domain lengths in the regulation of LINC complexes. *Molecular Biology of the Cell*, **2019**, 30, 2076-2086	3.5	11
136	Sex-specific Tau methylation patterns and synaptic transcriptional alterations are associated with neural vulnerability during chronic neuroinflammation. *Journal of Autoimmunity*, **2019**, 101, 56-69	15.5	6
135	The nucleus feels the force, LINCed in or not!. *Current Opinion in Cell Biology*, **2019**, 58, 114-119	9	19
134	Probabilistic variable-length segmentation of protein sequences for discriminative motif discovery (DiMotif) and sequence embedding (ProtVecX). *Scientific Reports*, **2019**, 9, 3577	4.9	30
133	Bridging finite element and machine learning modeling: stress prediction of arterial walls in atherosclerosis. *Journal of Biomechanical Engineering*, **2019**,	2.1	22
132	Structural Basis of the Differential Binding of Engineered Knottins to Integrins V3 and 51. *Structure*, **2019**, 27, 1443-1451.e6	5.2	8
131	Kindlin Is Mechanosensitive: Force-Induced Conformational Switch Mediates Cross-Talk among Integrins. *Biophysical Journal*, **2019**, 116, 1011-1024	2.9	11
130	DiTaxa: nucleotide-pair encoding of 16S rRNA for host phenotype and biomarker detection. *Bioinformatics*, **2019**, 35, 2498-2500	7.2	8
129	Quality control of mRNAs at the entry of the nuclear pore: Cooperation in a complex molecular system. *Nucleus*, **2018**, 9, 202-211	3.9	10
128	The "Stressful" Life of Cell Adhesion Molecules: On the Mechanosensitivity of Integrin Adhesome. *Journal of Biomechanical Engineering*, **2018**, 140,	2.1	7
127	Molecular Insights into the Mechanisms of SUN1 Oligomerization in the Nuclear Envelope. *Biophysical Journal*, **2018**, 114, 1190-1203	2.9	23

126	Fast and accurate view classification of echocardiograms using deep learning. *Npj Digital Medicine*, **2018**, 1,	15.7	183
125	MicroPheno: predicting environments and host phenotypes from 16S rRNA gene sequencing using a k-mer based representation of shallow sub-samples. *Bioinformatics*, **2018**, 34, i32-i42	7.2	33
124	A molecular model for LINC complex regulation: activation of SUN2 for KASH binding. *Molecular Biology of the Cell*, **2018**, 29, 2012-2023	3.5	9
123	Agent-Based Modeling in Molecular Systems Biology. *BioEssays*, **2018**, 40, e1800020	4.1	14
122	Computational Modeling of Heart Valves: Understanding and Predicting Disease **2018**, 385-411		
121	Conserved SUN-KASH Interfaces Mediate LINC Complex-Dependent Nuclear Movement and Positioning. *Current Biology*, **2018**, 28, 3086-3097.e4	6.3	25
120	Deep echocardiography: data-efficient supervised and semi-supervised deep learning towards automated diagnosis of cardiac disease. *Npj Digital Medicine*, **2018**, 1, 59	15.7	77
119	Mechanosensitive Conformation of Vinculin Regulates Its Binding to MAPK1. *Biophysical Journal*, **2017**, 112, 1885-1893	2.9	10
118	Multiscale Systems Biology Model of Calcific Aortic Valve Disease Progression. *ACS Biomaterials Science and Engineering*, **2017**, 3, 2922-2933	5.5	9
117	Looking "Under the Hood" of Cellular Mechanotransduction with Computational Tools: A Systems Biomechanics Approach across Multiple Scales. *ACS Biomaterials Science and Engineering*, **2017**, 3, 2712-2726	5.5	8
116	Bacterial Networks on Hydrophobic Micropillars. *ACS Nano*, **2017**, 11, 675-683	16.7	18
115	A strain-based finite element model for calcification progression in aortic valves. *Journal of Biomechanics*, **2017**, 65, 216-220	2.9	17
114	□Actinin Induces a Kink in the Transmembrane Domain of □Integrin and Impairs Activation via Talin. *Biophysical Journal*, **2017**, 113, 948-956	2.9	10
113	Consistent trilayer biomechanical modeling of aortic valve leaflet tissue. *Journal of Biomechanics*, **2017**, 61, 1-10	2.9	6
112	Cellular Nanomechanics. *Springer Handbooks*, **2017**, 1069-1100	1.3	2
111	Gelatin/chondroitin sulfate nanofibrous scaffolds for stimulation of wound healing: In-vitro and in-vivo study. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 2020-2034	5.4	32
