Michael S Sacks

List of Publications by Year
in descending order

148 papers	8,456 citations	57631 44 h-index	53109 85 g-index
149 all docs	149 docs citations	149 times ranked	4900 citing authors

#	Article	IF	Citations
1	An immersogeometric variational framework for fluidâ€"structure interaction: Application to bioprosthetic heart valves. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 1005-1053.	3.4	350
2	Biaxial Mechanical Evaluation of Planar Biological Materials. Journal of Elasticity, 2000, 61, 199-246.	0.9	337
3	Incorporation of Experimentally-Derived Fiber Orientation into a Structural Constitutive Model for Planar Collagenous Tissues. Journal of Biomechanical Engineering, 2003, 125, 280-287.	0.6	326
4	Biaxial Mechanical Properties of the Native and Glutaraldehyde-Treated Aortic Valve Cusp: Part IIâ€"A Structural Constitutive Model. Journal of Biomechanical Engineering, 2000, 122, 327-335.	0.6	318
5	Heart valve function: a biomechanical perspective. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 1369-1391.	1.8	309
6	On the biomechanics of heart valve function. Journal of Biomechanics, 2009, 42, 1804-1824.	0.9	306
7	Multiaxial Mechanical Behavior of Biological Materials. Annual Review of Biomedical Engineering, 2003, 5, 251-284.	5.7	252
8	A small angle light scattering device for planar connective tissue microstructural analysis. Annals of Biomedical Engineering, 1997, 25, 678-689.	1.3	250
9	Fluidâ€"structure interaction analysis of bioprosthetic heart valves: significance of arterial wall deformation. Computational Mechanics, 2014, 54, 1055-1071.	2.2	240
10	Bioengineering Challenges for Heart Valve Tissue Engineering. Annual Review of Biomedical Engineering, 2009, 11, 289-313.	5.7	227
11	Dynamic and fluidâ€"structure interaction simulations of bioprosthetic heart valves using parametric design with T-splines and Fung-type material models. Computational Mechanics, 2015, 55, 1211-1225.	2.2	207
12	Correlation between heart valve interstitial cell stiffness and transvalvular pressure: implications for collagen biosynthesis. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H224-H231.	1.5	183
13	Electromechanical cardioplasty using a wrapped elasto-conductive epicardial mesh. Science Translational Medicine, 2016, 8, 344ra86.	5.8	181
14	Biaixal Stressâ€"Stretch Behavior of the Mitral Valve Anterior Leaflet at Physiologic Strain Rates. Annals of Biomedical Engineering, 2006, 34, 315-325.	1.3	159
15	Synergistic effects of cyclic tension and transforming growth factor-Î²1 on the aortic valve myofibroblast. Cardiovascular Pathology, 2007, 16, 268-276.	0.7	152
16	Collagen fiber disruption occurs independent of calcification in clinically explanted bioprosthetic heart valves. Journal of Biomedical Materials Research Part B, 2002, 62, 359-371.	3.0	149
17	Quantification of the fiber architecture and biaxial mechanical behavior of porcine intestinal submucosa. , 1999, 46, 1-10.		139
18	Orthotropic Mechanical Properties of Chemically Treated Bovine Pericardium. Annals of Biomedical Engineering, 1998, 26, 892-902.	1.3	133

