Michael V Swain

List of Publications by Year
in descending order

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435 papers	20,624 citations	10351 72 h-index	19136 118 g-index
441 all docs	441 docs citations	441 times ranked	13638 citing authors

#	Article	IF	Citations
1	Strength, fracture toughness and microstructure of a selection of all-ceramic materials. Part II. Zirconia-based dental ceramics. Dental Materials, 2004, 20, 449-456.	1.6	703
2	A simple predictive model for spherical indentation. Journal of Materials Research, 1993, 8, 297-306.	1.2	643
3	Influence of surface and heat treatments on the flexural strength of Y-TZP dental ceramic. Journal of Dentistry, 2005, 33, 9-18.	1.7	416
4	Unstable cracking (chipping) of veneering porcelain on all-ceramic dental crowns and fixed partial dentures. Acta Biomaterialia, 2009, 5, 1668-1677.	4.1	415
5	Mechanical properties of polymer-infiltrated-ceramic-network materials. Dental Materials, 2013, 29, 419-426.	1.6	414
6	A Critical Review of Dental Implant Materials with an Emphasis on Titanium versus Zirconia. Materials, 2015, 8, 932-958.	1.3	373
7	Strength, fracture toughness and microstructure of a selection of all-ceramic materials. Part I. Pressable and alumina glass-infiltrated ceramics. Dental Materials, 2004, 20, 441-448.	1.6	351
8	Determining the mechanical properties of small volumes of material from submicrometer spherical indentations. Journal of Materials Research, 1995, 10, 101-112.	1.2	344
9	Indentation deformation/fracture of normal and anomalous glasses. Journal of Non-Crystalline Solids, 1979, 31, 415-428.	1.5	309
10	Understanding the mechanical behaviour of human enamel from its structural and compositional characteristics. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 18-29.	1.5	295
11	State of the Art of Microâ€CT Applications in Dental Research. International Journal of Oral Science, 2009, 1, 177-188.	3.6	281
12	Grain-Size-Dependent Transformation Behavior in Polycrystalline Tetragonal Zirconia. Journal of the American Ceramic Society, 1992, 75, 493-502.	1.9	233
13	Titanium dioxide nanoparticles addition to a conventional glass-ionomer restorative: Influence on physical and antibacterial properties. Journal of Dentistry, 2011, 39, 589-598.	1.7	190
14	Elastic modulus and stressâ€“strain response of human enamel by nano-indentation. Biomaterials, 2006, 27, 4388-4398.	5.7	183
15	Topographical analysis of the structural, biochemical and dynamic biomechanical properties of cartilage in an ovine model of osteoarthritis. Osteoarthritis and Cartilage, 2003, 11, 65-77.	0.6	166
16	Mechanical property characterization of thin films using spherical tipped indenters. Thin Solid Films, 1994, 253, 204-211.	0.8	165
17	The dentin organic matrix â€“ limitations of restorative dentistry hidden on the nanometer scale. Acta Biomaterialia, 2012, 8, 2419-2433.	4.1	163
18	Observation, analysis, and simulation of the hysteresis of silicon using ultra-micro-indentation with spherical indenters. Journal of Materials Research, 1993, 8, 830-840.	1.2	158

