

Michael S Sacks

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

140
papers

6,694
citations

42
h-index

79
g-index

149
ext. papers

7,600
ext. citations

4.5
avg, IF

6.23
L-index

#	Paper	IF	Citations
140	Patient-Specific Quantification of Normal and Bicuspid Aortic Valve Leaflet Deformations from Clinically Derived Images.. <i>Annals of Biomedical Engineering</i> , 2022 , 50, 1-15	4.7	2
139	Simultaneous Wide-Field Planar Strain-Fiber Orientation Distribution Measurement Using Polarized Spatial Domain Imaging.. <i>Annals of Biomedical Engineering</i> , 2022 , 50, 253	4.7	0
138	Anisotropic elastic behavior of a hydrogel-coated electrospun polyurethane: Suitability for heart valve leaflets. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 125, 104877	4.1	1
137	On the Three-Dimensional Mechanical Behavior of Human Breast Tissue.. <i>Annals of Biomedical Engineering</i> , 2022 , 50, 601	4.7	
136	Mechanical Interaction of the Pericardium and Cardiac Function in the Normal and Hypertensive Rat Heart.. <i>Frontiers in Physiology</i> , 2022 , 13, 878861	4.6	0
135	Four-dimensional Ultrasound for Characterization of In Vivo Murine Aortic Valve Dynamics. <i>Structural Heart</i> , 2021 , 5, 27-27	0.6	
134	Pre-surgical Prediction of Ischemic Mitral Regurgitation Recurrence Using In Vivo Mitral Valve Leaflet Strains. <i>Annals of Biomedical Engineering</i> , 2021 , 1	4.7	3
133	On the Three-Dimensional Correlation Between Myofibroblast Shape and Contraction. <i>Journal of Biomechanical Engineering</i> , 2021 , 143,	2.1	1
132	Scaling digital twins from the artisanal to the industrial. <i>Nature Computational Science</i> , 2021 , 1, 313-320	30	
131	The impact of myocardial compressibility on organ-level simulations of the normal and infarcted heart. <i>Scientific Reports</i> , 2021 , 11, 13466	4.9	2
130	Altered Responsiveness to TGF β and BMP and Increased CD45+ Cell Presence in Mitral Valves Are Unique Features of Ischemic Mitral Regurgitation. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2021 , 41, 2049-2062	9.4	1
129	Adventures in Heart Valve Function A Personal Thank You to Dr. Ajit P. Yoganathan. <i>Cardiovascular Engineering and Technology</i> , 2021 , 1	2.2	1
128	On the shape and structure of the murine pulmonary heart valve. <i>Scientific Reports</i> , 2021 , 11, 14078	4.9	
127	On the role of predicted in vivo mitral valve interstitial cell deformation on its biosynthetic behavior. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021 , 20, 135-144	3.8	5
126	Computational investigation of left ventricular hemodynamics following bioprosthetic aortic and mitral valve replacement. <i>Mechanics Research Communications</i> , 2021 , 112,	2.2	13
125	A High-Fidelity 3D Micromechanical Model of Ventricular Myocardium. <i>Lecture Notes in Computer Science</i> , 2021 , 12738, 168-177	0.9	
124	Isogeometric finite element-based simulation of the aortic heart valve: Integration of neural network structural material model and structural tensor fiber architecture representations. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2021 , 37, e3438	2.6	6

