Taiji Adachi

List of Publications by Year
in descending order

331 papers	6,241 citations	101543 36 h-index	79698 73 g-index
347 all docs	347 docs citations	347 times ranked	6621 citing authors

#	Article	IF	Citations
1	Self-organizing optic-cup morphogenesis in three-dimensional culture. Nature, 2011, 472, 51-56.	27.8	1,771
2	Framework for optimal design of porous scaffold microstructure by computational simulation of bone regeneration. Biomaterials, 2006, 27, 3964-3972.	11.4	278
3	Modes I and II interlaminar fracture toughness and fatigue delamination of CF/epoxy laminates with self-same epoxy interleaf. International Journal of Fatigue, 2006, 28, 1154-1165.	5.7	213
4	Trabecular Surface Remodeling Simulation for Cancellous Bone Using Microstructural Voxel Finite Element Models. Journal of Biomechanical Engineering, 2001, 123, 403-409.	1.3	147
5	Evaluation of interfacial strength in CF/epoxies using FEM and in-situ experiments. Composites Part A: Applied Science and Manufacturing, 2006, 37, 2248-2256.	7.6	132
6	Functional adaptation of cancellous bone in human proximal femur predicted by trabecular surface remodeling simulation toward uniform stress state. Journal of Biomechanics, 2002, 35, 1541-1551.	2.1	126
7	Computer simulation of trabecular remodeling in human proximal femur using large-scale voxel FE models: Approach to understanding Wolff's law. Journal of Biomechanics, 2009, 42, 1088-1094.	2.1	125
8	External Mechanical Cues Trigger the Establishment of the Anterior-Posterior Axis in Early Mouse Embryos. Developmental Cell, 2013, 27, 131-144.	7.0	125
9	Calcium response in single osteocytes to locally applied mechanical stimulus: Differences in cell process and cell body. Journal of Biomechanics, 2009, 42, 1989-1995.	2.1	120
10	Effect of fiber array irregularities on microscopic interfacial normal stress states of transversely loaded UD-CFRP from viewpoint of failure initiation. Composites Science and Technology, 2009, 69, 1726-1734.	7.8	111
11	TAG-1â€“assisted progenitor elongation streamlines nuclear migration to optimize subapical crowding. Nature Neuroscience, 2013, 16, 1556-1566.	14.8	93
12	Inhibition of protein kinase CK2 prevents the progression of glomerulonephritis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7736-7741.	7.1	82
13	Microscale fluid flow analysis in a human osteocyte canaliculus using a realistic high-resolution image-based three-dimensional model. Integrative Biology (United Kingdom), 2012, 4, 1198-1206.	1.3	76
14	Vertex dynamics simulations of viscosity-dependent deformation during tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2015, 14, 413-425.	2.8	76
15	Quantitative evaluation of threshold fiber strain that induces reorganization of cytoskeletal actin fiber structure in osteoblastic cells. Journal of Biomechanics, 2005, 38, 1895-1901.	2.1	75
16	Relaxationâ€expansion model for selfâ€driven retinal morphogenesis. BioEssays, 2012, 34, 17-25.	2.5	72
17	Strain-triggered mechanical feedback in self-organizing optic-cup morphogenesis. Science Advances, 2018, 4, eaau1354.	10.3	69
18	Osteocyte calcium signaling response to bone matrix deformation. Journal of Biomechanics, 2009, 42, 2507-2512.	2.1	68

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19	Topography Design Concept of a Tissue Engineering Scaffold for Controlling Cell Function and Fate Through Actin Cytoskeletal Modulation. Tissue Engineering - Part B: Reviews, 2014, 20, 609-627.	4.8	63
20	In vitro bone-like nodules generated from patient-derived iPSCs recapitulate pathological bone phenotypes. Nature Biomedical Engineering, 2019, 3, 558-570.	22.5	57
21	Simulation of Trabecular Surface Remodeling based on Local Stress Nonuniformity.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1997, 40, 782-792.	0.3	55
22	Mechano-adaptive sensory mechanism of Î±-catenin under tension. Scientific Reports, 2016, 6, 24878.	3.3	55
23	Trabecular bone remodelling simulation considering osteocytic response to fluid-induced shear stress. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2669-2682.	3.4	53