110	Mechanical Contact Characteristics of PC3 Human Prostate Cancer Cells on Complex-Shaped Silicon Micropillars. *Materials*, **2017**, 10,	3.5	6
109	Molecular mechanics of Staphylococcus aureus adhesin, CNA, and the inhibition of bacterial adhesion by stretching collagen. *PLoS ONE*, **2017**, 12, e0179601	3.7	24

108	Differential Collective- and Single-Cell Behaviors on Silicon Micropillar Arrays. *ACS Applied Materials & Interfaces*, **2016**, 8, 23604-13	9.5	15
107	The LINC and NPC relationship - it's complicated!. *Journal of Cell Science*, **2016**, 129, 3219-29	5.3	40
106	Enhanced intracellular delivery of small molecules and drugs via non-covalent ternary dispersions of single-wall carbon nanotubes. *Journal of Materials Chemistry B*, **2016**, 4, 1324-1330	7.3	10
105	Adhesion characteristics of Staphylococcus aureus bacterial cells on funnel-shaped palladium–cobalt alloy nanostructures. *Journal of Experimental Nanoscience*, **2016**, 11, 480-489	1.9	2
104	Micro and nanotechnologies in heart valve tissue engineering. *Biomaterials*, **2016**, 103, 278-292	15.6	31
103	Dynamic Regulation of α-Actinin's Calponin Homology Domains on F-Actin. *Biophysical Journal*, **2016**, 110, 1444-55	2.9	20
102	On the Nuclear Pore Complex and Its Roles in Nucleo-Cytoskeletal Coupling and Mechanobiology. *Cellular and Molecular Bioengineering*, **2016**, 9, 217-226	3.9	10
101	Coupled Simulation of Heart Valves: Applications to Clinical Practice. *Annals of Biomedical Engineering*, **2015**, 43, 1626-39	4.7	5
100	Torsional behavior of axonal microtubule bundles. *Biophysical Journal*, **2015**, 109, 231-9	2.9	26
99	Mechanisms of integrin and filamin binding and their interplay with talin during early focal adhesion formation. *Integrative Biology (United Kingdom)*, **2015**, 7, 1285-96	3.7	19
98	Buckling behavior of individual and bundled microtubules. *Biophysical Journal*, **2015**, 108, 1718-1726	2.9	38
97	Rheology and Mechanics of the Cytoskeleton **2015**, 187-205		3
96	A Disulfide Bond Is Required for the Transmission of Forces through SUN-KASH Complexes. *Biophysical Journal*, **2015**, 109, 501-9	2.9	24
95	Cooperation within von Willebrand factors enhances adsorption mechanism. *Journal of the Royal Society Interface*, **2015**, 12, 20150334	4.1	5
94	Nucleoporin's Like Charge Regions Are Major Regulators of FG Coverage and Dynamics Inside the Nuclear Pore Complex. *PLoS ONE*, **2015**, 10, e0143745	3.7	20
93	The interaction of RNA helicase DDX3 with HIV-1 Rev-CRM1-RanGTP complex during the HIV replication cycle. *PLoS ONE*, **2015**, 10, e0112969	3.7	20
92	Directional migration and differentiation of neural stem cells within three-dimensional microenvironments. *Integrative Biology (United Kingdom)*, **2015**, 7, 335-44	3.7	15
91	Continuous Distributed Representation of Biological Sequences for Deep Proteomics and Genomics. *PLoS ONE*, **2015**, 10, e0141287	3.7	329

90	Actin reorganization through dynamic interactions with single-wall carbon nanotubes. *ACS Nano*, **2014**, 8, 188-97	16.7	38
89	Biomechanical properties of native and tissue engineered heart valve constructs. *Journal of Biomechanics*, **2014**, 47, 1949-63	2.9	173
88	Atomic basis for the species-specific inhibition of αV integrins by monoclonal antibody 17E6 is revealed by the crystal structure of αVβ3 ectodomain-17E6 Fab complex. *Journal of Biological Chemistry*, **2014**, 289, 13801-9	5.4	26
87	The talin dimer structure orientation is mechanically regulated. *Biophysical Journal*, **2014**, 107, 1802-1809	2.9	21
86	An agent-based model for mRNA export through the nuclear pore complex. *Molecular Biology of the Cell*, **2014**, 25, 3643-53	3.5	21
85	Mechanotransduction pathways linking the extracellular matrix to the nucleus. *International Review of Cell and Molecular Biology*, **2014**, 310, 171-220	6	64
