Michael D Gilchrist

List of Publications by Year
in descending order

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228	8,100	53660	66788
papers	citations	45 h-index	78 g-index

234	234	234	6033
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inertial properties of a living population for the development of biofidelic headforms. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2023, 237, 52-62.	0.4	2
2	Investigation of an Ice Hockey Helmet Test Protocol Representing Three Concussion Event Types. Journal of Testing and Evaluation, 2022, 50, 465-478.	0.4	2
3	Electropolishing and Shaping of Micro-Scale Metallic Features. Micromachines, 2022, 13, 468.	1.4	14
4	Pathogen detection on microfluidic platforms: Recent advances, challenges, and prospects. Biosensors and Bioelectronics: X, 2022, 10, 100134.	0.9	7
5	Evaluation of two rotational helmet technologies to decrease peak rotational acceleration in cycling helmets. Scientific Reports, 2022, 12, 7735.	1.6	5
6	A preliminary examination of the relationship between biomechanical measures and structural changes in the brain. Trauma, 2021, 23, 24-32.	0.2	9
7	Comparison of frequency and magnitude of head impacts experienced by Peewee boys and girls in games of youth ice hockey. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 1-13.	0.9	9
8	Precision replication of microlens arrays using variotherm-assisted microinjection moulding. Precision Engineering, 2021, 67, 248-261.	1.8	23
9	Parametric study of impact parameters on peak head acceleration and strain for collision impacts in sport. International Journal of Crashworthiness, 2021, 26, 16-25.	1.1	8
10	A parametric analysis of factors that determine head injury outcomes following equestrian fall accidents. International Journal of Crashworthiness, 2021, 26, 295-308.	1.1	1
11	Exposure to brain trauma in six age divisions of minor ice hockey. Journal of Biomechanics, 2021, 116, 110203.	0.9	6
12	Characterization of process and machine dynamics on the precision replication of microlens arrays using microinjection moulding. Advances in Manufacturing, 2021, 9, 319-341.	3.2	3
13	The presence of Wormian bones increases the fracture resistance of equine cranial bone. PLoS ONE, 2021, 16, e0249451.	1.1	4
14	Brain trauma characteristics for lightweight and heavyweight fighters in professional mixed martial arts. Sports Biomechanics, 2021, , 1-23.	0.8	4
15	The Influence of Neck Stiffness on Head Kinematics and Maximum Principal Strain Associated With Youth American Football Collisions. Journal of Applied Biomechanics, 2021, 37, 288-295.	0.3	2
16	Post-accident evidence basis for new equestrian standards: Relationship between helmet liner residual crush and accident parameters. Applications in Engineering Science, 2021, 6, 100044.	0.5	0
17	Brain trauma exposure for American tackle football players 5 to 9 and 9 to 14Âyears of age. Journal of Biomechanics, 2021, 127, 110689.	0.9	5
18	Ranking and Rating Bicycle Helmet Safety Performance in Oblique Impacts Using Eight Different Brain Injury Models. Annals of Biomedical Engineering, 2021, 49, 1097-1109.	1.3	59