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19	A novel polymer infiltrated ceramic dental material. Dental Materials, 2011, 27, 527-534.	1.6	157
20	Comparative Measurement of Indentation Fracture Toughness with Berkovich and Vickers Indenters. Journal of the American Ceramic Society, 1992, 75, 3299-3304.	1.9	149
21	Mechanical behaviour of porous hydroxyapatite. Acta Biomaterialia, 2008, 4, 577-586.	4.1	144
22	Dental implant induced bone remodeling and associated algorithms. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 410-432.	1.5	142
23	Crack Resistance Curves in Magnesia-Partially-Stabilized Zirconia. Journal of the American Ceramic Society, 1988, 71, 399-407.	1.9	137
24	Dependence of Fracture Toughness of Alumina on Grain Size and Test Technique. Journal of the American Ceramic Society, 1982, 65, 566-572.	1.9	136
25	Mechanical properties and microstructure of hypomineralised enamel of permanent teeth. Biomaterials, 2004, 25, 5091-5100.	5.7	134
26	Influence of surface and heat treatments on the flexural strength of a glass-infiltrated alumina/zirconia-reinforced dental ceramic. Dental Materials, 2005, 21, 454-463.	1.6	133
27	Fracture-toughening mechanisms responsible for differences in work to fracture of hydrated and dehydrated dentine. Journal of Biomechanics, 2003, 36, 229-237.	0.9	131
28	Enamelâ€"A â€œmetallic-likeâ€•deformable biocomposite. Journal of Dentistry, 2007, 35, 431-437.	1.7	129
29	Thermal gradients and residual stresses in veneered Y-TZP frameworks. Dental Materials, 2011, 27, 1102-1110.	1.6	127
30	Errors associated with depth-sensing microindentation tests. Journal of Materials Research, 1995, 10, 1491-1501.	1.2	126
31	Mechanical responses to orthodontic loading: A 3-dimensional finite element multi-tooth model. American Journal of Orthodontics and Dentofacial Orthopedics, 2009, 135, 174-181.	0.8	125
32	Metastability of the Martensitic Transformation in a 12 mol% Ceria-Zirconia Alloy: II, Grinding Studies. Journal of the American Ceramic Society, 1989, 72, 1358-1364.	1.9	124
33	Mandibular bone remodeling induced by dental implant. Journal of Biomechanics, 2010, 43, 287-293.	0.9	121
34	Inelastic deformation of Mgî—¸PSZ and its significance for strength-toughness relationship of zirconia toughened ceramics. Acta Metallurgica, 1985, 33, 2083-2091.	2.1	120
35	In-vitro strength degradation of dental ceramics and novel PICN material by sharp indentation. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 26, 34-42.	1.5	119
36	Interpenetrating network ceramic-resin composite dental restorative materials. Dental Materials, 2016, 32, 34-42.	1.6	119

#	Article	IF	Citations
37	Title is missing!. International Journal of Fracture, 1998, 92, 213-220.	1.1	118
38	Design optimization of functionally graded dental implant for bone remodeling. Composites Part B: Engineering, 2009, 40, 668-675.	5.9	116
39	Gelatin sponges (Gelfoam Â®) as a scaffold for osteoblasts. Journal of Materials Science: Materials in Medicine, 2008, 19, 1173-1182.	1.7	115
40	Micro-mechanical characterisation of the properties of primary tooth dentine. Journal of Dentistry, 2003, 31, 261-267.	1.7	107
41	Atomic-scale compositional mapping reveals Mg-rich amorphous calcium phosphate in human dental enamel. Science Advances, 2016, 2, e1601145.	4.7	107
42	Investigation of the stresses and stress intensity factors responsible for fracture of thin protective films during ultra-micro indentation tests with spherical indenters. Thin Solid Films, 1996, 286, 111-121.	0.8	105
43	R-Curve Behavior and Thermal Shock Resistance of Ceramics. Journal of the American Ceramic Society, 1990, 73, 621-628.	1.9	104
44	Functional significance of strain distribution in the human mandible under masticatory load: Numerical predictions. Archives of Oral Biology, 2007, 52, 465-473.	0.8	101
45	Mineral density of hypomineralised enamel. Journal of Dentistry, 2010, 38, 50-58.	1.7	98
46	Correlating the mechanical properties to the mineral content of carious dentineâ€"a comparative study using an ultra-micro indentation system (UMIS) and SEM-BSE signals. Archives of Oral Biology, 2004, 49, 369-378.	0.8	97
47	Nanoindentation: Application to dental hard tissue investigations. Journal of Materials Research, 2006, 21, 1893-1905.	1.2	97
48	Nanoindentation derived stressâ€"strain properties of dental materials. Dental Materials, 2007, 23, 814-821.	1.6	96
49	Enamelâ€"A functionally graded natural coating. Journal of Dentistry, 2009, 37, 596-603.	1.7	96
50	Size-dependent elastic/inelastic behavior of enamel over millimeter and nanometer length scales. Biomaterials, 2010, 31, 1955-1963.	5.7	95
51	Surface morphology optimization for osseointegration of coated implants. Biomaterials, 2010, 31, 7196-7204.	5.7	94
52	Characterisation of enamel white spot lesions using X-ray micro-tomography. Journal of Dentistry, 2007, 35, 737-743.	1.7	93
53	Indentation fracture in brittle rocks and glasses. International Journal of Rock Mechanics and Mining Sciences, 1976, 13, 311-319.	0.3	91
54	SEM observations of porcelain Y-TZP interface. Dental Materials, 2009, 25, 857-862.	1.6	91

