Zhi-Yong Li

List of Publications by Year
in descending order

191 papers	4,440 citations	147801 31 h-index	138484 58 g-index
201 all docs	201 docs citations	201 times ranked	4624 citing authors

#	Article	IF	Citations
1	The ATHEROMA (Atorvastatin Therapy: Effects on Reduction of Macrophage Activity) Study. Journal of the American College of Cardiology, 2009, 53, 2039-2050.	2.8	359
2	Stress analysis of carotid plaque rupture based on in vivo high resolution MRI. Journal of Biomechanics, 2006, 39, 2611-2622.	2.1	200
3	How Critical Is Fibrous Cap Thickness to Carotid Plaque Stability?. Stroke, 2006, 37, 1195-1199.	2.0	182
4	Impact of calcification and intraluminal thrombus on the computed wall stresses of abdominal aortic aneurysm. Journal of Vascular Surgery, 2008, 47, 928-935.	1.1	172
5	Assessment of Inflammatory Burden Contralateral to the Symptomatic Carotid Stenosis Using High-Resolution Ultrasmall, Superparamagnetic Iron Oxideâ€“Enhanced MRI. Stroke, 2006, 37, 2266-2270.	2.0	131
6	Iron Oxide Particles for Atheroma Imaging. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 1001-1008.	2.4	125
7	Utility of USPIO-enhanced MR imaging to identify inflammation and the fibrous cap: A comparison of symptomatic and asymptomatic individuals. European Journal of Radiology, 2009, 70, 555-560.	2.6	109
8	Structural analysis and magnetic resonance imaging predict plaque vulnerability: A study comparing symptomatic and asymptomatic individuals. Journal of Vascular Surgery, 2007, 45, 768-775.	1.1	92
9	Association Between Aneurysm Shoulder Stress and Abdominal Aortic Aneurysm Expansion. Circulation, 2010, 122, 1815-1822.	1.6	85
10	A multiscale study on the structural and mechanical properties of the luffa sponge from Luffa cylindrica plant. Journal of Biomechanics, 2014, 47, 1332-1339.	2.1	78
11	Does Calcium Deposition Play a Role in the Stability of Atheroma? Location May Be the Key. Cerebrovascular Diseases, 2007, 24, 452-459.	1.7	77
12	Carotid arterial plaque stress analysis using fluidâ€“structure interactive simulation based on in-vivo magnetic resonance images of four patients. Journal of Biomechanics, 2009, 42, 1416-1423.	2.1	77
13	Experimental measurement of the mechanical properties of carotid atherothrombotic plaque fibrous cap. Journal of Biomechanics, 2009, 42, 1650-1655.	2.1	74
14	Utility of high resolution MR imaging to assess carotid plaque morphology: A comparison of acute symptomatic, recently symptomatic and asymptomatic patients with carotid artery disease. Atherosclerosis, 2009, 207, 434-439.	0.8	74
15	Association between Biomechanical Structural Stresses of Atherosclerotic Carotid Plaques and Subsequent Ischaemic Cerebrovascular Events â€“ A Longitudinal in Vivo Magnetic Resonance Imaging-based Finite element Study. European Journal of Vascular and Endovascular Surgery, 2010, 40, 485-491.	1.5	67
16	Correlation of Carotid Atheromatous Plaque Inflammation Using USPIO-Enhanced MR Imaging With Degree of Luminal Stenosis. Stroke, 2008, 39, 2144-2147.	2.0	61
17	The mechanical triggers of plaque rupture: shear stressvspressure gradient. British Journal of Radiology, 2009, 82, S39-S45.	2.2	61
18	Advances in nano-scaled biosensors for biomedical applications. Analyst, The, 2013, 138, 4427.	3.5	59

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19	Correlation of carotid atheromatous plaque inflammation with biomechanical stress: Utility of USPIO enhanced MR imaging and finite element analysis. Atherosclerosis, 2008, 196, 879-887.	0.8	58
20	Characterisation of carotid atheroma in symptomatic and asymptomatic patients using high resolution MRI. Journal of Neurology, Neurosurgery and Psychiatry, 2008, 79, 905-912.	1.9	57