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19	Comparison of head impact frequency and magnitude in youth tackle football and ice hockey. Computer Methods in Biomechanics and Biomedical Engineering, 2021, , 1-16.	0.9	0
20	Influence of play type on the magnitude and number of head impacts sustained in youth American football. Computer Methods in Biomechanics and Biomedical Engineering, 2021, , 1-16.	0.9	0
21	Enhancement of Antiviral Effect of Plastic Film against SARS-CoV-2: Combining Nanomaterials and Nanopatterns with Scalability for Mass Manufacturing. Nano Letters, 2021, 21, 10149-10156.	4.5	22
22	Event-specific impact test protocol for ice hockey goaltender masks. Sports Biomechanics, 2020, 19, 510-531.	0.8	4
23	Comparing two proposed protocols to test the oblique response of cycling helmets to fall impacts. International Journal of Crashworthiness, 2020, 25, 648-663.	1.1	4
24	A preliminary analysis of biomechanics and saccadic responses for concussion. Trauma, 2020, 22, 182-192.	0.2	1
25	Proposed injury thresholds for concussion in equestrian sports. Journal of Science and Medicine in Sport, 2020, 23, 222-236.	0.6	23
26	Towards animal surrogates for characterising large strain dynamic mechanical properties of human brain tissue. Brain Multiphysics, 2020, 1, 100018.	0.8	25
27	Advances in laser assisted machining of hard and brittle materials. Journal of Manufacturing Processes, 2020, 58, 677-692.	2.8	107
28	Equestrian Helmet Standards: Do They Represent Real-World Accident Conditions?. Annals of Biomedical Engineering, 2020, 48, 2247-2267.	1.3	7
29	Accident reconstructions of falls, collisions, and punches in sports. Journal of Concussion, 2020, 4, 205970022093695.	0.2	2
30	Regional characterization of the dynamic mechanical properties of human brain tissue by microindentation. International Journal of Engineering Science, 2020, 155, 103355.	2.7	24
31	Force Distribution in the Canine Proximal Radio-Ulnar Joint on Extension of the Carpal Joint: A Cadaveric Study. Veterinary and Comparative Orthopaedics and Traumatology, 2020, 33, 402-408.	0.2	0
32	Mechanical Characterization and Modeling of the Porcine Cerebral Meninges. Frontiers in Bioengineering and Biotechnology, 2020, 8, 801.	2.0	8
33	Protective capacity of ice hockey helmets at different levels of striking compliance. Sports Engineering, 2020, 23, 1.	0.5	5
34	A comparison of frequency and magnitude of head impacts between Pee Wee And Bantam youth ice hockey. Sports Biomechanics, 2020, , 1-24.	0.8	9
35	Video analysis of head injury incidents in equestrian sports. Sports Engineering, 2020, 23, 1.	0.5	5
36	Effects of surface compliance on the dynamic response and strains sustained by a playerâ€™s helmeted head during ice hockey impacts. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2020, 234, 98-106.	0.4	3

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37	Simulated brain strains resulting from falls differ between concussive events of young children and adults. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 500-509.	0.9	3
38	The relationship between directional components of dynamic response and maximum principal strain for impacts to an American football helmet. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2020, 234, 193-204.	0.4	0
39	Advances in precision micro/nano-electroforming: a state-of-the-art review. Journal of Micromechanics and Microengineering, 2020, 30, 103002.	1.5	37
40	A novel repetitive head impact exposure measurement tool differentiates player position in National Football League. Scientific Reports, 2020, 10, 1200.	1.6	27
41	Biofidelic finite element modelling of brain trauma: Importance of the scalp in simulating head impact. International Journal of Mechanical Sciences, 2020, 173, 105448.	3.6	33
42	An Evidence Basis for Future Equestrian Helmet Lateral Crush Certification Tests. Applied Sciences (Switzerland), 2020, 10, 2623.	1.3	1
43	Development of a test method for adult ice hockey helmet evaluation. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 690-702.	0.9	10
44	Could a Compliant Foam Anvil Characterize the Biofidelic Impact Response of Equestrian Helmets?. Journal of Biomechanical Engineering, 2020, 142, .	0.6	7
45	Biomechanical Comparison of Real World Concussive Impacts in Children, Adolescents, and Adults. Journal of Biomechanical Engineering, 2020, 142, .	0.6	3
46	Comparison of Head Impact Frequency and Magnitude for Midget and Junior Ice Hockey Players to Inform Safety and Policy. , 2020, , 21-44.		0
47	Do equestrian helmets prevent concussion? A retrospective analysis of head injuries and helmet damage from real-world equestrian accidents. Sports Medicine - Open, 2019, 5, 19.	1.3	29
48	Sex- and age-specific mechanical properties of liver tissue under dynamic loading conditions. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 240-246.	1.5	15
49	The effect of a novel impact management strategy on maximum principal strain for reconstructions of American football concussive events. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2019, 233, 503-513.	0.4	6
50	3D Printing of Metallic Microstructured Mould Using Selective Laser Melting for Injection Moulding of Plastic Microfluidic Devices. Micromachines, 2019, 10, 595.	1.4	21
51	A three-dimensional finite element model of a 6-year-old child for simulating brain response from physical reconstructions of head impacts. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2019, 233, 277-291.	0.4	1
52	The influence of impact surface on head kinematics and brain tissue response during impacts with equestrian helmets. Sports Biomechanics, 2019, 20, 1-14.	0.8	4
53	The influence of impact force redistribution and redirection on maximum principal strain for helmeted head impacts. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 1047-1060.	0.9	4
54	Precision replication of micro features using micro injection moulding: Process simulation and validation. Materials and Design, 2019, 177, 107829.	3.3	33

