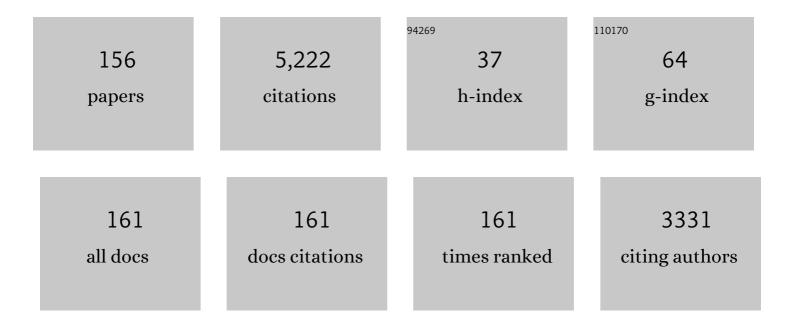
Michel Destrade

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Characterization of the anisotropic mechanical properties of excised human skin. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 5, 139-148.	1.5	529
2	Mechanical characterization of brain tissue in compression at dynamic strain rates. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 10, 23-38.	1.5	257
3	Mechanical characterization of brain tissue in tension at dynamic strain rates. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 33, 43-54.	1.5	187
4	A robust anisotropic hyperelastic formulation for the modelling of soft tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 48-60.	1.5	162
5	Automated Estimation of Collagen Fibre Dispersion in the Dermis and its Contribution to the Anisotropic Behaviour of Skin. Annals of Biomedical Engineering, 2012, 40, 1666-1678.	1.3	159
6	Mechanical characterization of brain tissue in simple shear at dynamic strain rates. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 71-85.	1.5	151
7	Initial stresses in elastic solids: Constitutive laws and acoustoelasticity. Wave Motion, 2011, 48, 552-567.	1.0	129
8	Methodical fitting for mathematical models of rubber-like materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160811.	1.0	95
9	On the third- and fourth-order constants of incompressible isotropic elasticity. Journal of the Acoustical Society of America, 2010, 128, 3334-3343.	0.5	86
10	Bending instabilities of soft biological tissues. International Journal of Solids and Structures, 2009, 46, 4322-4330.	1.3	84
11	Simple shear is not so simple. International Journal of Non-Linear Mechanics, 2012, 47, 210-214.	1.4	83
12	Bleustein–Gulyaev waves in some functionally graded materials. European Journal of Mechanics, A/Solids, 2006, 25, 695-706.	2.1	78
13	Catastrophic Thinning of Dielectric Elastomers. Physical Review Letters, 2017, 118, 078001.	2.9	73
14	Extreme softness of brain matter in simple shear. International Journal of Non-Linear Mechanics, 2015, 75, 54-58.	1.4	72
15	Measuring knife stab penetration into skin simulant using a novel biaxial tension device. Forensic Science International, 2008, 177, 52-65.	1.3	70
16	Instabilities in elastomers and in soft tissues. Quarterly Journal of Mechanics and Applied Mathematics, 2006, 59, 615-630.	0.5	69
17	Nonlinear Euler buckling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 3003-3019.	1.0	67
18	Gent models for the inflation of spherical balloons. International Journal of Non-Linear Mechanics, 2015, 68, 52-58.	1.4	63

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19	The explicit secular equation for surface acoustic waves in monoclinic elastic crystals. Journal of the Acoustical Society of America, 2001, 109, 1398-1402.	0.5	62
20	Incremental Magnetoelastic Deformations, with Application to Surface Instability. Journal of Elasticity, 2008, 90, 19-42.	0.9	59
21	Third- and fourth-order constants of incompressible soft solids and the acousto-elastic effect. Journal of the Acoustical Society of America, 2010, 127, 2759-2763.	0.5	58
22	Wrinkles in soft dielectric plates. Journal of the Mechanics and Physics of Solids, 2018, 119, 298-318.	2.3	58
23	At least three invariants are necessary to model the mechanical response of incompressible, transversely isotropic materials. Computational Mechanics, 2013, 52, 959-969.	2.2	55
24	Measuring the linear and nonlinear elastic properties of brain tissue with shear waves and inverse analysis. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1119-1128.	1.4	55
25	Third- and fourth-order elasticities of biological soft tissues. Journal of the Acoustical Society of America, 2010, 127, 2103-2106.	0.5	49
