

Renan Belli

List of Publications by Year in descending order

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83
papers

3,189
citations

186265

28
h-index

161849

54
g-index

90
all docs

90
docs citations

90
times ranked

2294
citing authors

#	ARTICLE	IF	CITATIONS
1	Chairside CAD/CAM materials. Part 1: Measurement of elastic constants and microstructural characterization. <i>Dental Materials</i> , 2017, 33, 84-98.	3.5	287
2	Bonding performance of universal adhesives in different etching modes. <i>Journal of Dentistry</i> , 2014, 42, 800-807.	4.1	234
3	Chairside CAD/CAM materials. Part 2: Flexural strength testing. <i>Dental Materials</i> , 2017, 33, 99-109.	3.5	227
4	Bulk-fill resin composites: Polymerization properties and extended light curing. <i>Dental Materials</i> , 2015, 31, 293-301.	3.5	216
5	Mechanical fatigue degradation of ceramics versus resin composites for dental restorations. <i>Dental Materials</i> , 2014, 30, 424-432.	3.5	150
6	The potential of novel primers and universal adhesives to bond to zirconia. <i>Journal of Dentistry</i> , 2014, 42, 90-98.	4.1	129
7	Factors Involved in Mechanical Fatigue Degradation of Dental Resin Composites. <i>Journal of Dental Research</i> , 2013, 92, 584-591.	5.2	114
8	Fracture Rates and Lifetime Estimations of CAD/CAM All-ceramic Restorations. <i>Journal of Dental Research</i> , 2016, 95, 67-73.	5.2	113
9	Zirconia nanoparticles prepared by laser vaporization as fillers for dental adhesives. <i>Acta Biomaterialia</i> , 2010, 6, 4539-4546.	8.3	89
10	Thermal-induced residual stresses affect the lifetime of zirconia veneer crowns. <i>Dental Materials</i> , 2013, 29, 181-190.	3.5	75
11	Chairside CAD/CAM materials. Part 3: Cyclic fatigue parameters and lifetime predictions. <i>Dental Materials</i> , 2018, 34, 910-921.	3.5	67
12	Practical and theoretical considerations on the fracture toughness testing of dental restorative materials. <i>Dental Materials</i> , 2018, 34, 97-119.	3.5	63
13	A Photoelastic Assessment of Residual Stresses in Zirconia-Veneer Crowns. <i>Journal of Dental Research</i> , 2012, 91, 316-320.	5.2	60
14	Strengthening of dental adhesives via particle reinforcement. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 37, 100-108.	3.1	60
15	Are resin composites suitable replacements for amalgam? A study of two-body wear. <i>Clinical Oral Investigations</i> , 2015, 19, 1485-1492.	3.0	56
16	Wear and morphology of infiltrated white spot lesions. <i>Journal of Dentistry</i> , 2011, 39, 376-385.	4.1	54
17	Repair Bond Strength of Aged Resin Composite after Different Surface and Bonding Treatments. <i>Materials</i> , 2016, 9, 547.	2.9	54
18	Grasping the Lithium hype: Insights into modern dental Lithium Silicate glass-ceramics. <i>Dental Materials</i> , 2022, 38, 318-332.	3.5	54

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19	Fracture toughness testing of biomedical ceramic-based materials using beams, plates and discs. <i>Journal of the European Ceramic Society</i> , 2018, 38, 5533-5544.	5.7	51
20	In vitro wear gap formation of self-adhesive resin cements: A CLSM evaluation. <i>Journal of Dentistry</i> , 2009, 37, 984-993.	4.1	43
21	Crack-healing during two-stage crystallization of biomedical lithium (di)silicate glass-ceramics. <i>Dental Materials</i> , 2019, 35, 1130-1145.	3.5	43
22	Fracture anisotropy in texturized lithium disilicate glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2018, 481, 457-469.	3.1	39
23	Are linear elastic material properties relevant predictors of the cyclic fatigue resistance of dental resin composites?. <i>Dental Materials</i> , 2014, 30, 381-391.	3.5	36
24	Sliding contact wear and subsurface damage of CAD/CAM materials against zirconia. <i>Dental Materials</i> , 2020, 36, 387-401.	3.5	35
25	Biomimetically- and hydrothermally-grown HAp nanoparticles as reinforcing fillers for dental adhesives. <i>Journal of Adhesive Dentistry</i> , 2013, 15, 413-22.	0.5	35
26	Slow progression of dentin bond degradation during one-year water storage under simulated pulpal pressure. <i>Journal of Dentistry</i> , 2010, 38, 802-810.	4.1	34
27	Tailoring of physical properties in highly filled experimental nanohybrid resin composites. <i>Dental Materials</i> , 2011, 27, 664-669.	3.5	34
28	Thermal-induced residual stresses affect the fractographic patterns of zirconia-veneer dental prostheses. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 21, 167-177.	3.1	32
29	Self-adhesive resin cements: pH-neutralization, hydrophilicity, and hygroscopic expansion stress. <i>Clinical Oral Investigations</i> , 2017, 21, 1735-1741.	3.0	28
30	Phase characterization of lithium silicate biomedical glass-ceramics produced by two-stage crystallization. <i>Journal of Non-Crystalline Solids</i> , 2019, 510, 42-50.	3.1	27
31	Degree of Conversion of Luting Resins Around Ceramic Inlays in Natural Deep Cavities: A Micro-Raman Spectroscopy Analysis. <i>Operative Dentistry</i> , 2010, 35, 579-586.	1.2	26
32	Viscosity and stickiness of dental resin composites at elevated temperatures. <i>Dental Materials</i> , 2021, 37, 413-422.	3.5	26
33	Characterization of residual stresses in zirconia veneered bilayers assessed via sharp and blunt indentation. <i>Dental Materials</i> , 2015, 31, 948-957.	3.5	25
34	Tensile and bending fatigue of the adhesive interface to dentin. <i>Dental Materials</i> , 2010, 26, 1157-1165.	3.5	24
35	Effect of multiple coats of ultra-mild all-in-one adhesives on bond strength to dentin covered with two different smear layer thicknesses. <i>Journal of Adhesive Dentistry</i> , 2011, 13, 507-16.	0.5	24
36	Stress amplifications in dental non-carious cervical lesions. <i>Journal of Biomechanics</i> , 2014, 47, 410-416.	2.1	23

