Dimitrios P Sokolis

List of Publications by Year
in descending order

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64 papers	1,609 citations	257101 24 h-index	315357 38 g-index
64 all docs	64 docs citations	64 times ranked	1179 citing authors

#	Article	IF	Citations
1	Ascending thoracic aortic aneurysms are associated with compositional remodeling and vessel stiffening but not weakening in age-matched subjects. Journal of Thoracic and Cardiovascular Surgery, 2009, 137, 101-109.	0.4	140
2	Regional and directional variations in the mechanical properties of ascending thoracic aortic aneurysms. Medical Engineering and Physics, 2009, 31, 1-9.	0.8	129
3	A structural basis for the aortic stressâ€“strain relation in uniaxial tension. Journal of Biomechanics, 2006, 39, 1651-1662.	0.9	93
4	In vivo antiatherogenic properties of olive oil and its constituent lipid classes in hyperlipidemic rabbits. Nutrition, Metabolism and Cardiovascular Diseases, 2006, 16, 174-185.	1.1	83
5	Biomechanical response of ascending thoracic aortic aneurysms: association with structural remodelling. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 231-248.	0.9	64
6	Effect of layer heterogeneity on the biomechanical properties of ascending thoracic aortic aneurysms. Medical and Biological Engineering and Computing, 2012, 50, 1227-1237.	1.6	60
7	Biomechanical and histological characteristics of passive esophagus: Experimental investigation and comparative constitutive modeling. Journal of Biomechanics, 2009, 42, 2654-2663.	0.9	56
8	Impaired mechanics and matrix metalloproteinases/inhibitors expression in female ascending thoracic aortic aneurysms. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 34, 154-164.	1.5	51
9	Assessment of the aortic stressâ€“strain relation in uniaxial tension. Journal of Biomechanics, 2002, 35, 1213-1223.	0.9	46
10	Microstructure-based constitutive modeling for the large intestine validated by histological observations. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 21, 149-166.	1.5	45
11	Effects of aneurysm on the directional, regional, and layer distribution of residual strains in ascending thoracic aorta. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 229-243.	1.5	42
12	Layer- and region-specific material characterization of ascending thoracic aortic aneurysms by microstructure-based models. Journal of Biomechanics, 2015, 48, 3757-3765.	0.9	42
13	Layer-dependent wall properties of abdominal aortic aneurysms: Experimental study and material characterization. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 49, 141-161.	1.5	41
14	Regional distribution of circumferential residual strains in the human aorta according to age and gender. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 67, 87-100.	1.5	40
15	Effect of Aneurysm and Bicuspid Aortic Valve on Layer-Specific Ascending Aorta Mechanics. Annals of Thoracic Surgery, 2018, 106, 1692-1701.	0.7	37
16	Strain-energy function and three-dimensional stress distribution in esophageal biomechanics. Journal of Biomechanics, 2010, 43, 2753-2764.	0.9	36
17	Experimental investigation and constitutive modeling of the 3D histomechanical properties of vein tissue. Biomechanics and Modeling in Mechanobiology, 2013, 12, 431-451.	1.4	35
18	A passive strain-energy function for elastic and muscular arteries: correlation of material parameters with histological data. Medical and Biological Engineering and Computing, 2010, 48, 507-518.	1.6	34

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19	Biomechanical behavior and histological organization of the three-layered passive esophagus as a function of topography. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 477-490.	1.0	31
20	Regional distribution of delamination strength in ascending thoracic aortic aneurysms. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 98, 58-70.	1.5	31
21	Passive mechanical properties and constitutive modeling of blood vessels in relation to microstructure. Medical and Biological Engineering and Computing, 2008, 46, 1187-1199.	1.6	30
22	Local Hemodynamics and Intimal Hyperplasia at the Venous Side of a Porcine Arteriovenous Shunt. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 681-690.	3.6	30
23	Differential histomechanical response of carotid artery in relation to species and region: mathematical description accounting for elastin and collagen anisotropy. Medical and Biological Engineering and Computing, 2011, 49, 867-879.	1.6	29
24	Biomechanical testing and material characterization for the rat large intestine: regional dependence of material parameters. Physiological Measurement, 2011, 32, 1969-1982.	1.2	25
25	Multiaxial mechanical behaviour of the passive ureteral wall: experimental study and mathematical characterisation. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 1145-1156.	0.9	25
26	Identification of regional/layer differences in failure properties and thickness as important biomechanical factors responsible for the initiation of aortic dissections. Journal of Biomechanics, 2018, 80, 102-110.	0.9	24
27	Structurally-motivated characterization of the passive pseudo-elastic response of esophagus and its layers. Computers in Biology and Medicine, 2013, 43, 1273-1285.	3.9	23
28	Age- and region-related changes in the biomechanical properties and composition of the human ureter. Journal of Biomechanics, 2017, 51, 57-64.	0.9	21
29	Regional distribution of layer-specific circumferential residual deformations and opening angles in the porcine aorta. Journal of Biomechanics, 2019, 96, 109335.	0.9	21
30	Spectral Decomposition of the Compliance Tensor for Anisotropic Plates. Journal of Elasticity, 1998, 51, 89-103.	0.9	19
31	Surgical Thoracic Sympathectomy Induces Structural and Biomechanical Remodeling of the Thoracic Aorta in a Porcine Model. Journal of Surgical Research, 2012, 172, 68-76.	0.8	17
32	Experimental study and biomechanical characterization for the passive small intestine: Identification of regional differences. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 93-105.	1.5	17
33	Biomechanical, morphological and zero-stress state characterization of jugular vein remodeling in arteriovenous fistulas for hemodialysis. Biorheology, 2010, 47, 297-319.	1.2	15
34	Identification and characterisation of regional variations in the material properties of ureter according to microstructure. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1653-1670.	0.9	13
35	Insights into Biomechanical and Proteomic Characteristics of Small Diameter Vascular Grafts Utilizing the Human Umbilical Artery. Biomedicines, 2020, 8, 280.	1.4	13
36	Post-Vagotomy Mechanical Characteristics and Structure of the Thoracic Aortic Wall. Annals of Biomedical Engineering, 2005, 33, 1504-1516.	1.3	12