26	Morphology of residually stressed tubular tissues: Beyond the elastic multiplicative decomposition. Journal of the Mechanics and Physics of Solids, 2016, 90, 242-253.	2.3	47
27	Finite amplitude elastic waves propagating in compressible solids. Physical Review E, 2005, 72, 016620.	0.8	46
28	Onset of Nonlinearity in the Elastic Bending of Blocks. Journal of Applied Mechanics, Transactions ASME, 2010, 77, .	1.1	46
29	Large acoustoelastic effect. Wave Motion, 2012, 49, 364-374.	1.0	46
30	Surface acoustic waves in rotating orthorhombic crystals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 653-665.	1.0	45
31	On anisotropic elasticity and questions concerning its Finite Element implementation. Computational Mechanics, 2013, 52, 1185-1197.	2.2	45
32	Surface waves in orthotropic incompressible materials. Journal of the Acoustical Society of America, 2001, 110, 837-840.	0.5	43
33	Actively controllable topological phase transition in phononic beam systems. International Journal of Mechanical Sciences, 2020, 180, 105668.	3.6	42
34	The incompressible limit in linear anisotropic elasticity, with applications to surface waves and elastostatics. Journal of the Mechanics and Physics of Solids, 2002, 50, 1453-1468.	2.3	40
35	Guided waves in pre-stressed hyperelastic plates and tubes: Application to the ultrasound elastography of thin-walled soft materials. Journal of the Mechanics and Physics of Solids, 2017, 102, 67-79.	2.3	40
36	Modified multiplicative decomposition model for tissue growth: Beyond the initial stress-free state. Journal of the Mechanics and Physics of Solids, 2018, 118, 133-151.	2.3	40

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37	Bimodular rubber buckles early in bending. Mechanics of Materials, 2010, 42, 469-476.	1.7	39
38	Rayleigh waves in symmetry planes of crystals: explicit secular equations and some explicit wave speeds. Mechanics of Materials, 2003, 35, 931-939.	1.7	38
39	Inhomogeneous deformation of brain tissue during tension tests. Computational Materials Science, 2012, 64, 295-300.	1.4	38
40	On stress-dependent elastic moduli and wave speeds. IMA Journal of Applied Mathematics, 2013, 78, 965-997.	0.8	38
41	Dominant negative Poynting effect in simple shearing of soft tissues. Journal of Engineering Mathematics, 2015, 95, 87-98.	0.6	38
42	Acoustic waves at the interface of a pre-stressed incompressible elastic solid and a viscous fluid. International Journal of Non-Linear Mechanics, 2007, 42, 310-320.	1.4	37
43	Influence of preservation temperature on the measured mechanical properties of brain tissue. Journal of Biomechanics, 2013, 46, 1276-1281.	0.9	37
44	Seismic Rayleigh waves on an exponentially graded, orthotropic half-space. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 495-502.	1.0	36
45	Surface waves in a deformed isotropic hyperelastic material subject to an isotropic internal constraint. Wave Motion, 2004, 40, 347-357.	1.0	35
46	Surface Instability of Sheared Soft Tissues. Journal of Biomechanical Engineering, 2008, 130, 061007.	0.6	35
47	Deficiencies in numerical models of anisotropic nonlinearly elastic materials. Biomechanics and Modeling in Mechanobiology, 2013, 12, 781-791.	1.4	35
48	Solitary and compactlike shear waves in the bulk of solids. Physical Review E, 2006, 73, 065604.	0.8	34
49	A combined experimental and numerical study of stab-penetration forces. Forensic Science International, 2013, 233, 7-13.	1.3	34
50	On residual stresses and homeostasis: an elastic theory of functional adaptation in living matter. Scientific Reports, 2016, 6, 24390.	1.6	33
51	Poynting effect of brain matter in torsion. Soft Matter, 2019, 15, 5147-5153.	1.2	32