24	Reversible network reconnection model for simulating large deformation in dynamic tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2013, 12, 627-644.	2.8	53
25	Functional Investigation of a Non-coding Variant Associated with Adolescent Idiopathic Scoliosis in Zebrafish: Elevated Expression of the Ladybird Homeobox Gene Causes Body Axis Deformation. PLoS Genetics, 2016, 12, e1005802.	3.5	51
26	Mechanical roles of apical constriction, cell elongation, and cell migration during neural tube formation in Xenopus. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1733-1746.	2.8	50
27	Mechanotransduction via the Piezo1-Akt pathway underlies Sost suppression in osteocytes. Biochemical and Biophysical Research Communications, 2020, 521, 806-813.	2.1	50
28	Transient response of fluid pressure in a poroelastic material under uniaxial cyclic loading. Journal of the Mechanics and Physics of Solids, 2008, 56, 1794-1805.	4.8	49
29	Three-dimensional vertex model for simulating multicellular morphogenesis. Biophysics and Physicobiology, 2015, 12, 13-20.	1.0	48
30	Effect of tensile force on the mechanical behavior of actin filaments. Journal of Biomechanics, 2011, 44, 1776-1781.	2.1	46
31	Actomyosin contractility spatiotemporally regulates actin network dynamics in migrating cells. Journal of Biomechanics, 2009, 42, 2540-2548.	2.1	44
32	Combining Turing and 3D vertex models reproduces autonomous multicellular morphogenesis with undulation, tubulation, and branching. Scientific Reports, 2018, 8, 2386.	3.3	44
33	Measurement of local strain on cell membrane at initiation point of calcium signaling response to applied mechanical stimulus in osteoblastic cells. Journal of Biomechanics, 2007, 40, 1246-1255.	2.1	43
34	Mode I fatigue delamination of Zanchor-reinforced CF/epoxy laminates. International Journal of Fatigue, 2010, 32, 37-45.	5.7	42
35	Modeling cell proliferation for simulating three-dimensional tissue morphogenesis based on a reversible network reconnection framework. Biomechanics and Modeling in Mechanobiology, 2013, 12, 987-996.	2.8	42
36	Directional dependence of osteoblastic calcium response to mechanical stimuli. Biomechanics and Modeling in Mechanobiology, 2003, 2, 73-82.	2.8	38

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37	Mode I type delamination fracture toughness of YBCO coated conductor with additional Cu layer. Physica C: Superconductivity and Its Applications, 2011, 471, 1071-1074.	1.2	38
38	Global distribution of intense lightning discharges and their seasonal variations. Journal Physics D: Applied Physics, 2008, 41, 234011.	2.8	37
39	Effects of loading frequency on the functional adaptation of trabeculae predicted by bone remodeling simulation. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 900-908.	3.1	37
40	Fluid pressure response in poroelastic materials subjected to cyclic loading. Journal of the Mechanics and Physics of Solids, 2009, 57, 1815-1827.	4.8	36
41	Control of highly migratory cells by microstructured surface based on transient change in cell behavior. Biomaterials, 2010, 31, 8539-8545.	11.4	36
42	Roles of Heparan Sulfate Sulfation in Dentinogenesis. Journal of Biological Chemistry, 2012, 287, 12217-12229.	3.4	36
43	Cell Condensation Triggers the Differentiation of Osteoblast Precursor Cells to Osteocyte-Like Cells. Frontiers in Bioengineering and Biotechnology, 2019, 7, 288.	4.1	36
44	Estimation of bone permeability considering the morphology of lacuno-canalicular porosity. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 240-248.	3.1	34
45	Synergistic acceleration of experimental tooth movement by supplementary high-frequency vibration applied with a static force in rats. Scientific Reports, 2017, 7, 13969.	3.3	34
46	Forceful mastication activates osteocytes and builds a stout jawbone. Scientific Reports, 2019, 9, 4404.	3.3	34
47	In silico experiments of bone remodeling explore metabolic diseases and their drug treatment. Science Advances, 2020, 6, eaax0938.	10.3	34
48	Spatial and temporal regulation of cancellous bone structure: characterization of a rate equation of trabecular surface remodeling. Medical Engineering and Physics, 2005, 27, 305-311.	1.7	31