84	Cell responses to metallic nanostructure arrays with complex geometries. *Biomaterials*, **2014**, 35, 9363-71	15.6	33
83	The α-subunit regulates stability of the metal ion at the ligand-associated metal ion-binding site in β integrins. *Journal of Biological Chemistry*, **2014**, 289, 23256-23263	5.4	6
82	The interaction of CRM1 and the nuclear pore protein Tpr. *PLoS ONE*, **2014**, 9, e93709	3.7	17
81	Quantifying intracellular protein binding thermodynamics during mechanotransduction based on FRET spectroscopy. *Methods*, **2014**, 66, 208-21	4.6	2
80	Responses of Staphylococcus aureus bacterial cells to nanocrystalline nickel nanostructures. *Biomaterials*, **2014**, 35, 4249-54	15.6	24
79	On the activation of integrin αIIbβ3: outside-in and inside-out pathways. *Biophysical Journal*, **2013**, 105, 1304-15	2.9	47
78	An agent based model of integrin clustering: Exploring the role of ligand clustering, integrin homo-oligomerization, integrin–ligand affinity, membrane crowdedness and ligand mobility. *Journal of Computational Physics*, **2013**, 244, 264-278	4.1	25
77	The interaction of vinculin with actin. *PLoS Computational Biology*, **2013**, 9, e1002995	5	36
76	Localized lipid packing of transmembrane domains impedes integrin clustering. *PLoS Computational Biology*, **2013**, 9, e1002948	5	29
75	Higher nucleoporin-Importin-α affinity at the nuclear basket increases nucleocytoplasmic import. *PLoS ONE*, **2013**, 8, e81741	3.7	17
74	Computational modeling of axonal microtubule bundles under tension. *Biophysical Journal*, **2012**, 102, 749-57	2.9	72
73	Phosphorylation primes vinculin for activation. *Biophysical Journal*, **2012**, 102, 2022-30	2.9	34

72	A molecular trajectory of α-actinin activation. *Biophysical Journal*, **2012**, 103, 2050-9	2.9	28
71	Passive control of cell locomotion using micropatterns: the effect of micropattern geometry on the migratory behavior of adherent cells. *Lab on A Chip*, **2012**, 12, 2391-402	7.2	32
70	Altered cell mechanics from the inside: dispersed single wall carbon nanotubes integrate with and restructure actin. *Journal of Functional Biomaterials*, **2012**, 3, 398-417	4.8	26
69	Vinculin activation is necessary for complete talin binding. *Biophysical Journal*, **2011**, 100, 332-40	2.9	40
68	Accounting for diffusion in agent based models of reaction-diffusion systems with application to cytoskeletal diffusion. *PLoS ONE*, **2011**, 6, e25306	3.7	19
67	On the significance of microtubule flexural behavior in cytoskeletal mechanics. *PLoS ONE*, **2011**, 6, e25627	3.7	38
66	Cell adhesion and detachment on gold surfaces modified with a thiol-functionalized RGD peptide. *Biomaterials*, **2011**, 32, 7286-96	15.6	38
65	A biological breadboard platform for cell adhesion and detachment studies. *Lab on A Chip*, **2011**, 11, 3555-62	7.2	14
64	Viscoelastic characterization of the retracting cytoskeleton using subcellular detachment. *Applied Physics Letters*, **2011**, 98, 133701	3.4	5
63	MEMS-based dynamic cell-to-cell culture platforms using electrochemical surface modifications. *Journal of Micromechanics and Microengineering*, **2011**, 21, 054028	2	3
62	Brownian dynamics simulation of nucleocytoplasmic transport: a coarse-grained model for the functional state of the nuclear pore complex. *PLoS Computational Biology*, **2011**, 7, e1002049	5	59
61	Cytoskeletal Mechanics and Rheology **2011**, 167-188		3
60	A sub-cellular viscoelastic model for cell population mechanics. *PLoS ONE*, **2010**, 5, e12097	3.7	46
59	Averaged implicit hydrodynamic model of semiflexible filaments. *Physical Review E*, **2010**, 81, 031920	2.4	21
58	A molecular dynamics investigation of vinculin activation. *Biophysical Journal*, **2010**, 99, 1073-81	2.9	39
57	Analysis of Circular PDMS Microballoons With Ultralarge Deflection for MEMS Design. *Journal of Microelectromechanical Systems*, **2010**, 19, 854-864	2.5	28
