

Ali C Akyildiz

List of Publications by Year in descending order

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35
papers

753
citations

687335

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677123

22
g-index

36
all docs

36
docs citations

36
times ranked

847
citing authors

#	ARTICLE	IF	CITATIONS
1	Uniaxial tensile testing approaches for characterisation of atherosclerotic plaques. Journal of Biomechanics, 2014, 47, 793-804.	2.1	112
2	Effects of intima stiffness and plaque morphology on peak cap stress. BioMedical Engineering OnLine, 2011, 10, 25.	2.7	92
3	Mechanical properties of human atherosclerotic intima tissue. Journal of Biomechanics, 2014, 47, 773-783.	2.1	87
4	Local axial compressive mechanical properties of human carotid atherosclerotic plaquesâ€™ characterisation by indentation test and inverse finite element analysis. Journal of Biomechanics, 2013, 46, 1759-1766.	2.1	75
5	Calcifications in atherosclerotic plaques and impact on plaque biomechanics. Journal of Biomechanics, 2019, 87, 1-12.	2.1	61
6	Initial stress in biomechanical models of atherosclerotic plaques. Journal of Biomechanics, 2011, 44, 2376-2382.	2.1	46
7	3D Fiber Orientation in Atherosclerotic Carotid Plaques. Journal of Structural Biology, 2017, 200, 28-35.	2.8	44
8	Mechanical Characterization of Thrombi Retrieved With Endovascular Thrombectomy in Patients With Acute Ischemic Stroke. Stroke, 2021, 52, 2510-2517.	2.0	39
9	The influence of axial image resolution on atherosclerotic plaque stress computations. Journal of Biomechanics, 2013, 46, 689-695.	2.1	25
10	The effects of plaque morphology and material properties on peak cap stress in human coronary arteries. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 771-779.	1.6	23
11	Local anisotropic mechanical properties of human carotid atherosclerotic plaques â€™ Characterisation by micro-indentation and inverse finite element analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 43, 59-68.	3.1	21
12	Intima heterogeneity in stress assessment of atherosclerotic plaques. Interface Focus, 2018, 8, 20170008.	3.0	16
13	In vitro and in silico modeling of endovascular stroke treatments for acute ischemic stroke. Journal of Biomechanics, 2021, 127, 110693.	2.1	16
14	A Framework for Local Mechanical Characterization of Atherosclerotic Plaques: Combination of Ultrasound Displacement Imaging and Inverse Finite Element Analysis. Annals of Biomedical Engineering, 2016, 44, 968-979.	2.5	15
15	Energy Dissipation in <i>Ex Vivo</i> Porcine Liver During Electrosurgery. IEEE Transactions on Biomedical Engineering, 2017, 64, 1211-1217.	4.2	15
16	Morphometric and Mechanical Analyses of Calcifications and Fibrous Plaque Tissue in Carotid Arteries for Plaque Rupture Risk Assessment. IEEE Transactions on Biomedical Engineering, 2021, 68, 1429-1438.	4.2	13
17	Morphological Subtypes of Intracranial Internal Carotid Artery Arteriosclerosis and the Risk of Stroke. Stroke, 2022, 53, 1339-1347.	2.0	13
18	A review on the association of thrombus composition with mechanical and radiological imaging characteristics in acute ischemic stroke. Journal of Biomechanics, 2021, 129, 110816.	2.1	11

#	ARTICLE	IF	CITATIONS
19	In Situ Mechanical Characterization of Multilayer Soft Tissue Using Ultrasound Imaging. IEEE Transactions on Biomedical Engineering, 2017, 64, 2595-2606.	4.2	10
20	Colocalization of Intracoronary Lipid-Rich Plaques and Calcifications. JACC: Cardiovascular Imaging, 2020, 13, 1627-1628.	5.3	7
21	Multicomponent material property characterization of atherosclerotic human carotid arteries through a Bayesian Optimization based inverse finite element approach. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 104996.	3.1	7
22	Multicomponent Mechanical Characterization of Atherosclerotic Human Coronary Arteries: An Experimental and Computational Hybrid Approach. Frontiers in Physiology, 2021, 12, 733009.	2.8	5
23	Plaque Deformation in Atherosclerotic Porcine Arteries. , 2012, , .		0
24	Local Anisotropic Mechanical Behavior of Human Carotid Atherosclerotic Plaques: Characterization Using Indentation Test and Inverse Finite Element Analysis. , 2013, , .		0
25	CAD 1. Computed Tomography Angiography-Derived Plaque Structural Analysis of Symptomatic and Contralateral Asymptomatic Carotid Stenosis (30%-70%): What Can Be Learned?. Journal of Vascular Surgery, 2018, 68, e157.	1.1	0
26	VESS09. Computed Tomography Angiography Structural Analysis of Carotid Plaque Burden, Juxtaluminal Dark Matter, and Calcification in Symptomatic and Contralateral Asymptomatic Stenosis (30%-70%): What Can Be Learned?. Journal of Vascular Surgery, 2018, 67, e53.	1.1	0
27	Identification of coronary plaque mechanical properties from ex vivo testing. , 2021, , 411-432.		0
28	Seven-year clinical and mechanical follow-up of a Tetralogy of Fallot patient with severe pulmonary regurgitation. European Heart Journal Cardiovascular Imaging, 2021, , .	1.2	0
29	Biomechanical Determinants of Plaque Rupture. , 2010, , .		0
30	Influence of Plaque Geometry on Peak Cap Stresses. , 2011, , .		0
31	Initial Stress in Biomechanical Models of Atherosclerotic Plaques. , 2011, , .		0
32	3D Stress Computations in Atherosclerotic Arteries: The Influence of Axial Image Resolution. , 2012, , .		0
33	The Effect of Plaque Morphology on Cap Stresses in Coronary Arteries. , 2012, , .		0
34	Estimation of Atherosclerotic Plaque Material Properties: A Mixed Method of Strain Imaging and Inverse Finite Element Analysis. , 2013, , .		0
35	Thrombus mechanics: How can we contribute to improve diagnostics and treatment?. Journal of Biomechanics, 2022, 132, 110935.	2.1	0