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55	The biomechanics of concussion for ice hockey head impact events. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 631-643.	0.9	29
56	The influence of impact source on variables associated with strain for impacts in ice hockey. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 713-726.	0.9	4
57	Influence of headform mass and inertia on the response to oblique impacts. International Journal of Crashworthiness, 2019, 24, 677-698.	1.1	10
58	Head-to-nerve analysis of electromechanical impairments of diffuse axonal injury. Biomechanics and Modeling in Mechanobiology, 2019, 18, 361-374.	1.4	4
59	Interaction of external head impact parameters on region and volume of strain for collisions in sport. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2019, 233, 258-267.	0.4	1
60	Mechanical behaviour of additively-manufactured polymeric octet-truss lattice structures under quasi-static and dynamic compressive loading. Materials and Design, 2019, 162, 106-118.	3.3	174
61	Interaction of impact parameters for simulated falls in sport using three different sized Hybrid III headforms. International Journal of Crashworthiness, 2019, 24, 326-335.	1.1	13
62	Comparison of Ice Hockey Goaltender Helmets for Concussion Type Impacts. Annals of Biomedical Engineering, 2018, 46, 986-1000.	1.3	14
63	Assessing women's lacrosse head impacts using finite element modelling. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 80, 20-26.	1.5	8
64	Comparison of two anthropomorphic test devices using brain motion. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2018, 232, 305-314.	0.4	3
65	Filling of high aspect ratio micro features of a microfluidic flow cytometer chip using micro injection moulding. Journal of Micromechanics and Microengineering, 2018, 28, 075005.	1.5	21
66	Indentation of heterogeneous soft tissue: Local constitutive parameter mapping using an inverse method and an automated rig. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 515-528.	1.5	25
67	Falls resulting in mild traumatic brain injury and focal traumatic brain injury: a biomechanical analysis. International Journal of Crashworthiness, 2018, 23, 278-289.	1.1	6
68	Deformation of EPS Foam Under Combined Compression-Shear Loading: Experimental and Computational Analysis. EPJ Web of Conferences, 2018, 183, 01009.	0.1	1
69	Geometric Replication Integrity of Micro Features Fabricated Using Variotherm Assisted Micro Injection Moulding. Procedia CIRP, 2018, 71, 390-395.	1.0	5
70	Replication integrity of micro features using variotherm and vacuum assisted microinjection moulding. CIRP Journal of Manufacturing Science and Technology, 2018, 23, 20-38.	2.3	20
71	Deformation response of EPS foam under combined compression-shear loading. Part II: High strain rate dynamic tests. International Journal of Mechanical Sciences, 2018, 145, 9-23.	3.6	22
72	Distribution of Brain Strain in the Cerebrum for Laboratory Impacts to Ice Hockey Goaltender Masks. Journal of Biomechanical Engineering, 2018, 140, .	0.6	10

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73	Biomechanical analysis of fluid percussion model of brain injury. Journal of Biomechanics, 2018, 77, 228-232.	0.9	13
74	Mechanical behaviour of EPS foam under combined compression-shear loading. Materials Today Communications, 2018, 16, 339-352.	0.9	19
75	Mechanical characterisation of brain tissue up to 35% strain at 1, 10, and 100/s using a custom-built micro-indentation apparatus. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 256-266.	1.5	30
76	Deformation response of EPS foam under combined compression-shear loading. Part I: Experimental design and quasi-static tests. International Journal of Mechanical Sciences, 2018, 144, 480-489.	3.6	33
77	A comparison in a youth population between those with and without a history of concussion using biomechanical reconstruction. Journal of Neurosurgery: Pediatrics, 2017, 19, 502-510.	0.8	11
78	Monodisperse polystyrene foams via polymerization of foamed emulsions: structure and mechanical properties. Physical Chemistry Chemical Physics, 2017, 19, 5477-5485.	1.3	28
79	The effect of acceleration signal processing for head impact numeric simulations. Sports Engineering, 2017, 20, 111-119.	0.5	24
80	Protection of cortex by overlying meninges tissue during dynamic indentation of the adolescent brain. Acta Biomaterialia, 2017, 57, 384-394.	4.1	36
81	Pediatric concussion: biomechanical differences between outcomes of transient and persistent (> 4) Tj ETQq1 1 0.784314 rgBT /O	0.8	18
82	Slight asymmetry in the winding angles of reinforcing collagen can cause large shear stresses in arteries and even induce buckling. Meccanica, 2017, 52, 3417-3429.	1.2	9
83	Region and species dependent mechanical properties of adolescent and young adult brain tissue. Scientific Reports, 2017, 7, 13729.	1.6	62
84	An empirical measure of nonlinear strain for soft tissue indentation. Royal Society Open Science, 2017, 4, 170894.	1.1	13
85	Peak linear and rotational acceleration magnitude and duration effects on maximum principal strain in the corpus callosum for sport impacts. Journal of Biomechanics, 2017, 61, 183-192.	0.9	37
86	Protective capacity of an ice hockey goaltender helmet for three events associated with concussion. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 1299-1311.	0.9	16
87	A viscoelastic analysis of the P56 mouse brain under large-deformation dynamic indentation. Acta Biomaterialia, 2017, 48, 309-318.	4.1	37
88	A new formulation of slight compressibility for arterial tissue and its Finite Element implementation. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 403-414.	0.9	3
89	The development of a threshold curve for the understanding of concussion in sport. Trauma, 2017, 19, 196-206.	0.2	40
90	Piezoelectric Tensor of Collagen Fibrils Determined at the Nanoscale. ACS Biomaterials Science and Engineering, 2017, 3, 929-935.	2.6	69