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37	Biomechanical properties and histological structure of sinus of Valsalva aneurysms in relation to age and region. Journal of Biomechanics, 2013, 46, 931-940.	0.9	12
38	Effects of Aneurysm on the Mechanical Properties and Histologic Structure of Aortic Sinuses. Annals of Thoracic Surgery, 2014, 98, 72-79.	0.7	12
39	Regional and age-dependent residual strains, curvature, and dimensions of the human ureter. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2018, 232, 149-162.	1.0	12
40	Layer-Specific Residual Deformations and Their Variation Along the Human Aorta. Journal of Biomechanical Engineering, 2021, 143, .	0.6	11
41	The Mechanical Performance and Histomorphological Structure of the Descending Aorta in Hyperthyroidism. Angiology, 2007, 58, 343-352.	0.8	10
42	Time-course of venous wall biomechanical adaptation in pressure and flow-overload: Assessment by a microstructure-based material model. Journal of Biomechanics, 2013, 46, 2451-2462.	0.9	10
43	Variation of Axial Residual Strains Along the Course and Circumference of Human Aorta Considering Age and Gender. Journal of Biomechanical Engineering, 2020, 142, .	0.6	9
44	Hypothyroidism and the aorta. evidence of increased oxidative DNA damage to the aorta of hypothyroid rats. In Vivo, 2008, 22, 603-8.	0.6	8
45	Time course of flow-induced adaptation of carotid artery biomechanical properties, structure and zero-stress state in the arteriovenous shunt. Biorheology, 2012, 49, 65-82.	1.2	7
46	Time-course of axial residual strain remodeling and layer-specific thickening during aging along the human aorta. Journal of Biomechanics, 2020, 112, 110065.	0.9	7
47	In vitro study of age-related changes in human ureteral failure properties according to region, direction, and layer. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 570-583.	1.0	6
48	Ascending aorta mechanics in bicuspid aortopathy: controversy or fact?. Asian Cardiovascular and Thoracic Annals, 2020, 29, 021849232092873.	0.2	5
49	Variation of Passive Biomechanical Properties of the Small Intestine along Its Length: Microstructure-Based Characterization. Bioengineering, 2021, 8, 32.	1.6	5
50	Hyperthyroidism is associated with increased aortic oxidative DNA damage in a rat model. In Vivo, 2007, 21, 1021-6.	0.6	5
51	Regional and directional variations in the layer-specific resistance to tear propagation in ascending thoracic aortic aneurysms. Journal of Biomechanics, 2022, 138, 111133.	0.9	5
52	The Effects of Hypothyroidism on the Mechanical Properties and Histomorphological Structure of the Thoracic Aorta. Angiology, 2010, 61, 259-268.	0.8	4
53	Alterations with age in the biomechanical behavior of human ureteral wall: Microstructure-based modeling. Journal of Biomechanics, 2020, 109, 109940.	0.9	3
54	The influence of indomethacin co-administration on ofloxacin levels in plasma and cerebrospinal fluid in rats. International Journal of Antimicrobial Agents, 2004, 23, 371-376.	1.1	2

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55	Large artery biomechanical, geometrical, and structural remodeling elicited by long-term propranolol administration in an animal model. Biorheology, 2016, 53, 151-170.	1.2	2
56	Splitting the elastic strain energy in thin plates of a transversely isotropic material. International Journal of Solids and Structures, 2000, 37, 5061-5078.	1.3	1
57	Failure Modes of Foams: The Influence of Orientation of Voids. International Journal of Damage Mechanics, 2001, 10, 3-42.	2.4	1
58	Effect of ovariectomy and Sideritis euboea extract administration on large artery mechanics, morphology, and structure in middle-aged rats. Biorheology, 2017, 54, 1-23.	1.2	1
59	Improved Repopulation Efficacy of Decellularized Small Diameter Vascular Grafts Utilizing the Cord Blood Platelet Lysate. Bioengineering, 2021, 8, 118.	1.6	1
60	Local hemodynamics and intimal hyperplasia at the venous side of porcine carotid artery - Jugular vein shunt. , 2008, , .		0
61	Evaluation of Nâ€Terminal Prohormone Bâ€Type Natriuretic Peptide in Patients With Acute Coronary Syndromes and Percutaneous Coronary Intervention. Journal of Clinical Hypertension, 2010, 12, 861-868.	1.0	0
62	Rupture properties of aneurysmal aortic roots. , 2011, , .		0
63	Large artery biomechanical adaptation induced by flow-overload. , 2011, , .		0
64	Failure properties of ascending thoracic aortic aneurysms with dysfunctional tricuspid aortic valves. Interactive Cardiovascular and Thoracic Surgery, 2021, 33, 949-958.	0.5	0