Dwayne Arola

List of Publications by Year
in descending order

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190 papers	7,423 citations	46984 47 h-index	74108 75 g-index
195 all docs	195 docs citations	195 times ranked	5316 citing authors

#	Article	IF	Citations
1	Orthogonal cutting mechanisms of graphite/epoxy composite. Part I: unidirectional laminate. International Journal of Machine Tools and Manufacture, 1995, 35, 1623-1638.	6.2	278
2	Estimating the fatigue stress concentration factor of machined surfaces. International Journal of Fatigue, 2002, 24, 923-930.	2.8	268
3	Applications of digital image correlation to biological tissues. Journal of Biomedical Optics, 2004, 9, 691.	1.4	168
4	On the R-curve behavior of human tooth enamel. Biomaterials, 2009, 30, 4037-4046.	5.7	163
5	Effects of aging on the mechanical behavior of human dentin. Biomaterials, 2005, 26, 4051-4061.	5.7	152
6	Orthogonal cutting of fiber-reinforced composites: A finite element analysis. International Journal of Mechanical Sciences, 1997, 39, 597-613.	3.6	147
7	Age, dehydration and fatigue crack growth in dentin. Biomaterials, 2006, 27, 2507-2517.	5.7	147
8	Mechanical properties of human enamel as a function of age and location in the tooth. Journal of Materials Science: Materials in Medicine, 2008, 19, 2317-2324.	1.7	138
9	Dental primer and adhesive containing a new antibacterial quaternary ammonium monomer dimethylaminododecyl methacrylate. Journal of Dentistry, 2013, 41, 345-355.	1.7	138
10	Orthogonal cutting mechanisms of graphite/epoxy composite. Part II: multi-directional laminate. International Journal of Machine Tools and Manufacture, 1995, 35, 1639-1648.	6.2	135
11	On the brittleness of enamel and selected dental materials. Dental Materials, 2008, 24, 1477-1485.	1.6	121
12	Aging and the reduction in fracture toughness of human dentin. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 550-559.	1.5	111
13	The influence of abrasive waterjet cutting conditions on the surface quality of graphite/epoxy laminates. International Journal of Machine Tools and Manufacture, 1994, 34, 295-313.	6.2	106
14	Material removal in abrasive waterjet machining of metals Surface integrity and texture. Wear, 1997, 210, 50-58.	1.5	105
15	Tubule orientation and the fatigue strength of human dentin. Biomaterials, 2006, 27, 2131-2140.	5.7	104
16	Role of prism decussation on fatigue crack growth and fracture of human enamel. Acta Biomaterialia, 2009, 5, 3045-3056.	4.1	102
17	Evaluating the mechanical behavior of arterial tissue using digital image correlation. Experimental Mechanics, 2002, 42, 409-416.	1.1	101
18	Water jet and abrasive water jet cutting of unidirectional graphite/epoxy composite. Composites, 1993, 24, 299-308.	0.9	99

