

Michael D Gilchrist

List of Publications by Year in descending order

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228
papers

8,100
citations

53660

45
h-index

66788

78
g-index

234
all docs

234
docs citations

234
times ranked

6033
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of the anisotropic mechanical properties of excised human skin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 5, 139-148.	1.5	529
2	The creation of three-dimensional finite element models for simulating head impact biomechanics. <i>International Journal of Crashworthiness</i> , 2003, 8, 353-366.	1.1	332
3	Designing the energy absorption capacity of functionally graded foam materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 507, 215-225.	2.6	273
4	Mechanical characterization of brain tissue in compression at dynamic strain rates. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 10, 23-38.	1.5	257
5	Mechanical characterization of brain tissue in tension at dynamic strain rates. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 33, 43-54.	1.5	187
6	Mechanical behaviour of additively-manufactured polymeric octet-truss lattice structures under quasi-static and dynamic compressive loading. <i>Materials and Design</i> , 2019, 162, 106-118.	3.3	174
7	Influence of FE model variability in predicting brain motion and intracranial pressure changes in head impact simulations. <i>International Journal of Crashworthiness</i> , 2004, 9, 401-418.	1.1	171
8	Development of a recycled polymer modified binder for use in stone mastic asphalt. <i>Resources, Conservation and Recycling</i> , 2008, 52, 1167-1174.	5.3	167
9	Manufacturing of Thermoplastic Composites from Commingled Yarns-A Review. <i>Journal of Thermoplastic Composite Materials</i> , 1998, 11, 22-56.	2.6	163
10	Automated Estimation of Collagen Fibre Dispersion in the Dermis and its Contribution to the Anisotropic Behaviour of Skin. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1666-1678.	1.3	159
11	The mechanical properties of cranial bone: The effect of loading rate and cranial sampling position. <i>Journal of Biomechanics</i> , 2009, 42, 2129-2135.	0.9	152
12	Mechanical characterization of brain tissue in simple shear at dynamic strain rates. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 28, 71-85.	1.5	151
13	Strain rate and anisotropy effects on the tensile failure characteristics of human skin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 41, 241-250.	1.5	145
14	Animal models of traumatic brain injury: A critical evaluation. , 2011, 130, 106-113.		144
15	On the sharpness of straight edge blades in cutting soft solids: Part I "indentation experiments. <i>Engineering Fracture Mechanics</i> , 2007, 74, 2205-2224.	2.0	117
16	The use of accident reconstruction for the analysis of traumatic brain injury due to head impacts arising from falls. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2006, 9, 371-377.	0.9	115
17	Advances in laser assisted machining of hard and brittle materials. <i>Journal of Manufacturing Processes</i> , 2020, 58, 677-692.	2.8	107
18	The performance of coated tungsten carbide drills when machining carbon fibre-reinforced epoxy composite materials. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2002, 216, 143-152.	1.5	93