49	Asymmetric intercellular communication between bone cells: Propagation of the calcium signaling. Biochemical and Biophysical Research Communications, 2009, 389, 495-500.	2.1	31
50	Strain field in actin filament network in lamellipodia of migrating cells: Implication for network reorganization. Journal of Biomechanics, 2009, 42, 297-302.	2.1	30
51	Evaluation of extensional and torsional stiffness of single actin filaments by molecular dynamics analysis. Journal of Biomechanics, 2010, 43, 3162-3167.	2.1	30
52	Apical contractility in growing epithelium supports robust maintenance of smooth curvatures against cell-division-induced mechanical disturbance. Journal of Biomechanics, 2013, 46, 1705-1713.	2.1	30
53	Multiscale modeling and mechanics of filamentous actin cytoskeleton. Biomechanics and Modeling in Mechanobiology, 2012, 11, 291-302.	2.8	29
54	Two-Dimensional Quantitative Analysis of Preferential Alignment of BAp c-axis for Isolated Human Trabecular Bone Using Microbeam X-ray Diffractometer with a Transmission Optical System. Materials Transactions, 2007, 48, 343-347.	1.2	28

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55	Uniform Stress State in Bone Structure With Residual Stress. Journal of Biomechanical Engineering, 1998, 120, 342-347.	1.3	27
56	Effects of a Fixation Screw on Trabecular Structural Changes in a Vertebral Body Predicted by Remodeling Simulation. Annals of Biomedical Engineering, 2003, 31, 733-740.	2.5	27
57	Procedures for the Quantification of Whole-Tissue Immunofluorescence Images Obtained at Single-Cell Resolution during Murine Tubular Organ Development. PLoS ONE, 2015, 10, e0135343.	2.5	27
58	Computational simulation of deformation behavior of 2D-lattice continuum. International Journal of Mechanical Sciences, 1998, 40, 857-866.	6.7	26
59	Interstitial fluid flow in canaliculi as a mechanical stimulus for cancellous bone remodeling: in silico validation. Biomechanics and Modeling in Mechanobiology, 2014, 13, 851-860.	2.8	25
60	Electron energy loss spectroscopy studies of the Siâ€SiO2interface. Applied Physics Letters, 1979, 35, 199-201.	3.3	24
61	Computational simulation of three-dimensional neck propagation in polymeric specimens under tension and hybrid identification of constitutive equation. International Journal of Mechanical Sciences, 1997, 39, 913-923.	6.7	22
62	Effectiveness of scaffolds with pre-seeded mesenchymal stem cells in bone regeneration â€"Assessment of osteogenic ability of scaffolds implanted under the periosteum of the cranial bone of ratsâ€". Dental Materials Journal, 2010, 29, 673-681.	1.8	22
63	A Novel Method for Measuring Tension Generated in Stress Fibers by Applying External Forces. Biophysical Journal, 2011, 101, 53-60.	0.5	22
64	Characteristics of motility-based filtering of adherent cells on microgrooved surfaces. Biomaterials, 2012, 33, 395-401.	11.4	22
65	Real-time TIRF observation of vinculin recruitment to stretched Î±-catenin by AFM. Scientific Reports, 2018, 8, 1575.	3.3	21
66	Elasticity-based boosting of neuroepithelial nucleokinesis via indirect energy transfer from mother to daughter. PLoS Biology, 2018, 16, e2004426.	5.6	21
67	Local Disassembly of Actin Stress Fibers Induced by Selected Release of Intracellular Tension in Osteoblastic Cell. Journal of Biomechanical Science and Engineering, 2006, 1, 204-214.	0.3	20
68	Intrauterine Pressures Adjusted by Reichertâ€™s Membrane Are Crucial for Early Mouse Morphogenesis. Cell Reports, 2020, 31, 107637.	6.4	20
69	Analysis of mesoscopic stress states with delamination and their relation to critical current under bending deformation in Bi2223/Ag superconducting composite tapes. Superconductor Science and Technology, 2005, 18, S356-S363.	3.5	19
70	Modeling cell apoptosis for simulating three-dimensional multicellular morphogenesis based on a reversible network reconnection framework. Biomechanics and Modeling in Mechanobiology, 2016, 15, 805-816.	2.8	19
71	Polarized cellular mechanoresponse system for maintaining radial size in developing epithelial tubes. Development (Cambridge), 2019, 146, .	2.5	19