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19	Chip formation in orthogonal trimming of graphite/epoxy composite. Composites Part A: Applied Science and Manufacturing, 1996, 27, 121-133.	3.8	98
20	Waterjet and abrasive waterjet surface treatment of titanium: a comparison of surface texture and residual stress. Wear, 2001, 249, 943-950.	1.5	98
21	An Examination of the Effects from Surface Texture on the Strength of Fiber Reinforced Plastics. Journal of Composite Materials, 1999, 33, 102-123.	1.2	97
22	Hidden contributions of the enamel rods on the fracture resistance of human teeth. Acta Biomaterialia, 2013, 9, 4806-4814.	4.1	97
23	Functional biomimetic analogs help remineralize apatite-depleted demineralized resin-infiltrated dentin via a bottomâ€“up approach. Acta Biomaterialia, 2010, 6, 2740-2750.	4.1	94
24	Fatigue and human umbilical cord stem cell seeding characteristics of calcium phosphateâ€“chitosanâ€“biodegradable fiber scaffolds. Biomaterials, 2010, 31, 840-847.	5.7	94
25	The Effect of Age on Bacterial Penetration of Radicular Dentin. Journal of Endodontics, 2009, 35, 78-81.	1.4	88
26	A Study of Kerf Characteristics in Abrasive Waterjet Machining of Graphite/Epoxy Composite. Journal of Engineering Materials and Technology, Transactions of the ASME, 1996, 118, 256-265.	0.8	85
27	IMPROVING FATIGUE STRENGTH OF METALS USING ABRASIVE WATERJET PEENING. Machining Science and Technology, 2006, 10, 197-218.	1.4	83
28	On the Mechanics of Fatigue and Fracture in Teeth. Applied Mechanics Reviews, 2014, 66, 0308031-3080319.	4.5	83
29	A comparison of fatigue crack growth in human enamel and hydroxyapatite. Biomaterials, 2008, 29, 4847-4854.	5.7	75
30	On the mechanical behavior of scales from Cyprinus carpio. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 7, 17-29.	1.5	69
31	Health monitoring of wind turbine blades in operation using three-dimensional digital image correlation. Mechanical Systems and Signal Processing, 2019, 130, 470-483.	4.4	69
32	Quaternary ammonium silane-functionalized, methacrylate resin composition with antimicrobial activities and self-repair potential. Acta Biomaterialia, 2012, 8, 3270-3282.	4.1	66
33	The importance of microstructural variations on the fracture toughness of human dentin. Biomaterials, 2013, 34, 864-874.	5.7	64
34	Vertical fracture of root filled teeth restored with posts: the effects of patient age and dentine thickness. International Endodontic Journal, 2010, 43, 218-225.	2.3	63
35	Nanoscopic dynamic mechanical properties of intertubular and peritubular dentin. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 7, 3-16.	1.5	62
36	A comparison of the mechanical behavior of posterior teeth with amalgam and composite MOD restorations. Journal of Dentistry, 2001, 29, 63-73.	1.7	59

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37	Fatigue of biomaterials: Hard tissues. International Journal of Fatigue, 2010, 32, 1400-1412.	2.8	59
38	Effect of aging on the microstructure, hardness and chemical composition of dentin. Archives of Oral Biology, 2015, 60, 1811-1820.	0.8	59
39	Designing Multiagent Dental Materials for Enhanced Resistance to Biofilm Damage at the Bonded Interface. ACS Applied Materials & Interfaces, 2016, 8, 11779-11787.	4.0	59
40	Finite Element Modeling of Edge Trimming Fiber Reinforced Plastics. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2002, 124, 32-41.	1.3	58
41	The role of organic proteins on the crack growth resistance of human enamel. Acta Biomaterialia, 2015, 19, 33-45.	4.1	58
42	Contributions of aging to the fatigue crack growth resistance of human dentin. Acta Biomaterialia, 2012, 8, 2737-2746.	4.1	57
43	Importance of age on the dynamic mechanical behavior of intertubular and peritubular dentin. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 42, 229-242.	1.5	57
44	Abrasive waterjet peening: A new method of surface preparation for metal orthopedic implants. Journal of Biomedical Materials Research Part B, 2000, 53, 536-546.	3.0	55
45	Fatigue testing of biomaterials and their interfaces. Dental Materials, 2017, 33, 367-381.	1.6	53
46	The limiting layer of fish scales: Structure and properties. Acta Biomaterialia, 2018, 67, 319-330.	4.1	53
47	Evaluation of thermal expansion coefficient of carbon fiber reinforced composites using electronic speckle interferometry. Optics Express, 2018, 26, 531.	1.7	52
48	Methods for Examining the Fatigue and Fracture Behavior of Hard Tissues. Experimental Mechanics, 2007, 47, 325-336.	1.1	50
49	The Reduction in Fatigue Crack Growth Resistance of Dentin with Depth. Journal of Dental Research, 2011, 90, 1031-1036.	2.5	49
50	Intrafibrillar silicification of collagen scaffolds for sustained release of stem cell homing chemokine in hard tissue regeneration. FASEB Journal, 2012, 26, 4517-4529.	0.2	49
51	Inhibition of matrix metalloproteinase activity in human dentin via novel antibacterial monomer. Dental Materials, 2015, 31, 284-292.	1.6	49
52	Electron beam additive manufacturing of Ti6Al4V: Evolution of powder morphology and part microstructure with powder reuse. Materialia, 2020, 9, 100631.	1.3	49
53	Fatigue of the resinâ€“dentin interface: A new approach for evaluating the durability of dentin bonds. Dental Materials, 2013, 29, 437-449.	1.6	48
54	The role of property gradients on the mechanical behavior of human enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 63-72.	1.5	47