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91	Protective Capacity of Ice Hockey Helmets against Different Impact Events. Annals of Biomedical Engineering, 2016, 44, 3693-3704.	1.3	36
92	Demolding forces for micronâ€sized features during microâ€injection molding. Polymer Engineering and Science, 2016, 56, 810-816.	1.5	19
93	Vacuum Venting Enhances the Replication of Nano/Microfeatures in Micro-Injection Molding Process. Journal of Micro and Nano-Manufacturing, 2016, 4, .	0.8	5
94	The use of variotherm systems for microinjection molding. Journal of Applied Polymer Science, 2016, 133, .	1.3	35
95	Material- and feature-dependent effects on cell adhesion to micro injection moulded medical polymers. Colloids and Surfaces B: Biointerfaces, 2016, 145, 46-54.	2.5	14
96	Mechanical characterization of the P56 mouse brain under large-deformation dynamic indentation. Scientific Reports, 2016, 6, 21569.	1.6	39
97	Performance of nickel and bulk metallic glass as tool inserts for the microinjection molding of polymeric microfluidic devices. Journal of Materials Processing Technology, 2016, 231, 288-300.	3.1	21
98	Finite element implementation of a new model of slight compressibility for transversely isotropic materials. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 745-758.	0.9	14
99	Evaluation of the protective capacity of baseball helmets for concussive impacts. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 366-375.	0.9	10
100	Toward a Predictive Assessment of Stab-Penetration Forces. American Journal of Forensic Medicine and Pathology, 2015, 36, 162-166.	0.4	10
101	Traumatic Brain Injuries. Neurosurgery, 2015, 76, 81-91.	0.6	53
102	Effects of gate design and cavity thickness on filling, morphology and mechanical properties of microinjection mouldings. Materials and Design, 2015, 83, 835-847.	3.3	29
103	Strain rate and anisotropy effects on the tensile failure characteristics of human skin. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 241-250.	1.5	145
104	Dynamic mechanical properties of murine brain tissue using micro-indentation. Journal of Biomechanics, 2015, 48, 3213-3218.	0.9	37
105	The dynamic response characteristics of traumatic brain injury. Accident Analysis and Prevention, 2015, 79, 33-40.	3.0	11
106	Manufacturing microstructured tool inserts for the production of polymeric microfluidic devices. Journal of Micromechanics and Microengineering, 2015, 25, 095005.	1.5	28
107	A comparison of head dynamic response and brain tissue stress and strain using accident reconstructions for concussion, concussion with persistent postconcussive symptoms, and subdural hematoma. Journal of Neurosurgery, 2015, 123, 415-422.	0.9	46
108	Characterization of persistent concussive syndrome using injury reconstruction and finite element modelling. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 41, 325-335.	1.5	54