21	Comparison of the inflammatory burden of truly asymptomatic carotid atheroma with atherosclerotic plaques contralateral to symptomatic carotid stenosis: an ultra small superparamagnetic iron oxide enhanced magnetic resonance study. Journal of Neurology, Neurosurgery and Psychiatry, 2007, 78, 1337-1343.	1.9	55
22	Assessment of Carotid Plaque Vulnerability Using Structural and Geometrical Determinants. Circulation Journal, 2008, 72, 1092-1099.	1.6	52
23	Mechanical properties of a hollow-cylindrical-joint honeycomb. Composite Structures, 2014, 109, 68-74.	5.8	52
24	Mechanics of Bacterial Interaction and Death on Nanopatterned Surfaces. Biophysical Journal, 2021, 120, 217-231.	0.5	51
25	Comparison of the Inflammatory Burden of Truly Asymptomatic Carotid Atheroma with Atherosclerotic Plaques in Patients with Asymptomatic Carotid Stenosis Undergoing Coronary Artery Bypass Grafting: An Ultrasmall Superparamagnetic Iron Oxide Enhanced Magnetic Resonance Study. European Journal of Vascular and Endovascular Surgery, 2008, 35, 392-398.	1.5	49
26	Carborane Derivative Conjugated with Gold Nanoclusters for Targeted Cancer Cell Imaging. Biomacromolecules, 2017, 18, 1466-1472.	5.4	47
27	Joshua. , 2009, , .		43
28	Foot Morphological Difference between Habitually Shod and Unshod Runners. PLoS ONE, 2015, 10, e0131385.	2.5	36
29	The importance of blood rheology in patient-specific computational fluid dynamics simulation of stenotic carotid arteries. Biomechanics and Modeling in Mechanobiology, 2020, 19, 1477-1490.	2.8	36
30	Ventricular flow dynamics with varying LVAD inflow cannula lengths: In-silico evaluation in a multiscale model. Journal of Biomechanics, 2018, 72, 106-115.	2.1	34
31	Effects of blood flow and vessel geometry on wall stress and rupture risk of abdominal aortic aneurysms. Journal of Medical Engineering and Technology, 2006, 30, 283-297.	1.4	33
32	Reproducibility of image-based computational models of intracranial aneurysm: a comparison between 3D rotational angiography, CT angiography and MR angiography. BioMedical Engineering OnLine, 2016, 15, 50.	2.7	33
33	Biodegradable Metallic Wires in Dental and Orthopedic Applications: A Review. Metals, 2018, 8, 212.	2.3	33
34	Finite element analysis of vulnerable atherosclerotic plaques: a comparison of mechanical stresses within carotid plaques of acute and recently symptomatic patients with carotid artery disease. Journal of Neurology, Neurosurgery and Psychiatry, 2010, 81, 286-289.	1.9	32
35	Study of carotid arterial plaque stress for symptomatic and asymptomatic patients. Journal of Biomechanics, 2011, 44, 2551-2557.	2.1	32
36	Plastic collapse of cylindrical shell-plate periodic honeycombs under uniaxial compression: experimental and numerical analyses. International Journal of Mechanical Sciences, 2016, 111-112, 125-133.	6.7	32

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37	Low Wall Shear Stress Is Associated with Local Aneurysm Wall Enhancement on High-Resolution MR Vessel Wall Imaging. American Journal of Neuroradiology, 2018, 39, 2082-2087.	2.4	32
38	Optical coherence tomography-based patient-specific coronary artery reconstruction and fluidâ€“structure interaction simulation. Biomechanics and Modeling in Mechanobiology, 2020, 19, 7-20.	2.8	32
39	A Validated Finite Element Analysis of Facet Joint Stress in Degenerative Lumbar Scoliosis. World Neurosurgery, 2016, 95, 126-133.	1.3	31
40	Mathematical Modelling of a Brain Tumour Initiation and Early Development: A Coupled Model of Glioblastoma Growth, Pre-Existing Vessel Co-Option, Angiogenesis and Blood Perfusion. PLoS ONE, 2016, 11, e0150296.	2.5	31