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19	Reconstruction of real world head injury accidents resulting from falls using multibody dynamics. <i>Clinical Biomechanics</i> , 2003, 18, 590-600.	0.5	92
20	Optimised design of nested circular tube energy absorbers under lateral impact loading. <i>International Journal of Mechanical Sciences</i> , 2008, 50, 104-116.	3.6	90
21	On the sharpness of straight edge blades in cutting soft solids: Part II – Analysis of blade geometry. <i>Engineering Fracture Mechanics</i> , 2010, 77, 437-451.	2.0	87
22	Replication of micro/nano-scale features by micro injection molding with a bulk metallic glass mold insert. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 065019.	1.5	73
23	Fall and injury incidence rates of jockeys while racing in Ireland, France and Britain. <i>Injury</i> , 2010, 41, 533-539.	0.7	72
24	Finite element modelling of equestrian helmet impacts exposes the need to address rotational kinematics in future helmet designs. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 1021-1031.	0.9	71
25	Measuring knife stab penetration into skin simulant using a novel biaxial tension device. <i>Forensic Science International</i> , 2008, 177, 52-65.	1.3	70
26	Optimised design of nested oblong tube energy absorbers under lateral impact loading. <i>International Journal of Impact Engineering</i> , 2008, 35, 10-26.	2.4	70
27	Optimisation of energy absorbing liner for equestrian helmets. Part I: Layered foam liner. <i>Materials & Design</i> , 2009, 30, 3405-3413.	5.1	70
28	Optimisation of energy absorbing liner for equestrian helmets. Part II: Functionally graded foam liner. <i>Materials & Design</i> , 2009, 30, 3414-3419.	5.1	70
29	Numerical inversion of the Laplace–Carson transform applied to homogenization of randomly reinforced linear viscoelastic media. <i>Computational Mechanics</i> , 2007, 40, 771-789.	2.2	69
30	Characterization of thermo-rheological behavior of polymer melts during the micro injection moulding process. <i>Polymer Testing</i> , 2012, 31, 748-758.	2.3	69
31	Piezoelectric Tensor of Collagen Fibrils Determined at the Nanoscale. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 929-935.	2.6	69
32	Influence of Recycled Asphalt Pavement on Fatigue Performance of Asphalt Concrete Base Courses. <i>Journal of Materials in Civil Engineering</i> , 2010, 22, 643-650.	1.3	67
33	Propagation of a stress wave through a virtual functionally graded foam. <i>International Journal of Non-Linear Mechanics</i> , 2009, 44, 456-468.	1.4	66
34	Finite element analysis of the effect of loading curve shape on brain injury predictors. <i>Journal of Biomechanics</i> , 2012, 45, 679-683.	0.9	66
35	Region and species dependent mechanical properties of adolescent and young adult brain tissue. <i>Scientific Reports</i> , 2017, 7, 13729.	1.6	62
36	Ranking and Rating Bicycle Helmet Safety Performance in Oblique Impacts Using Eight Different Brain Injury Models. <i>Annals of Biomedical Engineering</i> , 2021, 49, 1097-1109.	1.3	59

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37	Third- and fourth-order constants of incompressible soft solids and the acousto-elastic effect. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 2759-2763.	0.5	58
38	Examination of the relationship between peak linear and angular accelerations to brain deformation metrics in hockey helmet impacts. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 511-519.	0.9	56
39	Minimizing Distress on Flexible Pavements Using Variable Tire Pressure. <i>Journal of Transportation Engineering</i> , 2001, 127, 254-262.	0.9	54
40	Towards nano-injection molding. <i>Materials Today</i> , 2012, 15, 216-221.	8.3	54
41	Characterization of persistent concussive syndrome using injury reconstruction and finite element modelling. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 41, 325-335.	1.5	54
42	Synthesis of Macroporous Polystyrene by the Polymerization of Foamed Emulsions. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 2213-2217.	7.2	53
43	Traumatic Brain Injuries. <i>Neurosurgery</i> , 2015, 76, 81-91.	0.6	53
44	Effect of Mixture Compaction on Indirect Tensile Stiffness and Fatigue. <i>Journal of Transportation Engineering</i> , 2001, 127, 370-378.	0.9	51
45	Third- and fourth-order elasticities of biological soft tissues. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 2103-2106.	0.5	49
46	Applying DTI white matter orientations to finite element head models to examine diffuse TBI under high rotational accelerations. <i>Progress in Biophysics and Molecular Biology</i> , 2010, 103, 304-309.	1.4	48
47	An examination of American football helmets using brain deformation metrics associated with concussion. <i>Materials & Design</i> , 2013, 45, 653-662.	5.1	47
48	Onset of Nonlinearity in the Elastic Bending of Blocks. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2010, 77, .	1.1	46
49	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. <i>Journal of Neurosurgery</i> , 2015, 123, 415-422.	0.9	46
50	Simulation of the development of frontal head impact injury. <i>Computational Mechanics</i> , 2000, 26, 229-235.	2.2	45
51	Comparative multibody dynamics analysis of falls from playground climbing frames. <i>Forensic Science International</i> , 2009, 191, 52-57.	1.3	42
52	Evaluating Four-Point Bend Fatigue of Asphalt Mix Using Image Analysis. <i>Journal of Materials in Civil Engineering</i> , 2004, 16, 60-68.	1.3	40
53	The development of a threshold curve for the understanding of concussion in sport. <i>Trauma</i> , 2017, 19, 196-206.	0.2	40
54	Bimodular rubber buckles early in bending. <i>Mechanics of Materials</i> , 2010, 42, 469-476.	1.7	39