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55	Fracture resistance of titanium and zirconia abutments: An in vitro study. Journal of Prosthetic Dentistry, 2013, 109, 304-312.	1.1	91
56	Fracture toughness of bovine bone: influence of orientation and storage media. Biomaterials, 2001, 22, 3127-3132.	5.7	89
57	The accuracy and reliability of a novel handheld dynamic indentation probe for analysing articular cartilage. Physics in Medicine and Biology, 2001, 46, 541-550.	1.6	89
58	Influence of environment on the mechanical behaviour of mature human enamel. Biomaterials, 2007, 28, 4512-4520.	5.7	89
59	Application of Polychromatic ÂµCT for Mineral Density Determination. Journal of Dental Research, 2011, 90, 18-30.	2.5	89
60	Protein content of molarâ€“incisor hypomineralisation enamel. Journal of Dentistry, 2010, 38, 591-596.	1.7	88
61	The combined effect of alumina and silica co-doping on the ageing resistance of 3Y-TZP bioceramics. Acta Biomaterialia, 2015, 11, 477-487.	4.1	87
62	Metastability of the Martensitic Transformation in a 12 mol% Ceria-Zirconia Alloy: I, Deformation and Fracture Observations. Journal of the American Ceramic Society, 1989, 72, 90-98.	1.9	85
63	Mechanical properties and adhesion characteristics of hybrid solâ€“gel thin films. Surface and Coatings Technology, 2005, 192, 354-364.	2.2	85
64	The effect of annealing temperatures on surface properties, hydroxyapatite growth and cell behaviors of TiO₂ nanotubes. Surface and Interface Analysis, 2011, 43, 998-1005.	0.8	85
65	The indentation characterisation of the mechanical properties of various carbon materials: Glassy carbon, coke and pyrolytic graphite. Carbon, 1996, 34, 1357-1366.	5.4	80
66	Mechanical properties across hypomineralized/hypoplastic enamel of first permanent molar teeth. European Journal of Oral Sciences, 2004, 112, 497-502.	0.7	80
67	A periodontal ligament driven remodeling algorithm for orthodontic tooth movement. Journal of Biomechanics, 2014, 47, 1689-1695.	0.9	80
68	Effect of tooth bleaching agents on protein content and mechanical properties of dental enamel. Acta Biomaterialia, 2015, 20, 120-128.	4.1	79
69	Biomechanics of oral mucosa. Journal of the Royal Society Interface, 2015, 12, 20150325.	1.5	79
70	KR-Curve Behavior of Duplex Ceramics. Journal of the American Ceramic Society, 1991, 74, 11-18.	1.9	77
71	Damage tolerance of indirect restorative materials (including PICN) after simulated bur adjustments. Dental Materials, 2015, 31, 684-694.	1.6	76
72	Contact induced deformation of enamel. Applied Physics Letters, 2007, 90, 171916.	1.5	74