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55	A comparison of fatigue crack growth in resin composite, dentin and the interface. Dental Materials, 2007, 23, 608-614.	1.6	45
56	MACHINING OF CORTICAL BONE: SURFACE TEXTURE, SURFACE INTEGRITY AND CUTTING FORCES. Machining Science and Technology, 2008, 12, 100-118.	1.4	45
57	Effect of chemical composition and microstructure on the mechanical behavior of fish scales from Megalops Atlanticus. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 56, 134-145.	1.5	45
58	Multiphase Intrafibrillar Mineralization of Collagen. Angewandte Chemie - International Edition, 2013, 52, 5762-5766.	7.2	42
59	Contributions of microstructure and chemical composition to the mechanical properties of dentin. Journal of Materials Science: Materials in Medicine, 2011, 22, 1127-1135.	1.7	41
60	Protein-repellent and antibacterial functions of a calcium phosphate rechargeable nanocomposite. Journal of Dentistry, 2016, 52, 15-22.	1.7	41
61	Abrasive waterjet peening with elastic prestress: A parametric evaluation. International Journal of Machine Tools and Manufacture, 2009, 49, 134-141.	6.2	39
62	Reduction in Fracture Resistance of the Root withÂAging. Journal of Endodontics, 2017, 43, 1494-1498.	1.4	39
63	The failure of amalgam dental restorations due to cyclic fatigue crack growth. Journal of Materials Science: Materials in Medicine, 1999, 10, 319-327.	1.7	38
64	Dehydration and the dynamic dimensional changes within dentin and enamel. Dental Materials, 2009, 25, 937-945.	1.6	37
65	A comparative study on the wear behavior of a polymer infiltrated ceramic network (PICN) material and tooth enamel. Dental Materials, 2017, 33, 1351-1361.	1.6	37
66	The Tooth. Dental Clinics of North America, 2017, 61, 651-668.	0.8	37
67	Material removal in abrasive waterjet machining of metals A residual stress analysis. Wear, 1997, 211, 302-310.	1.5	36
68	Subtleties of biomineralisation revealed by manipulation of the eggshell membrane. Biomaterials, 2011, 32, 8743-8752.	5.7	36
69	A comparison of the fracture resistance of three machinable ceramics after thermal and mechanical fatigue. Journal of Prosthetic Dentistry, 2014, 112, 878-885.	1.1	36
70	Fatigue and fracture of bovine dentin. Experimental Mechanics, 2002, 42, 380-388.	1.1	35
71	Changes in stiffness of resin-infiltrated demineralized dentin after remineralization by a bottom-up biomimetic approach. Acta Biomaterialia, 2010, 6, 1453-1461.	4.1	35
72	A characterization of the mechanical behavior of resin-infiltrated dentin using nanoscopic Dynamic Mechanical Analysis. Dental Materials, 2013, 29, 719-728.	1.6	35