123	On Valve Interstitial Cell Signaling: The Link Between Multiscale Mechanics and Mechanobiology. <i>Cardiovascular Engineering and Technology</i> , 2021 , 12, 15-27	2.2	2
122	Transcatheter Heart Valve Downstream Fluid Dynamics in an Accelerated Evaluation Environment. <i>Annals of Biomedical Engineering</i> , 2021 , 49, 2170-2182	4.7	2
121	Simulating the time evolving geometry, mechanical properties, and fibrous structure of bioprosthetic heart valve leaflets under cyclic loading. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021 , 123, 104745	4.1	0
120	On the in vivo systolic compressibility of left ventricular free wall myocardium in the normal and infarcted heart. <i>Journal of Biomechanics</i> , 2020 , 107, 109767	2.9	6
119	Mitral valve leaflet response to ischaemic mitral regurgitation: from gene expression to tissue remodelling. <i>Journal of the Royal Society Interface</i> , 2020 , 17, 20200098	4.1	7
118	FM-Track: A fiducial marker tracking software for studying cell mechanics in a three-dimensional environment. <i>SoftwareX</i> , 2020 , 11,	2.7	2
117	Insights into the passive mechanical behavior of left ventricular myocardium using a robust constitutive model based on full 3D kinematics. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 103, 103508	4.1	12
116	Development of Tissue Engineered Heart Valves for Percutaneous Transcatheter Delivery in a Fetal Ovine Model. <i>JACC Basic To Translational Science</i> , 2020 , 5, 815-828	8.7	6
115	How hydrogel inclusions modulate the local mechanical response in early and fully formed post-infarcted myocardium. <i>Acta Biomaterialia</i> , 2020 , 114, 296-306	10.8	6
114	Thinner biological tissues induce leaflet flutter in aortic heart valve replacements. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 19007-19016	11.5	21
113	Biology and Biomechanics of the Heart Valve Extracellular Matrix. <i>Journal of Cardiovascular Development and Disease</i> , 2020 , 7,	4.2	14
112	Multi-scale Modeling of the Heart Valve Interstitial Cell. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2020 , 21-53	0.5	0
111	A Contemporary Look at Biomechanical Models of Myocardium. <i>Annual Review of Biomedical Engineering</i> , 2019 , 21, 417-442	12	24
110	On the simulation of mitral valve function in health, disease, and treatment. <i>Journal of Biomechanical Engineering</i> , 2019 ,	2.1	18
109	Non-Destructive Reflectance Mapping of Collagen Fiber Alignment in Heart Valve Leaflets. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 1250-1264	4.7	18
108	A preliminary study of the local biomechanical environment of liver tumors in vivo. <i>Medical Physics</i> , 2019 , 46, 1728-1739	4.4	1
107	Analyzing valve interstitial cell mechanics and geometry with spatial statistics. <i>Journal of Biomechanics</i> , 2019 , 93, 159-166	2.9	2
106	Quantifying heart valve interstitial cell contractile state using highly tunable poly(ethylene glycol) hydrogels. <i>Acta Biomaterialia</i> , 2019 , 96, 354-367	10.8	13

105	Regional biomechanical imaging of liver cancer cells. <i>Journal of Cancer</i> , 2019 , 10, 4481-4487	4.5	3
104	Development of a Functionally Equivalent Model of the Mitral Valve Chordae Tendineae Through Topology Optimization. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 60-74	4.7	16
103	A Computational Cardiac Model for the Adaptation to Pulmonary Arterial Hypertension in the Rat. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 138-153	4.7	16
102	A material modeling approach for the effective response of planar soft tissues for efficient computational simulations. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 89, 168-198 ^{4.1}	4.1	12
101	An anisotropic constitutive model for immersogeometric fluid-structure interaction analysis of bioprosthetic heart valves. <i>Journal of Biomechanics</i> , 2018 , 74, 23-31	2.9	28
100	A Novel Small-Specimen Planar Biaxial Testing System With Full In-Plane Deformation Control. <i>Journal of Biomechanical Engineering</i> , 2018 , 140,	2.1	7
99	Perspectives on Sharing Models and Related Resources in Computational Biomechanics Research. <i>Journal of Biomechanical Engineering</i> , 2018 , 140,	2.1	8
98	An integrated inverse model-experimental approach to determine soft tissue three-dimensional constitutive parameters: application to post-infarcted myocardium. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 31-53	3.8	23
97	The Three-Dimensional Microenvironment of the Mitral Valve: Insights into the Effects of Physiological Loads. <i>Cellular and Molecular Bioengineering</i> , 2018 , 11, 291-306	3.9	13
96	Mechanobiology of the heart valve interstitial cell: Simulation, experiment, and discovery 2018 , 249-283		8
95	Multi-resolution geometric modeling of the mitral heart valve leaflets. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 351-366	3.8	14
94	A framework for designing patient-specific bioprosthetic heart valves using immersogeometric fluid-structure interaction analysis. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018 , 34, e2938	2.6	56
93	A comprehensive pipeline for multi-resolution modeling of the mitral valve: Validation, computational efficiency, and predictive capability. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018 , 34, e2921	2.6	25
92	Towards Patient-Specific Mitral Valve Surgical Simulations 2018 , 471-487		
91	Biological Mechanics of the Heart Valve Interstitial Cell 2018 , 3-36		1
90	A noninvasive method for the determination of in vivo mitral valve leaflet strains. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018 , 34, e3142	2.6	20
89	Virtual heart guides cardiac ablation. <i>Nature Biomedical Engineering</i> , 2018 , 2, 711-712	19	0
88	On the Functional Role of Valve Interstitial Cell Stress Fibers: A Continuum Modeling Approach. <i>Journal of Biomechanical Engineering</i> , 2017 , 139,	2.1	14