41	Nonlinear mechanical property of tracheal cartilage: A theoretical and experimental study. Journal of Biomechanics, 2008, 41, 1995-2002.	2.1	29
42	Impact of Coronary Tortuosity on Coronary Pressure: Numerical Simulation Study. PLoS ONE, 2012, 7, e42558.	2.5	29
43	Mathematical modeling of atherosclerotic plaque destabilization: Role of neovascularization and intraplaque hemorrhage. Journal of Theoretical Biology, 2018, 450, 53-65.	1.7	29
44	Temporal dependence of in vivo USPIO-enhanced MRI signal changes in human carotid atheromatous plaques. Neuroradiology, 2009, 51, 457-465.	2.2	28
45	Arterial Luminal Curvature and Fibrous-Cap Thickness Affect Critical Stress Conditions Within Atherosclerotic Plaque: An In Vivo MRI-Based 2D Finite-Element Study. Annals of Biomedical Engineering, 2010, 38, 3096-3101.	2.5	28
46	Study of reproducibility of human arterial plaque reconstruction and its effects on stress analysis based on multispectral in vivo magnetic resonance imaging. Journal of Magnetic Resonance Imaging, 2009, 30, 85-93.	3.4	27
47	Normalized Wall Index Specific and MRI-Based Stress Analysis of Atherosclerotic Carotid Plaques - A Study Comparing Acutely Symptomatic and Asymptomatic Patients -. Circulation Journal, 2010, 74, 2360-2364.	1.6	27
48	Structural and Hemodynamic Analyses of Different Stent Structures in Curved and Stenotic Coronary Artery. Frontiers in Bioengineering and Biotechnology, 2019, 7, 366.	4.1	27
49	Mgâ€“Phenolic Network Strategy for Enhancing Corrosion Resistance and Osteocompatibility of Degradable Magnesium Alloys. ACS Omega, 2019, 4, 21931-21944.	3.5	27
50	Development and validation of machine learning prediction model based on computed tomography angiographyâ€“derived hemodynamics for rupture status of intracranial aneurysms: a Chinese multicenter study. European Radiology, 2020, 30, 5170-5182.	4.5	27
51	Antithrombin III associated with fibrinogen predicts the risk of cerebral ischemic stroke. Clinical Neurology and Neurosurgery, 2011, 113, 380-386.	1.4	26
52	Combining IVUS and Optical Coherence Tomography for More Accurate Coronary Cap Thickness Quantification and Stress/Strain Calculations: A Patient-Specific Three-Dimensional Fluid-Structure Interaction Modeling Approach. Journal of Biomechanical Engineering, 2018, 140, .	1.3	26
53	Combined PET-FDG and USPIO-enhanced MR Imaging in Patients with Symptomatic Moderate Carotid Artery Stenosis. European Journal of Vascular and Endovascular Surgery, 2008, 36, 53-55.	1.5	25
54	The Influence of Rotary Blood Pump Speed Modulation on the Risk of Intraventricular Thrombosis. Artificial Organs, 2018, 42, 943-953.	1.9	24

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55	Impact of left atrial appendage location on risk of thrombus formation in patients with atrial fibrillation. Biomechanics and Modeling in Mechanobiology, 2021, 20, 1431-1443.	2.8	24
56	Image-based midsole insert design and the material effects on heel plantar pressure distribution during simulated walking loads. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 747-753.	1.6	23
57	A 3D numerical study of the collateral capacity of the circle of Willis with anatomical variation in the posterior circulation. BioMedical Engineering OnLine, 2015, 14, S11.	2.7	23
58	Hemodynamic analysis for stenosis microfluidic model of thrombosis with refined computational fluid dynamics simulation. Scientific Reports, 2021, 11, 6875.	3.3	23
59	Identifying vulnerable carotid plaques in vivo using high resolution magnetic resonance imagingâ€“based finite element analysis. Journal of Neurosurgery, 2007, 107, 536-542.	1.6	22