72	Cell-fate decision of mesenchymal stem cells toward osteocyte differentiation is committed by spheroid culture. Scientific Reports, 2021, 11, 13204.	3.3	19

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73	Simulation Study on Local and Integral Mechanical Quantities at Single Trabecular Level as Candidates of Remodeling Stimuli. Journal of Biomechanical Science and Engineering, 2006, 1, 124-135.	0.3	18
74	Coupling intercellular molecular signalling with multicellular deformation for simulating three-dimensional tissue morphogenesis. Interface Focus, 2015, 5, 20140095.	3.0	17
75	Advances in Experiments and Modeling in Micro- and Nano-Biomechanics: A Mini Review. Cellular and Molecular Bioengineering, 2011, 4, 327-339.	2.1	16
76	Modeling myosin-dependent rearrangement and force generation in an actomyosin network. Journal of Theoretical Biology, 2011, 281, 65-73.	1.7	16
77	Spontaneous anterior arch fracture of the atlas following C1 laminectomy without fusion: A report of three cases and finite element analysis. Journal of Orthopaedic Science, 2016, 21, 306-315.	1.1	16
78	Electrical Conductivity of Molten Chargeâ€Asymmetric Salts: , , and Systems. Journal of the Electrochemical Society, 1986, 133, 1162-1166.	2.9	15
79	Changes in the Fabric and Compliance Tensors of Cancellous Bone due to Trabecular Surface Remodeling, Predicted by a Digital Image-based Model. Computer Methods in Biomechanics and Biomedical Engineering, 2004, 7, 187-192.	1.6	15
80	Coupling between axial stretch and bending/twisting deformation of actin filaments caused by a mismatched centroid from the center axis. International Journal of Mechanical Sciences, 2010, 52, 329-333.	6.7	14
81	Mechanical role of the spatial patterns of contractile cells in invagination of growing epithelial tissue. Development Growth and Differentiation, 2017, 59, 444-454.	1.5	14
82	Simultaneous observation of calcium signaling response and membrane deformation due to localized mechanical stimulus in single osteoblast-like cells. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 43-50.	3.1	13
83	Application of explainable ensemble artificial intelligence model to categorization of hemodialysis-patient and treatment using nationwide-real-world data in Japan. PLoS ONE, 2020, 15, e0233491.	2.5	13
84	Three-Dimensional Lattice Continuum Model of Cancellous Bone for Structural and Remodeling Simulation.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 1999, 42, 470-480.	0.3	12
85	Regulatory relationship between tactile sensation at the vermilion of the lips and lip-closing force. Journal of Oral Rehabilitation, 2011, 38, 579-587.	3.0	12
86	Quantitative analysis of extensionâ€“torsion coupling of actin filaments. Biochemical and Biophysical Research Communications, 2012, 420, 710-713.	2.1	12
87	Modeling trabecular bone adaptation to local bending load regulated by mechanosensing osteocytes. Acta Mechanica, 2014, 225, 2833-2840.	2.1	12
88	High-resolution image-based simulation reveals membrane strain concentration on osteocyte processes caused by tethering elements. Biomechanics and Modeling in Mechanobiology, 2021, 20, 2353-2360.	2.8	12
89	Effect of fatigue loading on critical current in stainless steelâ€“laminated DI-BSCCO superconducting composite tape. Physica C: Superconductivity and Its Applications, 2010, 470, 1373-1376.	1.2	11
90	Asymmetric lip-closing forces in children with repaired unilateral cleft lip and/or palate. Journal of Oral Rehabilitation, 2011, 38, 921-928.	3.0	11

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91	Spatiotemporal coordinated hierarchical properties of cellular protrusion revealed by multiscale analysis. Integrative Biology (United Kingdom), 2012, 4, 875-888.	1.3	11
92	Single-Cell Manipulation and DNA Delivery Technology Using Atomic Force Microscopy and Nanoneedle. Journal of Nanoscience and Nanotechnology, 2014, 14, 57-70.	0.9	11
93	Computer simulation of orthodontic tooth movement using CT image-based voxel finite element models with the level set method. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 474-483.	1.6	11
94	Capturing microscopic features of bone remodeling into a macroscopic model based on biological rationales of bone adaptation. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1697-1708.	2.8	10