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73	Restoration of non-carious cervical lesionsPart II. Restorative material selection to minimise fracture. Dental Materials, 2007, 23, 1562-1569.	1.6	73
74	On the structureâ€“property relationship of sound and hypomineralized enamel. Acta Biomaterialia, 2007, 3, 865-872.	4.1	73
75	Impact of oral fluids on dental ceramics: What is the clinical relevance?. Dental Materials, 2014, 30, 33-42.	1.6	72
76	Ceramic implants (Yâ€‹scp›TZP‹/scp›): are they a viable alternative to titanium implants for the support of overdentures? A randomized clinical trial. Clinical Oral Implants Research, 2014, 25, 1366-1377.	1.9	71
77	Root resorption and its association with alterations in physical properties, mineral contents and resorption craters in human premolars following application of light and heavy controlled orthodontic forces. Orthodontics and Craniofacial Research, 2004, 7, 79-97.	1.2	70
78	Influence of veneer and cyclic loading on failure behavior of lithium disilicate glass-ceramic molar crowns. Dental Materials, 2014, 30, 164-171.	1.6	68
79	Biomechanical, histological and immunohistological studies of patellar cartilage in an ovine model of osteoarthritis induced by lateral meniscectomy. Osteoarthritis and Cartilage, 1999, 7, 281-294.	0.6	67
80	Fracture Toughness and Thermal Shock Behavior of Silicon Nitride-Boron Nitride Ceramics. Journal of the American Ceramic Society, 1992, 75, 67-70.	1.9	66
81	Pressed ceramics onto zirconia. Part 2: Indentation fracture and influence of cooling rate on residual stresses. Dental Materials, 2011, 27, 1111-1118.	1.6	66
82	Influence of structural hierarchy on the fracture behaviour of tooth enamel. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140130.	1.6	66
83	Physical properties of root cementum: Part I. A new method for 3-dimensional evaluation. American Journal of Orthodontics and Dentofacial Orthopedics, 2001, 120, 198-208.	0.8	65
84	A System of Calibrating Microtomography for Use in Caries Research. Caries Research, 2009, 43, 314-321.	0.9	65
85	Thermal Shock Behavior of Duplex Ceramics. Journal of the American Ceramic Society, 1991, 74, 19-24.	1.9	64
86	Elasto-plastic deformation of glass-like carbons heat-treated at different temperatures. Carbon, 2001, 39, 1525-1532.	5.4	64
87	Relationship between Fracture. Toughness and Phase Assemblage in Mg-PSZ. Journal of the American Ceramic Society, 1994, 77, 571-579.	1.9	63
88	Adhesion of porcelain to titanium and a titanium alloy. Journal of Dentistry, 2003, 31, 509-518.	1.7	63
89	Prediction of mandibular bone remodelling induced by fixed partial dentures. Journal of Biomechanics, 2010, 43, 1771-1779.	0.9	63
90	Multiscale design of surface morphological gradient for osseointegration. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 20, 387-397.	1.5	63

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91	Quantitative analysis of the mineral content of sound and carious primary dentine using BSE imaging. Archives of Oral Biology, 2004, 49, 99-107.	0.8	62
92	A micro-mechanics model of dentin mechanical properties. Biomaterials, 2004, 25, 5081-5090.	5.7	62
93	A Novel Pressure Film Approach for Determining the Force Imparted by Clear Removable Thermoplastic Appliances. Annals of Biomedical Engineering, 2008, 36, 335-341.	1.3	62
94	Nanoindentation creep behavior of human enamel. Journal of Biomedical Materials Research - Part A, 2009, 91A, 352-359.	2.1	62
95	Tongue Pressure Patterns During Water Swallowing. Dysphagia, 2010, 25, 11-19.	1.0	62
96	Regulation of reactionary dentin formation by odontoblasts in response to polymicrobial invasion of dentin matrix. Bone, 2012, 50, 265-275.	1.4	62
97	Ultrastructure of dentine carious lesions. Archives of Oral Biology, 2008, 53, 124-132.	0.8	60
98	Thermally induced fracture for core-veneered dental ceramic structures. Acta Biomaterialia, 2013, 9, 8394-8402.	4.1	60
99	Influence of ultraviolet photofunctionalization on the surface characteristics of zirconia-based dental implant materials. Dental Materials, 2015, 31, e14-e24.	1.6	60
100	Some observations of overlapping interacting cracks. Engineering Fracture Mechanics, 1978, 10, 299-304.	2.0	59
101	Influence of Thermal Decomposition on the Mechanical Properties of Magnesia-Stabilized Cubic Zirconia. Journal of the American Ceramic Society, 1983, 66, 358-362.	1.9	59
102	Crack-Tip-Bridging Stresses in Ceramic Materials. Journal of the American Ceramic Society, 1991, 74, 1828-1832.	1.9	59
103	Biomechanical investigation into the role of the periodontal ligament in optimising orthodontic force: a finite element case study. Archives of Oral Biology, 2016, 66, 98-107.	0.8	59
104	Transformation zone shape in ceriapartially-stabilized zirconia. Acta Metallurgica, 1988, 36, 955-962.	2.1	58
105	Towards automated 3D finite element modeling of direct fiber reinforced composite dental bridge. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2005, 74B, 520-528.	1.6	58
106	Modelling of fracture behaviour in biomaterialsâ˜†. Biomaterials, 2007, 28, 1317-1326.	5.7	58
107	On the critical parameters that regulate the deformation behaviour of tooth enamel. Biomaterials, 2008, 29, 2697-2703.	5.7	58
108	Effect of microstructure upon elastic behaviour of human tooth enamel. Journal of Biomechanics, 2009, 42, 1075-1080.	0.9	57