56	Cytoskeletal Mechanics and Cellular Mechanotransduction: A Molecular Perspective. *Studies in Mechanobiology, Tissue Engineering and Biomaterials*, **2010**, 3-27	0.5	7
55	An efficient two-stage approach for image-based FSI analysis of atherosclerotic arteries. *Biomechanics and Modeling in Mechanobiology*, **2010**, 9, 213-23	3.8	16

54	On the multiscale modeling of heart valve biomechanics in health and disease. *Biomechanics and Modeling in Mechanobiology*, **2010**, 9, 373-87	3.8	59
53	Carotid atheroma rupture observed in vivo and FSI-predicted stress distribution based on pre-rupture imaging. *Annals of Biomedical Engineering*, **2010**, 38, 2748-65	4.7	39
52	Molecular Biomechanics: The Molecular Basis of How Forces Regulate Cellular Function. *Cellular and Molecular Bioengineering*, **2010**, 3, 91-105	3.9	27
51	Hemodynamic environments from opposing sides of human aortic valve leaflets evoke distinct endothelial phenotypes in vitro. *Cardiovascular Engineering (Dordrecht, Netherlands)*, **2010**, 10, 5-11		52
50	Mechanotransduction: a major regulator of homeostasis and development. *Wiley Interdisciplinary Reviews: Systems Biology and Medicine*, **2010**, 2, 625-39	6.6	42
49	Cellular Nanomechanics **2010**, 1171-1200		12
48	Rods-on-string idealization captures semiflexible filament dynamics. *Physical Review E*, **2009**, 79, 011906	2.4	22
47	Band-like Stress Fiber Propagation in a Continuum and Implications for Myosin Contractile Stresses. *Cellular and Molecular Bioengineering*, **2009**, 2, 13-27	3.9	13
46	A computational model of aging and calcification in the aortic heart valve. *PLoS ONE*, **2009**, 4, e5960	3.7	54
45	Phosphorylation facilitates the integrin binding of filamin under force. *Biophysical Journal*, **2009**, 97, 3095-104	2.9	39
44	Rheology of the Cytoskeleton. *Annual Review of Fluid Mechanics*, **2009**, 41, 433-453	22	82
43	Molecular mechanics of the alpha-actinin rod domain: bending, torsional, and extensional behavior. *PLoS Computational Biology*, **2009**, 5, e1000389	5	44
42	Molecular mechanics of filaminS rod domain. *Biophysical Journal*, **2008**, 94, 1075-83	2.9	30
41	On the octagonal structure of the nuclear pore complex: insights from coarse-grained models. *Biophysical Journal*, **2008**, 95, 2073-85	2.9	26
40	In vitro analysis of a hepatic device with intrinsic microvascular-based channels. *Biomedical Microdevices*, **2008**, 10, 795-805	3.7	138
39	Estimation of nonlinear mechanical properties of vascular tissues via elastography. *Cardiovascular Engineering (Dordrecht, Netherlands)*, **2008**, 8, 191-202		37
38	On the cytoskeleton and soft glassy rheology. *Journal of Biomechanics*, **2008**, 41, 1467-78	2.9	27
37	A multiscale computational comparison of the bicuspid and tricuspid aortic valves in relation to calcific aortic stenosis. *Journal of Biomechanics*, **2008**, 41, 3482-7	2.9	99

36	A computational study on power-law rheology of soft glassy materials with application to cell mechanics. *Computer Methods in Applied Mechanics and Engineering*, **2007**, 196, 2965-2971	5.7	12
35	A finite shell element for heart mitral valve leaflet mechanics, with large deformations and 3D constitutive material model. *Journal of Biomechanics*, **2007**, 40, 705-11	2.9	29
34	Mechanics and deformation of the nucleus in micropipette aspiration experiment. *Journal of Biomechanics*, **2007**, 40, 2053-62	2.9	107
33	Force-induced activation of talin and its possible role in focal adhesion mechanotransduction. *Journal of Biomechanics*, **2007**, 40, 2096-106	2.9	131
32	Transient, three-dimensional, multiscale simulations of the human aortic valve. *Cardiovascular Engineering (Dordrecht, Netherlands)*, **2007**, 7, 140-55		111
31	Microfabrication of three-dimensional engineered scaffolds. *Tissue Engineering*, **2007**, 13, 1837-44		150
30	Deformation of the cell nucleus under indentation: Mechanics and mechanisms. *Journal of Materials Research*, **2006**, 21, 2126-2135	2.5	56