95	Epithelial tissue folding pattern in confined geometry. Biomechanics and Modeling in Mechanobiology, 2020, 19, 815-822.	2.8	10
96	Mechanical Regulation of Actin Network Dynamics in Migrating Cells. Journal of Biomechanical Science and Engineering, 2010, 5, 186-207.	0.3	9
97	Simulations of dynamics of actin filaments by remodeling them in shearflows. Computers in Biology and Medicine, 2010, 40, 876-882.	7.0	9
98	Interfacial fatigue crack propagation in microscopic model composite using bifiber shear specimens. Composites Part A: Applied Science and Manufacturing, 2012, 43, 239-246.	7.6	9
99	In vitro tubulogenesis of Madinâ€“Darby canine kidney (MDCK) spheroids occurs depending on constituent cell number and scaffold gel concentration. Journal of Theoretical Biology, 2017, 435, 110-115.	1.7	9
100	Modulation ofSostGene Expression Under Hypoxia in Three-Dimensional Scaffold-Free Osteocytic Tissue. Tissue Engineering - Part A, 2021, 27, 1037-1043.	3.1	9
101	Efficacy of the Wolverine cutting balloon on a circumferential calcified coronary lesion: Bench test using a three-dimensional printer and computer simulation with the finite element method. Cardiovascular Intervention and Therapeutics, 2022, 37, 78-88.	2.3	9
102	Investigation of mechanical behavior of copper in Nb3Sn superconducting composite wire. Physica C: Superconductivity and Its Applications, 2004, 412-414, 1261-1266.	1.2	8
103	Dynamic coupling between actin network flow and turnover revealed by flow mapping in the lamella of crawling fragments. Biochemical and Biophysical Research Communications, 2009, 390, 797-802.	2.1	8
104	Coarse-grained Brownian ratchet model of membrane protrusion on cellular scale. Biomechanics and Modeling in Mechanobiology, 2011, 10, 495-503.	2.8	8
105	Three-dimensional modulation of cortical plasticity during pseudopodial protrusion of mouse leukocytes. Biochemical and Biophysical Research Communications, 2013, 438, 594-599.	2.1	8
106	New simulation model for bone formation markers in osteoporosis patients treated with once-weekly teriparatide. Bone Research, 2014, 2, 14043.	11.4	8
107	Theoretical concept of cortical to cancellous bone transformation. Bone Reports, 2020, 12, 100260.	0.4	8
108	In situ observation of interfacial crack propagation in GF/epoxy model composite using bifiber specimens in mode I and mode II loading. Composites Science and Technology, 2008, 68, 2678-2689.	7.8	7

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109	Functional Adaptation of the Fibrocartilage and Bony Trabeculae at the Attachment Sites of the Anterior Cruciate Ligament. Clinical Anatomy, 2020, 33, 988-996.	2.7	7
110	Characterization of self-organized osteocytic spheroids using mouse osteoblast-like cells. Journal of Biomechanical Science and Engineering, 2020, 15, 20-00227-20-00227.	0.3	7
111	Coarse-grained modeling and simulation of actin filament behavior based on Brownian dynamics method. MCB Molecular and Cellular Biomechanics, 2009, 6, 161-73.	0.7	7
112	Breeding of four-leaf white clover (Trifolium repens L.) through 60Co gamma-ray irradiation. Plant Biotechnology Reports, 2009, 3, 191-197.	1.5	6
113	Change in fatigue property and its relation to critical current for YBCO coated conductor with additional Cu layer. Physica C: Superconductivity and Its Applications, 2009, 469, 1476-1479.	1.2	6
114	Nano-mechanical characterization of tension-sensitive helix bundles in talin rod. Biochemical and Biophysical Research Communications, 2017, 484, 372-377.	2.1	6
115	Hyaluronic acid selective anchoring to the cytoskeleton: An atomic force microscopy study. PLoS ONE, 2018, 13, e0206056.	2.5	6
116	Talin is required to increase stiffness of focal molecular complex in its early formation process. Biochemical and Biophysical Research Communications, 2019, 518, 579-583.	2.1	6
117	An energy landscape approach to understanding variety and robustness in tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2020, 19, 471-479.	2.8	6