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37	Mechanical and hydrolytic degradation of an Ormocer [®] -based Bis-GMA-free resin composite. <i>Clinical Oral Investigations</i> , 2019, 23, 2113-2121.	3.0	23
38	Fracture toughness mode mixity at the connectors of monolithic 3Y-TZP and LS2 dental bridge constructs. <i>Journal of the European Ceramic Society</i> , 2015, 35, 3701-3711.	5.7	22
39	Report on fractures of trilayered all-ceramic fixed dental prostheses. <i>Case Studies in Engineering Failure Analysis</i> , 2016, 7, 71-79.	1.2	20
40	Rising R-curves in particulate/fiber-reinforced resin composite layered systems. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 103, 103537.	3.1	20
41	Concurrent kinetics of crystallization and toughening in multicomponent biomedical SiO ₂ -Li ₂ O-P ₂ O ₅ -ZrO ₂ glass-ceramics. <i>Journal of Non-Crystalline Solids</i> , 2021, 554, 120607.	3.1	20
42	Mechanical degradation of contemporary CAD/CAM resin composite materials after water ageing. <i>Dental Materials</i> , 2021, 37, 1156-1167.	3.5	19
43	Relationships between fracture toughness, Y ₂ O ₃ fraction and phases content in modern dental Yttria-doped zirconias. <i>Journal of the European Ceramic Society</i> , 2021, 41, 7771-7782.	5.7	19
44	Post-etching cleaning and resin/ceramic bonding: microtensile bond strength and EDX analysis. <i>Journal of Adhesive Dentistry</i> , 2010, 12, 295-303.	0.5	19
45	Factors influencing development of residual stresses during crystallization firing in a novel lithium silicate glass-ceramic. <i>Dental Materials</i> , 2019, 35, 871-882.	3.5	18
46	Dental materials for primary dentition: are they suitable for occlusal restorations? A two-body wear study. <i>European Archives of Paediatric Dentistry: Official Journal of the European Academy of Paediatric Dentistry</i> , 2015, 16, 165-172.	1.9	16
47	Nucleation mechanisms in a SiO ₂ -Li ₂ O-P ₂ O ₅ -ZrO ₂ biomedical glass-ceramic: Insights on crystallisation, residual glasses and Zr ⁴⁺ structural environment. <i>Journal of the European Ceramic Society</i> , 2022, 42, 1762-1775.	5.7	16
48	In vivo shell-like fractures of veneered-ZrO ₂ fixed dental prostheses. <i>Case Studies in Engineering Failure Analysis</i> , 2014, 2, 91-99.	1.2	15
49	Low-temperature degradation increases the cyclic fatigue resistance of 3Y-TZP in bending. <i>Dental Materials</i> , 2020, 36, 1086-1095.	3.5	15
50	Clinical Effectiveness of a Hydrophobic Coating Used in Conjunction With a One-step Self-etch Adhesive: An 18-month Evaluation. <i>Operative Dentistry</i> , 2013, 38, 249-257.	1.2	14
51	Fracture of a veneered-ZrO ₂ dental prosthesis from an inner thermal crack. <i>Case Studies in Engineering Failure Analysis</i> , 2014, 2, 100-106.	1.2	14
52	Effect of sintering parameters on phase evolution and strength of dental lithium silicate glass-ceramics. <i>Dental Materials</i> , 2019, 35, 1360-1369.	3.5	14
53	Permeation of intrinsic water into ethanol- and water-saturated, monomer-infiltrated dentin bond interfaces. <i>Dental Materials</i> , 2015, 31, 1385-1395.	3.5	13
54	Spatial distribution of residual stresses in glass-ZrO ₂ sphero-cylindrical bilayers. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 60, 535-546.	3.1	13