52	Nonlinear transverse waves in deformed dispersive solids. Wave Motion, 2008, 45, 325-336.	1.0	30
53	Finite-amplitude inhomogeneous waves in Mooney–Rivlin viscoelastic solids. Wave Motion, 2004, 40, 251-262.	1.0	29
54	Weierstrass's criterion and compact solitary waves. Physical Review E, 2007, 75, 047601.	0.8	29

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55	Asymptotic results for bifurcations in pure bending of rubber blocks. Quarterly Journal of Mechanics and Applied Mathematics, 2008, 61, 395-414.	0.5	29
56	Initial stress symmetry and its applications in elasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150448.	1.0	29
57	Influence of Initial Residual Stress on Growth and Pattern Creation for a Layered Aorta. Scientific Reports, 2019, 9, 8232.	1.6	29
58	Prescribing patterns in growing tubular soft matter by initial residual stress. Soft Matter, 2019, 15, 8468-8474.	1.2	29
59	Finite bending and pattern evolution of the associated instability for a dielectric elastomer slab. International Journal of Solids and Structures, 2019, 158, 191-209.	1.3	29
60	Temperature effects on brain tissue in compression. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 14, 113-118.	1.5	28
61	Torsion instability of soft solid cylinders. IMA Journal of Applied Mathematics, 2014, 79, 804-819.	0.8	28
62	Determination of friction coefficient in unconfined compression of brain tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 14, 163-171.	1.5	27
63	Strain energy function for isotropic non-linear elastic incompressible solids with linear finite strain response in shear and torsion. Extreme Mechanics Letters, 2016, 9, 204-206.	2.0	27
64	Surface waves in a stretched and sheared incompressible elastic material. International Journal of Non-Linear Mechanics, 2005, 40, 241-253.	1.4	26
65	Slight compressibility and sensitivity to changes in Poisson's ratio. International Journal for Numerical Methods in Engineering, 2012, 90, 403-411.	1.5	26
66	Tuning the pull-in instability of soft dielectric elastomers through loading protocols. International Journal of Non-Linear Mechanics, 2019, 113, 62-66.	1.4	26
67	On deforming a sector of a circular cylindrical tube into an intact tube: Existence, uniqueness, and stability. International Journal of Engineering Science, 2010, 48, 1212-1224.	2.7	25
68	Nonâ€invasive evaluation of skin tension lines with elastic waves. Skin Research and Technology, 2017, 23, 326-335.	0.8	24
69	Proton Resonance Frequency Shift Thermometry: A Review of Modern Clinical Practices. Journal of Magnetic Resonance Imaging, 2022, 55, 389-403.	1.9	24
70	Uniform transmural strain in pre-stressed arteries occurs at physiological pressure. Journal of Theoretical Biology, 2012, 303, 93-97.	0.8	23
71	Some results on finite amplitude elastic waves propagating in rotating media. Acta Mechanica, 2004, 173, 19-31.	1.1	22
72	Compact travelling waves in viscoelastic solids. Europhysics Letters, 2009, 87, 48001.	0.7	22

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73	Small amplitude waves and stability for a pre-stressed viscoelastic solid. Zeitschrift Fur Angewandte Mathematik Und Physik, 2009, 60, 511-528.	0.7	22
74	Nonlinear Correction to the Euler Buckling Formula forÂCompressed Cylinders withÂGuided-Guided End Conditions. Journal of Elasticity, 2011, 102, 191-200.	0.9	22
75	Proper formulation of viscous dissipation for nonlinear waves in solids. Journal of the Acoustical Society of America, 2013, 133, 1255-1259.	0.5	22
76	Electrostatically tunable axisymmetric vibrations of soft electro-active tubes. Journal of Sound and Vibration, 2020, 483, 115467.	2.1	21