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19	Mechanisms of bioprosthetic heart valve failure: Fatigue causes collagen denaturation and glycosaminoglycan loss. , 1999, 46, 44-50.		125
20	The aortic valve microstructure: Effects of transvalvular pressure. , 1998, 41, 131-141.		122
21	In-Vivo Dynamic Deformation of the Mitral Valve Anterior Leaflet. Annals of Thoracic Surgery, 2006, 82, 1369-1377.	0.7	122
22	Simulation of planar soft tissues using a structural constitutive model: Finite element implementation and validation. Journal of Biomechanics, 2014, 47, 2043-2054.	0.9	112
23	The effects of cellular contraction on aortic valve leaflet flexural stiffness. Journal of Biomechanics, 2006, 39, 88-96.	0.9	110
24	The Relation Between Collagen Fibril Kinematics and Mechanical Properties in the Mitral Valve Anterior Leaflet. Journal of Biomechanical Engineering, 2007, 129, 78-87.	0.6	108
25	Scaling digital twins from the artisanal to the industrial. Nature Computational Science, 2021, 1, 313-320.	3.8	104
26	In Vivo Three-Dimensional Surface Geometry of Abdominal Aortic Aneurysms. Annals of Biomedical Engineering, 1999, 27, 469-479.	1.3	103
27	Planar Biaxial Creep and Stress Relaxation of the Mitral Valve Anterior Leaflet. Annals of Biomedical Engineering, 2006, 34, 1509-1518.	1.3	94
28	A framework for designing patientâ€specific bioprosthetic heart valves using immersogeometric fluidâ€"structure interaction analysis. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2938.	1.0	93
29	On the In Vivo Deformation of the Mitral Valve Anterior Leaflet: Effects of Annular Geometry and Referential Configuration. Annals of Biomedical Engineering, 2012, 40, 1455-1467.	1.3	89
30	In-Situ Deformation of the Aortic Valve Interstitial Cell Nucleus Under Diastolic Loading. Journal of Biomechanical Engineering, 2007, 129, 880-889.	0.6	80
31	Immersogeometric cardiovascular fluidâ€"structure interaction analysis with divergence-conforming B-splines. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 408-472.	3.4	80
32	An inverse modeling approach for stress estimation in mitral valve anterior leaflet valvuloplasty for in-vivo valvular biomaterial assessment. Journal of Biomechanics, 2014, 47, 2055-2063.	0.9	78
33	A novel crosslinking method for improved tear resistance andÂbiocompatibility of tissue based biomaterials. Biomaterials, 2015, 66, 83-91.	5.7	77
34	Dynamic In Vitro Quantification of Bioprosthetic Heart Valve Leaflet Motion Using Structured Light Projection. Annals of Biomedical Engineering, 2001, 29, 963-973.	1.3	75
35	From single fiber to macro-level mechanics: A structural finite-element model for elastomeric fibrous biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 146-161.	1.5	69
36	Heart Valve Biomechanics and Underlying Mechanobiology. , 2016, 6, 1743-1780.		68

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37	Effect of Geometry on the Leaflet Stresses in Simulated Models of Congenital Bicuspid Aortic Valves. Cardiovascular Engineering and Technology, 2011, 2, 48-56.	0.7	67
38	A meso-scale layer-specific structural constitutive model of the mitral heart valve leaflets. Acta Biomaterialia, 2016, 32, 238-255.	4.1	64
39	Biomechanical Behavior of Bioprosthetic Heart Valve Heterograft Tissues: Characterization, Simulation, and Performance. Cardiovascular Engineering and Technology, 2016, 7, 309-351.	0.7	61
40	A novel constitutive model for passive right ventricular myocardium: evidence for myofiberâ€"collagen fiber mechanical coupling. Biomechanics and Modeling in Mechanobiology, 2017, 16, 561-581.	1.4	61
41	On the effects of leaflet microstructure and constitutive model on the closing behavior of the mitral valve. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1281-1302.	1.4	60
42	Optimal bovine pericardial tissue selection sites. I. Fiber architecture and tissue thickness measurements. , 1998, 39, 207-214.		59
43	An anisotropic constitutive model for immersogeometric fluidâ€"structure interaction analysis of bioprosthetic heart valves. Journal of Biomechanics, 2018, 74, 23-31.	0.9	56
44	Surface Geometric Analysis of Anatomic Structures Using Biquintic Finite Element Interpolation. Annals of Biomedical Engineering, 2000, 28, 598-611.	1.3	52
45	Computational methods for the aortic heart valve and its replacements. Expert Review of Medical Devices, 2017, 14, 849-866.	1.4	52
46	Quantification and simulation of layer-specific mitral valve interstitial cells deformation under physiological loading. Journal of Theoretical Biology, 2015, 373, 26-39.	0.8	50
47	A Contemporary Look at Biomechanical Models of Myocardium. Annual Review of Biomedical Engineering, 2019, 21, 417-442.	5.7	50
48	Thinner biological tissues induce leaflet flutter in aortic heart valve replacements. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19007-19016.	3.3	50
49	On the Presence of Affine Fibril and Fiber Kinematics in the Mitral Valve Anterior Leaflet. Biophysical Journal, 2015, 108, 2074-2087.	0.2	49
50	Osteopontinâ€"CD44v6 Interaction Mediates Calcium Deposition via Phospho-Akt in Valve Interstitial Cells From Patients With Noncalcified Aortic Valve Sclerosis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, 2086-2094.	1.1	47
51	A functionally graded material model for the transmural stress distribution of the aortic valve leaflet. Journal of Biomechanics, 2017, 54, 88-95.	0.9	47
52	Mitral valve leaflet remodelling during pregnancy: insights into cell-mediated recovery of tissue homeostasis. Journal of the Royal Society Interface, 2016, 13, 20160709.	1.5	45
53	On the Simulation of Mitral Valve Function in Health, Disease, and Treatment. Journal of Biomechanical Engineering, 2019, 141, .	0.6	45
54	Noggin attenuates the osteogenic activation of human valve interstitial cells in aortic valve sclerosis. Cardiovascular Research, 2013, 98, 402-410.	1.8	44