87	A functionally graded material model for the transmural stress distribution of the aortic valve leaflet. <i>Journal of Biomechanics</i> , 2017 , 54, 88-95	2.9	32
86	On the in vivo function of the mitral heart valve leaflet: insights into tissue-interstitial cell biomechanical coupling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 1613-1632	3.8	17
85	Mitral Valve Chordae Tendineae: Topological and Geometrical Characterization. <i>Annals of Biomedical Engineering</i> , 2017 , 45, 378-393	4.7	26
84	A mathematical model for the determination of forming tissue moduli in needled-nonwoven scaffolds. <i>Acta Biomaterialia</i> , 2017 , 51, 220-236	10.8	13
83	Computational methods for the aortic heart valve and its replacements. <i>Expert Review of Medical Devices</i> , 2017 , 14, 849-866	3.5	31
82	Regulation of valve interstitial cell homeostasis by mechanical deformation: implications for heart valve disease and surgical repair. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	30
81	Biomechanical and Hemodynamic Measures of Right Ventricular Diastolic Function: Translating Tissue Biomechanics to Clinical Relevance. <i>Journal of the American Heart Association</i> , 2017 , 6,	6	22
80	Modeling the response of exogenously crosslinked tissue to cyclic loading: The effects of permanent set. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017 , 75, 336-350	4.1	24
79	Layered Elastomeric Fibrous Scaffolds: An In-Silico Study of the Achievable Range of Mechanical Behaviors. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 2907-2921	5.5	9
78	Immersogeometric cardiovascular fluid-structure interaction analysis with divergence-conforming B-splines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 314, 408-472	5.7	52
77	A novel constitutive model for passive right ventricular myocardium: evidence for myofiber-collagen fiber mechanical coupling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 561-581	3.8	41
76	Ex Vivo Methods for Informing Computational Models of the Mitral Valve. <i>Annals of Biomedical Engineering</i> , 2017 , 45, 496-507	4.7	36
75	Transmural remodeling of right ventricular myocardium in response to pulmonary arterial hypertension. <i>APL Bioengineering</i> , 2017 , 1,	6.6	18
74	A Review on the Biomechanical Effects of Fatigue on the Porcine Bioprosthetic Heart Valve. <i>Journal of Long-Term Effects of Medical Implants</i> , 2017 , 27, 181-197	0.2	2
73	Modeling of Myocardium Compressibility and its Impact in Computational Simulations of the Healthy and Infarcted Heart. <i>Lecture Notes in Computer Science</i> , 2017 , 10263, 493-501	0.9	3
72	An inverse modeling approach for semilunar heart valve leaflet mechanics: exploitation of tissue structure. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016 , 15, 909-32	3.8	14
71	Heart Valve Biomechanics and Underlying Mechanobiology. <i>Comprehensive Physiology</i> , 2016 , 6, 1743-1780	56	
70	Electromechanical cardioplasty using a wrapped elasto-conductive epicardial mesh. <i>Science Translational Medicine</i> , 2016 , 8, 344ra86	17.5	136