60	Flow pattern analysis in a highly stenotic patient-specific carotid bifurcation model using a turbulence model. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1099-1107.	1.6	22
61	Numerical prediction of thrombus risk in an anatomically dilated left ventricle: the effect of inflow cannula designs. BioMedical Engineering OnLine, 2016, 15, 136.	2.7	21
62	Feasibility of Autologous Bone Marrow Mesenchymal Stem Cellâ€“Derived Extracellular Matrix Scaffold for Cartilage Tissue Engineering. Artificial Organs, 2013, 37, E179-90.	1.9	20
63	Influences of plaque eccentricity and composition on the stentâ€“plaqueâ€“artery interaction during stent implantation. Biomechanics and Modeling in Mechanobiology, 2019, 18, 45-56.	2.8	20
64	High amplitude and low frequency cyclic mechanical strain promotes degeneration of human nucleus pulposus cells via the NFâ€Îº B p65 pathway. Journal of Cellular Physiology, 2018, 233, 7206-7216.	4.1	19
65	Effect of mechanical stimulation on the degradation of poly(lactic acid) scaffolds with different designed structures. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 96, 324-333.	3.1	19
66	Coupled Modeling of Lipid Deposition, Inflammatory Response and Intraplaque Angiogenesis in Atherosclerotic Plaque. Annals of Biomedical Engineering, 2019, 47, 439-452.	2.5	19
67	Non-invasive MR imaging of inflammation in a patient with both asymptomatic carotid atheroma and an abdominal aortic aneurysm: a case report. Annals of Surgical Innovation and Research, 2007, 1, 4.	1.3	18
68	Fractal dimension: A complementary diagnostic indicator of osteoporosis to bone mineral density. Medical Hypotheses, 2018, 116, 136-138.	1.5	18
69	Tensile and compressive force regulation on cell mechanosensing. Biophysical Reviews, 2019, 11, 311-318.	3.2	18
70	Correlation of macrophage location and plaque stress distribution using USPIO-enhanced MRI in a patient with symptomatic severe carotid stenosis: a new insight into risk stratification. British Journal of Neurosurgery, 2007, 21, 396-398.	0.8	17
71	Does PGA external stenting reduce compliance mismatch in venous grafts?. BioMedical Engineering OnLine, 2007, 6, 12.	2.7	17
72	Study on Tracheal Collapsibility, Compliance, and Stress by Considering Nonlinear Mechanical Property of Cartilage. Annals of Biomedical Engineering, 2009, 37, 2380-2389.	2.5	17

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73	Automatic classification of atherosclerotic tissue in intravascular optical coherence tomography images. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 1152.	1.5	16
74	Utility of Magnetic Resonance Imaging-Based Finite Element Analysis for the Biomechanical Stress Analysis of Hemorrhagic and Non-Hemorrhagic Carotid Plaques. Circulation Journal, 2011, 75, 884-889.	1.6	15
75	Effect of rehabilitation exercise durations on the dynamic bone repair process by coupling polymer scaffold degradation and bone formation. Biomechanics and Modeling in Mechanobiology, 2018, 17, 763-775.	2.8	15
76	Mathematical modeling of bone in-growth into undegradable porous periodic scaffolds under mechanical stimulus. Journal of Tissue Engineering, 2019, 10, 204173141982716.	5.5	15
77	A Machine Learning-Based Method for Intracoronary OCT Segmentation and Vulnerable Coronary Plaque Cap Thickness Quantification. International Journal of Computational Methods, 2019, 16, 1842008.	1.3	15
78	Noninvasive imaging of atheromatous carotid plaques. Nature Reviews Cardiology, 2009, 6, 200-209.	13.7	14
79	Numerical investigation of atherosclerotic plaque rupture using optical coherence tomography imaging and XFEM. Engineering Fracture Mechanics, 2018, 204, 531-541.	4.3	14