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55	Ex Vivo Methods for Informing Computational Models of the Mitral Valve. Annals of Biomedical Engineering, 2017, 45, 496-507.	1.3	43
56	A comprehensive pipeline for multiâ€resolution modeling of the mitral valve: <scp>V</scp>alidation, computational efficiency, and predictive capability. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2921.	1.0	43
57	Polarized light spatial frequency domain imaging for non-destructive quantification of soft tissue fibrous structures. Biomedical Optics Express, 2015, 6, 1520.	1.5	42
58	Quantification of the collagen fibre architecture of human cranial dura mater. Journal of Anatomy, 1998, 192, 99-106.	0.9	41
59	A novel fibre-ensemble level constitutive model for exogenous cross-linked collagenous tissues. Interface Focus, 2016, 6, 20150090.	1.5	41
60	Pregnancy-Induced Remodeling of Collagen Architecture and Content in the Mitral Valve. Annals of Biomedical Engineering, 2014, 42, 2058-2071.	1.3	40
61	Transmural remodeling of right ventricular myocardium in response to pulmonary arterial hypertension. APL Bioengineering, 2017, 1, .	3.3	40
62	An integrated inverse model-experimental approach to determine soft tissue three-dimensional constitutive parameters: application to post-infarcted myocardium. Biomechanics and Modeling in Mechanobiology, 2018, 17, 31-53.	1.4	40
63	Computational investigation of left ventricular hemodynamics following bioprosthetic aortic and mitral valve replacement. Mechanics Research Communications, 2021, 112, 103604.	1.0	39
64	Regulation of valve interstitial cell homeostasis by mechanical deformation: implications for heart valve disease and surgical repair. Journal of the Royal Society Interface, 2017, 14, 20170580.	1.5	38
65	Biomechanical and Hemodynamic Measures of Right Ventricular Diastolic Function: Translating Tissue Biomechanics to Clinical Relevance. Journal of the American Heart Association, 2017, 6, .	1.6	38
66	Optimal bovine pericardial tissue selection sites. II. Cartographic analysis. , 1998, 39, 215-221.		37
67	A noninvasive method for the determination of <i>in vivo</i> mitral valve leaflet strains. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3142.	1.0	37
68	Fabrication of elastomeric scaffolds with curvilinear fibrous structures for heart valve leaflet engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3101-3106.	2.1	36
69	Mitral Valve Chordae Tendineae: Topological and Geometrical Characterization. Annals of Biomedical Engineering, 2017, 45, 378-393.	1.3	36
70	Bioprosthetic heart valve heterograft biomaterials: structure, mechanical behavior and computational simulation. Expert Review of Medical Devices, 2006, 3, 817-834.	1.4	35
71	Biology and Biomechanics of the Heart Valve Extracellular Matrix. Journal of Cardiovascular Development and Disease, 2020, 7, 57.	0.8	34
72	Insights Into Regional Adaptations in the Growing Pulmonary Artery Using a Meso-Scale Structural Model: Effects of Ascending Aorta Impingement. Journal of Biomechanical Engineering, 2014, 136, 021009.	0.6	33