69	On intrinsic stress fiber contractile forces in semilunar heart valve interstitial cells using a continuum mixture model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 54, 244-58	4.1	12
68	Large strain stimulation promotes extracellular matrix production and stiffness in an elastomeric scaffold model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 62, 619-635	4.1	17
67	A triphasic constrained mixture model of engineered tissue formation under in vitro dynamic mechanical conditioning. <i>Biomechanics and Modeling in Mechanobiology</i> , 2016 , 15, 293-316	3.8	19
66	A meso-scale layer-specific structural constitutive model of the mitral heart valve leaflets. <i>Acta Biomaterialia</i> , 2016 , 32, 238-255	10.8	47
65	Mitral valve leaflet remodelling during pregnancy: insights into cell-mediated recovery of tissue homeostasis. <i>Journal of the Royal Society Interface</i> , 2016 , 13,	4.1	33
64	Color structured light imaging of skin. <i>Journal of Biomedical Optics</i> , 2016 , 21, 50503	3.5	7
63	A novel fibre-ensemble level constitutive model for exogenous cross-linked collagenous tissues. <i>Interface Focus</i> , 2016 , 6, 20150090	3.9	34
62	Biomechanical Behavior of Bioprosthetic Heart Valve Heterograft Tissues: Characterization, Simulation, and Performance. <i>Cardiovascular Engineering and Technology</i> , 2016 , 7, 309-351	2.2	43
61	A novel crosslinking method for improved tear resistance and biocompatibility of tissue based biomaterials. <i>Biomaterials</i> , 2015 , 66, 83-91	15.6	63
60	Dynamic and fluid-structure interaction simulations of bioprosthetic heart valves using parametric design with T-splines and Fung-type material models. <i>Computational Mechanics</i> , 2015 , 55, 1211-1225	4	158
59	On the presence of affine fibril and fiber kinematics in the mitral valve anterior leaflet. <i>Biophysical Journal</i> , 2015 , 108, 2074-87	2.9	44
58	Quantification and simulation of layer-specific mitral valve interstitial cells deformation under physiological loading. <i>Journal of Theoretical Biology</i> , 2015 , 373, 26-39	2.3	43
57	On the effects of leaflet microstructure and constitutive model on the closing behavior of the mitral valve. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 1281-302	3.8	46
56	Polarized light spatial frequency domain imaging for non-destructive quantification of soft tissue fibrous structures. <i>Biomedical Optics Express</i> , 2015 , 6, 1520-33	3.5	30
55	Geometric characterization and simulation of planar layered elastomeric fibrous biomaterials. <i>Acta Biomaterialia</i> , 2015 , 12, 93-101	10.8	28
54	Fabrication of elastomeric scaffolds with curvilinear fibrous structures for heart valve leaflet engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 3101-6	5.4	28
53	An immersogeometric variational framework for fluid-structure interaction: application to bioprosthetic heart valves. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 284, 1005-1053	5.7	271
52	From single fiber to macro-level mechanics: A structural finite-element model for elastomeric fibrous biomaterials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 39, 146-61	4.1	56