118	Uniaxially fixed mechanical boundary condition elicits cellular alignment in collagen matrix with induction of osteogenesis. Scientific Reports, 2021, 11, 9009.	3.3	6
119	Preliminary Study on Mechanical Bone Remodeling Permitting Residual Stress. JSME International Journal Series A-Solid Mechanics and Material Engineering, 1994, 37, 87-95.	0.1	5
120	Computational prediction of instability propagation in glassy polymers. Archives of Computational Methods in Engineering, 1998, 5, 167-198.	10.2	5
121	Î²-Catenin as a Tension Transmitter Revealed by AFM Nanomechanical Testing. Cellular and Molecular Bioengineering, 2015, 8, 14-21.	2.1	5
122	Mobility of Molecular Motors Regulates Contractile Behaviors of Actin Networks. Biophysical Journal, 2019, 116, 2161-2171.	0.5	5
123	Mechanics-based Simulations for Understanding Multicellular Tissue Morphogenesis. Seibutsu Butsuri, 2014, 54, 031-034.	0.1	5
124	Computational framework for analyzing flow-induced strain on osteocyte as modulated by microenvironment. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 126, 105027.	3.1	5
125	Effect of Actin Filament on Deformation-Induced Ca2+ Response in Osteoblast-Like Cells. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2001, 44, 914-919.	0.3	4
126	Quantitative evaluation of strain field in the lamella region of cellular fragments from fish keratocytes. Journal of Biomechanics, 2006, 39, S244.	2.1	4

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127	Modulation of adhesion microenvironment using mesh substrates triggers self-organization and primordial germ cell-like differentiation in mouse ES cells. APL Bioengineering, 2019, 3, 016102.	6.2	4
128	Comparative gene expression analysis for pre-osteoblast MC3T3-E1 cells under non-adhesive culture toward osteocyte differentiation. Journal of Bioscience and Bioengineering, 2021, 132, 651-656.	2.2	4
129	Lattice Continuum Model for Bone Remodeling Considering Microstructural Optimality of Trabecular Architecture. , 1999, , 43-54.		3
130	Observation of chondrocyte aggregate formation and internal structure on micropatterned fibroin-coated surface. Bio-Medical Materials and Engineering, 2010, 20, 55-63.	0.6	3
131	Effect of Actomyosin Contractility on Lamellipodial Protrusion Dynamics on a Micropatterned Substrate. Cellular and Molecular Bioengineering, 2011, 4, 389-398.	2.1	3
132	Numerical analysis of arterial contraction regulated by smooth muscle stretch and intracellular calcium ion concentration. Journal of Biomechanical Science and Engineering, 2014, 9, JBSE0002-JBSE0002.	0.3	3
133	Probing Actin Filament and Binding Protein Interaction Using an Atomic Force Microscopy. Journal of Nanoscience and Nanotechnology, 2014, 14, 5654-5657.	0.9	3
134	Electrochemical Polymerization of PEDOT/Biomolecule Composite Films on Microelectrodes for the Measurement of Extracellular Field Potential. Electrochemistry, 2016, 84, 354-357.	1.4	3
135	Mechanosensitive kinetic preference of actin-binding protein to actin filament. Physical Review E, 2016, 93, 042403.	2.1	3
136	Continuum modeling for neuronal lamination during cerebral morphogenesis considering cell migration and tissue growth. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 799-805.	1.6	3
137	Wolverine cutting balloon in the treatment of stent underexpansion in heavy coronary calcification: bench test using a three-dimensional printer and computer simulation with the finite-element method. Cardiovascular Intervention and Therapeutics, 2021, , 1.	2.3	3
138	Computational Design and Simulation of Tissue Engineering Scaffolds. , 2008, , 113-127.		3
139	Controlling macroscale cell alignment in self-organized cell sheets by tuning the microstructure of adhesion-limiting micromesh scaffolds. Materials Today Advances, 2021, 12, 100194.	5.2	3
140	Preliminary Study on Mechanical Bone Remodeling Permitting Residual Stress.. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 1992, 58, 1022-1029.	0.2	2
141	Shape Optimization Based on Traction Method Using voxel-FEM. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2004, 70, 426-433.	0.2	2