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73	Geometric characterization and simulation of planar layered elastomeric fibrous biomaterials. Acta Biomaterialia, 2015, 12, 93-101.	4.1	32
74	A structural constitutive model for chemically treated planar tissues under biaxial loading. Computational Mechanics, 2000, 26, 243-249.	2.2	31
75	Modeling the response of exogenously crosslinked tissue to cyclic loading: The effects of permanent set. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 336-350.	1.5	31
76	Collagen fiber orientation as quantified by small angle light scattering in wounds treated with transforming growth factor-beta2 and its neutalizing antibody. Wound Repair and Regeneration, 1999, 7, 179-186.	1.5	29
77	Non-Destructive Reflectance Mapping of Collagen Fiber Alignment in Heart Valve Leaflets. Annals of Biomedical Engineering, 2019, 47, 1250-1264.	1.3	28
78	Development of a Functionally Equivalent Model of the Mitral Valve Chordae Tendineae Through Topology Optimization. Annals of Biomedical Engineering, 2019, 47, 60-74.	1.3	28
79	A Computational Cardiac Model for the Adaptation to Pulmonary Arterial Hypertension in the Rat. Annals of Biomedical Engineering, 2019, 47, 138-153.	1.3	28
80	A triphasic constrained mixture model of engineered tissue formation under in vitro dynamic mechanical conditioning. Biomechanics and Modeling in Mechanobiology, 2016, 15, 293-316.	1.4	25
81	On the in vivo function of the mitral heart valve leaflet: insights into tissueâ€“interstitial cell biomechanical coupling. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1613-1632.	1.4	25
82	Quantifying heart valve interstitial cell contractile state using highly tunable poly(ethylene glycol) hydrogels. Acta Biomaterialia, 2019, 96, 354-367.	4.1	24
83	Insights into the passive mechanical behavior of left ventricular myocardium using a robust constitutive model based on full 3D kinematics. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103508.	1.5	22
84	In vivo biomechanical assessment of triglycidylamine crosslinked pericardium. Biomaterials, 2007, 28, 5390-5398.	5.7	21
85	Patient-Specific Modeling of Heart Valves: From Image to Simulation. Lecture Notes in Computer Science, 2013, 7945, 141-149.	1.0	21
86	Machine Learning for Cardiovascular Biomechanics Modeling: Challenges and Beyond. Annals of Biomedical Engineering, 2022, 50, 615-627.	1.3	21
87	The Three-Dimensional Microenvironment of the Mitral Valve: Insights into the Effects of Physiological Loads. Cellular and Molecular Bioengineering, 2018, 11, 291-306.	1.0	20
88	Mitral valve leaflet response to ischaemic mitral regurgitation: from gene expression to tissue remodelling. Journal of the Royal Society Interface, 2020, 17, 20200098.	1.5	20
89	Gene Expression and Collagen Fiber Micromechanical Interactions of the Semilunar Heart Valve Interstitial Cell. Cellular and Molecular Bioengineering, 2012, 5, 254-265.	1.0	19
90	Large strain stimulation promotes extracellular matrix production and stiffness in an elastomeric scaffold model. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 619-635.	1.5	19