77	On the ABAQUS FEA Model of Finite Viscoelasticity. Rubber Chemistry and Technology, 2009, 82, 184-193.	0.6	20
78	Mechanical Properties of Excised Human Skin. IFMBE Proceedings, 2010, , 1000-1003.	0.2	20
79	Elastic Cherenkov effects in transversely isotropic soft materials-I: Theoretical analysis, simulations and inverse method. Journal of the Mechanics and Physics of Solids, 2016, 96, 388-410.	2.3	19
80	Nonlinear response and axisymmetric wave propagation in functionally graded soft electro-active tubes. International Journal of Mechanical Sciences, 2020, 187, 106006.	3.6	19
81	Rayleigh Waves in Anisotropic Crystals Rotating About the Normal to a Symmetry Plane. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 516-520.	1.1	18
82	Non-principal surface waves in deformed incompressible materials. International Journal of Engineering Science, 2005, 43, 1092-1106.	2.7	18
83	The speed of interfacial waves polarized in a symmetry plane. International Journal of Engineering Science, 2006, 44, 26-36.	2.7	18
84	The stress field in a pulled cork and some subtle points in the semi-inverse method of nonlinear elasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2945-2959.	1.0	18
85	Straightening wrinkles. Journal of the Mechanics and Physics of Solids, 2014, 65, 1-11.	2.3	18
86	Pattern evolution in bending dielectric-elastomeric bilayers. Journal of the Mechanics and Physics of Solids, 2020, 136, 103670.	2.3	18
87	Acousto-elasticity of transversely isotropic incompressible soft tissues: characterization of skeletal striated muscle. Physics in Medicine and Biology, 2021, 66, 145009.	1.6	18
88	Scalar evolution equations for shear waves in incompressible solids: a simple derivation of the Z, ZK, KZK and KP equations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 1823-1834.	1.0	17
89	Wrinkles and creases in the bending, unbending and eversion of soft sectors. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170827.	1.0	17
90	Mechanics of human brain organoids. Physical Review E, 2020, 101, 022403.	0.8	17

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91	Elastic interface acoustic waves in twinned crystals. International Journal of Solids and Structures, 2003, 40, 7375-7383.	1.3	16
92	Explicit secular equations for piezoacoustic surface waves: Shear-horizontal modes. Journal of the Acoustical Society of America, 2004, 116, 3432-3442.	0.5	16
93	Surface waves and surface stability for a pre-stretched, unconstrained, non-linearly elastic half-space. International Journal of Non-Linear Mechanics, 2009, 44, 545-551.	1.4	16
94	Straightening: existence, uniqueness and stability. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130709.	1.0	16
95	Edge wrinkling in elastically supported pre-stressed incompressible isotropic plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160410.	1.0	16
96	Piezoelectric love waves on rotated Y-cut mm2 substrates. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 2132-2139.	1.7	15
97	On the rectilinear shear of compressible and incompressible elastic slabs. International Journal of Engineering Science, 2010, 48, 1202-1211.	2.7	15
98	On the thermodynamic consistency of Quasi-linear viscoelastic models for soft solids. Mechanics Research Communications, 2021, 111, 103648.	1.0	15
99	Piezoacoustic wave spectra using improved surface impedance matrix: Application to high impedance-contrast layered plates. Journal of the Acoustical Society of America, 2008, 123, 1972-1982.	0.5	14
100	Electrothermal Equivalent Three-Dimensional Finite-Element Model of a Single Neuron. IEEE Transactions on Biomedical Engineering, 2018, 65, 1373-1381.	2.5	14
101	Fine tuning the electro-mechanical response of dielectric elastomers. Applied Physics Letters, 2018, 113,	1.5	14