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109	Microinjection Molding for Microfluidics Applications. , 2015, , 2085-2101.		3
110	The influence of dynamic response and brain deformation metrics on the occurrence of subdural hematoma in different regions of the brain. Journal of Neurosurgery, 2014, 120, 453-461.	0.9	29
111	A centric/non-centric impact protocol and finite element model methodology for the evaluation of American football helmets to evaluate risk of concussion. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1785-1800.	0.9	33
112	Differences in region-specific brain tissue stress and strain due to impact velocity for simulated American football impacts. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2014, 228, 276-286.	0.4	8
113	The influence of acceleration loading curve characteristics on traumatic brain injury. Journal of Biomechanics, 2014, 47, 1074-1081.	0.9	23
114	Characterization of microinjection molding process for milligram polymer microparts. Polymer Engineering and Science, 2014, 54, 1458-1470.	1.5	13
115	Flow Induced Crystallization of Poly(etherâ€blockâ€amide) from the Microinjection Molding Process and its Effect on Mechanical Properties. Macromolecular Materials and Engineering, 2014, 299, 1362-1383.	1.7	33
116	Comparison of MADYMO and physical models for brain injury reconstruction. International Journal of Crashworthiness, 2014, 19, 301-310.	1.1	9
117	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
118	Microinjection Molding for Microfluidics Applications. , 2014, , 1-18.		1
119	For ASTM F-08: Protective Capacity of Ice Hockey Player Helmets against Puck Impacts. , 2014, , 196-207.		7
120	The Influence of Impact Angle on the Dynamic Response of a Hybrid III Headform and Brain Tissue Deformation. , 2014, , 56-69.		4
121	The Influence of Impactor Mass on the Dynamic Response of the Hybrid III Headform and Brain Tissue Deformation. , 2014, , 23-40.		15
122	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
123	Bulk Metallic Glass Multiscale Tooling for Molding of Polymers with Micro to Nano Features: A Review. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2021-2030.	1.1	17
124	A combined experimental and numerical study of stab-penetration forces. Forensic Science International, 2013, 233, 7-13.	1.3	34
125	Deficiencies in numerical models of anisotropic nonlinearly elastic materials. Biomechanics and Modeling in Mechanobiology, 2013, 12, 781-791.	1.4	35
126	Influence of preservation temperature on the measured mechanical properties of brain tissue. Journal of Biomechanics, 2013, 46, 1276-1281.	0.9	37

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127	An examination of American football helmets using brain deformation metrics associated with concussion. Materials & Design, 2013, 45, 653-662.	5.1	47
128	Examination of the relationship between peak linear and angular accelerations to brain deformation metrics in hockey helmet impacts. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 511-519.	0.9	56
129	The application of brain tissue deformation values in assessing the safety performance of ice hockey helmets. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 226-236.	0.4	5
130	Special issue on impact biomechanics in sport. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 163-164.	0.4	0
131	Computational analysis and design of components of protective helmets. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 208-219.	0.4	2
132	Analysis of loading curve characteristics on the production of brain deformation metrics. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 200-207.	0.4	8
133	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
134	Analysis of the influence of independent variables used for reconstruction of a traumatic brain injury incident. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2012, 226, 290-298.	0.4	9
135	Towards nano-injection molding. Materials Today, 2012, 15, 216-221.	8.3	54
136	Investigation of the force associated with the formation of lacerations and skull fractures. International Journal of Legal Medicine, 2012, 126, 835-844.	1.2	38
137	Replication of micro/nano-scale features by micro injection molding with a bulk metallic glass mold insert. Journal of Micromechanics and Microengineering, 2012, 22, 065019.	1.5	73
138	Finite element analysis of the effect of loading curve shape on brain injury predictors. Journal of Biomechanics, 2012, 45, 679-683.	0.9	66
139	Inhomogeneous deformation of brain tissue during tension tests. Computational Materials Science, 2012, 64, 295-300.	1.4	38
140	Temperature effects on brain tissue in compression. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 14, 113-118.	1.5	28
141	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
142	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
143	Motorcycle ridersâ€™ perception of helmet use: Complaints and dissatisfaction. Accident Analysis and Prevention, 2012, 44, 111-117.	3.0	22
144	Generalisations of the strain-energy function of linear elasticity to model biological soft tissue. International Journal of Non-Linear Mechanics, 2012, 47, 268-272.	1.4	12