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73	On the fatigue behavior of resinâ€“dentin bonds after degradation by biofilm. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 18, 219-231.	1.5	34
74	The natural armors of fish: A comparison of the lamination pattern and structure of scales. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 73, 17-27.	1.5	34
75	Fracture processes and mechanisms of crack growth resistance in human enamel. Jom, 2010, 62, 76-82.	0.9	33
76	Fatigue of the resinâ€“enamel bonded interface and the mechanisms of failure. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 21, 121-132.	1.5	33
77	Extrafibrillar collagen demineralization-based chelate-and-rinse technique bridges the gap between wet and dry dentin bonding. Acta Biomaterialia, 2017, 57, 435-448.	4.1	33
78	Microstructure and mechanical behavior of radicular and coronal dentin. Endodontic Topics, 2009, 20, 30-51.	0.5	32
79	Fatigue of zirconia and dental bridge geometry: Design implications. Dental Materials, 2010, 26, 1133-1136.	1.6	32
80	Bioactive low-shrinkage-stress nanocomposite suppresses S. mutans biofilm and preserves tooth dentin hardness. Acta Biomaterialia, 2020, 114, 146-157.	4.1	32
81	Fracture toughening mechanism of cortical bone: An experimental and numerical approach. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 983-992.	1.5	31
82	On the durability of resinâ€“dentin bonds: Identifying the weakest links. Dental Materials, 2015, 31, 1109-1118.	1.6	31
83	Contact fatigue of human enamel: Experiments, mechanisms and modeling. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 60, 438-450.	1.5	31
84	Net shape manufacturing and the performance of polymer composites under dynamic loads. Experimental Mechanics, 1997, 37, 379-385.	1.1	29
85	The effects of tubule orientation on fatigue crack growth in dentin. Journal of Biomedical Materials Research Part B, 2003, 67A, 78-86.	3.0	29
86	Novel bioactive root canal sealer with antibiofilm and remineralization properties. Journal of Dentistry, 2019, 83, 67-76.	1.7	29
87	Designed for resistance to puncture: The dynamic response of fish scales. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 451-459.	1.5	29
88	Fatigue of the cement/bone interface: The surface texture of bone and loosening. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 76B, 287-297.	1.6	27
89	Accelerated fatigue of dentin with exposure to lactic acid. Biomaterials, 2013, 34, 8650-8659.	5.7	27
90	MACHINING OF CORTICAL BONE: SIMULATIONS OF CHIP FORMATION MECHANICS USING METAL MACHINING MODELS. Machining Science and Technology, 2011, 15, 206-230.	1.4	26

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91	Effect of acidic agents on the wear behavior of a polymer infiltrated ceramic network (PICN) material. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 154-163.	1.5	26
92	Contact fracture of full-ceramic crowns subjected to occlusal loads. Journal of Biomechanics, 2008, 41, 2995-3001.	0.9	24
93	Importance of tubule density to the fracture toughness of dentin. Archives of Oral Biology, 2016, 67, 9-14.	0.8	24
94	Powder reuse and its contribution to porosity in additive manufacturing of Ti6Al4V. Materialia, 2021, 15, 100992.	1.3	24
95	Transition behavior in fatigue of human dentin: Structure and anisotropy. Biomaterials, 2007, 28, 3867-3875.	5.7	23
96	Indentation damage and crack repair in human enamel. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 21, 178-184.	1.5	23
97	Biomimetic Silicification of Demineralized Hierarchical Collagenous Tissues. Biomacromolecules, 2013, 14, 1661-1668.	2.6	23
98	Characterization of the strain-life fatigue properties of thin sheet metal using an optical extensometer. Optics and Lasers in Engineering, 2014, 60, 44-48.	2.0	23
99	Machining-induced surface texture effects on the flexural properties of a graphite/epoxy laminate. Composites, 1994, 25, 822-834.	0.9	22
100	Fatigue of the bone/cement interface and loosening of total joint replacements. International Journal of Fatigue, 2010, 32, 1639-1649.	2.8	22
101	Reduction of load-bearing capacity of all-ceramic crowns due to cement aging. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 56-65.	1.5	22
102	Adopting the Principles of Collagen Biomineralization for Intrafibrillar Infiltration of Yttriaâ€Stabilized Zirconia into Threeâ€Dimensional Collagen Scaffolds. Advanced Functional Materials, 2014, 24, 1895-1903.	7.8	22
103	Adherence of Streptococcus mutans on lithium disilicate porcelain specimens. Journal of Prosthetic Dentistry, 2015, 114, 696-701.	1.1	22
104	Fringe skeletonizing using an improved derivative sign binary method. Optics and Lasers in Engineering, 2002, 37, 51-62.	2.0	21
105	An examination of fatigue striations in human dentin: In vitro and in vivo. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 85B, 149-159.	1.6	21
106	Measurement of microstrains across loaded resinâ€“dentin interfaces using microscopic moirÃ© interferometry. Dental Materials, 2008, 24, 859-866.	1.6	21
107	Comparison of human enamel and polymer-infiltrated-ceramic-network material â€œENAMICâ€•through micro- and nano-mechanical testing. Ceramics International, 2016, 42, 10631-10637.	2.3	21
108	Effects of polar solvents on the mechanical behavior of fish scales. Materials Science and Engineering C, 2016, 61, 23-31.	3.8	21

