Afshin Afshin Anssari-Benam

List of Publications by Year
in descending order

29 papers	502 citations	623734 14 h-index	713466 21 g-index
29 all docs	29 docs citations	29 times ranked	295 citing authors

#	Article	IF	Citations
1	Modelling the Inflation and Elastic Instabilities of Rubber-Like Spherical and Cylindrical Shells Using a New Generalised Neo-Hookean Strain Energy Function. Journal of Elasticity, 2022, 151, 15-45.	1.9	29
2	Extension and torsion of rubber-like hollow and solid circular cylinders for incompressible isotropic hyperelastic materials with limiting chain extensibility. European Journal of Mechanics, A/Solids, 2022, 92, 104443.	3.7	22
3	ASSESSMENT OF A NEW ISOTROPIC HYPERELASTIC CONSTITUTIVE MODEL FOR A RANGE OF RUBBERLIKE MATERIALS AND DEFORMATIONS. Rubber Chemistry and Technology, 2022, 95, 200-217.	1.2	13
4	Torsional instability of incompressible hyperelastic rubber-like solid circular cylinders with limiting chain extensibility. International Journal of Solids and Structures, 2022, 238, 111396.	2.7	5
5	New results in the theory of plane strain flexure of incompressible isotropic hyperelastic materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	4
6	The Generalised Mooney Space for Modelling the Response of Rubber-Like Materials. Journal of Elasticity, 2022, 151, 127-141.	1.9	6
7	A three-parameter structurally motivated robust constitutive model for isotropic incompressible unfilled and filled rubber-like materials. European Journal of Mechanics, A/Solids, 2022, 95, 104605.	3.7	18
8	New constitutive models for the finite deformation of isotropic compressible elastomers. Mechanics of Materials, 2022, 172, 104403.	3.2	6
9	Modelling the rate-dependency of the mechanical behaviour of the aortic heart valve: An experimentally guided theoretical framework. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 134, 105341.	3.1	2
10	A generalised neo-Hookean strain energy function for application to the finite deformation of elastomers. International Journal of Non-Linear Mechanics, 2021, 128, 103626.	2.6	59
11	On a new class of non-Gaussian molecular-based constitutive models with limiting chain extensibility for incompressible rubber-like materials. Mathematics and Mechanics of Solids, 2021, 26, 1660-1674.	2.4	23
12	On the central role of the invariant I2 in nonlinear elasticity. International Journal of Engineering Science, 2021, 163, 103486.	5.0	39
13	On Modelling Simple Shear for Isotropic Incompressible Rubber-Like Materials. Journal of Elasticity, 2021, 147, 83-111.	1.9	17
14	Rate-dependent mechanical behaviour of semilunar valves under biaxial deformation: From quasi-static to physiological loading rates. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103645.	3.1	7
15	Specialized Strain Energy Functions for Modeling the Contribution of the Collagen Network (Waniso) to the Deformation of Soft Tissues. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .	2.2	5
16	Insights into the micromechanics of stress-relaxation and creep behaviours in the aortic valve. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 93, 230-245.	3.1	12
17	Rate-dependency of the mechanical behaviour of semilunar heart valves under biaxial deformation. Acta Biomaterialia, 2019, 88, 120-130.	8.3	18
18	Modeling the Deformation of the Elastin Network in the Aortic Valve. Journal of Biomechanical Engineering, 2018, 140, .	1.3	30

#	Article	IF	Citations
19	A transverse isotropic constitutive model for the aortic valve tissue incorporating rate-dependency and fibre dispersion: Application to biaxial deformation. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 85, 80-93.	3.1	14
20	A transverse isotropic viscoelastic constitutive model for aortic valve tissue. Royal Society Open Science, 2017, 4, 160585.	2.4	23
21	Evaluation of bioprosthetic heart valve failure using a matrix-fibril shear stress transfer approach. Journal of Materials Science: Materials in Medicine, 2016, 27, 42.	3.6	6
22	Unified viscoelasticity: Applying discrete element models to soft tissues with two characteristic times. Journal of Biomechanics, 2015, 48, 3128-3134.	2.1	8
23	Is the time-dependent behaviour of the aortic valve intrinsically quasi-linear?. Mechanics of Time-Dependent Materials, 2014, 18, 339-348.	4.4	6
24	Atherosclerotic plaques: Is endothelial shear stress the only factor?. Medical Hypotheses, 2013, 81, 235-239.	1.5	7
25	Strain Transfer Through the Aortic Valve. Journal of Biomechanical Engineering, 2012, 134, 061003.	1.3	17
26	On the specimen length dependency of tensile mechanical properties in soft tissues: Gripping effects and the characteristic decay length. Journal of Biomechanics, 2012, 45, 2481-2482.	2.1	19
27	Anisotropic time-dependant behaviour of the aortic valve. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1603-1610.	3.1	25
28	A combined experimental and modelling approach to aortic valve viscoelasticity in tensile deformation. Journal of Materials Science: Materials in Medicine, 2011, 22, 253-262.	3.6	49
29	Thermodynamic effects of linear dissipative small deformations. Journal of Thermal Analysis and Calorimetry, 2010, 100, 941-947.	3.6	13