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109	Tooth Eruption Results from Bone Remodelling Driven by Bite Forces Sensed by Soft Tissue Dental Follicles: A Finite Element Analysis. PLoS ONE, 2013, 8, e58803.	1.1	57
110	Influence of thickness and substrate on the hardness and deformation of TiN films. Thin Solid Films, 1995, 270, 283-288.	0.8	56
111	Microscopic observations of abrasive wear of polycrystalline alumina. Wear, 1975, 35, 185-189.	1.5	55
112	Evaluating acrylic and glass-ionomer cement strength using the biaxial flexure test. Biomaterials, 2001, 22, 1583-1590.	5.7	55
113	Characterising the micro-mechanical behaviour of the carious dentine of primary teeth using nano-indentation. Journal of Biomechanics, 2005, 38, 1535-1542.	0.9	55
114	Determination of viscoelasticâ€“plastic material parameters of biomaterials by instrumented indentation. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 318-325.	1.5	55
115	Hierarchical flexural strength of enamel: transition from brittle to damage-tolerant behaviour. Journal of the Royal Society Interface, 2012, 9, 1265-1274.	1.5	55
116	Mechanical evaluation of cervical glass-ionomer restorations: 3D finite element study. Journal of Dentistry, 2007, 35, 28-35.	1.7	54
117	Measuring Intraoral Pressure: Adaptation of a Dental Appliance Allows Measurement During Function. Dysphagia, 2008, 23, 237-243.	1.0	54
118	The effect of fiber aspect ratio and volume loading on the flexural properties of flowable dental composite. Dental Materials, 2014, 30, 1234-1244.	1.6	53
119	XRD2 micro-diffraction analysis of the interface between Y-TZP and veneering porcelain: Role of application methods. Dental Materials, 2010, 26, 545-552.	1.6	52
120	Microstructural Evolution in Ca-PSZ and the Room-Temperature Instability of Tetragonal ZrO2. Journal of the American Ceramic Society, 1987, 70, 214-220.	1.9	51
121	Limitation of Maximum Strength of Zirconia-Toughened Ceramics by Transformation Toughening Increment. Journal of the American Ceramic Society, 1985, 68, C-97-C-99.	1.9	50
122	Transmission electron microscope characterisation of molar-incisor-hypomineralisation. Journal of Materials Science: Materials in Medicine, 2008, 19, 3187-3192.	1.7	50
123	A comparative study on complete and implant retained denture treatments â€“ A biomechanics perspective. Journal of Biomechanics, 2015, 48, 512-519.	0.9	50
124	Nanoindentation-based study of the mechanical behavior of bulk supercrystalline ceramic-organic nanocomposites. Journal of the European Ceramic Society, 2019, 39, 3247-3256.	2.8	50
125	Influence of veneering porcelain thickness and cooling rate on residual stresses in zirconia molar crowns. Dental Materials, 2014, 30, 271-280.	1.6	49
126	Mandibular stiffness in humans: Numerical predictions. Journal of Biomechanics, 2006, 39, 1903-1913.	0.9	48