29	A coarse-grained model for force-induced protein deformation and kinetics. *Biophysical Journal*, **2006**, 90, 2686-97	2.9	14
28	A large-strain finite element formulation for biological tissues with application to mitral valve leaflet tissue mechanics. *Journal of Biomechanics*, **2006**, 39, 1557-61	2.9	32
27	Force-induced activation of talin: its role in focal adhesion development. *Journal of Biomechanics*, **2006**, 39, S237	2.9	
26	A combined FEM/genetic algorithm for vascular soft tissue elasticity estimation. *Cardiovascular Engineering (Dordrecht, Netherlands)*, **2006**, 6, 93-102		47
25	Endothelialized microvasculature based on a biodegradable elastomer. *Tissue Engineering*, **2005**, 11, 302-9		280
24	Exploring the molecular basis for mechanosensation, signal transduction, and cytoskeletal remodeling. *Acta Biomaterialia*, **2005**, 1, 281-93	10.8	28
23	Tissue elasticity estimation with optical coherence elastography: toward mechanical characterization of in vivo soft tissue. *Annals of Biomedical Engineering*, **2005**, 33, 1631-9	4.7	66
22	On the Constitutive Models for Heart Valve Leaflet Mechanics. *Cardiovascular Engineering (Dordrecht, Netherlands)*, **2005**, 5, 37-43		34
21	Design and Fabrication of a Constant Shear Microfluidic Network for Tissue Engineering. *Materials Research Society Symposia Proceedings*, **2004**, 823, W9.4.1/O5.4.1		1
20	Design and Fabrication of a Constant Shear Microfluidic Network for Tissue Engineering. *Materials Research Society Symposia Proceedings*, **2004**, 820, 120		5
19	Endothelialized networks with a vascular geometry in microfabricated poly(dimethyl siloxane). *Biomedical Microdevices*, **2004**, 6, 269-78	3.7	179

18	Biodegradable Microfluidics. *Advanced Materials*, **2004**, 16, 2007-2012	24	145
17	Mechanical analysis of atherosclerotic plaques based on optical coherence tomography. *Annals of Biomedical Engineering*, **2004**, 32, 1494-503	4.7	66
16	DISTINCT ENDOTHELIAL PHENOTYPES EVOKED BY ARTERIAL WAVEFORMS DERIVED FROM ATHEROSCLEROSIS-PRONE AND ATHEROSCLEROSIS-PROTECTED REGIONS OF THE HUMAN VASCULATURE. *Cardiovascular Pathology*, **2004**, 13, 26	3.8	5
15	Cyclic strain in human carotid bifurcation and its potential correlation to atherogenesis: Idealized and anatomically-realistic models. *Journal of Engineering Mathematics*, **2003**, 47, 299-314	1.2	32
14	A characteristic/finite element algorithm for time-dependent 3-D advection-dominated transport using unstructured grids. *Computer Methods in Applied Mechanics and Engineering*, **2003**, 192, 1281-1298	5.7	16
13	Dynamic rotational seeding and cell culture system for vascular tube formation. *Tissue Engineering*, **2003**, 9, 291-9		81
12	A three-dimensional viscoelastic model for cell deformation with experimental verification. *Biophysical Journal*, **2003**, 85, 3336-49	2.9	157
11	A microfabricated array bioreactor for perfused 3D liver culture. *Biotechnology and Bioengineering*, **2002**, 78, 257-69	4.9	388
10	An efficient characteristic Galerkin scheme for the advection equation in 3-D. *Computer Methods in Applied Mechanics and Engineering*, **2002**, 191, 5345-5363	5.7	21
9	Multiphasic models of cell mechanics **2001**, 84-102		8
8	Mass transport in an anatomically realistic human right coronary artery. *Annals of Biomedical Engineering*, **2001**, 29, 121-7	4.7	64
7	Experimental measurements of intracellular mechanics **2001**, 18-49		3
6	A Molecular Perspective on Mechanotransduction in Focal Adhesions250-268		
5	Translating Mechanical Force into Discrete Biochemical Signal Changes286-338		
4	Mechanotransduction417-437		2
3	A novel framework for elastography and modulus estimation: integration of tissue mechanics with imaging		1
2	TripletProt: Deep Representation Learning of Proteins based on Siamese Networks		3
1	DeepPrime2Sec: Deep Learning for Protein Secondary Structure Prediction from the Primary Sequences		9