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91	An inverse modeling approach for semilunar heart valve leaflet mechanics: exploitation of tissue structure. Biomechanics and Modeling in Mechanobiology, 2016, 15, 909-932.	1.4	19
92	Multi-resolution geometric modeling of the mitral heart valve leaflets. Biomechanics and Modeling in Mechanobiology, 2018, 17, 351-366.	1.4	19
93	On intrinsic stress fiber contractile forces in semilunar heart valve interstitial cells using a continuum mixture model. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 54, 244-258.	1.5	18
94	On the Functional Role of Valve Interstitial Cell Stress Fibers: A Continuum Modeling Approach. Journal of Biomechanical Engineering, 2017, 139, .	0.6	18
95	On the need for multiâ€scale geometric modelling of the mitral heart valve. Healthcare Technology Letters, 2017, 4, 150-150.	1.9	18
96	A material modeling approach for the effective response of planar soft tissues for efficient computational simulations. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 168-198.	1.5	18
97	Pre-surgical Prediction of Ischemic Mitral Regurgitation Recurrence Using In Vivo Mitral Valve Leaflet Strains. Annals of Biomedical Engineering, 2021, 49, 3711-3723.	1.3	17
98	Perspectives on Sharing Models and Related Resources in Computational Biomechanics Research. Journal of Biomechanical Engineering, 2018, 140, .	0.6	16
99	How hydrogel inclusions modulate the local mechanical response in early and fully formed post-infarcted myocardium. Acta Biomaterialia, 2020, 114, 296-306.	4.1	16
100	Isogeometric finite elementâ€based simulation of the aortic heart valve: Integration of neural network structural material model and structural tensor fiber architecture representations. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3438.	1.0	16
101	On the in vivo systolic compressibility of left ventricular free wall myocardium in the normal and infarcted heart. Journal of Biomechanics, 2020, 107, 109767.	0.9	15
102	A mathematical model for the determination of forming tissue moduli in needled-nonwoven scaffolds. Acta Biomaterialia, 2017, 51, 220-236.	4.1	14
103	Development of Tissue Engineered Heart Valves for Percutaneous Transcatheter Delivery in a Fetal Ovine Model. JACC Basic To Translational Science, 2020, 5, 815-828.	1.9	14
104	Anisotropic elastic behavior of a hydrogel-coated electrospun polyurethane: Suitability for heart valve leaflets. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 125, 104877.	1.5	14
105	Simulating the time evolving geometry, mechanical properties, and fibrous structure of bioprosthetic heart valve leaflets under cyclic loading. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 123, 104745.	1.5	13
106	Simulation of the 3D hyperelastic behavior of ventricular myocardium using a finite-element based neural-network approach. Computer Methods in Applied Mechanics and Engineering, 2022, 394, 114871.	3.4	12
107	A Novel Small-Specimen Planar Biaxial Testing System With Full In-Plane Deformation Control. Journal of Biomechanical Engineering, 2018, 140, .	0.6	11
108	On the role of predicted in vivo mitral valve interstitial cell deformation on its biosynthetic behavior. Biomechanics and Modeling in Mechanobiology, 2021, 20, 135-144.	1.4	11

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109	Layered Elastomeric Fibrous Scaffolds: An In-Silico Study of the Achievable Range of Mechanical Behaviors. ACS Biomaterials Science and Engineering, 2017, 3, 2907-2921.	2.6	10
110	Mechanobiology of the heart valve interstitial cell: Simulation, experiment, and discovery. , 2018, , 249-283.		10
111	Regional biomechanical imaging of liver cancer cells. Journal of Cancer, 2019, 10, 4481-4487.	1.2	10
112	FM-Track: A fiducial marker tracking software for studying cell mechanics in a three-dimensional environment. SoftwareX, 2020, 11, 100417.	1.2	10
113	Patient-Specific Quantification of Normal and Bicuspid Aortic Valve Leaflet Deformations from Clinically Derived Images. Annals of Biomedical Engineering, 2022, 50, 1-15.	1.3	10
114	Three-dimensional analysis of hydrogel-imbedded aortic valve interstitial cell shape and its relation to contractile behavior. Acta Biomaterialia, 2022, , .	4.1	9
115	Alterations in the Microstructure of the Anterior Mitral Valve Leaflet Under Physiological Stress. , 2012, , .		8
116	Color structured light imaging of skin. Journal of Biomedical Optics, 2016, 21, 050503.	1.4	7
117	On Valve Interstitial Cell Signaling: The Link Between Multiscale Mechanics and Mechanobiology. Cardiovascular Engineering and Technology, 2021, 12, 15-27.	0.7	7
118	The impact of myocardial compressibility on organ-level simulations of the normal and infarcted heart. Scientific Reports, 2021, 11, 13466.	1.6	7
119	A new computational framework for anatomically consistent 3D statistical shape analysis with clinical imaging applications. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2013, 1, 13-27.	1.3	6
120	On the Three-Dimensional Correlation Between Myofibroblast Shape and Contraction. Journal of Biomechanical Engineering, 2021, 143, .	0.6	6
121	The aortic valve microstructure: Effects of transvalvular pressure. , 1998, 41, 131.		6
122	Modeling of Myocardium Compressibility and its Impact in Computational Simulations of the Healthy and Infarcted Heart. Lecture Notes in Computer Science, 2017, 10263, 493-501.	1.0	5
123	Simultaneous Wide-Field Planar Strainâ€"Fiber Orientation Distribution Measurement Using Polarized Spatial Domain Imaging. Annals of Biomedical Engineering, 2022, 50, 253-277.	1.3	5
124	A Structural Constitutive Model for the Native Pulmonary Valve. , 2004, 2004, 3734-6.		4
125	Analyzing valve interstitial cell mechanics and geometry with spatial statistics. Journal of Biomechanics, 2019, 93, 159-166.	0.9	4
126	A preliminary study of the local biomechanical environment of liver tumors in vivo. Medical Physics, 2019, 46, 1728-1739.	1.6	4