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127	Keratinâ€“hydroxyapatite composites: Biocompatibility, osseointegration, and physical properties in an ovine model. Journal of Biomedical Materials Research - Part A, 2010, 95A, 1084-1095.	2.1	48
128	Semiclosedâ€Cell Mullite Foams: Preparation and Macroâ€and Micromechanical Characterization. Journal of the American Ceramic Society, 1999, 82, 961-968.	1.9	47
129	One-step approach for hydroxyapatite-incorporated TiO2 coating on titanium via a combined technique of micro-arc oxidation and electrophoretic deposition. Applied Surface Science, 2011, 257, 7010-7018.	3.1	47
130	A comparative mechanical and bone remodelling study of all-ceramic posterior inlay and onlay fixed partial dentures. Journal of Dentistry, 2012, 40, 48-56.	1.7	47
131	Relationship between Nanohardness and Mineral Content of Artificial Carious Enamel Lesions. Caries Research, 2008, 42, 157-163.	0.9	46
132	An experimental investigation of the use of random squeezing to determine the complex modulus of viscoelastic fluids. Journal of Non-Newtonian Fluid Mechanics, 1996, 65, 177-194.	1.0	45
133	Preliminary in vitro Assessment of Erosive Potential Using the Ultra-Micro-Indentation System. Caries Research, 2003, 37, 218-224.	0.9	45
134	Linking the clinical presentation of molarâ€incisor hypomineralisation to its mineral density. International Journal of Paediatric Dentistry, 2010, 20, 353-360.	1.0	45
135	Physical properties of root cementum: Part 3. Hardness and elastic modulus after application of light and heavy forces. American Journal of Orthodontics and Dentofacial Orthopedics, 2005, 127, 168-176.	0.8	44
136	Xâ€ray microdiffraction, TEM characterization and texture analysis of human dentin and enamel. Journal of Microscopy, 2013, 251, 144-153.	0.8	44
137	Shape Optimization for Additive Manufacturing of Removable Partial Dentures - A New Paradigm for Prosthetic CAD/CAM. PLoS ONE, 2015, 10, e0132552.	1.1	44
138	Measurement of the micro mechanical properties of sol-gel TiO 2 films. Thin Solid Films, 1998, 332, 189-194.	0.8	43
139	Fibre reinforced composite dental bridge. Part II: numerical investigation. Biomaterials, 2004, 25, 4995-5001.	5.7	43
140	Influence of the bonder on the adhesion of porcelain to machined titanium as determined by the strain energy release rate. Dental Materials, 2007, 23, 822-828.	1.6	43
141	Influence of veneer application on fracture behavior of lithium-disilicate-based ceramic crowns. Dental Materials, 2012, 28, 653-660.	1.6	43
142	Influence of hydration and mechanical characterization of carious primary dentine using an ultra-micro indentation system (UMIS). European Journal of Oral Sciences, 2004, 112, 231-236.	0.7	42
143	Elastic-plastic characterization of thin films with spherical indentation. Thin Solid Films, 1992, 220, 289-294.	0.8	41
144	Giant pop-ins and amorphization in germanium during indentation. Journal of Applied Physics, 2007, 101, 043524.	1.1	41

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145	The contribution of proteoglycans to the mechanical behavior of mineralized tissues. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 38, 91-104.	1.5	41
146	Does high level youth sports participation increase the risk of femoroacetabular impingement? A review of the current literature. Pediatric Rheumatology, 2016, 14, 16.	0.9	41
147	Cracking of Porcelain Surfaces Arising from Abrasive Grinding with a Dental Air Turbine. Journal of Prosthodontics, 2011, 20, 613-620.	1.7	40
148	A novel polymer infiltrated ceramic for dental simulation. Journal of Materials Science: Materials in Medicine, 2011, 22, 1639-1643.	1.7	40
149	Residual stresses in Y-TZP crowns due to changes in the thermal contraction coefficient of veneers. Dental Materials, 2013, 29, 594-601.	1.6	40
150	Projectile penetration into ballistic gelatin. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 385-392.	1.5	40
151	Phase transformation induces plasticity with negligible damage in ceria-stabilized zirconia-based ceramics. Acta Materialia, 2020, 183, 261-273.	3.8	40
152	Nanoindentation response of PEEK modified by mesh-assisted plasma immersion ion implantation. Surface and Coatings Technology, 2007, 201, 7961-7969.	2.2	39
153	The biomechanical modelling of non-ballistic skin wounding: blunt-force injury. Forensic Science, Medicine, and Pathology, 2008, 4, 33-39.	0.6	39
154	Structural Integrity of Enamel: Experimental and Modeling. Journal of Dental Research, 2009, 88, 529-533.	2.5	39
155	A Comparison of Fit of CNCâ€Milled Titanium and Zirconia Frameworks to Implants. Clinical Implant Dentistry and Related Research, 2012, 14, e20-9.	1.6	39
156	Wear behavior of human enamel against lithium disilicate glass ceramic and type III gold. Journal of Prosthetic Dentistry, 2014, 112, 1399-1405.	1.1	39
157	Wear behaviour of dental enamel at the nanoscale with a sharp and blunt indenter tip. Wear, 2009, 266, 60-68.	1.5	38
158	Comparison of the microstructure and phase stability of as-cast, CAD/CAM and powder metallurgy manufactured Coâ€“Cr dental alloys. Dental Materials, 2015, 31, e306-e315.	1.6	38
159	Micromechanical Property Recovery of Human Carious Dentin Achieved with Colloidal Nano-Î²-tricalcium Phosphate. Journal of Dental Research, 2008, 87, 233-237.	2.5	37
160	Calculation of contraction stresses in dental composites by analysis of crack propagation in the matrix surrounding a cavity. Dental Materials, 2009, 25, 543-550.	1.6	37
161	Mandibular singleâ€implant overdentures: a review with surgical and prosthodontic perspectives of a novel approach. Clinical Oral Implants Research, 2009, 20, 356-365.	1.9	36
162	Characterization of a novel calibration method for mineral density determination of dentine by X-ray micro-tomography. Analyst, The, 2009, 134, 72-79.	1.7	36