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55	Resistance curves of short-fiber reinforced methacrylate-based biomedical composites. <i>Engineering Fracture Mechanics</i> , 2018, 190, 146-158.	4.3	13
56	Mixed-mode fracture toughness of texturized LS2 glass-ceramics using the three-point bending with eccentric notch test. <i>Dental Materials</i> , 2017, 33, 1473-1477.	3.5	12
57	Crack growth rates in lithium disilicates with bulk (mis)alignment of the Li ₂ Si ₂ O ₅ phase in the [001] direction. <i>Journal of Non-Crystalline Solids</i> , 2020, 532, 119877.	3.1	11
58	R-curve behavior of a short-fiber reinforced resin composite after water storage. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 104, 103674.	3.1	11
59	New Approaches in Bonding to Glass-Ceramic: Self-Etch Glass-Ceramic Primer and Universal Adhesives. <i>Journal of Adhesive Dentistry</i> , 2019, 21, 209-217.	0.5	11
60	Self-adhesive resin cements: adhesive performance to indirect restorative ceramics. <i>Journal of Adhesive Dentistry</i> , 2014, 16, 541-6.	0.5	11
61	In vitro lifetime of zirconium dioxide-based crowns veneered using Rapid Layer Technology. <i>European Journal of Oral Sciences</i> , 2019, 127, 179-186.	1.5	10
62	The breakdown of the Weibull behavior in dental zirconias. <i>Journal of the American Ceramic Society</i> , 2021, 104, 4819-4828.	3.8	10
63	Descriptions of crack growth behaviors in glass-ZrO ₂ bilayers under thermal residual stresses. <i>Dental Materials</i> , 2016, 32, 1165-1176.	3.5	9
64	Fractography of clinically fractured, implant-supported dental computer-aided design and computer-aided manufacturing crowns. <i>SAGE Open Medical Case Reports</i> , 2017, 5, 2050313X1774101.	0.3	9
65	Hygroscopic expansion of self-adhesive resin cements and the integrity of all-ceramic crowns. <i>Dental Materials</i> , 2018, 34, 1102-1111.	3.5	8
66	Toughening by revitrification of Li ₂ SiO ₃ crystals in Obsidian® dental glass-ceramic. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 124, 104739.	3.1	8
67	Fracture Toughness Testing of Dental Restoratives: a Critical Evaluation. <i>Current Oral Health Reports</i> , 2018, 5, 163-168.	1.6	7
68	Crack growth behavior of a biomedical polymer-ceramic interpenetrating scaffolds composite in the subcritical regimen. <i>Engineering Fracture Mechanics</i> , 2020, 231, 107014.	4.3	7
69	The Mechanical Performance of a Novel Self-Adhesive Restorative Material. <i>Journal of Adhesive Dentistry</i> , 2020, 22, 47-58.	0.5	7
70	The occlusal wear of ceramic fixed dental prostheses: 3-Year results in a randomized controlled clinical trial with split-mouth design. <i>Journal of Dentistry</i> , 2020, 103, 103500.	4.1	6
71	Resistance-curve envelopes for dental lithium disilicate glass-ceramics. <i>Journal of the European Ceramic Society</i> , 2022, 42, 2516-2522.	5.7	6
72	Development of a hoop-strength test for model sphero-cylindrical dental ceramic crowns: FEA and fractography. <i>Journal of the European Ceramic Society</i> , 2020, 40, 4753-4764.	5.7	4

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73	Thickness influence of veneering composites on fiber-reinforced systems. Dental Materials, 2021, 37, 477-485.	3.5	4
74	Esthetic Noncarious Class V Restorations: A Case Report. Journal of Esthetic and Restorative Dentistry, 2005, 17, 275-284.	3.8	3
75	Contemporary CAD/CAM Materials in Dentistry. Current Oral Health Reports, 2019, 6, 250-256.	1.6	2
76	Fractographic analysis of lithium silicate crown failures during sintering. SAGE Open Medical Case Reports, 2019, 7, 2050313X1983896.	0.3	2
77	Adhesion and interfacial characterization of biomimetically texturized lithium disilicate. International Journal of Adhesion and Adhesives, 2019, 91, 131-141.	2.9	2
78	Characterization of Heat-Polymerized Monomer Formulations for Dental Infiltrated Ceramic Networks. Applied Sciences (Switzerland), 2021, 11, 7370.	2.5	2
79	Fracture toughness of dental incremental composite-composite interfaces at elevated temperatures. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 122, 104655.	3.1	2
80	Coulometric titration of water content and uptake in CAD/CAM chairside composites. Dental Materials, 2022, 38, 789-796.	3.5	2
81	A split-Chevron-Notched-Beam sandwich specimen for fracture toughness testing of bonded interfaces. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 131, 105236.	3.1	2
82	Chemistry and Microstructure. , 2022, , 3-37.		2
83	Inner marginal strength of CAD/CAM materials is not affected by machining protocol. Biomaterial Investigations in Dentistry, 2021, 8, 119-128.	1.8	0