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127	Transcatheter Heart Valve Downstream Fluid Dynamics in an Accelerated Evaluation Environment. Annals of Biomedical Engineering, 2021, 49, 2170-2182.	1.3	4
128	Altered Responsiveness to TGFÎ² and BMP and Increased CD45+ Cell Presence in Mitral Valves Are Unique Features of Ischemic Mitral Regurgitation. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 2049-2062.	1.1	3
129	A Review on the Biomechanical Effects of Fatigue on the Porcine Bioprosthetic Heart Valve. Journal of Long-Term Effects of Medical Implants, 2017, 27, 181-197.	0.2	3
130	Parameter estimation of heart valve leaflet hyperelastic mechanical behavior using an inverse modeling approach. , 2014, , .		2
131	A High-Fidelity 3D Micromechanical Model of Ventricular Myocardium. Lecture Notes in Computer Science, 2021, 12738, 168-177.	1.0	2
132	On the Three-Dimensional Mechanical Behavior of Human Breast Tissue. Annals of Biomedical Engineering, 2022, 50, 601.	1.3	2
133	The Intrinsic Fatigue Mechanism of the Porcine Aortic Valve Extracellular Matrix. Cardiovascular Engineering and Technology, 2012, 3, 62-72.	0.7	1
134	Modeling the Role of Oscillator Flow and Dynamic Mechanical Conditioning on Dense Connective Tissue Formation in Mesenchymal Stem Cellâ€"Derived Heart Valve Tissue Engineering. Journal of Medical Devices, Transactions of the ASME, 2013, 7, 0409271-409272.	0.4	1
135	Biological Mechanics of the Heart Valve Interstitial Cell. , 2018, , 3-36.		1
136	Virtual heart guides cardiac ablation. Nature Biomedical Engineering, 2018, 2, 711-712.	11.6	1
137	Multi-scale Modeling of the Heart Valve Interstitial Cell. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2020, , 21-53.	0.7	1
138	Adventures in Heart Valve Function A Personal Thank You to Dr. Ajit P. Yoganathan. Cardiovascular Engineering and Technology, 2021, 12, 651-653.	0.7	1
139	On the shape and structure of the murine pulmonary heart valve. Scientific Reports, 2021, 11, 14078.	1.6	1
140	Commentary on â€œA Biomechanical and Microstructural Analysis of Bovine and Porcine Pericardium for Use in Bioprosthetic Heart Valvesâ€• Structural Heart, 0, , 1-1.	0.2	1
141	Biomechanical Activation of Human Valvular Interstitial Cells from Early Stage of CAVD. , 2012, , .		1
142	Mechanical Interaction of the Pericardium and Cardiac Function in the Normal and Hypertensive Rat Heart. Frontiers in Physiology, 2022, 13, 878861.	1.3	1
143	The Journal of Biomechanical Engineeringâ€"The Next Step. Journal of Biomechanical Engineering, 2007, 129, 801-801.	0.6	0
144	Biomechanics of Diabetic Bladders. LUTS: Lower Urinary Tract Symptoms, 2009, 1, S94.	0.6	0

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145	In situ estimation of aortic valve interstitial cell mechanical state from tissue level measurements. , 2014, , .		0
146	Simulation of Fatigue in Bioprosthetic Heart Valve Biomaterials1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	0
147	Towards Patient-Specific Mitral Valve Surgical Simulations. , 2018, , 471-487.		0
148	Four-dimensional Ultrasound for Characterization of In Vivo Murine Aortic Valve Dynamics. Structural Heart, 2021, 5, 27-27.	0.2	0