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109	On the importance of aging to the crack growth resistance of human enamel. Acta Biomaterialia, 2016, 32, 264-274.	4.1	21
110	Durability of self-healing dental composites: A comparison of performance under monotonic and cyclic loading. Materials Science and Engineering C, 2018, 93, 1020-1026.	3.8	21
111	Stress ratio contributes to fatigue crack growth in dentin. Journal of Biomedical Materials Research - Part A, 2005, 73A, 201-212.	2.1	20
112	Contribution of Root Canal Treatment to the Fracture Resistance of Dentin. Journal of Endodontics, 2019, 45, 189-193.	1.4	20
113	Vat polymerization-printed partially stabilized zirconia: Mechanical properties, reliability and structural defects. Additive Manufacturing, 2020, 36, 101450.	1.7	20
114	The influence of simultaneous mechanical and thermal loads on the stress distribution in molars with amalgam restorations. , 2000, 11, 133-140.		19
115	Temperature effects on the fracture resistance of scales from Cyprinus carpio. Acta Biomaterialia, 2015, 14, 154-163.	4.1	19
116	Bonding durability, antibacterial activity and biofilm pH of novel adhesive containing antibacterial monomer and nanoparticles of amorphous calcium phosphate. Journal of Dentistry, 2019, 81, 91-101.	1.7	19
117	Does the bond strength of highly translucent zirconia show a different dependence on the airborne-particle abrasion parameters in comparison to conventional zirconia?. Journal of Prosthodontic Research, 2020, 64, 60-70.	1.1	19
118	Automatic determination of parameters in photoelasticity. Optics and Lasers in Engineering, 2007, 45, 860-867.	2.0	18
119	Synthesis of antimicrobial silsesquioxaneâ€“silica hybrids by hydrolytic co-condensation of alkoxysilanes. Polymer Chemistry, 2014, 5, 454-462.	1.9	18
120	Effect of carbodiimide on the fatigue crack growth resistance of resinâ€“dentin bonds. Dental Materials, 2016, 32, 211-222.	1.6	18
121	On the stiffness of demineralized dentin matrices. Dental Materials, 2016, 32, 161-170.	1.6	18
122	Hydration and dynamic fatigue of dentin. Journal of Biomedical Materials Research - Part A, 2006, 77A, 148-159.	2.1	17
123	The apparent volume of interdigitation: A new parameter for evaluating the influence of surface topography on mechanical interlock. Journal of Biomedical Materials Research Part B, 2001, 58, 519-524.	3.0	16
124	Degradation in the Fatigue Resistance of Dentin by Bur and Abrasive Air-jet Preparations. Journal of Dental Research, 2012, 91, 894-899.	2.5	16
125	Damage mechanisms in uniaxial compression of single enamel rods. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 42, 1-9.	1.5	14
126	Residual Stresses in Cu/Ni Multilayer Thin Films Measured Using the Sin2Ï^ Method. Experimental Mechanics, 2019, 59, 111-120.	1.1	14