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145	Characterization of thermo-rheological behavior of polymer melts during the micro injection moulding process. Polymer Testing, 2012, 31, 748-758.	2.3	69
146	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
147	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
148	Slight compressibility and sensitivity to changes in Poisson's ratio. International Journal for Numerical Methods in Engineering, 2012, 90, 403-411.	1.5	26
149	Synthesis of Macroporous Polystyrene by the Polymerization of Foamed Emulsions. Angewandte Chemie - International Edition, 2012, 51, 2213-2217.	7.2	53
150	Finite element modelling of equestrian helmet impacts exposes the need to address rotational kinematics in future helmet designs. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 1021-1031.	0.9	71
151	Animal models of traumatic brain injury: A critical evaluation. , 2011, 130, 106-113.		144
152	Applying DTI white matter orientations to finite element head models to examine diffuse TBI under high rotational accelerations. Progress in Biophysics and Molecular Biology, 2010, 103, 304-309.	1.4	48
153	Fall and injury incidence rates of jockeys while racing in Ireland, France and Britain. Injury, 2010, 41, 533-539.	0.7	72
154	Bimodular rubber buckles early in bending. Mechanics of Materials, 2010, 42, 469-476.	1.7	39
155	Towards a virtual functionally graded foam: Defining the large strain constitutive response of an isotropic closed cell polymeric cellular solid. International Journal of Engineering Science, 2010, 48, 1373-1386.	2.7	17
156	On the sharpness of straight edge blades in cutting soft solids: Part II â€“ Analysis of blade geometry. Engineering Fracture Mechanics, 2010, 77, 437-451.	2.0	87
157	Modelling the quasi-static behaviour of bituminous material using a cohesive zone model. Engineering Fracture Mechanics, 2010, 77, 2403-2418.	2.0	21
158	Influence of Recycled Asphalt Pavement on Fatigue Performance of Asphalt Concrete Base Courses. Journal of Materials in Civil Engineering, 2010, 22, 643-650.	1.3	67
159	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
160	Automated hexahedral mesh generation of complex biological objects. Strength, Fracture and Complexity, 2010, 6, 51-68.	0.2	1
161	Third- and fourth-order elasticities of biological soft tissues. Journal of the Acoustical Society of America, 2010, 127, 2103-2106.	0.5	49
162	Onset of Nonlinearity in the Elastic Bending of Blocks. Journal of Applied Mechanics, Transactions ASME, 2010, 77, .	1.1	46

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163	Quantitative MRI Analysis of Brain Volume Changes due to Controlled Cortical Impact. Journal of Neurotrauma, 2010, 27, 1265-1274.	1.7	21
164	Student Competitions Enhance the Learning of Nontechnical Skills for Large Cohorts of Freshman Engineers. , 2010, , .		1
165	The Mechanical Properties of Cranial Bone. IFMBE Proceedings, 2010, , 776-779.	0.2	5
166	Mechanical Properties of Excised Human Skin. IFMBE Proceedings, 2010, , 1000-1003.	0.2	20
167	Evaluating the Performance of Helmet Linings Incorporating Fluid Channels. Journal of ASTM International, 2010, 7, 1-7.	0.2	9
168	A Numerical Investigation of the Dynamic Behaviour of Functionally Graded Foams. , 2010, , 15-24.		2
169	Estimating the influence of neckform compliance on brain tissue strain during a Helmeted impact. Stapp Car Crash Journal, 2010, 54, 37-48.	1.1	7
170	Designing the energy absorption capacity of functionally graded foam materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 507, 215-225.	2.6	273
171	The mechanical properties of cranial bone: The effect of loading rate and cranial sampling position. Journal of Biomechanics, 2009, 42, 2129-2135.	0.9	152
172	Propagation of a stress wave through a virtual functionally graded foam. International Journal of Non-Linear Mechanics, 2009, 44, 456-468.	1.4	66
173	Head impact biomechanics simulations: A forensic tool for reconstructing head injury?. Legal Medicine, 2009, 11, S220-S222.	0.6	23
174	Stress analysis of a multi-laminated tractor tyre using non-linear 3D finite element analysis. Materials & Design, 2009, 30, 1124-1132.	5.1	32
175	Optimisation of energy absorbing liner for equestrian helmets. Part I: Layered foam liner. Materials & Design, 2009, 30, 3405-3413.	5.1	70
176	Optimisation of energy absorbing liner for equestrian helmets. Part II: Functionally graded foam liner. Materials & Design, 2009, 30, 3414-3419.	5.1	70
177	Comparative multibody dynamics analysis of falls from playground climbing frames. Forensic Science International, 2009, 191, 52-57.	1.3	42
178	Three-dimensional multibody dynamics analysis of accidental falls resulting in traumatic brain injury. International Journal of Crashworthiness, 2009, 14, 503-509.	1.1	23
179	Development of a recycled polymer modified binder for use in stone mastic asphalt. Resources, Conservation and Recycling, 2008, 52, 1167-1174.	5.3	167
180	Measuring knife stab penetration into skin simulant using a novel biaxial tension device. Forensic Science International, 2008, 177, 52-65.	1.3	70

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