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163	Boneâ€™s responses to different designs of implant-supported fixed partial dentures. Biomechanics and Modeling in Mechanobiology, 2015, 14, 403-411.	1.4	36
164	Relationship between growth, maturation and musculoskeletal conditions in adolescents: a systematic review. British Journal of Sports Medicine, 2018, 52, 1246-1252.	3.1	36
165	Physical properties of root cementum: Part 2. Effect of different storage methods. American Journal of Orthodontics and Dentofacial Orthopedics, 2003, 124, 561-570.	0.8	34
166	Bone remodeling induced by dental implants of functionally graded materials. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 92B, 430-438.	1.6	34
167	Laser ultrasonic surface wave dispersion technique for non-destructive evaluation of human dental enamel. Optics Express, 2009, 17, 15592.	1.7	34
168	Descriptive Study of the Longevity of Dental Implant Surgery Drills. Clinical Implant Dentistry and Related Research, 2011, 13, 244-254.	1.6	34
169	Fractured zirconia implants and related implant designs: scanning electron microscopy analysis. Clinical Oral Implants Research, 2013, 24, 592-597.	1.9	34
170	Hertzian contact response and damage tolerance of dental ceramics. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 34, 124-133.	1.5	34
171	In vivo effects of different orthodontic loading on root resorption and correlation with mechanobiological stimulus in periodontal ligament. Journal of the Royal Society Interface, 2019, 16, 20190108.	1.5	34
172	Crack formation mechanisms during micro and macro indentation of diamond-like carbon coatings on elasticâ€“plastic substrates. Thin Solid Films, 1998, 332, 180-184.	0.8	33
173	Interfacial fracture toughness between bovine cortical bone and cements. Biomaterials, 2003, 24, 1159-1166.	5.7	33
174	Energy absorption characterization of human enamel using nanoindentation. Journal of Biomedical Materials Research - Part A, 2007, 81A, 484-492.	2.1	33
175	Correlation of mineral density and elastic modulus of natural enamel white spot lesions using X-ray microtomography and nanoindentation. Acta Biomaterialia, 2010, 6, 4553-4559.	4.1	33
176	Evidence that metallic proxies are unsuitable for assessing the mechanics of microwear formation and a new theory of the meaning of microwear. Royal Society Open Science, 2018, 5, 171699.	1.1	33
177	Mechanical and structural modification of CR-39 polymer surface by 50-keV hydrogen and argon ion implantation. Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 698-701.	0.6	31
178	Influence of water, loading rate and bonder on the adhesion of porcelain to titanium. Journal of Dentistry, 2006, 34, 485-490.	1.7	31
179	Influence of occlusal geometry on ceramic crown fracture; role of cusp angle and fissure radius. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1057-1066.	1.5	31
180	Occlusal geometrical considerations in all-ceramic pre-molar crown failure testing. Dental Materials, 2011, 27, 1127-1134.	1.6	31

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