51	Fluid-structure interaction analysis of bioprosthetic heart valves: Significance of arterial wall deformation. <i>Computational Mechanics</i> , 2014 , 54, 1055-1071	4	184
50	Simulation of planar soft tissues using a structural constitutive model: Finite element implementation and validation. <i>Journal of Biomechanics</i> , 2014 , 47, 2043-54	2.9	95
49	Parameter estimation of heart valve leaflet hyperelastic mechanical behavior using an inverse modeling approach 2014 ,	1	
48	Pregnancy-induced remodeling of collagen architecture and content in the mitral valve. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 2058-71	4.7	30
47	Insights into regional adaptations in the growing pulmonary artery using a meso-scale structural model: effects of ascending aorta impingement. <i>Journal of Biomechanical Engineering</i> , 2014 , 136, 021009 ^{2,1}	2.8	
46	Osteopontin-CD44v6 interaction mediates calcium deposition via phospho-Akt in valve interstitial cells from patients with noncalcified aortic valve sclerosis. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2014 , 34, 2086-94	9.4	32
45	An inverse modeling approach for stress estimation in mitral valve anterior leaflet valvuloplasty for in-vivo valvular biomaterial assessment. <i>Journal of Biomechanics</i> , 2014 , 47, 2055-63	2.9	60
44	Patient-Specific Modeling of Heart Valves: From Image to Simulation. <i>Lecture Notes in Computer Science</i> , 2013 , 7945, 141-149	0.9	18
43	Modeling the Role of Oscillator Flow and Dynamic Mechanical Conditioning on Dense Connective Tissue Formation in Mesenchymal Stem Cell-Derived Heart Valve Tissue Engineering. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2013 , 7, 0409271-409272	1.3	1
42	Noggin attenuates the osteogenic activation of human valve interstitial cells in aortic valve sclerosis. <i>Cardiovascular Research</i> , 2013 , 98, 402-10	9.9	36
41	A new computational framework for anatomically consistent 3D statistical shape analysis with clinical imaging applications. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , 2013 , 1, 13-27	0.9	4
40	The Intrinsic Fatigue Mechanism of the Porcine Aortic Valve Extracellular Matrix. <i>Cardiovascular Engineering and Technology</i> , 2012 , 3, 62-72	2.2	1
39	GENE EXPRESSION AND COLLAGEN FIBER MICROMECHANICAL INTERACTIONS OF THE SEMILUNAR HEART VALVE INTERSTITIAL CELL. <i>Cellular and Molecular Bioengineering</i> , 2012 , 5, 254-265	3.9	17
38	On the in vivo deformation of the mitral valve anterior leaflet: effects of annular geometry and referential configuration. <i>Annals of Biomedical Engineering</i> , 2012 , 40, 1455-67	4.7	78
37	Alterations in the Microstructure of the Anterior Mitral Valve Leaflet Under Physiological Stress 2012 ,	7	
36	Effect of Geometry on the Leaflet Stresses in Simulated Models of Congenital Bicuspid Aortic Valves. <i>Cardiovascular Engineering and Technology</i> , 2011 , 2, 48-56	2.2	56
35	On the biomechanics of heart valve function. <i>Journal of Biomechanics</i> , 2009 , 42, 1804-24	2.9	267
34	Bioengineering challenges for heart valve tissue engineering. <i>Annual Review of Biomedical Engineering</i> , 2009 , 11, 289-313	12	208

33	Biomechanics of Diabetic Bladders. <i>LUTS: Lower Urinary Tract Symptoms</i> , 2009 , 1, S94-S97	1.9
32	In-situ deformation of the aortic valve interstitial cell nucleus under diastolic loading. <i>Journal of Biomechanical Engineering</i> , 2007 , 129, 880-89	2.1 73
31	The Journal of Biomechanical Engineering—The Next Step. <i>Journal of Biomechanical Engineering</i> , 2007 , 129, 801-801	2.1
30	In vivo biomechanical assessment of triglycidylamine crosslinked pericardium. <i>Biomaterials</i> , 2007 , 28, 5390-8	15.6 18
29	The relation between collagen fibril kinematics and mechanical properties in the mitral valve anterior leaflet. <i>Journal of Biomechanical Engineering</i> , 2007 , 129, 78-87	2.1 94
28	Synergistic effects of cyclic tension and transforming growth factor-beta1 on the aortic valve myofibroblast. <i>Cardiovascular Pathology</i> , 2007 , 16, 268-76	3.8 139
27	Heart valve function: a biomechanical perspective. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2007 , 362, 1369-91	5.8 267
26	Correlation between heart valve interstitial cell stiffness and transvalvular pressure: implications for collagen biosynthesis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2006 , 290, H224-31	5.2 170
25	Bioprosthetic heart valve heterograft biomaterials: structure, mechanical behavior and computational simulation. <i>Expert Review of Medical Devices</i> , 2006 , 3, 817-34	3.5 32
24	In-vivo dynamic deformation of the mitral valve anterior leaflet. <i>Annals of Thoracic Surgery</i> , 2006 , 82, 1369-77	2.7 111
23	The effects of cellular contraction on aortic valve leaflet flexural stiffness. <i>Journal of Biomechanics</i> , 2006 , 39, 88-96	2.9 96
22	Biaxial stress-stretch behavior of the mitral valve anterior leaflet at physiologic strain rates. <i>Annals of Biomedical Engineering</i> , 2006 , 34, 315-25	4.7 138
21	Planar biaxial creep and stress relaxation of the mitral valve anterior leaflet. <i>Annals of Biomedical Engineering</i> , 2006 , 34, 1509-18	4.7 86
20	A structural constitutive model for the native pulmonary valve. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2004 , 2004, 3734-6	3
19	Multiaxial mechanical behavior of biological materials. <i>Annual Review of Biomedical Engineering</i> , 2003 , 5, 251-84	12 228
18	Incorporation of experimentally-derived fiber orientation into a structural constitutive model for planar collagenous tissues. <i>Journal of Biomechanical Engineering</i> , 2003 , 125, 280-7	2.1 296
17	Collagen fiber disruption occurs independent of calcification in clinically explanted bioprosthetic heart valves. <i>Journal of Biomedical Materials Research Part B</i> , 2002 , 62, 359-71	133
16	Dynamic in vitro quantification of bioprosthetic heart valve leaflet motion using structured light projection. <i>Annals of Biomedical Engineering</i> , 2001 , 29, 963-73	4.7 62