80	The bHLH transcription factor PPLS1 regulates the color of pulvinus and leaf sheath in foxtail millet (Setaria italica). Theoretical and Applied Genetics, 2020, 133, 1911-1926.	3.6	14
81	Evaluating the Impact of Calcification on Plaque Vulnerability from the Aspect of Mechanical Interaction Between Blood Flow and Artery Based on MRI. Annals of Biomedical Engineering, 2021, 49, 1169-1182.	2.5	14
82	Effects of Nanopillar Size and Spacing on Mechanical Perturbation and Bactericidal Killing Efficiency. Nanomaterials, 2021, 11, 2472.	4.1	14
83	Stress analysis of carotid atheroma in a transient ischaemic attack patient using the MRI-based fluidâ€“structure interaction method. British Journal of Radiology, 2009, 82, S46-S54.	2.2	13
84	Arsenic trioxide promotes mitochondrial DNA mutation and cell apoptosis in primary APL cells and NB4 cell line. Science China Life Sciences, 2010, 53, 87-93.	4.9	13
85	Reduction in Arterial Wall Strain With Aggressive Lipid-Lowering Therapy in Patients With Carotid Artery Disease. Circulation Journal, 2011, 75, 1486-1492.	1.6	13
86	STUDY ON THE IMPACT OF STRAIGHT STENTS ON ARTERIES WITH DIFFERENT CURVATURES. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650093.	0.7	13
87	Multi-scale mathematical modelling of tumour growth and microenvironments in anti-angiogenic therapy. BioMedical Engineering OnLine, 2016, 15, 155.	2.7	13
88	Re-examination of the mechanical anisotropy of porcine thoracic aorta by uniaxial tensile tests. BioMedical Engineering OnLine, 2016, 15, 167.	2.7	13
89	Carotid Bifurcation With Tandem Stenosisâ€”A Patient-Specific Case Study Combined in vivo Imaging, in vitro Histology and in silico Simulation. Frontiers in Bioengineering and Biotechnology, 2019, 7, 349.	4.1	13
90	Stress Analysis of Carotid Atheroma in Transient Ischemic Attack Patients: Evidence for Extreme Stress-Induced Plaque Rupture. Annals of Biomedical Engineering, 2011, 39, 2203-2212.	2.5	12

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91	Fatigue Crack Propagation Analysis of Plaque Rupture. Journal of Biomechanical Engineering, 2013, 135, 101003-9.	1.3	12
92	A New Method for the In Vivo Identification of Mechanical Properties in Arteries From Cine MRI Images: Theoretical Framework and Validation. IEEE Transactions on Medical Imaging, 2013, 32, 1448-1461.	8.9	12
93	Influence of surface stress on elastic constants of nanohoneycombs. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 53, 217-222.	2.7	12
94	Parametric Study on Nanopattern Bactericidal Activity. Procedia Manufacturing, 2019, 30, 514-521.	1.9	12
95	Atherosclerotic Plaque Tissue Characterization: An OCT-Based Machine Learning Algorithm With ex vivo Validation. Frontiers in Bioengineering and Biotechnology, 2020, 8, 749.	4.1	12
96	Mechanicalâ€“chemical coupled modeling of bone regeneration within a biodegradable polymer scaffold loaded with VEGF. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2285-2306.	2.8	12
97	Understanding the influence of left ventricular assist device inflow cannula alignment and the risk of intraventricular thrombosis. BioMedical Engineering OnLine, 2021, 20, 47.	2.7	12
98	Single-parameter mechanical design of a 3D-printed octet truss topological scaffold to match natural cancellous bones. Materials and Design, 2021, 209, 109986.	7.0	12
99	In Vivo Positive Contrast IRON Sequence and Quantitative T2* Measurement Confirms Inflammatory Burden in a Patient with Asymptomatic Carotid Atheroma after USPIO-enhanced MR Imaging. Journal of Vascular and Interventional Radiology, 2008, 19, 446-448.	0.5	11