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55	Mechanical characterization of the P56 mouse brain under large-deformation dynamic indentation. <i>Scientific Reports</i> , 2016, 6, 21569.	1.6	39
56	On the development and parameter identification of Schapery-type constitutive theories. <i>Mechanics of Time-Dependent Materials</i> , 2008, 12, 95-127.	2.3	38
57	Investigation of the force associated with the formation of lacerations and skull fractures. <i>International Journal of Legal Medicine</i> , 2012, 126, 835-844.	1.2	38
58	Inhomogeneous deformation of brain tissue during tension tests. <i>Computational Materials Science</i> , 2012, 64, 295-300.	1.4	38
59	Influence of preservation temperature on the measured mechanical properties of brain tissue. <i>Journal of Biomechanics</i> , 2013, 46, 1276-1281.	0.9	37
60	Dynamic mechanical properties of murine brain tissue using micro-indentation. <i>Journal of Biomechanics</i> , 2015, 48, 3213-3218.	0.9	37
61	Peak linear and rotational acceleration magnitude and duration effects on maximum principal strain in the corpus callosum for sport impacts. <i>Journal of Biomechanics</i> , 2017, 61, 183-192.	0.9	37
62	A viscoelastic analysis of the P56 mouse brain under large-deformation dynamic indentation. <i>Acta Biomaterialia</i> , 2017, 48, 309-318.	4.1	37
63	Advances in precision micro/nano-electroforming: a state-of-the-art review. <i>Journal of Micromechanics and Microengineering</i> , 2020, 30, 103002.	1.5	37
64	Mechanical performance of carbon-fibre- and glass-fibre-reinforced epoxy I-beams: I. Mechanical behaviour. <i>Composites Science and Technology</i> , 1996, 56, 37-53.	3.8	36
65	Protective Capacity of Ice Hockey Helmets against Different Impact Events. <i>Annals of Biomedical Engineering</i> , 2016, 44, 3693-3704.	1.3	36
66	Protection of cortex by overlying meninges tissue during dynamic indentation of the adolescent brain. <i>Acta Biomaterialia</i> , 2017, 57, 384-394.	4.1	36
67	Surface Instability of Sheared Soft Tissues. <i>Journal of Biomechanical Engineering</i> , 2008, 130, 061007.	0.6	35
68	Deficiencies in numerical models of anisotropic nonlinearly elastic materials. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013, 12, 781-791.	1.4	35
69	The use of variotherm systems for microinjection molding. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	35
70	A combined experimental and numerical study of stab-penetration forces. <i>Forensic Science International</i> , 2013, 233, 7-13.	1.3	34
71	A micromechanical model for nonlinear viscoelastic particle reinforced polymeric composite materialsâ€™ undamaged state. <i>Composites Part A: Applied Science and Manufacturing</i> , 2004, 35, 905-913.	3.8	33
72	A centric/non-centric impact protocol and finite element model methodology for the evaluation of American football helmets to evaluate risk of concussion. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1785-1800.	0.9	33