142	Influence of delamination location on mesoscopic stress state and critical current under bending deformation in Bi2223/Ag superconducting composite tapes. Physica C: Superconductivity and Its Applications, 2005, 426-431, 1205-1210.	1.2	2
143	Direct measurement of mechanical properties of Bi2223 filament using Ag alloy removed tape. Physica C: Superconductivity and Its Applications, 2007, 463-465, 863-866.	1.2	2
144	Continuum dynamics on a vector bundle for a directed medium. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 325209.	2.1	2

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145	Brownian dynamics simulation study on forceâ€“velocity relation in actin-based membrane protrusion. Computational Particle Mechanics, 2015, 2, 329-337.	3.0	2
146	Finite element formulation and analysis for an arterial wall with residual and active stresses. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1143-1159.	1.6	2
147	Large magnitude of force leads to NO-mediated cell shrinkage in single osteocytes implying an initial apoptotic response. Journal of Biomechanics, 2021, 117, 110245.	2.1	2
148	Finite Element Method for Elastic Cosserat Continuum and Its Application to Deformation Behavior of Materials with Microstructure.. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 1994, 60, 191-197.	0.2	1
149	Mechanical Remodeling of Bone with Tissue Structure Considering Residual Stress.. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 1994, 60, 2921-2927.	0.2	1
150	Approach Behavior of Binding Proteins Toward Actin Filament : Brownian Dynamics Simulation. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1119-1127.	0.2	1
151	Geometrical range of microscopic stress distribution change due to fibre array irregularities for thermally and transversely loaded CF/epoxy composites. Plastics, Rubber and Composites, 2010, 39, 99-106.	2.0	1
152	Role of the Actinâ€“Myosin Catch Bond on Actomyosin Aggregate Formation. Cellular and Molecular Bioengineering, 2013, 6, 3-12.	2.1	1
153	Real-Time Monitoring of Changes in Microtubule Mechanical Properties in Response to Microtubule-Destabilizing Drug Treatment. Journal of Nanoscience and Nanotechnology, 2013, 13, 2087-2090.	0.9	1
154	A Perturbation Analysis to Understand the Mechanism How Migrating Cells Sense and Respond to a Topography in the Extracellular Environment. Analytical Sciences, 2016, 32, 1207-1211.	1.6	1
155	Three-Dimensional Vertex Simulation on Smooth Surface Maintenance of Growing Epithelial Tissue Based on Intercellular Mechano-Feedback. Biophysical Journal, 2016, 110, 308a.	0.5	1
156	Nanolithography of Amyloid Precursor Protein Cleavage with <I>Î²</I>-Secretase by Atomic Force Microscopy. Journal of Biomedical Nanotechnology, 2016, 12, 546-553.	1.1	1
157	Local Stiffness of Osteocyte Using Atomic Force Microscopy. Journal of Nanoscience and Nanotechnology, 2017, 17, 5755-5758.	0.9	1
158	Edge-localized alteration in pluripotency state of mouse ES cells forming topography-confined layers on designed mesh substrates. Stem Cell Research, 2021, 53, 102352.	0.7	1
159	Estimation of Changes in Mechanical Bone Quality by Multi-scale Analysis with Remodeling Simulation. IFMBE Proceedings, 2014, , 48-51.	0.3	1
160	Bone Adaptation. Frontiers of Biomechanics, 2018, , .	0.1	1
161	Computer simulation of orthodontic tooth movement using FE analysis. , 2010, , 143-144.		1
162	OSTEOBLASTIC MECHANOSENSITIVITY TO LOCALIZED MECHANICAL STIMULUS DEPENDS ON ORIENTATION OF CYTOSKELETAL ACTIN FIBERS. , 2005, , 55-64.		1

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163	Simulation Study on Dynamics of Resin-Air Interface during Resin-Air Flows between Filaments Using Phase-Field Navier-Stokes Model. Journal of the Japan Society for Composite Materials, 2010, 36, 94-103.	0.2	1
164	Birth of Earth Pressure Balanced shield method and its applications in Japan. , 2013, , 1235-1242.		1
165	Model and Simulation of Bone Remodeling Considering Residual Stress. , 1996, , 3-21.		1
166	Design Concept of Topographical and Mechanical Properties of Synthetic Extracellular Matrix to Control Cell Functions and Fates Through Actin Cytoskeletal Modulation. Frontiers of Biomechanics, 2015, , 159-186.	0.1	1
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