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127	Parametric Effects on Particle Deposition in Abrasive Waterjet Surface Treatments. Machining Science and Technology, 2004, 8, 171-192.	1.4	13
128	Fracture analysis for biological materials with an expanded cohesive zone model. Journal of Biomechanics, 2014, 47, 2244-2248.	0.9	13
129	Degradation in the fatigue strength of dentin by cutting, etching and adhesive bonding. Dental Materials, 2014, 30, 1061-1072.	1.6	13
130	Effects of EDC crosslinking on the stiffness of dentin hybrid layers evaluated by nanoDMA over time. Dental Materials, 2017, 33, 904-914.	1.6	13
131	Fractographic analyses of failed one-piece zirconia implant restorations. Dental Materials, 2018, 34, 922-931.	1.6	13
132	A Fractographic Analysis of Additively Manufactured Ti6Al4V by Electron Beam Melting: Effects of Powder Reuse. Journal of Failure Analysis and Prevention, 2020, 20, 794-803.	0.5	13
133	Powder Reuse in Electron Beam Melting Additive Manufacturing of Ti6Al4V: Particle Microstructure, Oxygen Content and Mechanical Properties. Additive Manufacturing, 2020, 35, 101216.	1.7	13
134	AN EXAMINATION OF ABRASIVE WATERJET PEENING WITH ELASTIC PRE-STRESS AND THE EFFECTS OF BOUNDARY CONDITIONS. Machining Science and Technology, 2012, 16, 71-95.	1.4	12
135	Real-time three-dimensional digital image correlation for biomedical applications. Journal of Biomedical Optics, 2016, 21, 107003.	1.4	12
136	Fatigue of human dentin by cyclic loading and during oral biofilm challenge. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 1978-1985.	1.6	12
137	A method for characterizing the mechanical behaviour of hoof horn. Journal of Materials Science, 2007, 42, 1108-1115.	1.7	11
138	Degradation in the fatigue crack growth resistance of human dentin by lactic acid. Materials Science and Engineering C, 2017, 73, 716-725.	3.8	11
139	Assessing the feasibility of yttria-stabilized zirconia in novel designs as mandibular anterior fixed lingual retention after orthodontic treatment. American Journal of Orthodontics and Dentofacial Orthopedics, 2017, 151, 63-73.	0.8	11
140	On the wear behavior and damage mechanism of bonded interface: Ceramic vs resin composite inlays. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 101, 103430.	1.5	11
141	Surface Texture, Fatigue, and the Reduction in Stiffness of Fiber Reinforced Plastics. Journal of Engineering Materials and Technology, Transactions of the ASME, 2002, 124, 160-166.	0.8	10
142	On the mechanical behavior of carbon-carbon optic grids determined using a bi-axial optical extensometer. Journal of Materials Science, 2004, 39, 4495-4505.	1.7	10
143	An inset CT specimen for evaluating fracture in small samples of material. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 30, 358-368.	1.5	10
144	Interfibril hydrogen bonding improves the strain-rate response of natural armour. Journal of the Royal Society Interface, 2019, 16, 20180775.	1.5	10

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145	Bioinspired hierarchical impact tolerant materials. Bioinspiration and Biomimetics, 2020, 15, 046009.	1.5	10
146	Degradation in the fatigue strength of dentin by diamond bur preparations: Importance of cutting direction. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 39-49.	1.6	9
147	Time dependent deformation behavior of dentin. Archives of Oral Biology, 2017, 76, 20-29.	0.8	9
148	The effect of adhesive failure and defects on the stress distribution in all-ceramic crowns. Journal of Dentistry, 2018, 75, 74-83.	1.7	9
149	3D printing of continuous carbon fiber reinforced polyphenylene sulfide: Exploring printability and importance of fiber volume fraction. Additive Manufacturing, 2022, 54, 102763.	1.7	9
150	Three-dimensional Elastic Image Registration Based on Strain Energy Minimization: Application to Prostate Magnetic Resonance Imaging. Journal of Digital Imaging, 2011, 24, 573-585.	1.6	8
151	Characterization of mechanical properties of aluminum cast alloy at elevated temperature. Applied Mathematics and Mechanics (English Edition), 2018, 39, 967-980.	1.9	8
152	Wear and damage at the bonded interface between tooth enamel and resin composite. Journal of Dentistry, 2019, 83, 40-49.	1.7	8
153	Plastic Damage Induced Fracture Behaviors of Dental Ceramic Layer Structures Subjected to Monotonic Load. Journal of Prosthodontics, 2013, 22, 456-464.	1.7	7
154	Contributions of intermolecular bonding and lubrication to the mechanical behavior of a natural armor. Acta Biomaterialia, 2020, 106, 242-255.	4.1	7
155	Long-term antibacterial activity and cytocompatibility of novel low-shrinkage-stress, remineralizing composites. Journal of Biomaterials Science, Polymer Edition, 2021, 32, 886-905.	1.9	7
156	Importance of aging to dehydration shrinkage of human dentin. Applied Mathematics and Mechanics (English Edition), 2012, 33, 333-344.	1.9	6
157	Differences in the microstructure and fatigue properties of dentine between residents of North and South America. Archives of Oral Biology, 2014, 59, 1001-1012.	0.8	6
158	Fatigue resistance of dentin bonds prepared with two- vs. three-step adhesives: Effect of carbodiimide. Dental Materials, 2017, 33, 1340-1350.	1.6	6
159	Contributions of the layer topology and mineral content to the elastic modulus and strength of fish scales. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 56-64.	1.5	6
160	Bearing capacity of ceramic crowns before and after cyclic loading: An in vitro study. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 197-204.	1.5	6
161	Root fractures in seniors: Consequences of acute embrittlement of dentin. Dental Materials, 2020, 36, 1464-1473.	1.6	6
162	Shrinkage Strains in the Dentin of Endodontically Treated Teeth with Water Loss. Journal of Endodontics, 2021, 47, 806-811.	1.4	6