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73	Flow Induced Crystallization of Poly(etherâ€blockâ€amide) from the Microinjection Molding Process and its Effect on Mechanical Properties. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 1362-1383.	1.7	33
74	Deformation response of EPS foam under combined compression-shear loading. Part I: Experimental design and quasi-static tests. <i>International Journal of Mechanical Sciences</i> , 2018, 144, 480-489.	3.6	33
75	Precision replication of micro features using micro injection moulding: Process simulation and validation. <i>Materials and Design</i> , 2019, 177, 107829.	3.3	33
76	Biofidelic finite element modelling of brain trauma: Importance of the scalp in simulating head impact. <i>International Journal of Mechanical Sciences</i> , 2020, 173, 105448.	3.6	33
77	FINITE ELEMENT MODELLING OF FATIGUE CRACK SHAPES. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1991, 14, 617-626.	1.7	32
78	Modelling and Accident Reconstruction of Head Impact Injuries. <i>Key Engineering Materials</i> , 2003, 245-246, 417-432.	0.4	32
79	Stress analysis of a multi-laminated tractor tyre using non-linear 3D finite element analysis. <i>Materials & Design</i> , 2009, 30, 1124-1132.	5.1	32
80	Mechanical characterisation of brain tissue up to 35% strain at 1, 10, and 100/s using a custom-built micro-indentation apparatus. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 87, 256-266.	1.5	30
81	The influence of dynamic response and brain deformation metrics on the occurrence of subdural hematoma in different regions of the brain. <i>Journal of Neurosurgery</i> , 2014, 120, 453-461.	0.9	29
82	Effects of gate design and cavity thickness on filling, morphology and mechanical properties of microinjection mouldings. <i>Materials and Design</i> , 2015, 83, 835-847.	3.3	29
83	Do equestrian helmets prevent concussion? A retrospective analysis of head injuries and helmet damage from real-world equestrian accidents. <i>Sports Medicine - Open</i> , 2019, 5, 19.	1.3	29
84	The biomechanics of concussion for ice hockey head impact events. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019, 22, 631-643.	0.9	29
85	Temperature effects on brain tissue in compression. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 14, 113-118.	1.5	28
86	Manufacturing microstructured tool inserts for the production of polymeric microfluidic devices. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 095005.	1.5	28
87	Monodisperse polystyrene foams via polymerization of foamed emulsions: structure and mechanical properties. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 5477-5485.	1.3	28
88	Determination of friction coefficient in unconfined compression of brain tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 14, 163-171.	1.5	27
89	A novel repetitive head impact exposure measurement tool differentiates player position in National Football League. <i>Scientific Reports</i> , 2020, 10, 1200.	1.6	27
90	Slight compressibility and sensitivity to changes in Poisson's ratio. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 403-411.	1.5	26

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91	Mechanical performance of carbon-fibre and glass-fibre-reinforced epoxy I-beams: II. Fractographic failure observations. Composites Science and Technology, 1996, 56, 1031-1045.	3.8	25
92	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
93	Towards animal surrogates for characterising large strain dynamic mechanical properties of human brain tissue. Brain Multiphysics, 2020, 1, 100018.	0.8	25
94	Mechanical performance of ceramic acetabular liners under impact conditions. Journal of Arthroplasty, 2003, 18, 936-941.	1.5	24
95	The effect of acceleration signal processing for head impact numeric simulations. Sports Engineering, 2017, 20, 111-119.	0.5	24
96	Regional characterization of the dynamic mechanical properties of human brain tissue by microindentation. International Journal of Engineering Science, 2020, 155, 103355.	2.7	24
97	Experimental Device for Simulating Traumatic Brain Injury Resulting from Linear Accelerations. Strain, 2004, 40, 180-192.	1.4	23
98	Head impact biomechanics simulations: A forensic tool for reconstructing head injury?. Legal Medicine, 2009, 11, S220-S222.	0.6	23
99	Three-dimensional multibody dynamics analysis of accidental falls resulting in traumatic brain injury. International Journal of Crashworthiness, 2009, 14, 503-509.	1.1	23
100	The influence of acceleration loading curve characteristics on traumatic brain injury. Journal of Biomechanics, 2014, 47, 1074-1081.	0.9	23
101	Proposed injury thresholds for concussion in equestrian sports. Journal of Science and Medicine in Sport, 2020, 23, 222-236.	0.6	23
102	Precision replication of microlens arrays using variotherm-assisted microinjection moulding. Precision Engineering, 2021, 67, 248-261.	1.8	23
103	Fracture and fatigue performance of textile commingled yarn composites. Journal of Materials Science, 1998, 33, 4049-4058.	1.7	22
104	Motorcycle riders' perception of helmet use: Complaints and dissatisfaction. Accident Analysis and Prevention, 2012, 44, 111-117.	3.0	22
105	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
106	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
107	Analysis of Rayleigh-Lamb wave scattering by a crack in an elastic plate. Computational Mechanics, 1997, 19, 533-537.	2.2	21
108	Wave propagation in delaminated beam. Computers and Structures, 2004, 82, 475-483.	2.4	21