100	Study on the elasticâ€“plastic behavior of a porous hierarchical bioscaffold used for bone regeneration. Materials Letters, 2013, 112, 43-46.	2.6	11
101	Numerical investigation of drug transport from blood vessels to tumour tissue using a Tumour-Vasculature-on-a-Chip. Chemical Engineering Science, 2019, 208, 115155.	3.8	11
102	Automated classification of coronary plaque calcification in OCT pullbacks with 3D deep neural networks. Journal of Biomedical Optics, 2020, 25, .	2.6	11
103	Plaque Rupture: Plaque Stress, Shear Stress, and Pressure Drop. Journal of the American College of Cardiology, 2008, 52, 499-500.	2.8	10
104	The Hemodynamic Effects of In-Tandem Carotid Artery Stenosis: Implications for Carotid Endarterectomy. Journal of Stroke and Cerebrovascular Diseases, 2010, 19, 138-145.	1.6	10
105	How Does Calcification Influence Plaque Vulnerability? Insights from Fatigue Analysis. Scientific World Journal, The, 2014, 2014, 1-8.	2.1	10
106	Localized method of approximate particular solutions for solving unsteady Navierâ€“Stokes problem. Applied Mathematical Modelling, 2016, 40, 2265-2273.	4.2	10
107	Role of vascular smooth muscle cell phenotypic switching in plaque progression: A hybrid modeling study. Journal of Theoretical Biology, 2021, 526, 110794.	1.7	10
108	Multiscale modeling of solid stress and tumor cell invasion in response to dynamic mechanical microenvironment. Biomechanics and Modeling in Mechanobiology, 2020, 19, 577-590.	2.8	9

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109	How does mechanical stimulus affect the coupling process of the scaffold degradation and bone formation: An in silico approach. Computers in Biology and Medicine, 2020, 117, 103588.	7.0	9
110	Study of tracheal collapsibility, compliance and stress by considering its asymmetric geometry. Medical Engineering and Physics, 2009, 31, 328-336.	1.7	8
111	PLANTAR PRESSURE DISTRIBUTION CHARACTER IN YOUNG FEMALE WITH MILD HALLUX VALGUS WEARING HIGH-HEELED SHOES. Journal of Mechanics in Medicine and Biology, 2014, 14, 1450008.	0.7	8
112	A numerical investigation of drug extravasation using a tumourâ€“vasculature microfluidic device. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	8
113	Carotid Geometry as a Predictor of In-Stent Neointimal Hyperplasiaã€€â€• A Computational Fluid Dynamics Study â€•. Circulation Journal, 2019, 83, 1472-1479.	1.6	8
114	3D-printed cellular tips for tuning fork atomic force microscopy in shear mode. Nature Communications, 2020, 11, 5732.	12.8	8
115	Correlation of shear stress with carotid plaque rupture using MRI and finite element analysis. Journal of Neurology, 2006, 253, 379-381.	3.6	7
116	The impact of wall shear stress and pressure drop on the stability of the atherosclerotic plaque. , 2008, 2008, 1373-6.		7
117	In vivo velocity vector imaging and time-resolved strain rate measurements in the wall of blood vessels using MRI. Journal of Biomechanics, 2011, 44, 979-983.	2.1	7
118	Oxygen Transport in a Three-Dimensional Microvascular Network Incorporated with Early Tumour Growth and Preexisting Vessel Cooption: Numerical Simulation Study. BioMed Research International, 2015, 2015, 1-10.	1.9	7
119	MRI-based strain and strain rate analysis of left ventricle: a modified hierarchical transformation model. BioMedical Engineering OnLine, 2015, 14, S9.	2.7	7
120	An analytical hierarchical model explaining the robustness and flaw-tolerance of the interlocking barb-barbule structure of bird feathers. Europhysics Letters, 2016, 116, 24001.	2.0	7
121	Reproducibility of image-based computational models of intracranial aneurysm; methodological issue. BioMedical Engineering OnLine, 2016, 15, 109.	2.7	7