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163	A machine learning approach to investigate the materials science of enamel aging. Dental Materials, 2021, 37, 1761-1771.	1.6	6
164	Odontoblast apoptosis and intratubular mineralization of sclerotic dentin with aging. Archives of Oral Biology, 2022, 136, 105371.	0.8	6
165	Durability of adhesive bonds to tooth structure involving the DEJ. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 557-565.	1.5	5
166	Effect of cryopreservation of teeth on the structural integrity of dentin. Dental Materials, 2018, 34, 1828-1835.	1.6	5
167	On the regeneration of fish scales: structure and mechanical behavior. Journal of Experimental Biology, 2020, 223, .	0.8	5
168	Engineering the Interface: Effects of Interfacial Adhesion and Substrate Thickness on the Ductility of Polymer-supported Metal Films. Experimental Mechanics, 2022, 62, 49-58.	1.1	5
169	Mammalian enamel: A universal tissue and diverse source of inspiration. Acta Biomaterialia, 2021, 136, 402-411.	4.1	5
170	Digital image processing of moireÂ´ fringe patterns with an application to fractures in bovine dentin. Optical Engineering, 2002, 41, 1115.	0.5	4
171	The influence of surface topography on wear debris generation at the cement/bone interface under cyclic loading. Journal of Materials Science: Materials in Medicine, 2008, 19, 1935-1943.	1.7	4
172	Fracture and aging of dentine. , 2008, , 314-342.		4
173	Synergistic degradation of dentin by cyclic stress and buffer agitation. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 44, 121-132.	1.5	4
174	The effect of preparation taper on the resistance to fracture of monolithic zirconia crowns. Dental Materials, 2021, 37, e427-e434.	1.6	4
175	AN EXPERIMENTAL ANALYSIS OF A HYBRID BICYCLE FRAME. Experimental Techniques, 1999, 23, 21-24.	0.9	3
176	Deformation behaviour of aged coronal dentin. Gerodontology, 2018, 35, 95-100.	0.8	3
177	Control of Porosity in Freeze Casting. Jom, 2020, 72, 1477-1486.	0.9	3
178	Contributions of intra-build design parameters to mechanical properties in electron beam additive manufacturing of Ti6Al4V. Materials Today Communications, 2022, 30, 103190.	0.9	3
179	Tuning protectoâ€flexibility in nature: Case of the fish scale. Natural Sciences, 2022, 2, .	1.0	3
180	Microstructure, mechanical properties and elemental composition of the terrestrial isopod Armadillidium vulgare cuticle. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 132, 105299.	1.5	2

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181	Comments on: â€œHertzian contact response of dentin with loading rate and orientationâ€•by N.R. da Silva, F. Lalani, P.G. Coelho, E.A. Clark, C.A. de Oliveira Fernandes, V.P. Thompson [Arch. Oral Biol. 53 (2008) 729â€“735]. Archives of Oral Biology, 2009, 54, 1125-1127.	0.8	1
182	Design of Laser Treatment Protocols for Bacterial Disinfection in Root Canals Using Theoretical Modeling and MicroCT Imaging. Journal of Thermal Science and Engineering Applications, 2012, 4, .	0.8	1
183	Investigation on the remineralization effect of arginine toothpaste for early enamel caries: nanotribological and nanomechanical properties. Journal Physics D: Applied Physics, 2016, 49, 435401.	1.3	1
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