102	Shear instability in skin tissue. Quarterly Journal of Mechanics and Applied Mathematics, 2013, 66, 273-288.	0.5	13
103	Inhomogeneous shear of orthotropic incompressible non-linearly elastic solids: Singular solutions and biomechanical interpretation. International Journal of Engineering Science, 2009, 47, 1170-1181.	2.7	11
104	Explicit secular equation for Scholte waves over a monoclinic crystal. Journal of Sound and Vibration, 2004, 273, 409-414.	2.1	10
105	Large-amplitude love waves. Quarterly Journal of Mechanics and Applied Mathematics, 2008, 61, 353-371.	0.5	10
106	Toward a Predictive Assessment of Stab-Penetration Forces. American Journal of Forensic Medicine and Pathology, 2015, 36, 162-166.	0.4	10
107	Hyperelastic and Viscoelastic Properties of Brain Tissue in Tension. , 2012, , .		9
108	Electroâ€mechanical response of a 3D nerve bundle model to mechanical loads leading to axonal injury. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2942.	1.0	9

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109	Multi-sector approximation method for arteries: the residual stresses of circumferential rings with non-trivial openings. Journal of the Royal Society Interface, 2019, 16, 20190023.	1.5	9
110	Electro-mechanically guided growth and patterns. Journal of the Mechanics and Physics of Solids, 2020, 143, 104073.	2.3	9
111	An ultrasonic method to measure stress without calibration: The angled shear wave method. Journal of the Acoustical Society of America, 2020, 148, 3963-3970.	0.5	9
112	Finite-amplitude inhomogeneous plane waves in a deformed Mooney-Rivlin material. Quarterly Journal of Mechanics and Applied Mathematics, 2000, 53, 343-361.	0.5	8
113	Wireless communicative stent for follow-up of abdominal aortic aneurysm. , 2006, , .		8
114	Generalization of the Zabolotskaya equation to all incompressible isotropic elastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190061.	1.0	8
115	Explicit secular equations for piezoacoustic surface waves: Rayleigh modes. Journal of Applied Physics, 2005, 98, 054903.	1.1	7
116	The effect of an exterior electric field on the instability of dielectric plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200267.	1.0	7
117	Stability analysis of charge-controlled soft dielectric plates. International Journal of Engineering Science, 2020, 151, 103280.	2.7	7
118	A Wave Near the Edge of a Circular Disk. The Open Acoustics Journal, 2008, 1, 15-18.	0.1	7
119	On interface waves in misoriented pre-stressed incompressible elastic solids. IMA Journal of Applied Mathematics, 2004, 70, 3-14.	0.8	6
120	Creep, Recovery, and Waves in a Nonlinear Fiber-Reinforced Viscoelastic Solid. SIAM Journal on Applied Mathematics, 2007, 68, 80-97.	0.8	6
121	COMPRESSION INSTABILITIES OF TISSUES WITH LOCALIZED STRAIN SOFTENING. International Journal of Applied Mechanics, 2011, 03, 69-83.	1.3	6
122	Wrinkles in the opening angle method. International Journal of Solids and Structures, 2017, 122-123, 189-195.	1.3	6
123	Oblique wrinkles. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160158.	1.6	6
124	Rivlin's legacy in continuum mechanics and applied mathematics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190090.	1.6	6
125	Wrinkling of soft magneto-active plates. International Journal of Solids and Structures, 2021, 208-209, 13-30.	1.3	6
126	The Generalised Mooney Space for Modelling the Response of Rubber-Like Materials. Journal of Elasticity, 2022, 151, 127-141.	0.9	6

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127	Nonlinear Vibration and Stability of a Dielectric Elastomer Balloon Based on a Strain-Stiffening Model. Journal of Elasticity, 2023, 153, 533-548.	0.9	6