122	Left ventricular diastolic dysfunction in type 2 diabetes patients: a novel 2D strain analysis based on cardiac magnetic resonance imaging. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1330-1338.	1.6	7
123	Computational Fluid Dynamics Simulations at Micro-Scale Stenosis for Microfluidic Thrombosis Model Characterization. MCB Molecular and Cellular Biomechanics, 2021, 18, 1-10.	0.7	7
124	Simulation of the Interaction between Blood Flow and Atherosclerotic Plaque. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1699-702.	0.5	6
125	Graphynes: an alternative lightweight solution for shock protection. Beilstein Journal of Nanotechnology, 2019, 10, 1588-1595.	2.8	6
126	Biomechanical assessment of aortic valve stenosis: Advantages and limitations. Medicine in Novel Technology and Devices, 2019, 2, 100009.	1.6	6

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127	A prediction tool for plaque progression based on patient-specific multi-physical modeling. PLoS Computational Biology, 2021, 17, e1008344.	3.2	6
128	DSA-Based Quantitative Assessment of Cerebral Hypoperfusion in Patients with Asymmetric Carotid Stenosis. MCB Molecular and Cellular Biomechanics, 2019, 16, 27-39.	0.7	6
129	Plaque Rupture: Plaque Stress, Shear Stress, and Pressure Drop. Journal of the American College of Cardiology, 2008, 52, 1106-1107.	2.8	5
130	Measurement of stenotic carotid arterial compliance with MRI. , 2008, 2008, 1403-6.		5
131	Computed wall stress may predict the growth of abdominal aortic aneurysm. , 2010, 2010, 2626-9.		5
132	Mechanical Information of Plantar Fascia during Normal Gait. Physics Procedia, 2012, 33, 63-66.	1.2	5
133	Fatigue Crack Growth Under Pulsatile Pressure and Plaque Rupture. JACC: Cardiovascular Imaging, 2014, 7, 738-740.	5.3	5
134	Cardiovascular diseases and vulnerable plaques: data, modeling, predictions and clinical applications. BioMedical Engineering OnLine, 2015, 14, S1.	2.7	5
135	Impact of stent malapposition on intracoronary flow dynamics: An optical coherence tomography-based patient-specific study. Medical Engineering and Physics, 2021, 94, 26-32.	1.7	5
136	Degradation of 3D-Printed Porous Polylactic Acid Scaffolds Under Mechanical Stimulus. Frontiers in Bioengineering and Biotechnology, 2021, 9, 691834.	4.1	5
137	Evaluation of Stroke Risk in Patients With Atrial Fibrillation Using Morphological and Hemodynamic Characteristics. Frontiers in Cardiovascular Medicine, 2022, 9, 842364.	2.4	5
138	In vivo non-invasive high resolution MR-based method for the determination of the elastic modulus of arterial vessels. , 2008, 2008, 5569-72.		4
139	Finite Element Analysis of Deep Transverse Metatarsal Ligaments Mechanical Response during Landing. Advanced Materials Research, 2012, 472-475, 2558-2561.	0.3	4
140	3D numerical simulation of avascular tumour growth: effect of hypoxic micro-environment in host tissue. Applied Mathematics and Mechanics (English Edition), 2013, 34, 1055-1068.	3.6	4
141	The rotation toughening mechanism of barbâ€“barbule joint in the barb delamination of feathers. Acta Mechanica, 2020, 231, 1173-1186.	2.1	4
142	Aortic cannula orientation and flow impacts embolic trajectories: computational cardiopulmonary bypass. Perfusion (United Kingdom), 2020, 35, 409-416.	1.0	4
143	Stress-Relaxation and Cyclic Behavior of Human Carotid Plaque Tissue. Frontiers in Bioengineering and Biotechnology, 2020, 8, 60.	4.1	4
144	Mechanical effect on the evolution of bone formation during bone ingrowth into a 3D-printed Ti-alloy scaffold. Materials Letters, 2020, 273, 127921.	2.6	4