LIST OF PUBLICATIONS

15	Biaxial Mechanical Evaluation of Planar Biological Materials. <i>Journal of Elasticity</i> , 2000 , 61, 199-246	1.5	287
14	Surface geometric analysis of anatomic structures using biquintic finite element interpolation. <i>Annals of Biomedical Engineering</i> , 2000 , 28, 598-611	4.7	38
13	A structural constitutive model for chemically treated planar tissues under biaxial loading. <i>Computational Mechanics</i> , 2000 , 26, 243-249	4	31
12	Biaxial mechanical properties of the native and glutaraldehyde-treated aortic valve cusp: Part II--A structural constitutive model. <i>Journal of Biomechanical Engineering</i> , 2000 , 122, 327-35	2.1	294
11	Collagen fiber orientation as quantified by small angle light scattering in wounds treated with transforming growth factor-beta2 and its neutralizing antibody. <i>Wound Repair and Regeneration</i> , 1999 , 7, 179-86	3.6	29
10	Quantification of the fiber architecture and biaxial mechanical behavior of porcine intestinal submucosa. <i>Journal of Biomedical Materials Research Part B</i> , 1999 , 46, 1-10		124
9	Mechanisms of bioprosthetic heart valve failure: fatigue causes collagen denaturation and glycosaminoglycan loss. <i>Journal of Biomedical Materials Research Part B</i> , 1999 , 46, 44-50		110
8	In vivo three-dimensional surface geometry of abdominal aortic aneurysms. <i>Annals of Biomedical Engineering</i> , 1999 , 27, 469-79	4.7	87
7	Orthotropic mechanical properties of chemically treated bovine pericardium. <i>Annals of Biomedical Engineering</i> , 1998 , 26, 892-902	4.7	121
6	Optimal bovine pericardial tissue selection sites. I. Fiber architecture and tissue thickness measurements. <i>Journal of Biomedical Materials Research Part B</i> , 1998 , 39, 207-14		52
5	Optimal bovine pericardial tissue selection sites. II. Cartographic analysis. <i>Journal of Biomedical Materials Research Part B</i> , 1998 , 39, 215-21		34
4	The aortic valve microstructure: effects of transvalvular pressure. <i>Journal of Biomedical Materials Research Part B</i> , 1998 , 41, 131-41		109
3	Quantification of the collagen fibre architecture of human cranial dura mater. <i>Journal of Anatomy</i> , 1998 , 192 (Pt 1), 99-106	2.9	36
2	The aortic valve microstructure: Effects of transvalvular pressure 1998 , 41, 131		6
1	A small angle light scattering device for planar connective tissue microstructural analysis. <i>Annals of Biomedical Engineering</i> , 1997 , 25, 678-89	4.7	227