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109	Modelling the quasi-static behaviour of bituminous material using a cohesive zone model. <i>Engineering Fracture Mechanics</i> , 2010, 77, 2403-2418.	2.0	21
110	Quantitative MRI Analysis of Brain Volume Changes due to Controlled Cortical Impact. <i>Journal of Neurotrauma</i> , 2010, 27, 1265-1274.	1.7	21
111	Performance of nickel and bulk metallic glass as tool inserts for the microinjection molding of polymeric microfluidic devices. <i>Journal of Materials Processing Technology</i> , 2016, 231, 288-300.	3.1	21
112	Filling of high aspect ratio micro features of a microfluidic flow cytometer chip using micro injection moulding. <i>Journal of Micromechanics and Microengineering</i> , 2018, 28, 075005.	1.5	21
113	3D Printing of Metallic Microstructured Mould Using Selective Laser Melting for Injection Moulding of Plastic Microfluidic Devices. <i>Micromachines</i> , 2019, 10, 595.	1.4	21
114	Replication integrity of micro features using variotherm and vacuum assisted microinjection moulding. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2018, 23, 20-38.	2.3	20
115	Mechanical Properties of Excised Human Skin. <i>IFMBE Proceedings</i> , 2010, , 1000-1003.	0.2	20
116	Demolding forces for micron-sized features during microinjection molding. <i>Polymer Engineering and Science</i> , 2016, 56, 810-816.	1.5	19
117	Mechanical behaviour of EPS foam under combined compression-shear loading. <i>Materials Today Communications</i> , 2018, 16, 339-352.	0.9	19
118	Pediatric concussion: biomechanical differences between outcomes of transient and persistent (> 4) Tj ETQq0 0,0 rgBT /Oyerlock 10 0.8	0.8	18
119	Fabrication and mechanical response of commingled GF/PET composites. <i>Polymer Composites</i> , 1998, 19, 360-369.	2.3	17
120	Towards a virtual functionally graded foam: Defining the large strain constitutive response of an isotropic closed cell polymeric cellular solid. <i>International Journal of Engineering Science</i> , 2010, 48, 1373-1386.	2.7	17
121	Bulk Metallic Glass Multiscale Tooling for Molding of Polymers with Micro to Nano Features: A Review. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 2021-2030.	1.1	17
122	Interlaminar Fracture of Commingled GF/PET Composite Laminates. <i>Journal of Composite Materials</i> , 1998, 32, 1808-1835.	1.2	16
123	Protective capacity of an ice hockey goaltender helmet for three events associated with concussion. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 1299-1311.	0.9	16
124	Sex- and age-specific mechanical properties of liver tissue under dynamic loading conditions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 99, 240-246.	1.5	15
125	The Influence of Impactor Mass on the Dynamic Response of the Hybrid III Headform and Brain Tissue Deformation. , 2014, , 23-40.		15
126	Attenuation of ultrasonic Rayleigh-Lamb waves by small horizontal defects in thin aluminium plates. <i>International Journal of Mechanical Sciences</i> , 1999, 41, 581-594.	3.6	14