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145	Plaque Longitudinal Heterogeneity in Morphology, Property, and Mechanobiology. Cerebrovascular Diseases, 2021, 50, 510-519.	1.7	4
146	Mathematical modeling of intraplaque neovascularization and hemorrhage in a carotid atherosclerotic plaque. BioMedical Engineering OnLine, 2021, 20, 42.	2.7	4
147	Coronary Plaque Characterization From Optical Coherence Tomography Imaging With a Two-Pathway Cascade Convolutional Neural Network Architecture. Frontiers in Cardiovascular Medicine, 2021, 8, 670502.	2.4	4
148	Predicting bone regeneration from machine learning. Nature Computational Science, 2021, 1, 509-510.	8.0	4
149	Graphdiyne family-tunable solution to shock resistance. Materials Research Express, 2020, 7, 115602.	1.6	4
150	Atheroma: is Calcium Important or Not? A Modelling Study of Stress Within the Atheromatous Fibrous Cap in Relation to Position and Size of Calcium Deposits. , 2005, 2005, 2236-9.		3
151	A Natural-History Study of Coronary Disease. New England Journal of Medicine, 2011, 364, 1469-1472.	27.0	3
152	A Hybrid Cellular Automata Model of Multicellular Tumour Spheroid Growth in Hypoxic Microenvironment. Journal of Applied Mathematics, 2013, 2013, 1-10.	0.9	3
153	Deformation of Female Foot Binding in China. Journal of Clinical Rheumatology, 2013, 19, 418.	0.9	3
154	Nonlinear mechanics of a ring structure subjected to multi-pairs of evenly distributed equal radial forces. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 942-953.	3.4	3
155	Positive effect of wrapping poly caprolactone/polyethylene glycol fibrous films on the mechanical properties of 45S5 bioactive glass scaffolds. International Journal of Applied Ceramic Technology, 2018, 15, 921-929.	2.1	3
156	Numerical Determination of the Circumferential Residual Stress of Porcine Aorta by Pulling-Back Method. Acta Mechanica Solida Sinica, 2021, 34, 346-355.	1.9	3
157	Mathematical modeling of plaque progression and associated microenvironment: How far from predicting the fate of atherosclerosis?. Computer Methods and Programs in Biomedicine, 2021, 211, 106435.	4.7	3
158	Atomistic Investigation of the Titanium Carbide MXenes under Impact Loading. Nanomaterials, 2022, 12, 2456.	4.1	3
159	A PILOT STUDY IN DIFFERENT UNSTABLE DESIGNS ON THE BIOMECHANICAL EFFECT OF GAIT CHARACTERISTICS. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250031.	0.7	2
160	Case Report: Evaluating Biomechanical Risk Factors in Carotid Stenosis by Patient-Specific Fluid-Structural Interaction Biomechanical Analysis. Cerebrovascular Diseases, 2021, 50, 262-269.	1.7	2
161	Digital Subtraction Angiography Contrast Material Transport as a Direct Assessment for Blood Perfusion of Middle Cerebral Artery Stenosis. Frontiers in Physiology, 2021, 12, 716173.	2.8	2
162	Characterization of the Atherosclerotic Plaque Tissue. Advanced Materials Letters, 2020, 11, 1-7.	0.6	2

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163	Response to Letter by Karapanayiotides and Devuyst. Stroke, 2006, 37, 2452-2452.	2.0	1
164	Effect of Shoes' Heel Height on the Energy Cost during Jogging. Research Journal of Applied Sciences, Engineering and Technology, 2013, 6, 1531-1533.	0.1	1
165	The Effects of Adult Degenerative Lumbar Scoliosis on the Facet Joint Contact Forces: A Finite Element Study. Journal of Nanoscience and Nanotechnology, 2016, 16, 6804-6809.	0.9	1
166	A parametric study of inflammatory effects on plaque mechanical stress. International Journal of Cardiology, 2016, 205, 157-159.	1.7	1
167	Prediction of atherosclerotic plaque life â€“ Perceptions from fatigue analysis. Procedia Manufacturing, 2019, 30, 522-529.	1.9	1
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