128	Rayleigh Waves and Surface Stability for Bell Materials in Compression; Comparison with Rubber. Quarterly Journal of Mechanics and Applied Mathematics, 2003, 56, 593-604.	0.5	5
129	Counter-intuitive results in acousto-elasticity. Wave Motion, 2013, 50, 1218-1228.	1.0	5
130	Effects of nerve bundle geometry on neurotrauma evaluation. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3118.	1.0	5
131	Experimental assessment of clinical MRI-induced global SAR distributions in head phantoms. Physica Medica, 2019, 66, 113-118.	0.4	5
132	The Poynting effect. American Journal of Physics, 2020, 88, 1036-1040.	0.3	5
133	Introduction to the special issue on waves in non-linear solid mechanics. International Journal of Non-Linear Mechanics, 2009, 44, 445-449.	1.4	4
134	Ray W Ogden: An Appreciation. Mathematics and Mechanics of Solids, 2015, 20, 621-624.	1.5	4
135	Neurotrauma evaluation in a 3D electro-mechanical model of a nerve bundle. , 2017, , .		4
136	Head-to-nerve analysis of electromechanical impairments of diffuse axonal injury. Biomechanics and Modeling in Mechanobiology, 2019, 18, 361-374.	1.4	4
137	Bending control and stability of functionally graded dielectric elastomers. Extreme Mechanics Letters, 2021, 43, 101162.	2.0	4
138	Electro-elastic Lamb waves in dielectric plates. Extreme Mechanics Letters, 2020, 39, 100782.	2.0	4
139	Small-Amplitude Inhomogeneous Plane Waves in a Deformed Mooney-rivlin Material. Quarterly Journal of Mechanics and Applied Mathematics, 2002, 55, 109-126.	0.5	3
140	A high rate tension device for characterizing brain tissue. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 170-176.	0.4	3
141	Plane-polarised finite-amplitude shear waves in deformed incompressible materials. Mathematics and Mechanics of Solids, 2022, 27, 1494-1503.	1.5	3
142	Circularly polarized plane waves in a deformed Hadamard material. Wave Motion, 2002, 35, 289-309.	1.0	2
143	Surface waves in deformed Bell materials. International Journal of Non-Linear Mechanics, 2003, 38, 809-814.	1.4	2
144	Stoneley Waves and Interface Stability of Bell Materials in Compression; Comparison with Rubber. Mathematics and Mechanics of Solids, 2005, 10, 227-246.	1.5	2

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145	Incremental Equations for Soft Fibrous Materials. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2015, , 233-267.	0.3	2
146	Electro-mechanical response of a 3D nerve bundle model to mechanical loads leading to axonal injury. , 2017, 2017, 978-981.		2
147	A hyperbolic framework for shear sound beams in nonlinear solids. Communications in Nonlinear Science and Numerical Simulation, 2021, 103, 106036.	1.7	2
148	Finite-Amplitude Inhomogeneous Plane Waves of Exponential Type in Incompressible Elastic Materials. Journal of Elasticity, 1999, 55, 163-166.	0.9	1
149	Inhomogeneous ?longitudinal? plane waves in a deformed elastic material. Journal of Elasticity, 2005, 75, 147-165.	0.9	1
150	Tension Lines of the Skin. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2019, , 265-280.	0.7	1
151	ENDOCOM : Abdominal Aortic Aneurysm test bench for in vitro simulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2323-6.	0.5	0
152	Special issue in honor of K.R. Rajagopal. International Journal of Engineering Science, 2010, 48, 943-944.	2.7	0
153	Introduction to special issue on stability under finite deformation. IMA Journal of Applied Mathematics, 2010, 75, 475-478.	0.8	0
154	Effects of nerve bundle geometry on neurotrauma evaluation. , 2017, , .		0
155	Notice of Removal: Guided wave elastography of press-stressed thin-walled soft tissues. , 2017, , .		0
156	Interface Waves in Pre-Stressed Incompressible Solids. , 2007, , 63-102.		0