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127	Material- and feature-dependent effects on cell adhesion to micro injection moulded medical polymers. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 145, 46-54.	2.5	14
128	Finite element implementation of a new model of slight compressibility for transversely isotropic materials. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 745-758.	0.9	14
129	Comparison of Ice Hockey Goaltender Helmets for Concussion Type Impacts. <i>Annals of Biomedical Engineering</i> , 2018, 46, 986-1000.	1.3	14
130	Electropolishing and Shaping of Micro-Scale Metallic Features. <i>Micromachines</i> , 2022, 13, 468.	1.4	14
131	Predicting Failure in Multi-Bolt Composite Joints Using Finite Element Analysis and Bearing-Bypass Diagrams. <i>Key Engineering Materials</i> , 2005, 293-294, 591-598.	0.4	13
132	Characterization of microinjection molding process for milligram polymer microparts. <i>Polymer Engineering and Science</i> , 2014, 54, 1458-1470.	1.5	13
133	An empirical measure of nonlinear strain for soft tissue indentation. <i>Royal Society Open Science</i> , 2017, 4, 170894.	1.1	13
134	Biomechanical analysis of fluid percussion model of brain injury. <i>Journal of Biomechanics</i> , 2018, 77, 228-232.	0.9	13
135	Interaction of impact parameters for simulated falls in sport using three different sized Hybrid III headforms. <i>International Journal of Crashworthiness</i> , 2019, 24, 326-335.	1.1	13
136	Generalisations of the strain-energy function of linear elasticity to model biological soft tissue. <i>International Journal of Non-Linear Mechanics</i> , 2012, 47, 268-272.	1.4	12
137	The dynamic response characteristics of traumatic brain injury. <i>Accident Analysis and Prevention</i> , 2015, 79, 33-40.	3.0	11
138	A comparison in a youth population between those with and without a history of concussion using biomechanical reconstruction. <i>Journal of Neurosurgery: Pediatrics</i> , 2017, 19, 502-510.	0.8	11
139	Toward a Predictive Assessment of Stab-Penetration Forces. <i>American Journal of Forensic Medicine and Pathology</i> , 2015, 36, 162-166.	0.4	10
140	Evaluation of the protective capacity of baseball helmets for concussive impacts. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 366-375.	0.9	10
141	Distribution of Brain Strain in the Cerebrum for Laboratory Impacts to Ice Hockey Goaltender Masks. <i>Journal of Biomechanical Engineering</i> , 2018, 140, .	0.6	10
142	Influence of headform mass and inertia on the response to oblique impacts. <i>International Journal of Crashworthiness</i> , 2019, 24, 677-698.	1.1	10
143	Development of a test method for adult ice hockey helmet evaluation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2020, 23, 690-702.	0.9	10
144	Mechanical performance of carbon-fibre- and glass-fibre-reinforced epoxy I-beams: III. fatigue performance. <i>Composites Science and Technology</i> , 1999, 59, 179-200.	3.8	9

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145	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
146	Comparison of MADYMO and physical models for brain injury reconstruction. International Journal of Crashworthiness, 2014, 19, 301-310.	1.1	9
147	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
148	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
149	A preliminary examination of the relationship between biomechanical measures and structural changes in the brain. Trauma, 2021, 23, 24-32.	0.2	9
150	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
151	Evaluating the Performance of Helmet Linings Incorporating Fluid Channels. Journal of ASTM International, 2010, 7, 1-7.	0.2	9
152	Fatigue Growth of Cohesive Defects in T-Peel Joints. Journal of Adhesion, 1993, 42, 179-190.	1.8	8
153	Modelling of failure of structural textile composites. Computational Mechanics, 2000, 26, 223-228.	2.2	8
154	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
155	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
156	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
157	Mechanical Characterization and Modeling of the Porcine Cerebral Meninges. Frontiers in Bioengineering and Biotechnology, 2020, 8, 801.	2.0	8
158	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
159	Equestrian Helmet Standards: Do They Represent Real-World Accident Conditions?. Annals of Biomedical Engineering, 2020, 48, 2247-2267.	1.3	7
160	Could a Compliant Foam Anvil Characterize the Biofidelic Impact Response of Equestrian Helmets?. Journal of Biomechanical Engineering, 2020, 142, .	0.6	7
161	For ASTM F-08: Protective Capacity of Ice Hockey Player Helmets against Puck Impacts. , 2014, , 196-207.		7
162	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

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163	Pathogen detection on microfluidic platforms: Recent advances, challenges, and prospects. Biosensors and Bioelectronics: X, 2022, 10, 100134.	0.9	7
164	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
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